

NEW COMMERCIAL RANGE 2017 — 2018
EXTREMELY EFFICIENT



COMMERCIAL RANGE

NEW 2017 — 2018

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New PACi 90x90 Cassette

Thanks to advances in design and technology such as the new high performance turbo fan, more efficient and silent, the nanoe air cleaner, for total healthy and the floor temperature & humidity sensor to more control, the new PU2 Panasonic 90 x 90 4 way cassette is the best Industry in energy savings, healthy and comfort.



New Panasonic Big PACi Series PE2

Panasonic breaks new ground in offering high performance and power in a small space. The 8-10HP from Panasonic is ideally suited for large retail applications and other large areas not needing the higher capacities of VRF systems.

New Panasonic Mini PACi Series PE2

New outdoor PACi Elite from 3,6kW to 6,0kW and PACi Standard 6,0kW to 7,1kW, all made in Japan.

Fully new outdoor design with last generation compressor. Higher performance, better partial load and lighter unit (up to 35% less in the 6HP PACi Elite). Includes control consumption, 0-10V demand control and all latest remote controller's functionalities.



Server room solutions

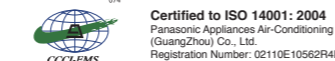
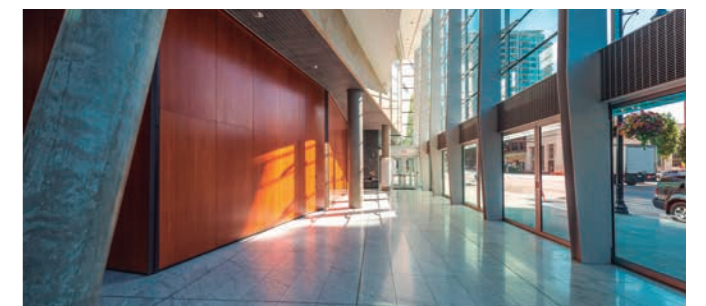
Choose the best solution to ensure any server room needs. Designed for high durability and adverse weather conditions its server room ad hoc control assure permanent operation and failure alarms communications.

New control CZ-RTC5A

Ready to control 2 PACi systems with backup and alternate operation.

Complete AHU Solution

Demand control 0-10V, box IP65 case, cold draft prevention, monitoring status digital output, remote control built-in.



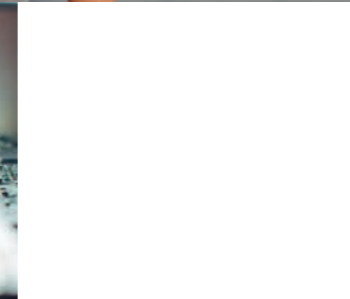
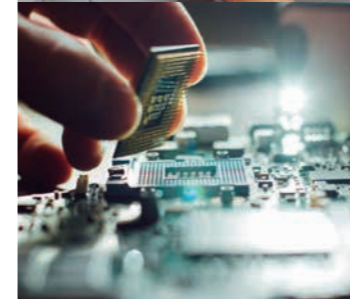
THE LAST GENERATION OF AIR CONDITIONING



Panasonic is committed to creating a better life and a better world thanks to its breakthrough technology, continuously contributing to the evolution of society and to the happiness of people around the globe.

Constantly Improving

At Panasonic, we know that the best is always yet to come. This is why our air conditioning and heat pump solutions are constantly upgraded. We are always looking to improve our technology; finding the most efficient solutions that save our customers money. Our Technology & Design teams anticipate the needs of tomorrow. We look to produce smaller, quieter, efficient solutions - with better technological features - that can reduce energy consumption while providing suitable temperature conditions for the user.



Look ahead to the "Future," keep taking on challenges

Starting 1918, Panasonic has constantly added to its guarantee for innovation, taking tomorrow's technologies and applying them to today's needs. Always making "people" central to our activities, and thereby focusing on "people's lives," we will continue to provide better living for our customers. This is the unchanging commitment we at Panasonic have had over many years. We are aiming for now is to expand our contribution to "better living" everywhere. This means that in the variety of spaces where our customers go about their lives, ranging from inside the home, the office, the store, the automobile, and the airplane, as well as the town, we will provide not only single pieces of hardware,

but also total solutions including software and services. We will pursue the concept of "A Better Life, A Better World," meeting the needs of each individual customer.

To that end, we will leverage the strengths that we at Panasonic have long developed in our consumer electronics business, the strengths of our business partners who have in-depth expertise in many areas, and will work to combine these strengths by pursuing "Cross-Value Innovation." In this way, we will create new value. This is the new and challenging task we are now addressing.

A GLOBALLY TRUSTED AIR CONDITIONING BRAND



Testing laboratory Panasonic Gunma, Japan (PAPARS).

Panasonic – leading the way in Heating and 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. These offer maximum effectiveness, comply with the strictest environmental standards and meet the most avant-garde construction requirements of our time.

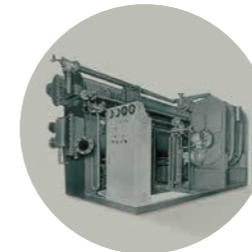
History of Air Conditioning Group

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

Heating and Cooling Solutions designed and produced by Panasonic since 1958. See more information on www.aircon.panasonic.eu



1958
First room air conditioner launched for domestic installation.



1971
Starts production of absorption chillers.



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



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



1985
Introduces first GHP (gas heat pump) VRF air conditioner.



1989
Introduces world's first simultaneous 3-Pipe heating/cooling VRF system.



2008
Ethera new concept of air conditioning systems: high efficiency and high performances with a great design.



2010
New Aquarea. Panasonic has created Aquarea, an innovative new, low-energy system.



2012
New GHP units. Panasonic's gas-driven VRF systems are ideal for projects where power restrictions apply.



Looking ahead
New VRF Systems ECOi EX with Extraordinary Energy-Saving Performance and Powerful Operation EER 4.7.

100% PANASONIC, THE DNA OF JAPANESE CRAFTSMANSHIP

JAPAN QUALITY



Applying advanced technologies that truly make life better, we live by an unparalleled commitment to product quality. Panasonic is building on the Japanese tradition of uncompromising quality control worldwide, developing and manufacturing fine products and delivering them to customers everywhere.

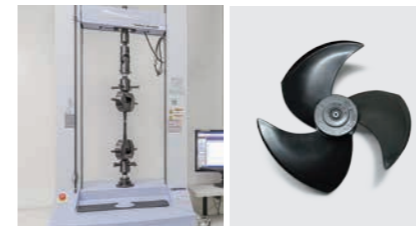
At Panasonic, we believe that the best air conditioner is one that works quietly and effectively in the background whilst minimising its impact on the environment

People who use our products can look forward to long years of high-quality performance without the need for constant service. As part of our rigorous design and development process, Panasonic air conditioners undergo a variety of stringent tests to ensure their effectiveness and long-term reliability. Tests for durability, waterproofing, shock resistance, and noise are conducted on component parts or on the finished products themselves.

As a result of all of these time consuming efforts, Panasonic air conditioners meet even the most demanding industrial standards and regulations in every country where they are sold.

International Standard Quality

To uphold the company's reputation around the world, Panasonic strives continuously to offer the highest quality with the lowest possible environmental impact.



Reliable parts that meet or exceed industrial standards

In every country where they are sold, Panasonic air conditioners comply with all required industrial standards and regulations. In addition, Panasonic conducts stringent testing to ensure the reliability of parts and materials. The strength of the resin material used in a propeller fan is confirmed by a tension test.



RoHS / REACH compliant parts

All Panasonic parts and materials comply with Europe's strict RoHS/REACH environmental regulations. During the development and production of parts, stringent inspections are conducted on over 100 materials to ensure that no hazardous substances are included.



Sophisticated production process

Panasonic's air conditioner production lines employ state-of-the-art factory automation technologies to ensure products are manufactured efficiently and with uniformly high levels of quality and reliability.

Durability

At Panasonic we know the importance of a long service life with minimal maintenance. That's why we subject our air conditioners to a wide range of stringent durability tests.



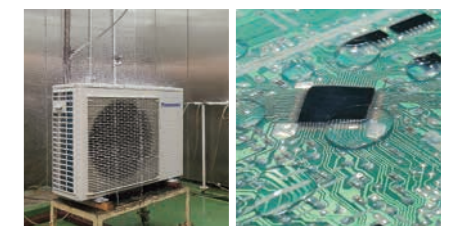
Long-term durability test

To ensure durability and stable operation for many years, we conduct a long-term continuous operation test under conditions that are much more severe than actual operating conditions.



Compressor reliability test

After the continuous operation test, we remove the compressor from a selected outdoor unit, disassemble it, and examine the internal mechanisms and parts for potential failure. This helps ensure reliable long-term performance under harsh conditions.



Waterproofing test

The unit - which is subject to rain and wind - complies with IPX4 waterproof specifications. Contact sections on printed circuit boards are resin-potted to prevent adverse effects caused by exposure to water (an unlikely occurrence).

PANASONIC: ECO & SMART IDEAS FOR A SUSTAINABLE LIFESTYLE



Panasonic Green Innovation Company.
We will make the environment central to all our business activities and work to realise our vision with innovations for both every day life and business.

Exemplary sustainable projects

Fujisawa Sustainable Smart Town Goes Into Full-Scale Operation Near Tokyo

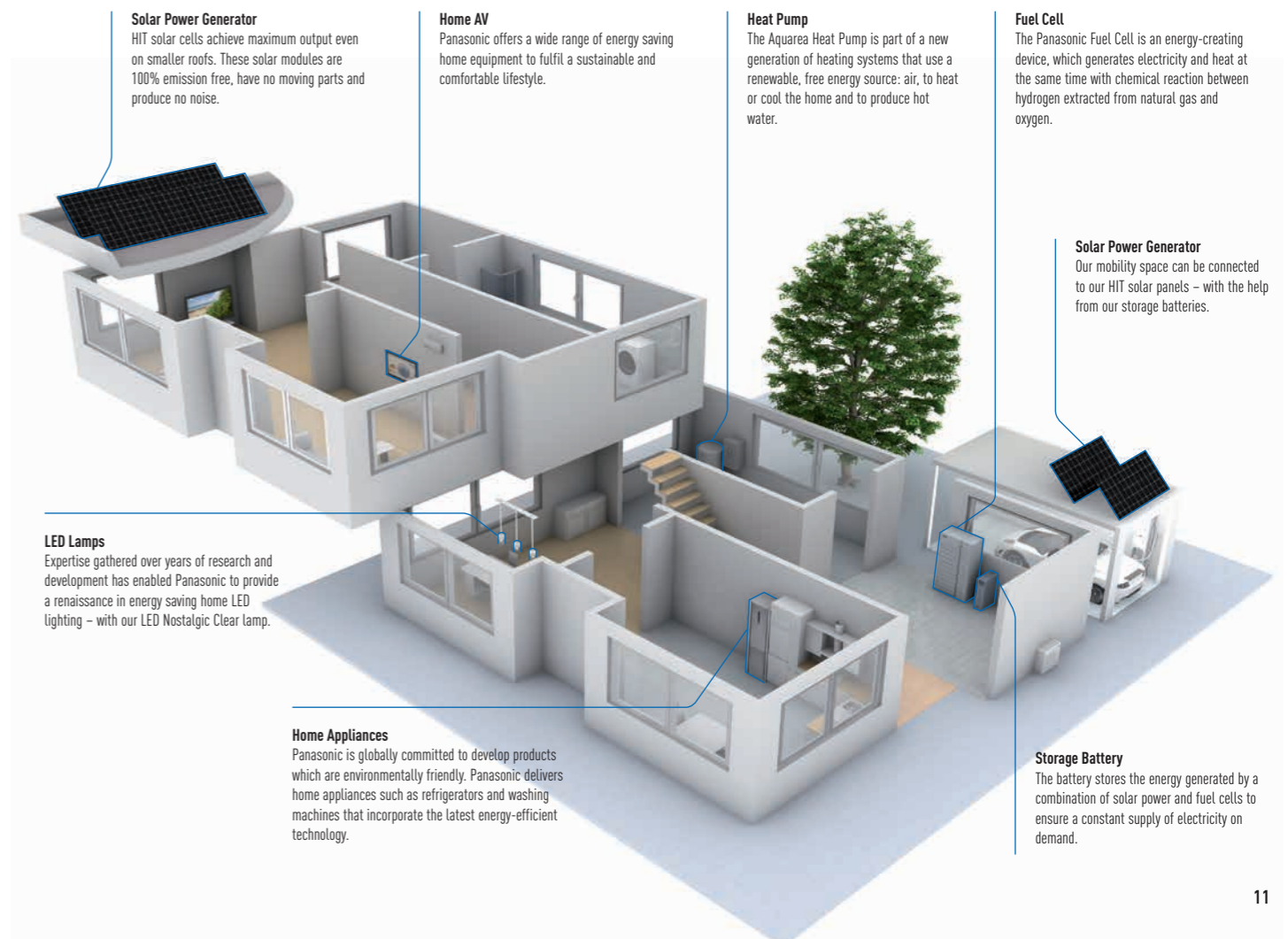
Fujisawa SST Council is a consortium led by Panasonic Corporation spearheading the development of the Fujisawa Sustainable Smart Town (Fujisawa SST). With its core facility supporting sustainable development of the town and its community now coming into operation, the Fujisawa SST is moving from the construction stage into a new stage where the town is nurtured to grow in full-scale into an eco and smart town that puts a high priority on the residents' lifestyles.

The Fujisawa SST Management Company is the town management company located in the SQUARE. Together with partner companies, the company provides five essential services in the town: energy, security, mobility, healthcare and community. The company will also collect and manage information relating to the town's overall environment, energy, security and safety to support an eco and smart life in the town.

As a fresh development in the town, the Fujisawa SST has set a detached housing zone for non car owners for the second phase of sales. By using the town's eco-car sharing and rent-a-car services, residents in the zone



can enjoy their lifestyles without the need to own a car while reducing economic burden and making effective use of the lot. Preparations are also underway for a new base to provide environmentally-friendly logistic services to the residents.



PROJECTS & CASE STUDIES OF PANASONIC HEATING AND COOLING SOLUTIONS



New Hotel Monument 5*GL is located in an 1896 palace. Barcelona, Spain. ECOi and E-Control

Panasonic, a partner with the knowledge and experience to achieve your objectives and green needs.

Integrated technology that permits better work, easy installation, high efficiency performance, and energy saving.

Our main targets are the distributed services and B2B-integrated solutions.

Panasonic provides a single point of contact for the design and maintenance of your system, making things easy for you.

Given our experience in processes, technologies and complex business models, we can offer you effective solutions that reduce costs, whilst also being efficient, user-friendly, reliable and innovative.

Another advantage we offer to our clients is a support service for systems integration projects, which we provide through our wide range of services and solutions.

As a global company, we have at our disposal the financial, logistical and technical resources to develop complex and wide-ranging solutions, both at country and international level by implementing them both on-time and on-budget.



New Hotel OD Port Portals. Palma de Mallorca, Spain. **ECOi - ECO G**



Le Dolcezza Patisserie, Italy. **PACi**



Europa-Park is the second most popular theme park resort. 300 rooms. Germany. **ECOi**



The new Hotel Vincci Gala with efficiency class A, up to 70% save energy. Barcelona, Spain. **ECOi - ECO G**



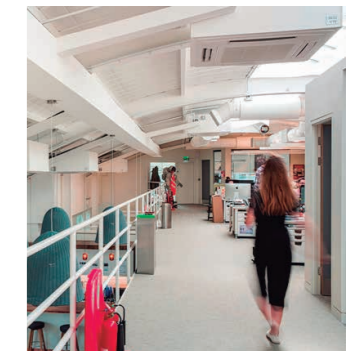
Andalucia Technology Park. Málaga, Spain. **ECOi**



PKEA for Server Room. Munich Municipal Hospital. Germany. **PACi**



Hotel refurbishment. The heat recovery system is ideal for a hotel of this category. Hotel Claris 5*. Barcelona, Spain. **ECOi**



Lock Building, offices for media giant Viacom. Camden, London, UK. **ECOi**



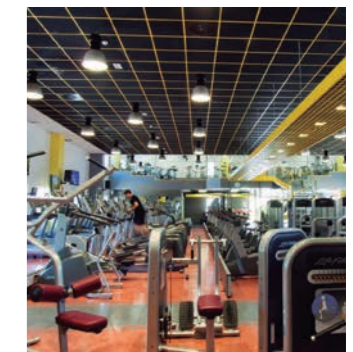
Shippensburg University. Pennsylvania, United States. **ECOi**



GE Aviation. Bristol, UK. **PACi**



Restaurant Burger & Lobster. London, UK. **ECOi**



Lo + Fit Galapagar Gym. Madrid, Spain. **VRF, PACi, AHU**

PRO CLUB. THE PROFESSIONAL WEBSITE OF PANASONIC




PRO Club 
 Download on
www.panasonicproclub.com
 or connect simply with your
 smartphone to the PRO Club
 using this QR

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

Panasonic PRO Club (www.panasonicproclub.com) is the online tool which makes your life easier! You just have to register and a lot of functionalities are freely available to you, where ever you are, from your computer or smart phone!

- Print catalogues with your logo and your address
- Download the latest Aquarea designer to define your system and select the good Aquarea Heat pump.
- Calculate the specs of the Aquarea Air fan coil based on the parameters of your system
- Get Documents of conformity and all other documents you may need
- Download all the service manuals, end user manuals and installation manuals
- Know what to do with error codes
- Find out about the latest news first
- Register for training

Highlighted Features

- Extensive library of resources
- Tools & Apps for end users. Check availability in your country:
 - My Home: sizing wizard for domestic and A2W range
 - My Project: Contact form to Panasonic team
 - iFinder: Lists of installers displayed by postcode



Easy download Panasonic service documentation and brochures



Customise leaflets with your logo & contact details. Save and print the PDF



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



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

- Special offers & promotions
- Training PRO Academy
- Catalogues (Commercial documentation)
- Marketing (Images in high resolution, advertisements, deco guidelines)
- Tools (Professional software, sizing tools...)
- Installers customize leaflets in PDF format with their logo & contact details
- Energy label generator. Download energy labels of any device in PDF format
- Heating calculator
- Noise calculator for outdoor unit
- Aquarea Radiator calculator
- Error Code Search by error code or unit ref. Compatible with smartphone and tablet computer
- Revit / CAD Images / Spec texts
- Access to Pananet, online library of technical documentation
- Download Documents of Conformity and other Certifications
- Commissioning online

Panasonic PRO Club is fully compatible with tablet computer and smartphone.

The Panasonic PRO Academy

Panasonic takes its responsibility to its distributors, specifiers and installers seriously and has developed a comprehensive Training Programme. The Panasonic Pro-Academy encompasses the traditional hands-on approach to teaching.

New training courses cover three levels. Design, installation, and commissioning & trouble-shooting. Training courses include:

- Domestic applications Air to Air
- Aquarea air source heat pumps
- VRF ECOi

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



WELCOME TO THE COMMERCIAL RANGE



Here are some of your new air conditioner's major features. 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.



HIGHLIGHTED FEATURES



PACi: Commercial air to air. The full solution for shops, restaurants, offices or residential applications with outstanding efficiency and compact in size.

Commercial benefits

Great savings and improved wellness

Panasonic has developed an impressive range of highly efficient Commercial Air Conditioners. Our Inverter compressors optimise performance and thus reduce energy costs.

A wide range for the commerce, office or residence

From the smaller 1X1 to the more complete 4x1 solutions, it doesn't

matter which your need is. Panasonic can offers you the best solution to get the best clima.

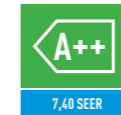
High connectivity

The new control systems allows you to have complete control of all your installations. All your units from several locations, receive status updates in real-time, preventing breakdowns and optimizing costs.

Energy saving



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.



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!

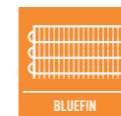


Inverter plus products improve on the characteristics of standard Inverter range by over 20%. This means 20% less consumption and 20% off your electric bill. A Inverter plus is also A class on cooling and heating mode.



Wider operation Hz range of compressor realize more high efficient operation through the year. For Big PACi Series PE2.

High performance



Panasonic has extended the life of its condensers with an original anti-rust coating. For Big PACi Series PE2.



Big size Fan makes larger airflow rate and very silent operation at low speed. For Big PACi Series PE2.



DC Fan: Save and precise.



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



The air conditioner works in heat pump mode even when outdoor temperatures are as low as -20°C or -15°C.



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



5 years warranty. We guarantee the outdoor unit compressors in the entire range for five years.

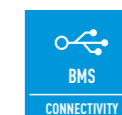
High connectivity



The new AC Smart Cloud from Panasonic allows you to have complete control of all your installations. In a simple click, all your units from several locations, receive status updates in real-time of all your installations, preventing breakdowns and optimizing costs.



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.



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.

PACi OUTDOOR UNITS ENERGY SAVING CONCEPT



Product quality and safety. All Panasonic air conditioners undergo strict quality and safety tests before sale. This rigorous process includes obtaining all necessary safety approvals, to ensure that all air conditioners we sell are not only built to the highest market standards, but are also completely safe.

New Panasonic Mini PACi Series PE2

New outdoor PACi Elite from 3,6kW to 6,0kW and PACi Standard 6,0kW to 7,1kW, all made in Japan.

Fully new outdoor design with last generation compressor. Higher performance and better partial load. Includes control consumption, 0-10V demand control and all latest remote controller's functionalities.

Higher efficiency

- New heat exchanger
- New and bigger fan
- New Panasonic Compressor
- New chassis

PACi Standard: For economy and value

With high quality design and engineering, the PACi Standard is the perfect solution for projects which demand quality on a limited budget. In addition, its compact size and light weight make it ideal for installations with limited space including small commercial and residential applications.

The outdoor unit is much more compact than the previous model. The slim and lightweight design means the PACi outdoor unit can be installed in a number of situations. On the 12,5kW (996 x 940 x 340mm).

PACi Standard. From 6,0 to 14,0kW

- Good balance, system cost vs energy efficiency
- Top class SEER/SCOP as a Standard Inverter category
SEER: A++ / SCOP: A+ at 10,0kW (in 90x90 Cassette)
- Interchangeable controller with ECOi
- Compact outdoor units
- Twin connection possible
- Cooling operation up to -10°C
- Heating operation up to -15°C

New Big PACi Elite

New PACi 8 and 10HP are designed to adapt to current and most demanding commercial needs. Ready to connect to 1 big ducted indoor unit up to 4 indoor units.

Large capacity PACi Elite. Trusted power and high efficiency

- Higher efficiency
- Better partial load (10% ~ 100%)
- More flexible piping
- Bluefin anti-rust coating
- 0-10V control demand
- Energy saving functions
- AHU connection kit
- From 1 to 4 indoor units



PACi Elite: Newly designed next generation of commercial air conditioning

Outstanding performance at low temperatures, high energy efficiency, power consumption in remote control display. Energy-saving concept. The use of energy saving design for the structure of fans, fan motors, compressors and heat exchangers resulted in high COP value which ranked as one the top class in the industry. In addition, use of highly efficient R410A refrigerant reduces CO₂ emission and lowers operating costs.

PACi Elite. From 3,6 to 25,0kW

- Meeting all necessary safety approvals to ensure quality and safety
- Top-class SEER: A++ / SCOP: A++ at 10,0kW (in 90x90 Cassette)
- Cooling operation is possible when outdoor temperature as high as 46°C
- DC inverter technology combined with R410A for excellent efficiency
- Cooling operation is possible when outdoor temperature as low as -15°C
- Heating operation is possible when outdoor temperature as low as -20°C
- Compact outdoor units
- Auto restart from outdoor unit
- Twin, Triple and Doble-Twin connection possible



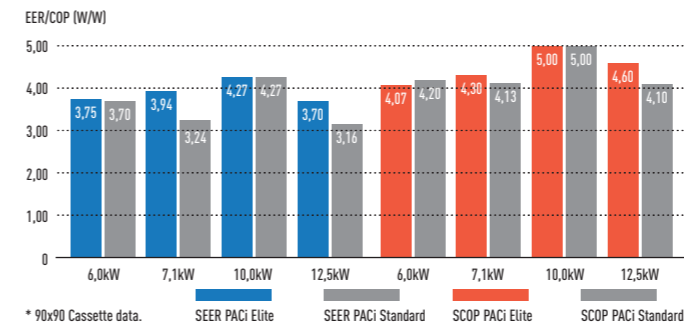
PACi ELITE: EXCELLENT SEER AND SCOP VALUES

SEASONAL EFFICIENCY
SEER — SCOP
A++ / A++



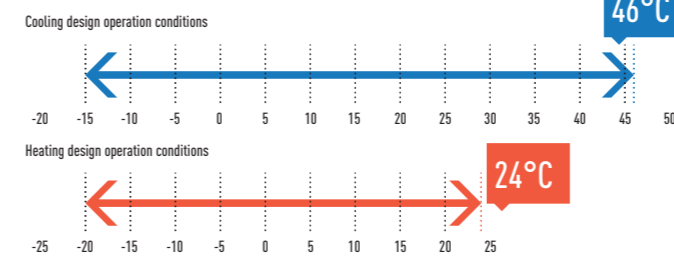
Operating efficiency has been improved using highly efficient R410A refrigerant, new DC inverter compressor, new DC motor and a new heat exchanger design.

Improved energy saving



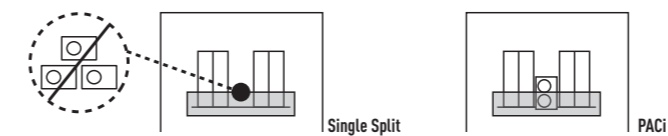
Design operation conditions

Cooling operation is possible when outdoor temperature as low as -15°C or as high as 46°C. Heating operation is possible when outdoor temperature as low as -20°C. The remote control temperature setting offers a range from 18°C to 30°C.

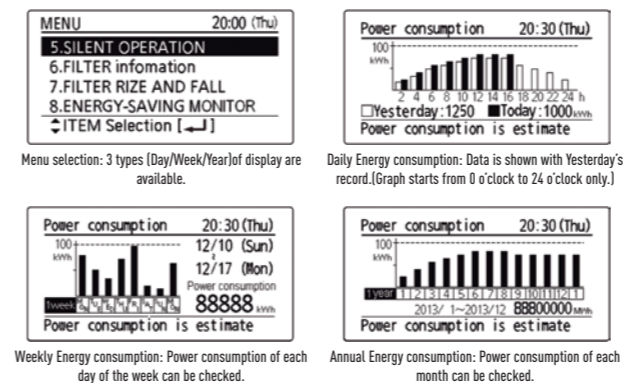


Compact & Flexible-design

The slim and lightweight design means the PACi outdoor unit can be installed in a number of compact situations. As the unit only weighs 98kg, it is easy to carry and easy to install.

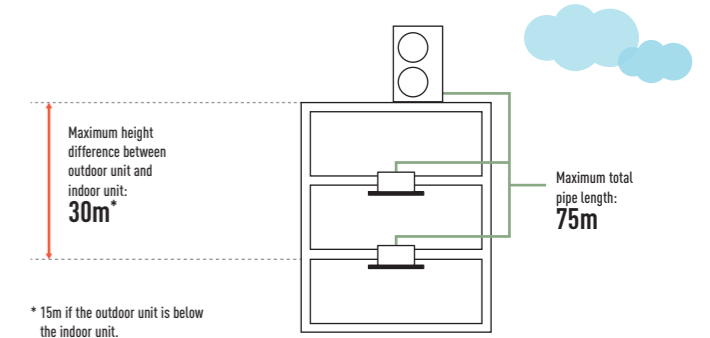


Energy consumption monitoring display with the CZ-RTC5A



Increased piping length for greater design flexibility

Adaptable to various building types and sizes. Maximum piping length: 75m (10.0, 12.5, 14.0kW). 50m (6.0, 7.1kW).



Excellent SEER and SCOP values

Panasonic have a extremely high SEER and SCOP values following the SBEM method (some other manufacturers may use another non official calculation method). Developed by BRE, SBEM (Simplified Building Energy Model) is the basis of non-domestic building energy calculations. Based on the National calculation method (NCM), it is used to determine compliance with Part L of the Building Regulations and is also used to provide Energy Performance Certification.

Non-Domestic Building Services Compliance Guide provides information on various aspects of the calculation method, including those of Heat Pumps (Section 3), and Comfort Cooling (Section 9).

Part Load COP	SCOP - Seasonal Coefficient of Performance				SEER - Seasonal Energy Efficiency Rating			
	25%	50%	75%	100%	25%	50%	75%	100%
Ambient conditions	15°C	7°C	1°C	-5°C	20°C	25°C	30°C	35°C
Weighting factor	0.20 (a)	0.36 (b)	0.32 (c)	0.12 (d)	0.20 (a)	0.36 (b)	0.32 (c)	0.12 (d)

UK winter -5°C DB (outdoor temp.), 20°C WB (indoor temp.). UK summer 21°C DB (outdoor temp.), 16°C WB (indoor temp.).

ESEER calculation corresponds with below conditions and power input of indoor units is not included.
- Indoor temperature: 27°C DB / 19°C WB - Outdoor temperature conditions

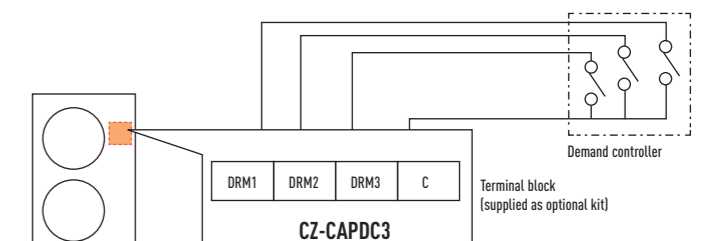
Part load ratio	25%	50%	75%	100%
Outdoor air temperature (°C DB)	20	25	30	35
Weighting coefficients	0.23	0.41	0.33	0.03

- Formula : 0.23 x EER_{25%} + 0.41 x EER_{50%} + 0.33 x EER_{75%} + 0.03 x EER_{100%}.

Demand response compliant (CZ-CAPDC3)

This optional part allows demand control of the outdoor unit. Several level of settings are available:

- Level-1, 2, 3 : 75 / 50 / 0 %
- Level-1, 2 can be set in 40 - 100% (40, 45, 50...95, 100: each 5%)



Demand control terminal is available to control 0-50-75% of capacities.

SOLUTIONS FOR SERVER ROOMS



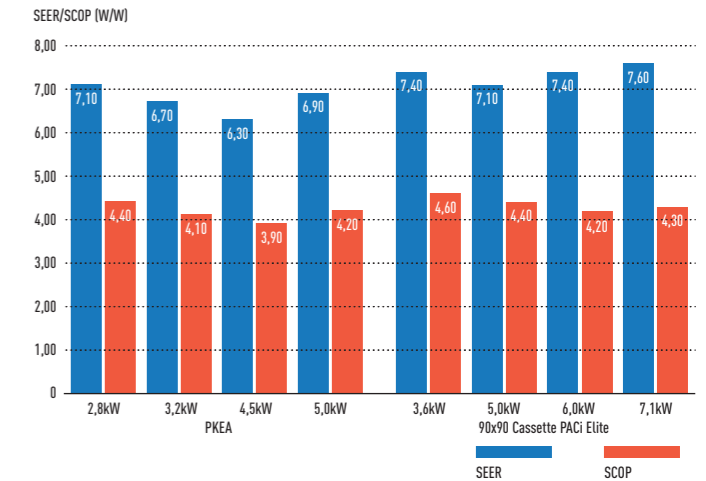
High efficiency products for 24/7 applications. Panasonic has developed a complete range of solutions for server rooms which efficiently protect your servers, keeping them at an appropriate temperature even when the outdoor temperature is below -20°C.

High efficiency all the year

On 24/7 operation, the performance of the air conditioning is a key factor. When the efficiency is high, the return on investment of such units is quickly reached.

Key points

- From 2,8 to 5kW with PKEA units, from 3,6 to 14kW with PACi units
- Backup function
- Redundancy function
- Alternative run function
- Error information by dry contact
- Operation even at -20°C outdoor temperature
- Excellent performance with excellent SEER
- Product design for 24/7 operation

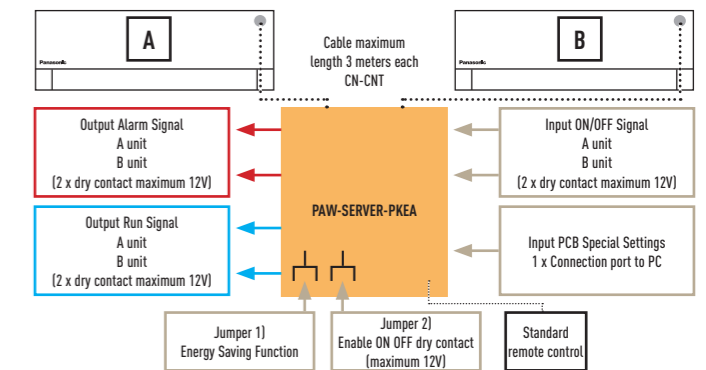


Interface to run 2 PKEA. PAW-SERVER-PKEA

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

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

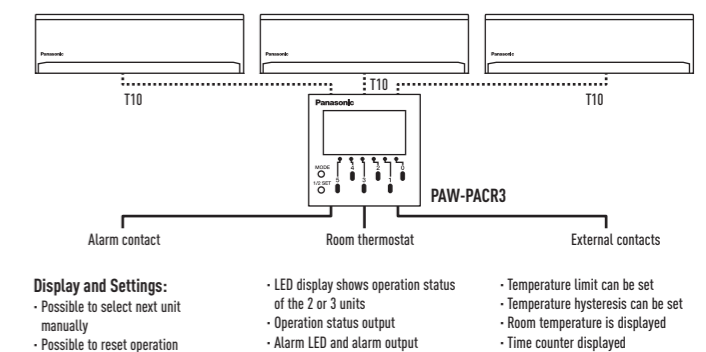
All settings are possible without the need for a computer connection. A special Energy Saving Mode is selectable by deep switch (available only in plug and play mode). The level of remote control input prohibition can be set when external management is by dry contact.



Interfaces to run 2 or up to 3 PACi and VRF Range

PAW-PACR3

In combination with one PAW-T10V on each indoor unit, allows the redundant operation of 2 (or 3) PACi or VRF indoor units. All units will be operated by programmable turns in order to achieve the same operating time (example turn every 8 hours with 24 hours). If the room temperature exceeds a freely set value, the 2nd (or 3rd) unit will be switched ON and an alarm will be activated.



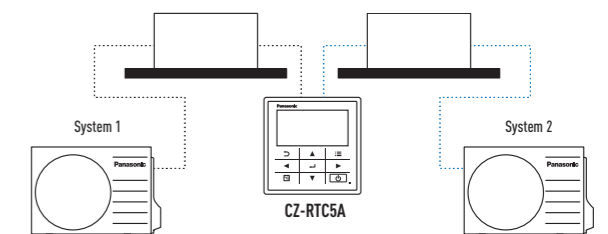
Backup control by using CZ-RTC5A

Group wiring of 2 systems of PACi can do auto individual control.

- Rotation operation
- Backup operation
- Support operation

CZ-CAPRA1

New Domestic with CZ-CNT port integration to PACi and ECOi.



NEW GENERATION PACi 90x90 CASSETTE



Panasonic introduces new flat panel design which is modern and matching well with your space. These cassettes have developed to satisfy today's customer needs such as highest energy saving, maximum comfort and healthier air.

New PACi Cassette Panasonic

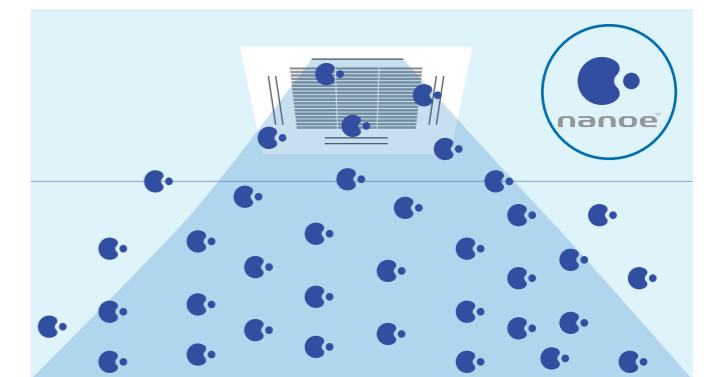
- New flat panel design
- Better SCOP & SEER (up to 15%)
- Advanced comfort and energy saving by new Econavi sensor
- Air purification nanoe™ system
- Super quiet operation from 28dB(A)

These cassettes offer upgraded Econavi and nanoe™ purification system as accessories for making application space more comfortable, healthy and efficient.

Always fresh and clean air with nanoe™

- New nanoe™ is available by the advanced technology of room air conditioning.
- Purificating operation can work simultaneously or independently from heating/cooling operation.
 - Inhibiting viruses, bacteria & deodorisation (bacteria, fungus, pollen, virus and cigarette smoke). OH radicals in nanoe™ pull bacteria's hydrogen out and it is effectively deodorised be sterilised
 - Clean inside by nanoe™ + Dry control: inside of indoor unit can be cleaned by short operation circuit with nanoe™ and drying

CZ-RTCSA and optional accessory CZ-CNEXU1 are required to use nanoe™ function.



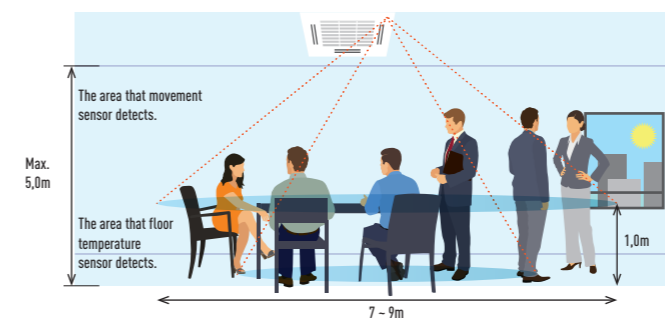
Econavi intelligent sensor

Human activity sensor and floor temperature sensor can reduce waste by optimising air conditioner operation.




Advanced Econavi functions


2 sensors (movement and floor temperature) can find waste of energy and control effectively. Floor temperature can detect up to 5m ceiling height.



Econavi exclusive panel. Optional (CZ-KPU3A)



Floor temperature sensor.
This sensor detects average floor temperature and operates circulation if floor is low temperature.

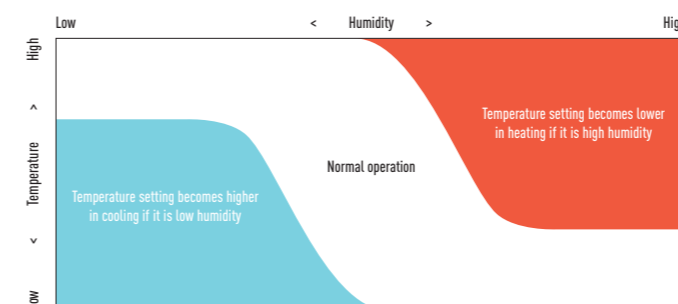


Movement sensor.
This sensor detects the amount of human activity, and operates effectively.

Wired remote controller CZ-RTCSA is required.

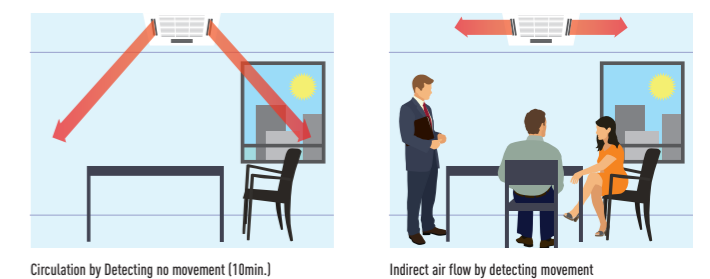
Humidity sensor

New humidity sensor has added on air suction part, and realises comfort and energy saving based on temperature and humidity.



Group control, circulation function

Circulating operation is activated when nobody is there, and mix air in the whole room. Minimize temperature gap in both heating and cooling operation.







RANGE OF COMMERCIAL UNITS

Indoor Units PACi Standard and Elite	3,6kW ¹	4,5kW ¹	5,0kW	6,0kW	7,1kW	10,0kW	12,5kW	14,0kW	20,0kW	25,0kW
New 4 Way 90x90 Cassette PACi Inverter+	 S-36PU2E5A	 S-45PU2E5A	 S-50PU2E5A	 S-60PU2E5A	 S-71PU2E5A	 S-100PU2E5A	 S-125PU2E5A	 S-140PU2E5A		
4 Way 60x60 Cassette PACi Inverter+	 S-36PY2E5A	 S-45PY2E5A	 S-50PY2E5A							
Ceiling PACi Inverter+	 S-36PT2E5A	 S-45PT2E5A	 S-50PT2E5A	 S-60PT2E5A	 S-71PT2E5A	 S-100PT2E5A	 S-125PT2E5A	 S-140PT2E5A		
High Static Pressure Hide Away PACi Inverter+	 S-36PF1E5A	 S-45PF1E5A	 S-50PF1E5A	 S-60PF1E5A	 S-71PF1E5A	 S-100PF1E5A	 S-125PF1E5A	 S-140PF1E5A		
Low Static Pressure Hide Away PACi Inverter+	 S-36PN1E5A	 S-45PN1E5A	 S-50PN1E5A	 S-60PN1E5A	 S-71PN1E5A	 S-100PN1E5A	 S-125PN1E5A	 S-140PN1E5A		
Wall PACi Inverter+	 S-36PK1E5A	 S-45PK1E5A	 S-50PK1E5A	 S-60PK1E5A	 S-71PK1E5A	 S-100PK1E5A (9,5kW)				
High Static Pressure Hide Away 20,0 - 25,0kW PACi Inverter+									 S-200PE2E5	 S-250PE2E5
Air Curtain with DX Coil Jet-Flow // Standard						 PAW-10PAIRC-MJ // PAW-10PAIRC-MS (9,2kW)		 PAW-15PAIRC-MJ // PAW-20PAIRC-MS (17,5kW)	 PAW-20PAIRC-MJ (23,1kW)	

Outdoor Units PACi Standard and Elite	3,6kW	5,0kW	6,0kW	7,1kW	10,0kW	12,5kW	14,0kW	20,0kW	25,0kW	
PACi Standard			 U-60PEY2E5 ¹	 U-71PEY2E5 ¹	 U-100PEY1E5 ¹ // U-100PEY1E8 ¹¹	 U-125PEY1E5 ¹ // U-125PEY1E8 ¹¹	 U-140PEY1E8 ¹¹			
PACi Elite	 U-36PE2E5A ¹	 U-50PE2E5A ¹	 U-60PE2E5A ¹		 U-71PE1E5A ¹ // U-71PE1E8A ¹¹	 U-100PE1E5A ¹ // U-100PE1E8A ¹¹	 U-125PE1E5A ¹ // U-125PE1E8A ¹¹	 U-140PE1E5A ¹ // U-140PE1E8A ¹¹	 U-200PE2E8A ¹¹	 U-250PE2E8A ¹¹

1) The indoor units from 3,6 to 4,5kW are only available only for Twin, Triple and Double-Twin combinations. ¹ Single Phase ¹¹ Three Phase.

Wall Mounted for professional applications	2,8kW	3,2kW	4,5kW	5,0kW
Wall Mounted PKEA Professional Inverter -20°C	 KIT-E9-PKEA	 KIT-E12-PKEA	 KIT-E15-PKEA	 KIT-E18-PKEA

Air Handling Unit	28,0kW
3 types of AHU Kit: Deluxe, Medium and Light. Up to 28kW (Common use for all outdoor units. Only 1 by 1 connection is allowed.)	 PAW-280PAH2 // PAW-280PAH2M // PAW-280PAH2L

WALL MOUNTED PKEA PROFESSIONAL INVERTER -20°C

SERVER ROOM SOLUTION WITH THE HIGHEST EFFICIENCY OF THE MARKET
24/7 OPERATION

Complete line-up with high efficiency even at -20°C

High durability for 24/7 operation

Indoor Fan. Cross-Flow-Fan

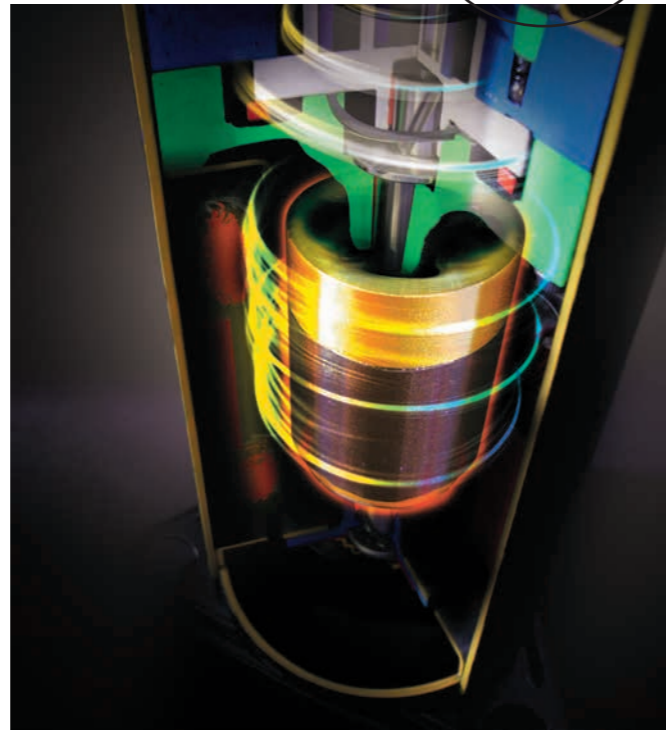
- High durability rolling bearings, large size (φ105mm) fan
- High efficiency blade
- Random pitch blade (low sound)

Compressor

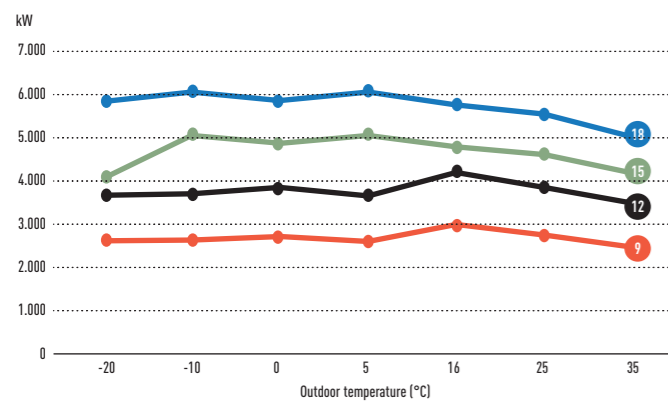
DC2P Panasonic original compressor, with high efficiency and reliability.

Why is the Panasonic R2 Rotary Compressor so efficient?

1. High efficiency motor: the premium silicon steel motor meets industry efficiency requirements
2. Improved lubrication of high volume oil pump: the extended, high volume oil pump in conjunction with a larger capacity oil reservoir provides superior lubrication
3. Accumulator has larger refrigerant capacity: the larger accumulator accommodates generous refrigerant amounts needed in longer line length installations



PKEA provides high capacity at -20°C!

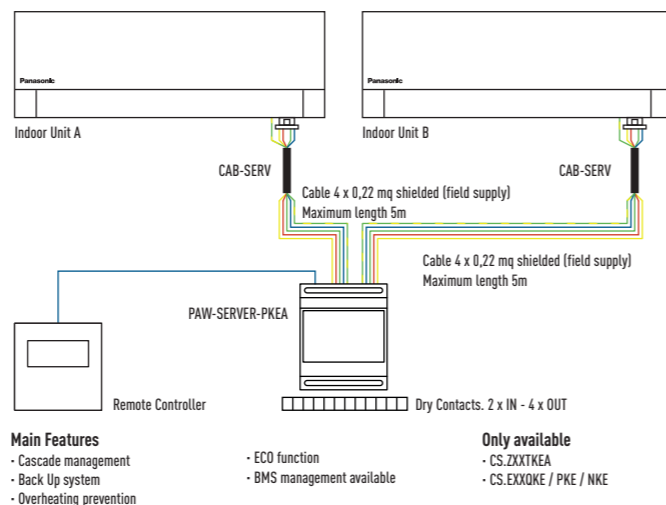


Interface option to manage server room operation

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

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

All settings are possible without the need for a computer connection. A special Energy Saving Mode is selectable by deep switch (available only in plug and play mode). The level of remote control input prohibition can be set when external management is by dry contact.



Included on the kit. Timer remote controller



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.

- Highly efficient even at -20°C
- High durability rolling bearings
- Additional piping sensors to prevent freezing

Technical focus

- This units can be installed on R22 pipings
- Designed for 24h/7d a week operation

Outdoor Features

- Cooling even when ambient temperature is as low as -20°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)

WALL MOUNTED PKEA

		Single Phase			
		2.8kW KIT-E9-PKEA	3.2kW KIT-E12-PKEA	4.5kW KIT-E15-PKEA	5.0kW KIT-E18-PKEA
Cooling capacity	Nominal (Min - Max)	kW	2.50 (0.85 - 3.00)	3.50 (0.85 - 4.00)	4.20 (0.98 - 5.00)
EER ¹⁾	Nominal (Min - Max)	W/W	4.85 (4.23 - 5.00)	4.02 (3.57 - 5.00)	3.50 (3.50 - 3.16)
Cooling capacity at -10°C		kW	2.63	3.69	5.04
EER at -10°C		W/W	7.19	5.96	6.01
Cooling capacity at -20°C		kW	2.61	3.66	4.06
EER at -20°C		W/W	6.71	5.56	4.39
SEER ²⁾		W/W	7.10 A++	6.70 A++	6.30 A++
Pdesign		kW	2.5	3.5	4.2
Input power cooling	Nominal (Min - Max)	kW	0.52 (0.17 - 0.71)	0.87 (0.17 - 1.12)	1.20 (0.28 - 1.58)
Annual electricity consumption (cooling) ³⁾		kWh/a	123	183	233
Heating capacity	Nominal (Min - Max)	kW	3.40 (0.85 - 5.40)	4.00 (0.85 - 6.60)	5.40 (0.98 - 7.10)
Heating capacity at -7°C ⁴⁾		kW	3.33	4.07	4.10
COP ¹⁾	Nominal (Min - Max)	W/W	4.86 (4.12 - 5.15)	4.35 (3.63 - 5.15)	3.75 (2.88 - 3.24)
SCOP ⁵⁾		W/W	4.40 A+	4.10 A+	3.90 A+
Pdesign at -10°C		kW	2.8	3.6	3.6
Input power heating	Nominal (Min - Max)	kW	0.70 (0.165 - 1.31)	0.92 (0.17 - 1.82)	1.44 (0.34 - 2.19)
Annual electricity consumption (heating) ³⁾		kWh/a	891	1.229	1.467
Indoor Unit			CS-E9PKEA	CS-E12PKEA	CS-E15PKEA
Power source		V	230	230	230
Recommended fuse		A	16	16	16
Connection indoor / outdoor		mm	4 x 1.5	4 x 1.5	4 x 1.5
Current	Cooling / Heating	A	2.5 / 3.3	4.0 / 4.2	5.4 / 6.5
Max. Current		A	7.8	8.4	9.6
Air Volume	Cooling / Heating	m³/min	13.3 / 14.6	13.6 / 14.7	14.1 / 15.0
Moisture removal volume		L/h	1.5	2.0	2.8
Sound pressure ⁶⁾	Cooling (Hi / Lo / S-Lo)	dB(A)	39 / 26 / 23	42 / 29 / 26	43 / 32 / 29
	Heating (Hi / Lo / S-Lo)	dB(A)	40 / 27 / 24	42 / 33 / 29	43 / 35 / 29
Sound power	Cooling / Heating (Hi)	dB	55 / 56	58 / 58	59 / 59
Dimensions / Net weight	H x W x D	mm / kg	295 x 870 x 255 / 10	295 x 870 x 255 / 10	295 x 870 x 255 / 10
Outdoor Unit			CU-E9PKEA	CU-E12PKEA	CU-E15PKEA
Air Volume	Cooling / Heating	m³/min	31.3 / 29.7	32.9 / 32.1	34.2 / 33.0
Sound pressure ⁶⁾	Cooling / Heating (Hi)	dB(A)	46 / 47	48 / 50	46 / 46
Sound power	Cooling / Heating (Hi)	dB	61 / 62	63 / 65	61 / 61
Dimensions ⁷⁾ / Net weight	H x W x D	mm / kg	622 x 824 x 299 / 36	622 x 824 x 299 / 36	695 x 875 x 320 / 45
Piping connections	Liquid pipe / Gas pipe	Inch (mm)	1/4 (6.35) / 3/8 (9.52)	1/4 (6.35) / 3/8 (9.52)	1/4 (6.35) / 1/2 (12.70)
Piping length range / Elevation difference (in/out) ⁸⁾		m	3 - 15 / 5	3 - 15 / 5	3 - 15 / 15
Pipe length for additional gas / Additional gas amount	m / g/m		7.5 / 20	7.5 / 20	7.5 / 20
Refrigerant loading	R410A	kg	1.10	1.10	1.06
Operating range	Cooling Min / Max	°C	-20 ~ +43	-20 ~ +43	-20 ~ +43
	Heating Min / Max	°C	-15 ~ +24	-15 ~ +24	-15 ~ +24

Rating Conditions for cooling capacity at low temperature: Cooling Indoor 27°C DB / 19°C WB. Cooling Outdoor 0°C DB / -10°C WB.

1) EER and COP, Energy Saving Classification, is at 220 / 240V (380 / 415V) only in accordance with EU directive 2002/31/EC. 2) SEER is calculated in base Eurovent IPLV for SBEM for U1 indoor unit SEER=a(EER25)+b(EER50)+c(EER75)+d(EER100) where EER25, EER50, EER75 and EER100 are the EER measured value at 25%, 50%, 75% and 100% part load for temperatures 20, 25, 30 and 35°C DB, respectively. a, b, c and d are values assigned for an office type. These values are given as a=0.2, b=0.36, c=0.32 and d=0.03. The internal temperatures are taken at 27°C DB and 19°C WB. 3) The annual consumption (ErP) is calculated by formula determined by ErP regulation. 4) Heating capacity is calculated including defrost factor correction. 5) SCOP is calculated in base Eurovent IPLV for SBEM with U1 indoor unit including defrost correction factor. 6) The Sound pressure of the units shows the value measured of a position 1 meter in front of the main body and 1.5m from the ground. The sound pressure is measured in accordance with Eurovent 6/C/006-97 specification. 7) Add 70mm for piping port. 8) When installing the outdoor unit at a higher position than the indoor unit. // Recommended fuse for the indoor 3A.



SEER and SCOP: For KIT-E9-PKEA. SUPER QUIET: For KIT-Z25-TKEA. INTERNET CONTROL: Optional. Compatible with all Panasonic connectivity solutions. For detailed information go to the Control Systems section.

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 / 4°C WB. (DB: Dry Bulb; WB: Wet Bulb) Specifications subject to change without notice. For detailed information about ErP, please visit our websites www.aircon.panasonic.eu or www.plc.panasonic.eu.



4 WAY 90x90 CASSETTE PACi INVERTER+

Large capacity PACi. Trusted power and high efficiency.

Thanks to advances in design and technology such as the new high performance turbo fan, more efficient and silent, the nanoe™ air cleaner, for total healthy and the floor temperature & humidity sensor to more control, the new U2 Panasonic 90x90 4 way cassette is the best Industry in energy savings, healthy and comfort.

Technical focus

- New high performance turbo fan, new path system for heat exchanger
- Lower noise in slow fan operation
- Industry top light weight, easy piping
- Easy installation structure of the panel
- Econavi: Floor temperature and humidity sensor added. Activity amount detection and new circulator
- Nanoe™: The first 10x for CAC (10 times more purification power). Inside cleaning by 10x nanoe™ + dry control



Included Controller: Wired remote controller CZ-RTCSA Compatible with Econavi and nanoe™
 Optional Controller: Timer remote controller CZ-RTCA Compatible with Econavi
 Optional Controller: Wireless remote control CZ-RWSU3
 Optional Controller: Simplified remote controller CZ-REZC2
 Econavi panel: CZ-KPU3A (CZ-RTCSA is required)
 Optional nanoe™ kit: CZ-CNEKU1 (CZ-RTCSA is required)



2 types of body with height difference (same as current ones)

25,6cm and 31,9cm.

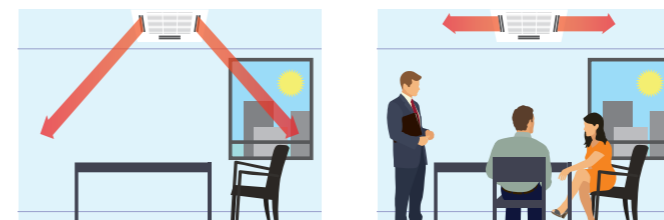
Always fresh and clean air with nanoe™

New nanoe™ is newly developed for PACi cassette by the advanced technology of Room Air conditioning.

CZ-RTCSA and optional accessory CZ-CNEKU1 are required to use nanoe™ function.

Group control, new circulation function

Do circulating operation when nobody there, and mix air in the whole room. Minimize temperature gap in both heating and cooling operation.



Circulation by Detecting no movement (10min.) Indirect air flow by detecting movement

		PACi STANDARD												PACi ELITE											
		Single Phase				Three Phase				Single Phase				Three Phase											
		6,0kW	7,1kW	10,0kW	12,5kW	10,0kW	12,5kW	14,0kW	3,6kW	5,0kW	6,0kW	7,1kW	10,0kW	12,5kW	14,0kW	7,1kW	10,0kW	12,5kW	14,0kW						
KIT		KIT-60PUY2E5B				KIT-100PUY2E5A				KIT-36PUZ2E5B				KIT-100PUZ2E5A											
Panel		CZ-KPU3				CZ-KPU3				CZ-KPU3				CZ-KPU3											
Timer remote controller		CZ-RTCSA				CZ-RTCSA				CZ-RTCSA				CZ-RTCSA											
Cooling capacity		Nominal (Min - Max) kW				Nominal (Min - Max) kW				Nominal (Min - Max) kW				Nominal (Min - Max) kW											
EER ¹⁾		Nominal (Min - Max) W/W				Nominal (Min - Max) W/W				Nominal (Min - Max) W/W				Nominal (Min - Max) W/W											
SEER ²⁾		W/W				W/W				W/W				W/W											
Pdesign		kW				kW				kW				kW											
Input power cooling		Nominal (Min - Max) kW				Nominal (Min - Max) kW				Nominal (Min - Max) kW				Nominal (Min - Max) kW											
Annual energy consumption [ErP] ³⁾		kWh/a				kWh/a				kWh/a				kWh/a											
Heating capacity		Nominal (Min - Max) kW				Nominal (Min - Max) kW				Nominal (Min - Max) kW				Nominal (Min - Max) kW											
Heating capacity at -7/-15°C ⁴⁾		kW				kW				kW				kW											
COP ⁵⁾		Nominal (Min - Max) W/W				Nominal (Min - Max) W/W				Nominal (Min - Max) W/W				Nominal (Min - Max) W/W											
SCOP ⁶⁾		W/W				W/W				W/W				W/W											
Pdesign at -10°C		kW				kW				kW				kW											
Input power heating		Nominal (Min - Max) kW				Nominal (Min - Max) kW				Nominal (Min - Max) kW				Nominal (Min - Max) kW											
Annual energy consumption [ErP] ³⁾		kWh/a				kWh/a				kWh/a				kWh/a											
Indoor Unit		S-60PUZ2E5A				S-100PUZ2E5A				S-36PUZ2E5A				S-100PUZ2E5A											
Air volume		Hi / Med / Lo m³/min				Hi / Med / Lo m³/min				Hi / Med / Lo m³/min				Hi / Med / Lo m³/min											
Moisture removal volume		L/h				L/h				L/h				L/h											
Sound pressure ⁴⁾		Hi / Med / Lo dB(A)				Hi / Med / Lo dB(A)				Hi / Med / Lo dB(A)				Hi / Med / Lo dB(A)											
Sound power		Hi / Med / Lo dB				Hi / Med / Lo dB				Hi / Med / Lo dB				Hi / Med / Lo dB											
Dimensions (H x W x D)		Indoor mm / kg				Indoor mm / kg				Indoor mm / kg				Indoor mm / kg											
Net weight		Panel mm / kg				Panel mm / kg				Panel mm / kg				Panel mm / kg											
Outdoor Unit		U-60PEY2E5				U-100PEY1E5				U-36PEY2E5A				U-100PEY1E5A											
Power source		V				V				V				V											
Recommended fuse		A				A				A				A											
Connection		mm²				mm²				mm²				mm²											
Current		Cooling A				Cooling A				Cooling A				Cooling A											
		Heating A				Heating A				Heating A				Heating A											
Air volume		Cooling / Heating m³/min				Cooling / Heating m³/min				Cooling / Heating m³/min				Cooling / Heating m³/min											
Sound pressure		Cooling / Heating (Hi) dB(A)				Cooling / Heating (Hi) dB(A)				Cooling / Heating (Hi) dB(A)				Cooling / Heating (Hi) dB(A)											
Sound power		Cooling / Heating (Hi) dB				Cooling / Heating (Hi) dB				Cooling / Heating (Hi) dB				Cooling / Heating (Hi) dB											
Dimensions		H x W x D mm				H x W x D mm				H x W x D mm				H x W x D mm											
Net weight		kg				kg				kg				kg											
Piping connections		Liquid pipe Inch (mm)				Liquid pipe Inch (mm)				Liquid pipe Inch (mm)				Liquid pipe Inch (mm)											
		Gas pipe Inch (mm)				Gas pipe Inch (mm)				Gas pipe Inch (mm)				Gas pipe Inch (mm)											
Piping length range / Elevation difference (in/out) ⁷⁾		m				m				m				m											
Pipe length for additional gas / Additional gas amount		m / g/m				m / g/m				m / g/m				m / g/m											
R410A Refrigerant amount		kg				kg				kg				kg											
Operating range		Cooling Min ~ Max °C				Cooling Min ~ Max °C				Cooling Min ~ Max °C				Cooling Min ~ Max °C											
		Heating Min ~ Max °C				Heating Min ~ Max °C				Heating Min ~ Max °C				Heating Min ~ Max °C											

1) EER and COP, Energy Saving Classification, is at 220 / 240V (380 / 415V) only in accordance with EU directive 2002/31/EC. 2) SEER is calculated in base Eurovent IPLV for SBEM for U1 indoor unit SEER=a[EER25]+b[EER50]+c[EER75]+d[EER100] where EER25, EER50, EER75 and EER100 are the EER measured value at 25%, 50%, 75% and 100% part load for temperatures 20, 25, 30 and 35°C DB, respectively. a, b, c and d are values assigned for an office type. These values are given as a=0,2, b=0,36, c=0,32 and d=0,03. The internal temperatures are taken at 27°C DB and 19°C WB. 3) The annual consumption (ErP) is calculated by formula determined by ErP regulation. 4) Heating capacity is calculated including defrost factor correction. 5) SCOP is calculated in base Eurovent IPLV for SBEM with the U1 indoor unit including defrost correction factor. 6) The Sound pressure of the units shows the value measured of a position 1 meter in front of the main body and 1,5 m from the ground. The sound pressure is measured in accordance with Eurovent 6/C/006-97 specification. 7) When installing the outdoor unit at a higher position than the indoor unit. // Recommended fuse for the indoor 3A.

STANDARD **ELITE**

SEER and SCOP: For KIT-100PUY2E5A. SEER and SCOP: For KIT-100PUZ2E5A. ECONAVI and INTERNET CONTROL: Optional. Compatible with all Panasonic connectivity solutions. For detailed information go to the Control Systems section.

Accessories	
CZ-RTCA	Standard Wired remote control with Econavi
CZ-RWSU3	Wireless remote control
CZ-REZC2	Simplified remote control
CZ-CNEKU1	Nanoe™ air purifying system for Cassette 90x90 PU2
CZ-KPU3A	Econavi exclusive panel
PAW-WTRAY	Tray for condenser water compatible with base ground support
PAW-GRDBSE20	Outdoor base ground support for noise and vibration absorption (600 x 95 x 130mm, 500kg)
PAW-WPH7	Wind protection shield for U-50PEY2E5A
PAW-WPH9	Wind protection shield for U-60PEY2E5A, U-71PEY1E5A/8A, U-100PEY1E5/8, U-125PEY1E5/8
PAW-WPH10	Wind protection shield for U-100PEY1E5A/8A, U-125PEY1E5A/8A, U-140PEY1E5A/8A, U-140PEY1E5B



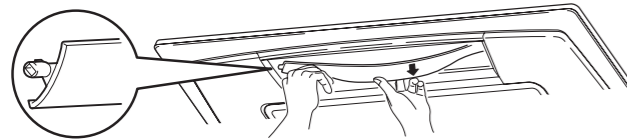
4 WAY 60x60 CASSETTE PACi INVERTER+

Small and powerful, ideal for offices and restaurants. Standard units only for Twin, Triple and Double-twin combinations.

High heating capacity at -7°C.

Special designed flap.

The flap can be removed easily for washing with water.



Technical focus

- Fresh air knock out
- Multidirectional air flow
- Integrated drain pump gives 850mm lift
- 3 speed centrifugal fan
- DC FAN for better efficiency and control
- Easy connection and control of external fan or ERV using the connector PAW-FDC on the indoor unit PCB. The external device can be control by the remote control of the Panasonic indoor unit

PACi STANDARD*

			3,6kW	4,5kW	5,0kW
Cooling capacity		kW	3,6	4,5	5,0
Heating capacity		kW	4,2	5,2	5,6
Indoor Unit			S-36PY2E5A	S-45PY2E5A	S-50PY2E5A
Current	Cooling	A	0,30	0,32	0,35
	Heating	A	0,30	0,30	0,35
Input power	Cooling	kW	0,40	0,40	0,45
	Heating	kW	0,35	0,35	0,40
Air volume	Cooling / Heating	m³/min	10 / 10	10 / 10	11 / 11
Moisture removal volume		L/h	2,1	2,5	2,8
Sound pressure ⁶⁾	Cooling (Hi / Med / Lo)	dB(A)	36 / 32 / 26	38 / 34 / 28	40 / 37 / 33
	Heating (Hi / Med / Lo)	dB(A)	36 / 32 / 26	38 / 34 / 28	40 / 37 / 33
Sound power level	Cooling (Hi)	dB	51 / 47 / 41	53 / 49 / 43	55 / 52 / 48
	Heating (Hi)	dB	51 / 47 / 41	53 / 49 / 43	55 / 52 / 48
Dimensions (H x W x D)	Indoor	mm	288 x 583 x 583	288 x 583 x 583	288 x 583 x 583
	Panel CZ-KPY3A	mm	31 x 700 x 700	31 x 700 x 700	31 x 700 x 700
	Panel CZ-KPY3B	mm	31 x 625 x 625	31 x 625 x 625	31 x 625 x 625
Net weight	Indoor	kg	18	18	18
	Panel	kg	2,4	2,4	2,4
Piping connections	Liquid pipe	Inch (mm)	1/4 (6,35)	1/4 (6,35)	1/4 (6,35)
	Gas pipe	Inch (mm)	1/2 (12,7)	1/2 (12,7)	1/2 (12,7)
Operating range	Cooling Min - Max	°C	+18 - +32	+18 - +32	+18 - +32
	Heating Min - Max	°C	+16 - +30	+16 - +30	+16 - +30

1) EER and COP, Energy Saving Classification, is at 220 / 240V (380 / 415V) only in accordance with EU directive 2002/31/EC. 2) SEER is calculated in base Eurovent IPLV for SBEM for U1 indoor unit SEER=a[EER25]+b[EER50]+c[EER75]+d[EER100] where EER25, EER50, EER75 and EER100 are the EER measured value at 25%, 50%, 75% and 100% part load for temperatures 20, 25, 30 and 35°C DB, respectively. a, b, c and d are values assigned for an office type. These values are given as a=0,2, b=0,36, c=0,32 and d=0,03. The internal temperatures are taken at 27°C DB and 19°C WB. 3) The annual consumption (ErP) is calculated by formula determined by ErP regulation. 4) Heating capacity is calculated including defrost factor correction. 5) SCOP is calculated in base Eurovent IPLV for SBEM with U1 indoor unit including defrost correction factor. 6) The Sound pressure of the units shows the value measured of a position 1 meter in front of the main body and 1,5 m from the ground. The sound pressure is measured in accordance with Eurovent 4/C/006-97 specification. 7) When installing the outdoor unit at a higher position than the indoor unit. // Recommended fuse for the indoor 3A. * Only for multi combinations.

ELITE



SEER and SCOP: For KIT-36PY2E5B. INTERNET CONTROL: Optional. Compatible with all Panasonic connectivity solutions. For detailed information go to the Control Systems section.

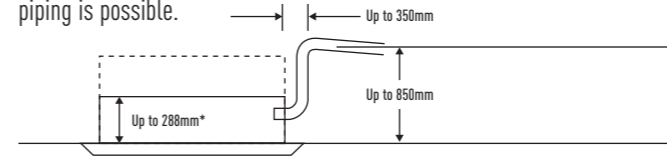


Included Controller: Wired remote controller CZ-RTC4 Compatible with Econavi
 Optional Controller: Timer remote controller CZ-RTC4 Compatible with Econavi
 Optional Controller: Wireless remote controller CZ-RWSK2
 Optional Controller: Simplified remote controller CZ-RE2C2
 Panel CZ-KPY3A (size 700 x 700mm) CZ-KPY3B (size 625 x 625mm)



A drain height of approximately 850mm from the ceiling surface

The drain height can be increased by approx. 350mm over the conventional value by using a high-lift drain pump, and long horizontal piping is possible.



A lightweight unit at 18kg the unit is also very slim with a height of only 288mm, making installation possible even in narrow ceilings.

Lighter and slimmer, easier installation

Lightweight and very slim which makes installation possible even in narrow ceilings. Designed to fit exactly into a 600 x 600mm ceiling grid without the need to alter the bar configuration.

Significant reduction of power consumption by using highly developed DC fan motors with variable speed, special heat exchangers, etc.

PACi ELITE

			3,6kW	5,0kW
KIT			KIT-36PY2E5B	KIT-50PY2E5B
Panel			CZ-KPY3A	CZ-KPY3A
Timer remote controller			CZ-RTC5A	CZ-RTC5A
Cooling capacity	Nominal (Min - Max)	kW	3,6 (1,5 - 4,0)	5,0 (1,5 - 5,6)
	EER ¹⁾	Nominal (Min - Max)	4,50 (6,25 - 421) A	3,47 (6,25 - 3,16) A
SEER ²⁾		W/W	6,30 A++	6,10 A++
Pdesign		kW	3,6	5,0
Input power cooling		Nominal (Min - Max)	kW	0,80 (0,24 - 0,95)
Annual energy consumption (ErP) ³⁾		kWh/a	200	287
Heating capacity		Nominal (Min - Max)	kW	4,0 (1,5 - 5,0)
Heating capacity at -7°C ⁴⁾		kW		5,6 (1,5 - 6,5)
Heating capacity at -15°C ⁴⁾		kW		
COP ⁵⁾	Nominal (Min - Max)	W/W	4,08 (7,89 - 3,68) A	3,31 (7,89 - 3,00) C
	SCOP ⁵⁾	W/W	4,10 A+	3,90 A+
Pdesign at -10°C		kW	3,6	5,0
Input power heating		Nominal (Min - Max)	kW	0,98 (0,19 - 1,36)
Annual energy consumption (ErP) ³⁾		kWh/a	1,229	1,795
Indoor Unit			S-36PY2E5A	S-50PY2E5A
Air volume	Cooling (Hi / Med / Lo)	m³/min	9,7 / 8,0 / 6,0	11,1 / 9,8 / 8,5
	Heating (Hi / Med / Lo)	m³/min	9,9 / 8,2 / 6,0	11,1 / 9,8 / 8,7
Moisture removal volume		L/h	2,1	2,8
Sound pressure ⁶⁾	Hi / Me / Lo	dB(A)	36 / 32 / 26	40 / 37 / 33
Sound power level	Hi / Me / Lo	dB	51 / 47 / 41	55 / 52 / 48
Dimensions (H x W x D)	Indoor	mm	288 x 575 x 575	288 x 575 x 575
	Panel	mm	31 x 700 x 700	31 x 700 x 700
Net weight	Indoor (Panel)	kg	18 (2,4)	18 (2,4)
Outdoor Unit			U-36PE2E5A	U-50PE2E5A
Power source		V	220 / 230 / 240	220 / 230 / 240
Recommended fuse		A	-	-
Connection		mm²	-	-
Current	Cooling	A	3,80 / 3,60 / 3,50	6,70 / 6,50 / 6,20
	Heating	A	4,70 / 4,50 / 4,35	8,05 / 7,70 / 7,40
Air volume	Cooling / Heating	m³/min	38 / 38	38 / 41
Sound pressure	Cooling / Heating (Hi)	dB(A)	45 / 46	46 / 48
Sound power level	Cooling / Heating (Hi)	dB	64 / 66	65 / 68
Dimensions	H x W x D	mm	619 x 799 x 299	619 x 799 x 299
Net weight		kg	39	39
Piping connections	Liquid pipe	Inch (mm)	1/4 (6,35)	1/4 (6,35)
	Gas pipe	Inch (mm)	1/2 (12,7)	1/2 (12,7)
Refrigerant Loading	R410A	kg	3 - 40 / 30	3 - 40 / 30
Piping length range / Elevation difference (in/out) ⁷⁾		m	30 / 20	30 / 20
Pipe length for additional gas / Additional gas amount		m / g/m	1,40	1,40
Operating range	Cooling Min - Max	°C	-15 - +46	-15 - +46
	Heating Min - Max	°C	-20 - +24	-20 - +24

Accessories

CZ-RTC4	Standard Wired remote control with Econavi
CZ-RWSK2	Wireless remote control
CZ-RE2C2	Simplified remote control
PAW-GRDSTD40	Outdoor elevation platform 400 x 900 x 400mm
PAW-WTRAY	Tray for condenser water compatible with base ground support
PAW-GRDBSE20	Outdoor base ground support for noise and vibration absorption (600 x 95 x 130mm, 500kg)
PAW-WPH7	Wind protection shield for U-50PE2E5A
PAW-WPH9	Wind protection shield for U-60PE2E5A, U-71PE1E5A/8A, U-100PE1E5/8, U-125PE1E5/8
PAW-WPH10	Wind protection shield for U-100PE1E5A/8A, U-125PE1E5A/8A, U-140PE1E5A/8A, U-140PE1E5/8

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 / 4°C WB. (DB: Dry Bulb; WB: Wet Bulb) Specifications subject to change without notice. For detailed information about ErP, please visit our websites www.aircon.panasonic.eu or www.ptc.panasonic.eu.



U-36PE2E5A
U-50PE2E5A

HIGH STATIC PRESSURE HIDE AWAY PACi INVERTER+

The ducted systems are the ideal solution for flexible, concealed air conditioning and the optional 200mm spigots ensure simple, hassle-free connection to spiral ductwork.

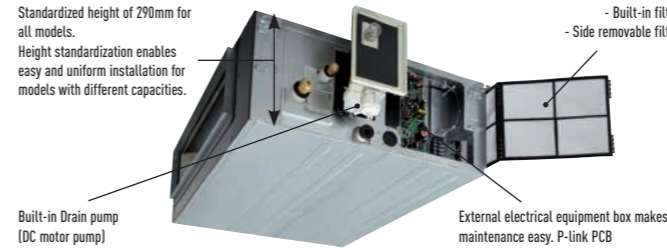
High heating capacity at -7°C.

Technical focus

- Extremely quiet operation from 26dB(A)
- Auto restart after power failure
- Auto changeover
- Twin, triple and double-twin split options
- DC FAN for better efficiency and control
- Built in drain pump
- Easy connection and control of external fan or ERV using the connector PAW-FDC on the indoor unit PCB. The external device can be control by the remote control of the Panasonic indoor unit



Air Outlet Plenum (without regulation adaptor)		Air Inlet Plenum	
Diameters	Model	Diameters	Model
36, 45 & 50	2 x Ø 200 CZ-56DAF2	60 & 71	2 x Ø 250 CZ-DUMPA90MF2
60 & 71	3 x Ø 200 CZ-90DAF2	100, 125 & 140	4 x Ø 200 CZ-DUMPA160MF2
100, 125 & 140	4 x Ø 200 CZ-160DAF2		



The static pressure outside the unit can be increased up to 150 Pa

Type	Pa	36	45	50	60	71	100	125	140
Standard	Pa	70	70	70	70	70	100	100	100
Maximum available setting	Pa	150	150	150	150	150	150	150	150

More powerful drain pump

Using a high-lift drain pump, drain piping can be elevated up to 785mm from the base of the unit.

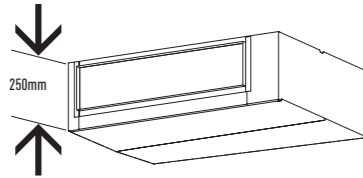
		PACi STANDARD										PACi ELITE																											
		Single Phase					Three Phase					Single Phase					Three Phase																						
		6,0kW	7,1kW	10,0kW	12,5kW	10,0kW	12,5kW	14,0kW	3,6kW	5,0kW	6,0kW	7,1kW	10,0kW	12,5kW	14,0kW	7,1kW	10,0kW	12,5kW	14,0kW																				
		KIT-60PFY1E5B	KIT-71PFY1E5B	KIT-100PFY1E5A	KIT-125PFY1E5A	KIT-100PFY1E8A	KIT-125PFY1E8A	KIT-140PFY1E8A	KIT-36PF1E5B	KIT-50PF1E5B	KIT-60PF1E5B	KIT-71PF1E5A	KIT-100PF1E5A	KIT-125PF1E5A	KIT-140PF1E5A	KIT-71PF1E8A	KIT-100PF1E8A	KIT-125PF1E8A	KIT-140PF1E8A																				
		CZ-RTCA	CZ-RTCA	CZ-RTCA	CZ-RTCA	CZ-RTCA	CZ-RTCA	CZ-RTCA	CZ-RTCA	CZ-RTCA	CZ-RTCA	CZ-RTCA	CZ-RTCA	CZ-RTCA	CZ-RTCA	CZ-RTCA	CZ-RTCA	CZ-RTCA	CZ-RTCA																				
Cooling capacity	Nominal (Min - Max)	kW		6,0 (2,0 - 7,1)		7,1 (2,0 - 7,7)		10,0 (2,7 - 11,5)		12,5 (3,8 - 13,5)		10,0 (2,7 - 11,5)		12,5 (3,8 - 13,5)		14,0 (3,3 - 15,5)		3,6 (1,5 - 4,0)		5,0 (1,5 - 5,6)		6,0 (2,0 - 7,1)		7,1 (2,5 - 8,0)		10,0 (3,3 - 12,5)		12,5 (3,3 - 14,0)		14,0 (3,3 - 15,5)		7,1 (3,2 - 8,0)		10,0 (3,3 - 12,5)		12,5 (3,3 - 14,0)		14,0 (3,3 - 15,5)	
EER ¹⁾	Nominal (Min - Max)	W/W		3,35 (5,97 - 2,85) A		2,76 (5,97 - 2,48) D		3,01 (5,09 - 2,74) B		3,05 (4,22 - 2,70) B		3,01 (5,09 - 2,74) B		3,05 (4,22 - 2,70) B		3,22 (3,93 - 2,58) A		4,44 (5,17 - 4,00) A		3,85 (5,17 - 3,50) A		3,64 (5,97 - 3,02) A		3,84 (4,72 - 3,02) A		4,10 (3,93 - 3,38) A		3,50 (3,93 - 3,04) A		3,25 (3,93 - 2,58) A		3,84 (5,0 - 3,02) A		4,10 (3,93 - 3,38) A		3,50 (3,93 - 3,04) A		3,25 (3,93 - 2,58) A	
SEER ²⁾		W/W		5,50 A		5,40 A		5,40 A		5,20 A		5,20 A		5,20 A		5,20 A		5,70 A		5,70 A		6,10 A		6,40 A		5,80 A		6,00 A		5,70 A		5,70 A		5,70 A		5,70 A			
Pdesign		kW		6,0		7,1		10,0		12,5		10,0		12,5		14,0		3,6		5,0		6,0		7,1		10,0		12,5		14,0		7,1		10,0		12,5		14,0	
Input power cooling	Nominal (Min - Max)	kW		1,79 (0,35 - 2,49)		2,57 (0,34 - 3,21)		3,32 (0,53 - 4,20)		4,10 (0,90 - 5,00)		3,32 (0,53 - 4,20)		4,10 (0,90 - 5,00)		4,35 (0,84 - 6,00)		0,81 (0,29 - 1,00)		1,30 (0,29 - 1,60)		1,65 (0,34 - 2,35)		1,85 (0,53 - 2,65)		2,44 (0,84 - 3,70)		3,57 (0,84 - 4,60)		4,31 (0,84 - 6,00)		1,85 (0,64 - 2,65)		2,44 (0,84 - 3,70)		3,57 (0,84 - 4,60)		4,31 (0,84 - 6,00)	
Annual energy consumption [ErP] ³⁾		kWh/a		382		460		648		673		673		673		673		221		307		344		388		603		—		414		614		—		—			
Heating capacity	Nominal (Min - Max)	kW		6,0 (1,8 - 7,0)		7,1 (1,8 - 8,1)		10,0 (2,1 - 13,8)		12,5 (3,4 - 15,0)		10,0 (2,1 - 13,8)		12,5 (3,4 - 15,0)		14,0 (4,1 - 16,0)		4,0 (1,5 - 5,0)		5,6 (1,5 - 6,5)		7,0 (1,8 - 8,0)		8,0 (2,0 - 9,0)		11,2 (4,1 - 14,0)		14,0 (4,1 - 16,0)		16,0 (4,1 - 18,0)		8,0 (2,8 - 9,0)		11,2 (4,1 - 14,0)		14,0 (4,1 - 16,0)		16,0 (4,1 - 18,0)	
Heating capacity at -7/-15°C ⁴⁾		kW		— / —		— / —		9,97 / 8,43		10,97 / 9,03		9,97 / 8,43		10,97 / 9,03		13,35 / 12,38		— / —		— / —		7,52 / 7,65		12,04 / 11,20		13,48 / 12,38		14,24 / 12,69		7,52 / 7,65		12,04 / 11,20		13,48 / 12,38		14,24 / 12,69			
COP ¹⁾	Nominal (Min - Max)	W/W		4,38 (6,32 - 4,12) A		4,10 (6,32 - 3,68) A		3,80 (5,12 - 3,45) A		3,82 (4,66 - 3,41) A		3,80 (5,12 - 3,45) A		3,82 (4,66 - 3,41) A		3,91 (4,56 - 3,08) A		4,55 (6,25 - 4,17) A		4,03 (6,25 - 3,71) A		4,00 (6,32 - 3,81) A		3,85 (4,17 - 3,10) A		4,31 (4,56 - 3,18) A		4,02 (4,56 - 3,08) A		3,60 (4,56 - 3,05) A		3,85 (4,83 - 3,10) A		4,31 (4,56 - 3,18) A		4,02 (4,56 - 3,08) A		3,60 (4,56 - 3,05) A	
SCOP ⁵⁾		W/W		4,00 A		4,00 A		3,80 A		3,80 A		3,80 A		3,80 A		3,80 A		3,90 A		3,90 A		4,00 A		4,00 A		3,80 A		3,80 A		3,90 A		3,80 A		3,80 A		3,80 A			
Pdesign at -10°C		kW		6,0		6,0		9,5		9,5		9,5		9,5		9,5		3,6		4,0		6,0		7,1		10,0		12,5		14,0		7,1		10,0		12,5		14,0	
Input power heating	Nominal (Min - Max)	kW		1,37 (0,29 - 1,70)		1,73 (0,29 - 2,20)		2,63 (0,41 - 4,00)		3,27 (0,73 - 4,40)		2,63 (0,41 - 4,00)		3,27 (0,73 - 4,40)		3,58 (0,90 - 5,20)		0,88 (0,24 - 1,20)		1,39 (0,24 - 1,75)		1,75 (0,29 - 2,10)		2,08 (0,48 - 2,90)		2,60 (0,90 - 4,40)		3,48 (0,90 - 5,20)		4,44 (0,90 - 5,90)		2,08 (0,58 - 2,90)		2,60 (0,90 - 4,40)		3,48 (0,90 - 5,20)		4,44 (0,90 - 5,90)	
Annual energy consumption [ErP] ³⁾		kWh/a		2,100		2,100		3,500		3,500		3,500		3,500		3,500		1,292		1,436		2,100		2,485		3,684		—		2,548		3,684		—		—			
Indoor Unit		S-60PF1E5A		S-71PF1E5A		S-100PF1E5A		S-125PF1E5A		S-100PF1E5A		S-125PF1E5A		S-140PF1E5A		S-36PF1E5A		S-50PF1E5A		S-60PF1E5A		S-71PF1E5A		S-100PF1E5A		S-125PF1E5A		S-140PF1E5A		S-71PF1E8A		S-100PF1E8A		S-125PF1E8A		S-140PF1E8A			
External static pressure ⁶⁾	Nominal (Min - Max)	Pa		100 (10 - 150)		100 (10 - 150)		100 (10 - 150)		100 (10 - 150)		100 (10 - 150)		100 (10 - 150)		100 (10 - 150)		70 (10 - 150)		70 (10 - 150)		70 (10 - 150)		70 (10 - 150)		70 (10 - 150)		70 (10 - 150)		70 (10 - 150)		70 (10 - 150)		70 (10 - 150)		70 (10 - 150)			
Air volume	Hi / Med / Lo	m³/min		21 / 19 / 15		21 / 19 / 15		32 / 26 / 21		34 / 29 / 23		32 / 26 / 21		34 / 29 / 23		36 / 32 / 25		14 / 13 / 10		16 / 15 / 12		21 / 19 / 15		21 / 19 / 15		32 / 26 / 21		34 / 29 / 23		36 / 32 / 25		21 / 19 / 15		32 / 26 / 21		34 / 29 / 23		36 / 32 / 25	
Moisture removal volume	L/h	3,4		4,2		6,0		7,9		6,0		7,9		9,0		2,1		2,8		3,4		4,2		6,0		7,9		9,0		4,2		6,0		7,9		9,0			
Sound pressure ⁷⁾	Hi / Med / Lo	dB(A)		35 / 32 / 26		35 / 32 / 26		38 / 34 / 31		39 / 35 / 32		38 / 34 / 31		39 / 35 / 32		40 / 36 / 33		33 / 29 / 25		34 / 30 / 26		35 / 32 / 26		35 / 32 / 26		38 / 34 / 31		39 / 35 / 32		40 / 36 / 33		35 / 32 / 26		38 / 34 / 31		39 / 35 / 32		40 / 36 / 33	
Sound power	Hi / Med / Lo	dB		57 / 54 / 48		57 / 54 / 48		60 / 56 / 53		61 / 57 / 54		60 / 56 / 53		61 / 57 / 54		62 / 58 / 55		55 / 51 / 47		56 / 52 / 48		57 / 54 / 48		57 / 54 / 48		60 / 56 / 53		61 / 57 / 54		62 / 58 / 55		57 / 54 / 48		60 / 56 / 53		61 / 57 / 54		62 / 58 / 55	
Dimensions	H x W x D	mm		290 x 1.000 x 700		290 x 1.000 x 700		290 x 1.400 x 700		290 x 1.400 x 700		290 x 1.400 x 700		290 x 1.400 x 700		290 x 1.000 x 700		290 x 800 x 700		290 x 800 x 700		290 x 1.000 x 700		290 x 1.000 x 700		290 x 1.400 x 700		290 x 1.400 x 700		290 x 1.400 x 700		290 x 1.000 x 700		290 x 1.400 x 700		290 x 1.400 x 700		290 x 1.400 x 700	
Net weight	kg	33		33		45		45		45		45		45		28		28		33		33		45		45		45		45		45		45		45			
Outdoor Unit		U-60PE2E5		U-71PE2E5		U-100PE1E5		U-125PE1E5		U-100PE1E8		U-125PE1E8		U-140PE1E8		U-36PE2E5A		U-50PE2E5A		U-60PE2E5A		U-71PE1E5A		U-100PE1E5A		U-125PE1E5A		U-140PE1E5A		U-71PE1E8A		U-100PE1E8A		U-125PE1E8A		U-140PE1E8A			
Power source	V	220 / 230 / 240		220 / 230 / 240		220 / 230 / 240		220 / 230 / 240		380 / 400 / 415		380 / 400 / 415		380 / 400 / 415		220 / 230 / 240		220 / 230 / 240		220 / 230 / 240		220 / 230 / 240		220 / 230 / 240		220 / 230 / 240		220 / 230 / 240		380 / 400 / 415		380 / 400 / 415		380 / 400 / 415		380 / 400 / 415			
Recommended fuse	A	—		—		25		30		16		16		16		—		—		—		20		25		30		16		16		16		16					
Connection	mm²	—		—		4		6		2,5		2,5		2,5		—		—		—		2,5		4,0		6,0		2,5		2,5		2,5		2,5					
Current	Cooling	A		8,00 / 7,60 / 7,30		10,70 / 10,30 / 9,85		0,82 / 0,79 / 0,76		19,2 / 18,4 / 17,6		5,10 / 4,85 / 4,70		6,35 / 6,05 / 5,80		6,85 / 6,50 / 6,25		3,75 / 3,55 / 3,40		6,25 / 5,95 / 5,70		7,90 / 7,50 / 7,25		9,00 / 8,70 / 8,40		11,5 / 11,1 / 10,6		17,0 / 16,4 / 15,8		21,2 / 20,5 / 19,8		3,00 / 2,90 / 2,80		3,95 / 3,75 / 3,65		5,85 / 5,55 / 5,35		7,30 / 6,95 / 6,70	
	Heating	A		7,05 / 6,75 / 6,45		8,50 / 8,10 / 7,80		0,81 / 0,78 / 0,75		15,4 / 14,8 / 14,2		4,15 / 3,95 / 3,80		5,15 / 4,90 / 4,70		5,65 / 5,35 / 5,20		3,80 / 3,60 / 3,45		6,05 / 5,75 / 5,50		8,50 / 8,10 / 7,80		8,90 / 8,60 / 8,30		11,8 / 11,4 / 11,0		16,0 / 15,4 / 14,9		19,8 / 19,2 / 18,5		3,00 / 2,90 / 2,80		4,05 / 3,85 / 3,75		5,50 / 5,20 / 5,05		6,85 / 6,50 / 6,25	
Air volume	Cooling / Heating	m³/min		38 / 41		44 / 41		110 / 95		80 / 73		76 / 67		80 / 73		135 / 120		38 / 38		38 / 41		38 / 41		60 / 60		110 / 95		130 / 110		60 / 60		110 / 95		130 / 110					

LOW STATIC PRESSURE HIDE AWAY PACi INVERTER+

The depth of only 250mm provides greater installation flexibility and the unit can be used in more applications. Ideal for sites with narrow ceiling voids.

High heating capacity at -7°C.

Ultra-slim profile: 250mm height for all models.



Technical focus

- Compact indoor units without losing static pressure (Only 250mm high)
- 50 Pa static pressure
- Easy maintenance and service via external electrical box
- 3 speed centrifugal fan through wired or wireless remote control
- DC FAN for better efficiency and control
- Easy connection and control of external fan or ERV using the connector PAW-FDC on the indoor unit PCB. The external device can be control by the remote control of the Panasonic indoor unit

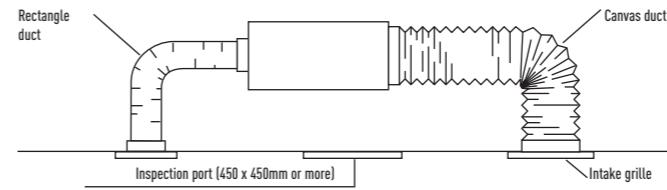


Included Controller: Wired remote controller CZ-RTC4 Compatible with Econavi
 Optional Controller: Timer remote controller CZ-RTCA Compatible with Econavi
 Optional Econavi Sensor: CZ-CENSC1
 Optional Controller: Wireless remote controller CZ-RWSC2 + CZ-RWSC3
 Optional Controller: Simplified remote controller CZ-REZC2



System Example

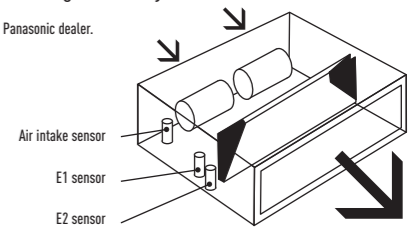
An inspection port (450mm x 450mm or more) is required at the control-box side of the indoor unit body.



Cold Drafts Reduction at Heating

Accurate DX Coil temperature measurement by E1 and E2 sensor to reduce cold drafts at heating and increasing efficiency and comfort.

Before spec-in, please consult with an authorized Panasonic dealer.



		PACi STANDARD												PACi ELITE											
		Single Phase						Three Phase						Single Phase						Three Phase					
		6,0kW	7,1kW	10,0kW	12,5kW	10,0kW	12,5kW	14,0kW	3,6kW	5,0kW	6,0kW	7,1kW	10,0kW	12,5kW	14,0kW	7,1kW	10,0kW	12,5kW	14,0kW						
KIT		KIT-60PN1E5B	KIT-71PN1E5B	KIT-100PN1E5A	KIT-125PN1E5A	KIT-100PN1E8A	KIT-125PN1E8A	KIT-140PN1E8A	KIT-36PN1E5B	KIT-50PN1E5B	KIT-60PN1E5B	KIT-71PN1E5A	KIT-100PN1E5A	KIT-125PN1E5A	KIT-140PN1E5A	KIT-71PN1E8A	KIT-100PN1E8A	KIT-125PN1E8A	KIT-140PN1E8A						
Timer remote controller		CZ-RTC5A	CZ-RTC5A	CZ-RTC5A	CZ-RTC5A	CZ-RTC5A	CZ-RTC5A	CZ-RTC5A	CZ-RTC5A	CZ-RTC5A	CZ-RTC5A	CZ-RTC5A	CZ-RTC5A	CZ-RTC5A	CZ-RTC5A	CZ-RTC5A	CZ-RTC5A	CZ-RTC5A							
Cooling capacity	Nominal (Min - Max)	kW		kW		kW		kW		kW		kW		kW		kW		kW							
EER ¹⁾	Nominal (Min - Max)	W/W		W/W		W/W		W/W		W/W		W/W		W/W		W/W		W/W							
SEER ²⁾		kWh/a		kWh/a		kWh/a		kWh/a		kWh/a		kWh/a		kWh/a		kWh/a		kWh/a							
Pdesign		kW		kW		kW		kW		kW		kW		kW		kW		kW							
Input power cooling	Nominal (Min - Max)	kW		kW		kW		kW		kW		kW		kW		kW		kW							
Annual energy consumption [ErP] ³⁾		kWh/a		kWh/a		kWh/a		kWh/a		kWh/a		kWh/a		kWh/a		kWh/a		kWh/a							
Heating capacity	Nominal (Min - Max)	kW		kW		kW		kW		kW		kW		kW		kW		kW							
Heating capacity at -7/-15°C ⁴⁾		kW		kW		kW		kW		kW		kW		kW		kW		kW							
COP ⁵⁾	Nominal (Min - Max)	W/W		W/W		W/W		W/W		W/W		W/W		W/W		W/W		W/W							
SCOP ⁶⁾		W/W		W/W		W/W		W/W		W/W		W/W		W/W		W/W		W/W							
Pdesign at -10°C		kW		kW		kW		kW		kW		kW		kW		kW		kW							
Input power heating	Nominal (Min - Max)	kW		kW		kW		kW		kW		kW		kW		kW		kW							
Annual energy consumption [ErP] ³⁾		kWh/a		kWh/a		kWh/a		kWh/a		kWh/a		kWh/a		kWh/a		kWh/a		kWh/a							
Indoor Unit		S-60PN1E5A	S-71PN1E5A	S-100PN1E5A	S-125PN1E5A	S-100PN1E8A	S-125PN1E8A	S-140PN1E8A	S-36PN1E5A	S-50PN1E5A	S-60PN1E5A	S-71PN1E5A	S-100PN1E5A	S-125PN1E5A	S-140PN1E5A	S-71PN1E8A	S-100PN1E8A	S-125PN1E8A	S-140PN1E8A						
External static pressure ⁸⁾	Nominal (Min - Max)	Pa		Pa		Pa		Pa		Pa		Pa		Pa		Pa		Pa							
Air volume	Hi / Med / Lo	m³/min		m³/min		m³/min		m³/min		m³/min		m³/min		m³/min		m³/min		m³/min							
Moisture removal volume		L/h		L/h		L/h		L/h		L/h		L/h		L/h		L/h		L/h							
Sound pressure ⁷⁾	Hi / Med / Lo	dB(A)		dB(A)		dB(A)		dB(A)		dB(A)		dB(A)		dB(A)		dB(A)		dB(A)							
Sound power	Hi / Med / Lo	dB		dB		dB		dB		dB		dB		dB		dB		dB							
Dimensions ⁹⁾	H x W x D	mm		mm		mm		mm		mm		mm		mm		mm		mm							
Net weight		kg		kg		kg		kg		kg		kg		kg		kg		kg							
Outdoor Unit		U-60PE2E5	U-71PE2E5	U-100PE1E5	U-125PE1E5	U-100PE1E8	U-125PE1E8	U-140PE1E8	U-36PE2E5A	U-50PE2E5A	U-60PE2E5A	U-71PE1E5A	U-100PE1E5A	U-125PE1E5A	U-140PE1E5A	U-71PE1E8A	U-100PE1E8A	U-125PE1E8A	U-140PE1E8A						
Power source		V		V		V		V		V		V		V		V		V							
Recommended fuse		A		A		A		A		A		A		A		A		A							
Connection		mm²		mm²		mm²		mm²		mm²		mm²		mm²		mm²		mm²							
Current	Cooling / Heating	A		A		A		A		A		A		A		A		A							
Air volume	Cooling / Heating	m³/min		m³/min		m³/min		m³/min		m³/min		m³/min		m³/min		m³/min		m³/min							
Sound pressure	Cooling / Heating (Hi)	dB(A)		dB(A)		dB(A)		dB(A)		dB(A)		dB(A)		dB(A)		dB(A)		dB(A)							
Sound power	Cooling / Heating (Hi)	dB		dB		dB		dB		dB		dB		dB		dB		dB							
Dimensions	H x W x D	mm		mm		mm		mm		mm		mm		mm		mm		mm							
Net weight		kg		kg		kg		kg		kg		kg		kg		kg		kg							
Piping connections	Liquid pipe	Inch (mm)		Inch (mm)		Inch (mm)		Inch (mm)		Inch (mm)		Inch (mm)		Inch (mm)		Inch (mm)		Inch (mm)							
	Gas pipe	Inch (mm)		Inch (mm)		Inch (mm)		Inch (mm)		Inch (mm)		Inch (mm)		Inch (mm)		Inch (mm)		Inch (mm)							
Piping length range / Elevation difference (in/out) ⁹⁾		m		m		m		m		m		m		m		m		m							
Pipe length for additional gas / Additional gas amount		m / g/m		m / g/m		m / g/m		m / g/m		m / g/m		m / g/m		m / g/m		m / g/m		m / g/m							
R410A Refrigerant amount		kg		kg		kg		kg		kg		kg		kg		kg		kg							
Operating range	Cooling Min - Max	°C		°C		°C		°C		°C		°C		°C		°C		°C							
	Heating Min - Max	°C		°C		°C		°C		°C		°C		°C		°C		°C							

1) EER and COP, Energy Saving Classification, is at 220 / 240V (380 / 415V) only in accordance with EU directive 2002/31/EC. 2) SEER is calculated in base Eurovent IPLV for SBEM for U1 indoor unit SEER=a[EER25]+b[EER50]+c[EER75]+d[EER100] where EER25, EER50, EER75 and EER100 are the EER measured value at 25%, 50%, 75% and 100% part load for temperatures 20, 25, 30 and 35°C DB, respectively. a, b, c and d are values assigned for an office type. These values are given as a=0,2, b=0,36, c=0,32 and d=0,03. The internal temperatures are taken at 27°C DB and 19°C WB. 3) The annual consumption(ErP) is calculated by formula determined by ErP regulation. 4) Heating capacity is calculated including defrost factor correction. 5) SCOP is calculated in base Eurovent IPLV for SBEM with U1 indoor unit including defrost correction factor. 6) Medium External static pressure setting from factory. 7) The Sound pressure of the units shows the value measured of a position 1 meter in front of the main body and 1,5 m from the ground. The sound pressure is measured in accordance with Eurovent 6/C/006-97 specification. 8) Add 100mm for piping port. 9) When installing the outdoor unit at a higher position than the indoor unit. // Recommended fuse for the indoor 3A.

STANDARD **ELITE**

SEER and SCOP: For KIT-100PN1E5A. SEER and SCOP: For KIT-100PN1E8A.

INVERTER+ DC FAN R32 REFRIGERANT INTERNET CONTROL CONNECTIVITY 5 YEARS WARRANTY

Accessories	
CZ-RTC4	Standard Wired remote control with Econavi
CZ-RWSK2 + CZ-RWSC3	Wireless remote control
CZ-REZC2	Simplified remote control
PAW-GRDSTD40	Outdoor elevation platform 400 x 900 x 400mm
PAW-WTRAY	Tray for condenser water compatible with base ground support
PAW-GRDBSE20	Outdoor base ground support for noise and vibration absorption (600 x 95 x 130mm, 500kg)
PAW-WPH7	Wind protection shield for U-50PE2E5A
PAW-WPH9	Wind protection shield for U-60PE2E5A, U-71PE1E5A/8A, U-100PE1E5/8, U-125PE1E5/8
PAW-WPH10	Wind protection shield for U-100PE1E5A/8A, U-125PE1E5A/8A, U-140PE1E5A/8A, U-140PE1E8

NEW TECHNOLOGY 17

U-60PE2E5 U-50PE2E5A U-100PE1E5 U-125PE1E5 U-71PE1E8 U-140PE1E8A U-100PE1E8A U-125PE1E8A U-140PE1E8A

WALL MOUNTED PACi INVERTER+

The extension of the range to include a 10kW unit allows for many more applications such as studios, gyms, high ceiling areas and even computer server rooms.

The unit's compact design and flat face ensure discreet installation, even in a small space.

High heating capacity at -7°C.

Technical focus

- 10,0kW capacity unit
- Flat face design for modern appearance
- Compact design offers over 15% reduction in overall size
- Washable front panel
- DC FAN for better efficiency and control
- Three directional piping outlet
- Easy connection and control of external fan or ERV using the connector PAW-FDC on the indoor unit PCB. The external device can be control by the remote control of the Panasonic indoor unit



Included Controller. Wired remote controller CZ-RTCA Compatible with Econavi
 Optional Controller. Timer remote controller CZ-RTCA Compatible with Econavi
 Optional Econavi Sensor. CZ-CENSC1
 Optional Controller. Wireless remote controller CZ-RWSCZ
 Optional Controller. Simplified remote controller CZ-RE2CZ



Washable front panel.

The indoor unit's front panel can be easily removed and washed for trouble-free cleaning.

Closed discharge port.

When the unit is turned OFF, the flap closes completely to prevent dust getting into the unit and to keep the equipment clean.

Quiet operation.

These units are among the quietest in the industry, making them ideal for hotels and hospitals.

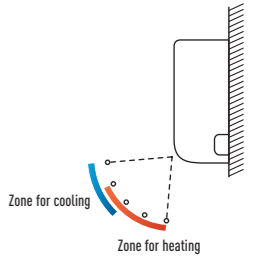
Smooth and durable design.

The sleek, compact design ensures a discreet installation - even where space is limited.

Piping outlet in three directions.

With three options for pipe outlets-rear, right and left - installation is made easy.

Air distribution is altered depending on the operational mode of the unit.



			PACi STANDARD				PACi ELITE						
			Single Phase		Three Phase		Single Phase		Three Phase				
			6,0kW	7,1kW	10,0kW	10,0kW	3,6kW	5,0kW	6,0kW	7,1kW	10,0kW	10,0kW	
			KIT-60PKY1E5B	KIT-71PKY1E5B	KIT-100PKY1E5A	KIT-100PKY1E8A	KIT-36PK1E5B	KIT-50PK1E5B	KIT-60PK1E5B	KIT-71PK1E5A	KIT-100PK1E5A	KIT-71PK1E8A	KIT-100PK1E8A
			CZ-RTCA	CZ-RTCA	CZ-RTCA	CZ-RTCA	CZ-RTCA	CZ-RTCA	CZ-RTCA	CZ-RTCA	CZ-RTCA	CZ-RTCA	CZ-RTCA
Cooling capacity	Nominal (Min - Max)	kW	6,0 (2,0 - 7,1)	7,1 (2,0 - 7,7)	9,0 (2,7 - 9,7)	9,0 (2,7 - 9,7)	3,6 (1,5 - 4,0)	5,0 (1,5 - 5,6)	6,0 (2,0 - 7,1)	7,1 (2,5 - 8,0)	9,5 (3,3 - 10,5)	7,1 (3,2 - 8,0)	9,5 (3,3 - 10,5)
EER ¹⁾	Nominal (Min - Max)	W/W	3,53 (6,67 - 3,09) A	2,90 (6,67 - 2,61) C	2,67 (5,09 - 2,55) D	2,67 (5,09 - 2,55) D	4,56 (6,25 - 4,30) A	3,57 (6,25 - 3,26) A	3,57 (6,67 - 3,02) A	3,40 (5,56 - 3,02) A	3,25 (3,93 - 3,09) A	3,40 (5,71 - 3,02) A	3,25 (3,93 - 3,09) A
SEER ²⁾		W/W	5,50 A+	5,20 A+	5,80 A++	5,70 A++	6,30 A++	6,10 A++	6,60 A++	6,60 A++	6,20 A++	6,10 A++	6,00 A++
Pdesign		kW	6,0	7,1	9,0	9,0	3,6	5,0	6,0	7,1	9,5	7,1	9,5
Input power cooling	Nominal (Min - Max)	kW	1,70 (0,30 - 2,35)	2,45 (0,30 - 2,95)	3,37 (0,53 - 3,80)	3,37 (0,53 - 3,80)	0,79 (0,24 - 0,93)	1,40 (0,24 - 1,72)	1,68 (0,30 - 2,35)	2,09 (0,45 - 2,65)	2,92 (0,84 - 3,40)	2,09 (0,56 - 2,65)	2,92 (0,84 - 3,40)
Annual energy consumption [ErP] ³⁾		kWh/a	382	478	543	553	200	287	318	376	536	407	554
Heating capacity	Nominal (Min - Max)	kW	6,0 (1,8 - 7,0)	7,1 (1,8 - 8,1)	9,0 (2,1 - 10,5)	9,0 (2,1 - 10,5)	4,0 (1,5 - 5,0)	5,6 (1,5 - 6,5)	7,0 (1,8 - 8,0)	8,0 (2,0 - 9,0)	9,5 (4,1 - 11,5)	8,0 (2,8 - 9,0)	9,5 (4,1 - 11,5)
Heating capacity at -7/-15°C ⁴⁾		kW	- / -	- / -	9,97 / 8,43	9,97 / 8,43	- / -	- / -	- / -	7,52 / 7,65	12,04 / 11,20	7,52 / 7,65	12,04 / 11,20
COP ⁵⁾	Nominal (Min - Max)	W/W	4,14 (9,00 - 4,12) A	4,08 (9,00 - 3,60) A	3,70 (5,12 - 3,50) A	3,70 (5,12 - 3,50) A	4,65 (7,89 - 4,20) A	3,76 (7,89 - 3,39) A	4,02 (9,00 - 3,90) A	3,76 (5,00 - 3,10) A	3,85 (4,56 - 3,43) A	3,76 (5,00 - 3,10) A	3,85 (4,56 - 3,43) A
SCOP ⁶⁾		W/W	3,90 A+	3,90 A+	3,80 A+	3,80 A+	4,20 A+	4,00 A+	4,00 A+	3,90 A+	3,80 A+	3,80 A+	3,80 A+
Pdesign at -10°C		kW	6,0	6,0	9,0	9,0	3,6	5,0	6,0	7,1	9,5	7,1	9,5
Input power heating	Nominal (Min - Max)	kW	1,45 (0,20 - 1,70)	1,74 (0,20 - 2,25)	2,43 (0,41 - 3,00)	2,43 (0,41 - 3,00)	0,86 (0,19 - 1,19)	1,49 (0,19 - 1,92)	1,74 (0,20 - 2,05)	2,13 (0,40 - 2,90)	2,47 (0,90 - 3,35)	2,13 (0,50 - 2,90)	2,47 (0,90 - 3,35)
Annual energy consumption [ErP] ³⁾		kWh/a	2.153	2.151	3.316	3.316	1.200	1.749	2.101	2.548	3.500	2.616	3.500
Indoor Unit			S-60PK1E5A	S-71PK1E5A	S-100PK1E5A	S-100PK1E5A	S-36PK1E5A	S-50PK1E5A	S-60PK1E5A	S-71PK1E5A	S-100PK1E5A	S-71PK1E5A	S-100PK1E5A
Air volume	Hi / Med / Lo	m ³ /min	18,0 / 14,5 / 11,5	18,0 / 14,5 / 11,5	19,0 / 16,5 / 13,0	19,0 / 16,5 / 13,0	11,0 / 9,5 / 7,5	14,0 / 12,0 / 10,5	18,0 / 14,5 / 11,5	18,0 / 14,5 / 11,5	19,0 / 16,5 / 13,0	18,0 / 14,5 / 11,5	19,0 / 16,5 / 13,0
Moisture removal volume		L/h	3,4	4,2	5,4	5,4	2,1	2,8	3,4	4,2	5,7	4,2	5,7
Sound pressure ⁶⁾	Hi / Med / Lo	dB(A)	47 / 44 / 40	47 / 44 / 40	49 / 45 / 41	49 / 45 / 41	35 / 31 / 27	40 / 36 / 32	47 / 44 / 40	47 / 44 / 40	49 / 45 / 41	47 / 44 / 40	49 / 45 / 41
Sound power	Hi / Med / Lo	dB	64 / 59 / 54	64 / 59 / 54	65 / - / -	65 / - / -	52 / 46 / 41	57 / 51 / 46	64 / 59 / 54	64 / 59 / 54	65 / - / -	64 / 59 / 54	65 / - / -
Dimensions	H x W x D	mm	300 x 1.065 x 230	300 x 1.065 x 230	300 x 1.065 x 230	300 x 1.065 x 230	300 x 1.065 x 230	300 x 1.065 x 230	300 x 1.065 x 230	300 x 1.065 x 230	300 x 1.065 x 230	300 x 1.065 x 230	300 x 1.065 x 230
Net weight		kg	14,5	14,5	14,5	14,5	13,0	13,0	14,5	14,5	14,5	14,5	14,5
Outdoor Unit			U-60PEY2E5	U-71PEY2E5	U-100PEY1E5	U-100PEY1E8	U-36PE2E5A	U-50PE2E5A	U-60PE2E5A	U-71PE1E5A	U-100PE1E5A	U-71PE1E8A	U-100PE1E8A
Power source		V	220 / 230 / 240	220 / 230 / 240	220 / 230 / 240	380 / 400 / 415	220 / 230 / 240	220 / 230 / 240	220 / 230 / 240	220 / 230 / 240	220 / 230 / 240	380 / 400 / 415	380 / 400 / 415
Recommended fuse		A	-	-	25	16	-	-	-	20	25	16	16
Connection		mm ²	-	-	4,0	2,5	-	-	-	2,5	4,0	2,5	2,5
Current	Cooling	A	8,00 / 7,60 / 7,30	10,70 / 10,30 / 9,85	16,0 / 15,3 / 14,8	16,0 / 15,3 / 14,8	3,75 / 3,55 / 3,40	6,25 / 5,95 / 5,70	7,90 / 7,50 / 7,25	9,70 / 9,40 / 9,20	11,6 / 11,2 / 10,9	3,25 / 3,10 / 3,00	3,95 / 3,75 / 3,60
	Heating	A	7,05 / 6,75 / 6,45	8,50 / 8,10 / 7,80	13,0 / 12,5 / 12,1	13,0 / 12,5 / 12,1	3,80 / 3,60 / 3,45	6,05 / 5,75 / 5,50	8,50 / 8,15 / 7,80	10,2 / 9,90 / 9,70	12,8 / 12,5 / 12,2	3,35 / 3,20 / 3,10	4,35 / 4,15 / 4,00
Air volume	Cooling / Heating	m ³ /min	38 / 41	44 / 41	76 / 67	76 / 67	38 / 38	38 / 41	38 / 41	60 / 60	110 / 95	60 / 60	110 / 95
Sound pressure	Cooling / Heating (Hi)	dB(A)	46 / 48	49 / 49	54 / 54	54 / 54	45 / 46	46 / 48	46 / 49	48 / 50	52 / 52	48 / 50	52 / 52
Sound power	Cooling / Heating (Hi)	dB	65 / 68	69 / 69	70 / 70	70 / 70	64 / 66	65 / 68	65 / 69	65 / 67	69 / 69	65 / 67	69 / 69
Dimensions	H x W x D	mm	619 x 799 x 299	619 x 799 x 299	996 x 940 x 340	996 x 940 x 340	619 x 799 x 299	619 x 799 x 299	619 x 799 x 299	996 x 940 x 340	1.416 x 940 x 340	996 x 940 x 340	1.416 x 940 x 340
Net weight		kg	40	40	73	73	39	39	40	69	98	71	98
Piping connections	Liquid pipe	Inch (mm)	3/8 (9,52)	3/8 (9,52)	3/8 (9,52)	3/8 (9,52)	1/4 (6,35)	1/4 (6,35)	3/8 (9,52)	3/8 (9,52)	3/8 (9,52)	3/8 (9,52)	3/8 (9,52)
	Gas pipe	Inch (mm)	5/8 (15,88)	5/8 (15,88)	5/8 (15,88)	5/8 (15,88)	1/2 (12,7)	1/2 (12,7)	5/8 (15,88)	5/8 (15,88)	5/8 (15,88)	5/8 (15,88)	5/8 (15,88)
Piping length range / Elevation difference (in/out) ⁷⁾		m	3 - 40 / 30	3 - 40 / 30	5 - 50 / 30	5 - 50 / 30	3 - 40 / 30	3 - 40 / 30	3 - 40 / 30	5 - 50 / 30	5 - 75 / 30	5 - 50 / 30	5 - 75 / 30
Pipe length for additional gas / Additional gas amount		m / g/m	30 / 40	30 / 40	30 / 50	30 / 50	30 / 20	30 / 20	30 / 40	30 / 50	30 / 50	30 / 50	30 / 50
R410A Refrigerant amount		kg	1,95	1,95	2,60	2,60	1,40	1,40	1,95	2,35	3,40	2,35	3,40
Operating range	Cooling Min ~ Max	°C	-10 ~ +43	-10 ~ +43	-10 / +43	-10 / +43	-15 ~ +46	-15 ~ +46	-15 ~ +46	-15 ~ +46	-15 ~ +46	-15 ~ +46	-15 ~ +46
	Heating Min ~ Max	°C	-15 ~ +24	-15 ~ +24	-15 / +24	-15 / +24	-20 ~ +24	-20 ~ +24	-20 ~ +24	-20 ~ +24	-20 ~ +24	-20 ~ +24	-20 ~ +24

1) EER and COP, Energy Saving Classification, is at 220 / 240V (380 / 415V) only in accordance with EU directive 2002/31/EC. 2) SEER is calculated in base Eurovent IPLV for SBEM for U1 indoor unit SEER=a[EER25]+b[EER50]+c[EER75]+d[EER100] where EER25, EER50, EER75 and EER100 are the EER measured value at 25%, 50%, 75% and 100% part load for temperatures 20, 25, 30 and 35°C DB, respectively. a, b, c and d are values assigned for an office type. These values are given as a=0,2, b=0,36, c=0,32 and d=0,03. The internal temperatures are taken at 27°C DB and 19°C WB. 3) The annual consumption (ErP) is calculated by formula determined by ErP regulation. 4) Heating capacity is calculated including defrost factor correction. 5) SCOP is calculated in base Eurovent IPLV for SBEM with U1 indoor unit including defrost correction factor. 6) The Sound pressure of the units shows the value measured of a position 1 meter in front of the main body and 1,5 m from the ground. The sound pressure is measured in accordance with Eurovent 6/C/006-97 specification. 7) When installing the outdoor unit at a higher position than the indoor unit. // Recommended fuse for the indoor 3A.

STANDARD ELITE



SEER and SCOP: For KIT-100PKY1E5A. SEER and SCOP: For KIT-60PKY1E5B. INTERNET CONTROL: Optional. Compatible with all Panasonic connectivity solutions. For detailed information go to the Control Systems section.

Accessories	
CZ-RTCA	Standard Wired remote control with Econavi
CZ-RWSCZ	Wireless remote control
CZ-RE2CZ	Simplified remote control
PAW-GRDSTD40	Outdoor elevation platform 400 x 900 x 400mm
PAW-WTRAY	Tray for condenser water compatible with base ground support
PAW-GRDBSE20	Outdoor base ground support for noise and vibration absorption (600 x 95 x 130mm, 500kg)
PAW-WPH7	Wind protection shield for U-50PE2E5A
PAW-WPH9	Wind protection shield for U-60PE2E5A, U-71PE1E5A/8A, U-100PEY1E5/8, U-125PEY1E5/8
PAW-WPH10	Wind protection shield for U-100PE1E5A/8A, U-125PE1E5A/8A, U-140PE1E5A/8A, U-140PEY1E8
PAW-PACR3	Interfaces to run 3 units on Backup and alternative run



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 / 4°C WB. (DB: Dry Bulb; WB: Wet Bulb) Specifications subject to change without notice. For detailed information about ErP, please visit our websites www.aircon.panasonic.eu or www.gtc.panasonic.eu.

HIGH STATIC PRESSURE HIDE AWAY 20-25kW BIG PACi INVERTER+

The 8-10HP from Panasonic is ideally suited for large retail applications and other large areas not needing the higher capacities of VRF systems.

All New "A" Functions

- Control demand 0-10V via CZ-CAPBC2
- Schedule peak cut
- Advanced Energy Saving Functionalities available in Elite series
- Compact design: Good size to install balcony
- Suitable for Mid, Small Project: Piping design is suitable for Light Commercial and Residential project up to

PE2 vs. PE1 series

1. New heat exchanger: better performance 8% higher than PE1
2. New fan: 27% higher air flow rate than PE1
3. New Panasonic compressor: 50% wider capacity range than PE1, better performance. Best partial load ever. 120m maximum piping

New Panasonic Compressor

Best inverter control providing better partial load in industry* 10%-100% Frequency Hz.

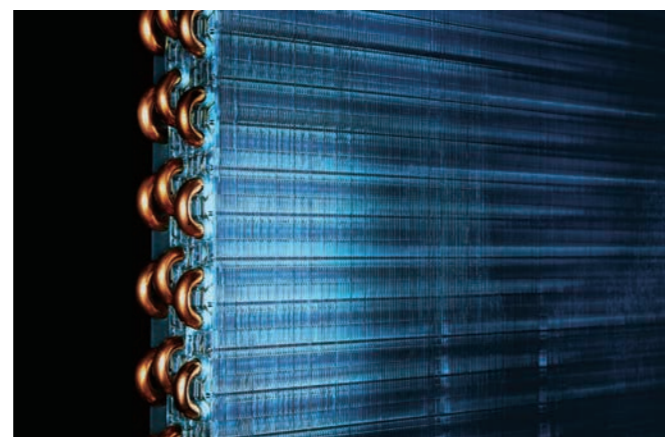
Wider operation Hz range of compressor realize more high efficient operation through the year.

* Compared current model is the unit for European market.



Enlarged heat exchanger surface area

The new heat exchanger has been designed with 8% bigger surface than conventional model. This enlarged surface provides high performance of heat exchange effect. Also, highly efficient piping pattern increases heat exchange performance by 5%.



Bluefin

An air conditioner's performance depends largely on its condenser, which can take a beating from exposure to salty air, wind, dust and other corrosive factors. Panasonic has found a way to expand the life of our condensers, using a layer of our original anti-rust coating. This special coating lets you enjoy more years of reliable comfort plus extra economy over the long run.

Compatible with all Panasonic connectivity solutions



Included Controller: Wired remote controller CZ-RTC5A Compatible with Econavi
Optional Controller: Timer remote controller CZ-RTC4 Compatible with Econavi
Optional Econavi Sensor: CZ-CENS1
Optional Controller: Wireless remote controller CZ-RWSK2 + CZ-RWSC3
Optional Controller: Simplified remote controller CZ-REZC2



Panasonic breaks new ground in offering high performance and power in a small space

The 8-10HP from Panasonic is ideally suited for large retail applications and other large areas not needing the higher capacities of VRF systems. The lightweight and compact design enables easier installation in any commercial space. The twin fan system saves valuable footprint compared to traditional 8-10HP systems which are larger and therefore require more space.

High heating capacity at -7°C.

BIG PACi

KIT	Three Phase	
	20,0kW	25,0kW
Timer remote controller	KIT-200PE2E5A CZ-RTC5A	KIT-250PE2E5A CZ-RTC5A
Cooling capacity	Nominal (Min - Max) kW 19,50 (5,40 - 22,40)	25,00 (6,30 - 28,00)
EER ¹⁾	W/W 3,11 B	2,91 C
Input power cooling	kW 5,97	8,04
Heating capacity	Nominal (Min - Max) kW 22,40 (5,60 - 25,00)	28,00 (7,10 - 31,50)
Heating capacity at -7°C ²⁾	kW 20,00	25,20
Heating capacity at -15°C ²⁾	kW 17,00	21,42
COP ¹⁾	W/W 3,54 B	3,64 A
Input power heating	kW 6,02	7,14
Indoor Unit	S-200PE2E5	S-250PE2E5
Power source	V / ph / Hz 220 - 230 - 240 / 1 / 50	220 - 230 - 240 / 1 / 50
External static pressure at shipment (with booster cable)	Pa 60 - 140 - 270	72 - 140 - 270
Air volume	Hi / Med / Lo m ³ /min 56,0 / 51,0 / 44,0	72,0 / 63,0 / 53,0
Sound pressure ³⁾	Hi / Med / Lo dB(A) 43 / 41 / 38	47 / 45 / 42
Sound power	Hi / Med / Lo dB 75 / 73 / 70	79 / 77 / 74
Dimensions / Net weight	H x W x D mm / kg 479 x 1.453 x 1.205 / 100	479 x 1.453 x 1.205 / 104
Outdoor Unit	U-200PE2E8A	U-250PE2E8A
Power source	V / ph / Hz 380 - 400 - 415 / 3 / 50	380 - 400 - 415 / 3 / 50
Recommended fuse	A 15	20
Air volume	Cooling / Heating m ³ /min 164,0	160,0
Sound pressure ³⁾	Cooling / Heating (Hi) dB(A) 60 / 62	61 / 63
Sound power	dB 72	72
Dimensions ⁴⁾ / Net weight	H x W x D mm / kg 1.500 x 980 x 370 / 127	1.500 x 980 x 370 / 138
Piping connections	Liquid pipe / Gas pipe Inch (mm) 3/8 (9,52) / 1 (25,4)	1/2 (12,7) / 1 (25,4)
Piping length range / Elevation difference (in/out) ⁵⁾	m 5 - 120 / 30	5 - 120 / 30
Pipe length for additional gas / Additional gas amount	m / g/m 30 / 50	30 / 80
R410A Refrigerant amount	kg 5,3	5,3
Operating range	Cooling Min - Max °C -15 ~ +46 Heating Min - Max °C -20 ~ +24	-15 ~ +46 -20 ~ +24

1) EER and COP, Energy Saving Classification, is at 220 / 240V (380 / 415V) only in accordance with EU directive 2002/31/EC. 2) SEER is calculated in base Eurovent IPLV for SBEM for U1 indoor unit SEER=a(EER25)+b(EER50)+c(EER75)+d(EER100) where EER25, EER50, EER75 and EER100 are the EER measured value at 25%, 50%, 75% and 100% part load for temperatures 20, 25, 30 and 35°C DB, respectively. a, b, c and d are values assigned for an office type. These values are given as a=0,2, b=0,36, c=0,32 and d=0,03. The internal temperatures are taken at 27°C DB and 19°C WB. 3) Heating capacity is calculated including defrost factor correction. 4) SCOP is calculated in base Eurovent IPLV for SBEM with U1 indoor unit including defrost correction factor. 5) The Sound pressure of the units shows the value measured of a position 1 meter in front of the main body and 1,5 m from the ground. The sound pressure is measured in accordance with Eurovent 6/C/006-97 specification. 6) Add 100mm for indoor unit or 70mm for outdoor unit for piping port. 7) When installing the outdoor unit at a higher position than the indoor unit.

Accessories

CZ-RTC4	Standard Wired remote control with Econavi
CZ-RWSK2 + CZ-RWSC3	Wireless remote control
CZ-REZC2	Simplified remote control
PAW-GRDSTD40	Outdoor elevation platform 400 x 900 x 400mm
PAW-WPH8	Wind protection shield for U-200PE2E8A and U-250PE2E8A
CZ-TREMIESPW706	Air Outlet Plenum (suitable for rigid + flexible duct) for S-250PE2E5
CZ-TREMIESPW705	Air Outlet Plenum (suitable for rigid + flexible duct) for S-200PE2E5



INTERNET CONTROL: Optional. Compatible with all Panasonic connectivity solutions. For detailed information go to the Control Systems section.
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 / 4°C WB. (DB: Dry Bulb; WB: Wet Bulb)
Specifications subject to change without notice. For detailed information about ErP, please visit our websites www.aircon.panasonic.eu or www.gtc.panasonic.eu.



U-200PE2E8A
U-250PE2E8A

PACi SINGLE, TWIN, TRIPLE AND DOUBLE-TWIN SYSTEM



With this system, a single outdoor unit can split capacity for up to 4 indoor areas simultaneously. This makes the system particularly apt for common areas. It reduces noise concentration and enables the same temperature to be reached around the room. A mix of indoor units can be installed (wall, cassette, duct, ceiling) in one system.

PACi Standard Single and Twin System from 10,0 to 12,5kW

Up to 2 indoor units connectable on the same outdoor. Panasonic's PACi units can be installed as single and twin systems. The indoor units can be combined following the selection table. The operation will always be simultaneous. All the indoor units will work with the same settings.

PACi Elite Twin, Triple and Double-Twin System from 7,1 to 14,0kW

Up to 4 indoor units can be connected to the same outdoor unit. Panasonic's PACi units 100, 125 and 140 can be installed as twin, triple and double-twin systems. The indoor units can be combined as per the selection table. The operation will always be simultaneous. All the indoor units will work with the same settings.

Big PACi Elite Twin, Triple and Double-Twin System from 20,0 to 25,0kW

Up to 4 indoor units can be connected to the same outdoor unit. Panasonic's PACi units 200 and 250 can be installed as twin, triple and double-twin systems. The indoor units can be combined as per the selection table. The operation will always be simultaneous. All the indoor units will work with the same settings.

PACi Standard Single/Simultaneous operation system combinations

kW	Outdoor	Indoor	7,1	10,0	12,5	14,0	
3,6							
5,0		Twin	U-100 S-50 S-50				
6,0					Twin	U-125 S-60 S-60	
7,1	Single ¹		U-71 S-71			Twin	U-140 S-71 S-71
10,0		Single ¹		U-100 S-100			
12,5					Single ¹	U-125 S-125	
14,0						Single ¹	U-140 S-140

PACi Elite from 7,1 to 14,0kW Single/Simultaneous operation system combinations

kW	Outdoor	Indoor	7,1	10,0	12,5	14,0		
3,6		Twin	U-71 S-36 S-36	Triple	U-100 S-36 S-36 S-36	Double-Twin	U-125 S-36 S-36 S-36 S-36	
4,5					Triple	U-125 S-45 S-45 S-45		
5,0				Twin	U-100 S-50 S-50	Triple	U-140 S-50 S-50 S-50	
6,0						Twin	U-125 S-60 S-60	
7,1	Single ¹		U-71 S-71				Twin	U-140 S-71 S-71
10,0		Single ¹		U-100 S-100				
12,5					Single ¹	U-125 S-125		
14,0							Single ¹	U-140 S-140

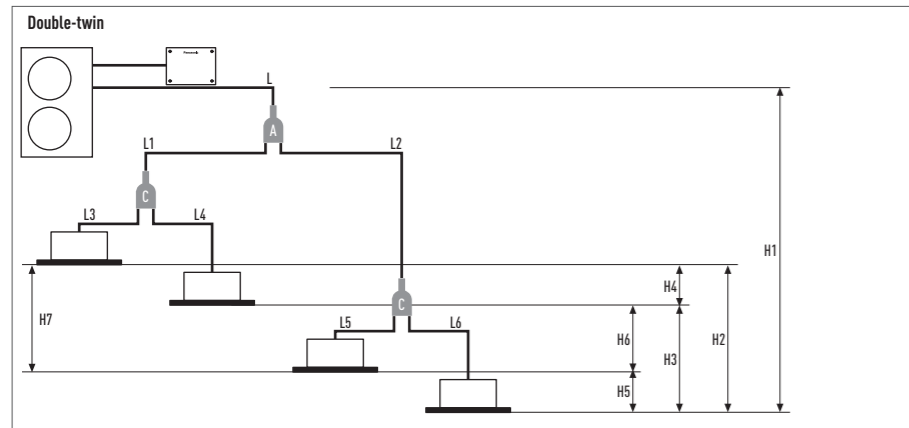
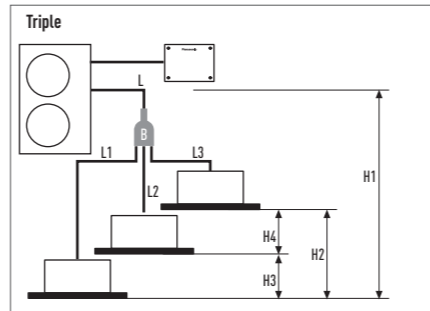
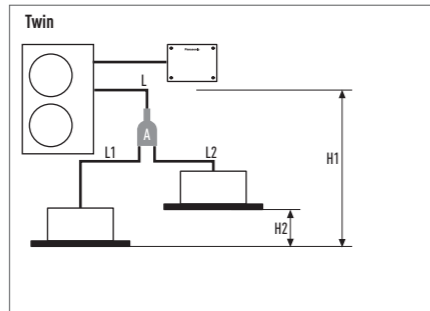
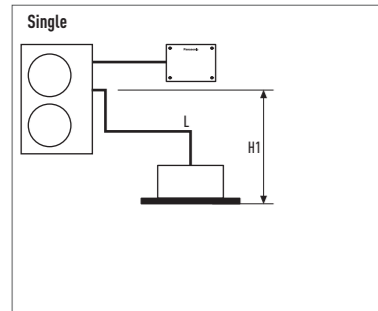
PACi Elite from 20,0 to 25,0kW Single/Simultaneous operation system combinations

kW	Outdoor	Indoor	20,0	25,0	
5,0		Double-Twin	U-200 S-50 S-50 S-50 S-50		
6,0				Double-Twin	U-250 S-60 S-60 S-60 S-60
7,1		Triple	U-200 S-71 S-71 S-71		
10,0		Twin	U-200 S-100 S-100		
12,5				Twin	U-250 S-125 S-125
20,0	Single ¹		U-200 S-200		
25,0				Single ¹	U-250 S-250

Indoor unit capacities	4 Way 90x90 Cassette	4 Way 60x60 Cassette	Ceiling	High Static Pressure Hide Away	Low Static Pressure Hide Away	Wall
3,6kW	S-36PU2E5A	S-36PY2E5A	S-36PT2E5A	S-36PF1E5A	S-36PN1E5A	S-36PK1E5A
4,5kW	S-45PU2E5A	S-45PY2E5A	S-45PT2E5A	S-45PF1E5A	S-45PN1E5A	S-45PK1E5A
5,0kW	S-50PU2E5A	S-50PY2E5A	S-50PT2E5A	S-50PF1E5A	S-50PN1E5A	S-50PK1E5A
6,0kW	S-60PU2E5A		S-60PT2E5A	S-60PF1E5A	S-60PN1E5A	S-60PK1E5A
7,1kW	S-71PU2E5A		S-71PT2E5A	S-71PF1E5A	S-71PN1E5A	S-71PK1E5A
10,0kW	S-100PU2E5A		S-100PT2E5A	S-100PF1E5A	S-100PN1E5A	S-100PK1E5A
12,5kW	S-125PU2E5A		S-125PT2E5A	S-125PF1E5A	S-125PN1E5A	

Outdoor unit capacities	PACi Standard Single and Twin System	PACi Elite Twin, Triple and Double-Twin System from 7,1 to 14,0kW	PACi Elite Twin, Triple and Double-Twin System from 20,0 to 25,0kW
7,1kW	U-71PEY2E5	U-71PE1E5A // U-71PE1E8A	
10,0kW	U-100PEY1E5 // U-100PEY1E8		U-100PE1E5A // U-100PE1E8A
12,5kW	U-125PEY1E5 // U-125PEY1E8		U-125PE1E5A // U-125PE1E8A
14,0kW	U-140PEY1E8		U-140PE1E5A // U-140PE1E8A
20,0kW			U-200PE2E8A
25,0kW			U-250PE2E8A

1. PACi 1x1 Kit solution. / U-__1E5 Single Phase // U-__1E8 Three Phase



PACi Standard Twin System from 10,0 to 14,0kW

Joint distribution (sold separately)
A= CZ-P224BK2BM

PACi Elite Twin, Triple and Double-Twin System from 7,1 to 14,0kW

Joint distribution (sold separately)
A= CZ-P224BK2BM
B= CZ-P3HPC2BM
C= CZ-P224BK2BM

PACi Elite Twin, Triple and Double-Twin System from 20,0 to 25,0kW

Joint distribution (sold separately)
A= CZ-P60BK2BM
B= CZ-P3HPC2BM
C= CZ-P224BK2BM

Compatible Indoor Units			3,6kW	4,5kW	5,0kW	6,0kW	7,1kW	10,0kW	12,5kW	14,0kW
Capacity for all indoor units	Cooling	kW	3,6	4,5	5,0	6,0	7,1	10,0	12,5	14,0
	Heating	kW	4,2	5,2	5,6	7,0	8,0	11,2	14,0	14,0
Wall			S-36PK1E5A	S-45PK1E5A	S-50PK1E5A	S-60PK1E5A	S-71PK1E5A	S-100PK1E5A		
Dimensions	H x W x D	mm	300 x 1.065 x 230	300 x 1.065 x 230	300 x 1.065 x 230	300 x 1.065 x 230	300 x 1.065 x 230	300 x 1.065 x 230	300 x 1.065 x 230	300 x 1.065 x 230
Sound pressure	Hi / Med / Lo	dB(A)	35 / 31 / 27	38 / 34 / 30	40 / 36 / 32	47 / 44 / 40	47 / 44 / 40	47 / 44 / 40		
Air volume	Hi / Med / Lo	m ³ /min	11,0 / 9,5 / 7,5	12,0 / 10,5 / 8,5	14,0 / 12,0 / 10,5	18,0 / 14,5 / 11,5	18,0 / 14,5 / 11,5	19,0 / 16,5 / 13,0		

4 Way 60x60 Cassette Panel			S-36PY2E5A	S-45PY2E5A	S-50PY2E5A
Panel			CZ-KPY3A / CZ-KPY3B	CZ-KPY3A / CZ-KPY3B	CZ-KPY3A / CZ-KPY3B
Dimensions H x W x D	Indoor	mm	260 x 575 x 575	260 x 575 x 575	260 x 575 x 575
	Panel CZ-KPY3A	mm	31 x 700 x 700	31 x 700 x 700	31 x 700 x 700
	Panel CZ-KPY3B	mm	31 x 625 x 625	31 x 625 x 625	31 x 625 x 625
Sound pressure	Hi / Me / Lo	dB(A)	36 / 32 / 26	38 / 34 / 28	40 / 37 / 33
Air volume	Hi / Lo	m ³ /min	9,7 / 9,9	10,0 / 10,3	11,1 / 11,1

4 Way 90x90 Cassette Panel			S-36PU2E5A	S-45PU2E5A	S-50PU2E5A	S-60PU2E5A	S-71PU2E5A	S-100PU2E5A	S-125PU2E5A	S-140PU2E5A
Panel			CZ-KPU3	CZ-KPU3	CZ-KPU3	CZ-KPU3	CZ-KPU3	CZ-KPU3	CZ-KPU3	CZ-KPU3
Dimensions	Indoor H x W x D	mm	256 x 840 x 840	256 x 840 x 840	256 x 840 x 840	256 x 840 x 840	256 x 840 x 840	319 x 840 x 840	319 x 840 x 840	319 x 840 x 840
	Panel H x W x D	mm	33,5 x 950 x 950	33,5 x 950 x 950	33,5 x 950 x 950	33,5 x 950 x 950	33,5 x 950 x 950	33,5 x 950 x 950	33,5 x 950 x 950	33,5 x 950 x 950
Sound pressure	Hi / Me / Lo	dB(A)	30 / 28 / 27	31 / 28 / 27	32 / 29 / 27	38 / 31 / 28	37 / 31 / 28	45 / 38 / 32	46 / 39 / 33	47 / 40 / 34
Air volume	Hi / Me / Lo	m ³ /min	14,5 / 13,0 / 11,5	15,5 / 13,0 / 11,5	16,5 / 13,5 / 11,5	21,0 / 16,0 / 13,0	22,0 / 16,0 / 13,0	36,0 / 26,0 / 18,0	37,0 / 27,0 / 19,0	38,0 / 29,0 / 20,0

Low Static Pressure Hide Away			S-36PN1E5A	S-45PN1E5A	S-50PN1E5A	S-60PN1E5A	S-71PN1E5A	S-100PN1E5A	S-125PN1E5A	S-140PN1E5A
Dimensions	H x W x D	mm	250 x 780 x 650	250 x 780 x 650	250 x 780 x 650	250 x 1.000 x 650	250 x 1.000 x 650	250 x 1.200 x 650	250 x 1.200 x 650	250 x 1.200 x 650
Sound pressure	Hi / Me / Lo	dB(A)	40 / 38 / 35	41 / 39 / 35	41 / 39 / 35	43 / 41 / 36	43 / 41 / 36	44 / 42 / 37	44 / 42 / 37	46 / 44 / 39
External static pressure	Hi / Me / Lo	Pa	80 / 50 / 10	80 / 50 / 10	80 / 50 / 10	80 / 50 / 10	80 / 50 / 10	80 / 50 / 10	80 / 50 / 10	80 / 50 / 10
Air volume	Hi / Lo	m ³ /min	14,0 / 14,0	16,0 / 16,0	16,0 / 16,0	22,0 / 22,0	22,0 / 22,0	36,0 / 36,0	38,0 / 38,0	40,0 / 40,0

Hide Away High Static Pressure			S-36PF1E5A	S-45PF1E5A	S-50PF1E5A	S-60PF1E5A	S-71PF1E5A	S-100PF1E5A	S-125PF1E5A	S-140PF1E5A
Dimensions	H x W x D	mm	290 x 800 x 700	290 x 800 x 700	290 x 800 x 700	290 x 1.000 x 700	290 x 1.000 x 700	290 x 1.400 x 700	290 x 1.400 x 700	290 x 1.400 x 700
Sound pressure	Hi / Me / Lo	dB(A)	33 / 29 / 25	34 / 30 / 26	34 / 30 / 26	35 / 32 / 26	35 / 32 / 26	38 / 34 / 31	39 / 35 / 32	40 / 36 / 33
External static pressure	Hi / Me / Lo	Pa	150 / 70 / 10	150 / 70 / 10	150 / 70 / 10	150 / 70 / 10	150 / 70 / 10	150 / 100 / 10	150 / 100 / 10	150 / 100 / 10
Air volume	Hi / Me / Lo	m ³ /min	14,0 / 13,0 / 10,0	14,0 / 13,0 / 10,0	16,0 / 15,0 / 12,0	21,0 / 19,0 / 15,0	21,0 / 19,0 / 15,0	32,0 / 26,0 / 21,0	34,0 / 29,0 / 23,0	36,0 / 32,0 / 25,0

Ceiling			S-36PT2E5A	S-45PT2E5A	S-50PT2E5A	S-60PT2E5A	S-71PT2E5A	S-100PT2E5A	S-125PT2E5A	S-140PT2E5A
Dimensions	H x W x D	mm	235 x 960 x 690	235 x 960 x 690	235 x 960 x 690	235 x 1.275 x 690	235 x 1.275 x 690	235 x 1.590 x 690	235 x 1.590 x 690	235 x 1.590 x 690
Sound pressure	Hi / Me / Lo	dB(A)	35 / 32 / 30	38 / 33 / 30	38 / 33 / 30	39 / 36 / 33	39 / 36 / 33	42 / 38 / 35	45 / 40 / 37	47 / 41 / 37
Air volume	Hi / Me / Lo	m ³ /min	14,0 / 12,0 / 10,5	15,0 / 12,5 / 10,5	15,0 / 12,5 / 10,5	20,0 / 17,0 / 14,5	21,0 / 18,0 / 15,5	30,0 / 25,0 / 23,0	34,0 / 28,0 / 24,0	35,0 / 29,0 / 25,0

Twin System	PACi Standard Single and Twin System from 10,0 to 14,0kW			PACi Elite Twin, Triple and Double-Twin System from 7,1 to 25kW			
	Indoor unit combinations (see examples above)	Equivalent lengths and height differences (m) for outdoor unit sizes...	Indoor unit combinations (see examples above)	Equivalent lengths and height differences (m) for outdoor unit sizes from 7,1 to 14,0kW		Equivalent lengths and height differences (m) for outdoor unit sizes from 20,0 to 25,0kW	
	Single	Twin	Single	Twin	Triple	Double-Twin	
Total pipe length	L	L + L1 + L2	L	L + L1 + L2	L + L1 + L2 + L3	L + L1 + L2 + L3 + L4 + L5 + L6	U-60/U-71: ≤ 50m U-100/125/140: ≤ 75m
Maximum pipe length from outdoor unit to most distant indoor unit	-	-	-	L + L1 or L + L2	L + L1 or L + L2 or L + L3	L + L1 + L3 or L + L1 + L4 or L + L2 + L5 or L + L2 + L6	≤ 100m
Maximum branch pipe length	-	L1 L2	≤ 15	L1 or L2	L1 or L2 or L3	L1 + L3 or L1 + L4 or L2 + L5 or L2 + L6	≤ 15m
Maximum branch pipe length differences	-	L1 > L2 L1 - L2	≤ 10	L1 > L2: L1 - L2	L1 > L2 > L3: L1 - L2 L2 - L3 L1 - L3	L2 + L6 (Max.) L1 + L3 (Min.): (L2 + L6) - (L1 + L3)	≤ 10m
Maximum pipe length differences after first branch (Double-Twin)	-	-	-	-	-	L2 > L1: L2 - L1	≤ 10m
Maximum pipe length differences after second branch (Double-Twin)	-	-	-	-	-	L4 > L3: L4 - L3 L6 > L5: L6 - L5	≤ 10m
Height difference (outdoor unit located higher)	H1	H1	≤ 30	H1	H1	H1	≤ 30m
Height difference (outdoor unit located lower)	H1	H1	≤ 15	H1	H1	H1	≤ 15m
Height difference between indoor units	-	H2	≤ 0.5	-	H2 or H3 or H4	H2 or H3 or H4 or H5 or H6	≤ 0.5m

Twin System	PACi Standard Single and Twin System from 10,0 to 14,0kW				PACi Elite Twin, Triple and Double-Twin System from 7,1 to 14,0kW				PACi Elite Twin, Triple and Double-Twin System from 20,0 to 25,0kW						
	Outdoor unit main pipe diameter (L)		Indoor unit connection tube (L1, L2)		Outdoor unit main pipe diameter (L)				Outdoor unit main pipe diameter (L) (mm)		Indoor unit connection pipe diameter				
	100	125	50	60	71 - 140	36	45	50	60	71	200	250	100 - 125	50	60 - 125
Liquid pipe (mm)	Ø 9,52	Ø 12,7	Ø 6,35	Ø 9,52	Ø 9,52	Ø 6,35	Ø 6,35	Ø 6,35	Ø 9,52	Ø 9,52	Ø 9,52	Ø 12,7	Ø 6,35	Ø 9,52	Ø 9,52
Gas pipe (mm)	Ø 15,88	Ø 15,88	Ø 12,7	Ø 15,88	Ø 15,88	Ø 12,70	Ø 12,70	Ø 12,70	Ø 15,88	Ø 15,88	Ø 25,4	Ø 25,4	Ø 15,88	Ø 12,7	Ø 15,88
Additional gas amount (g/m)	50	50	20	50	50	20	20	20	50	50	40	80	40	20	40

1. Total capacity of indoor unit connected after the branch

Refrigerant charging: For the twin connection, the amount of refrigerant required for pipe length 30m has been included in this unit at the factory while that required for the Triple / Double-Twin connections. No additional gas amount is required for the first 30m pipe length in the case of the twin connection and for the first 20m in the case of the Triple / Double-Twin connections. The amount of included refrigerant for each model is listed on NAMA PLATE. Make Additional gas amounts by adding up pipe length in an order of main (L branch pipe), (L1, L2, L3 wide diameter) and then selecting the amount of refrigerant corresponding to the remaining (after 30m for the Twin connection and after 20m for the Triple / Double-Twin connections) liquid side pipe diameter and pipe length from the below table.

Compatible Outdoor Units			7,1kW	10,0kW	12,5kW	14,0kW	7,1kW	10,0kW	12,5kW	14,0kW	20,0kW	25,0kW
Outdoor Unit Single Phase			U-71PEY2E5 ¹	U-100PEY1E8	U-125PEY1E8	U-140PEY1E8	U-71PE1E8A	U-100PE1E8A	U-125PE1E8A	U-140PE1E8A	U-200PE2E8A	U-250PE2E8A
Cooling capacity	Nominal (Min - Max)	kW	7,1 (2,0 - 7,7)	10,0 (2,7 - 11,5)	12,5 (3,8 - 13,5)	14,0 (3,3 - 15,5)	7,1 (2,5 - 8,0)	10,0 (3,3 - 12,5)	12,5 (3,3 - 14,0)	14,0 (3,3 - 15,5)	20,0 (6,0 - 22,4)	25,0 (6,0 - 28,0)
Heating capacity	Nominal (Min - Max)	kW	7,1 (1,8 - 8,1)	10,0 (2,1 - 13,8)	12,5 (3,4 - 15,0)	14,0 (4,1 - 16,0)	8,0 (2,0 - 9,0)	11,2 (4,1 - 14,0)	14,0 (4,1 - 16,0)	16,0 (4,1 - 18,0)	21,8 (6,0 - 22,4)	28,0 (6,0 - 31,5)
Power source	Single Phase	V	220 / 230 / 240	220 / 230 / 240	220 / 230 / 240	220 / 230 / 240	—	220 / 240	220 / 240	220 / 240	—	—
	Three Phase	V	—	380 / 400 / 415	380 / 400 / 415	380 / 415	380 / 415	380 / 415	380 / 415	380 / 415	380 / 415	380 / 415
Connection		mm ²	2,50	4,00	6,00	2,50	2 x 1,5 or 2,5	2 x 1,5 or 2,5	2 x 1,5 or 2,5	2 x 1,5 or 2,5	—	—
Air volume	Cooling / Heating	m ³ /min	39,0	76,0 / 67,0	80,0 / 73,0	135,0 / 120,0	60,0 / 60,0	110,0 / 95,0	130,0 / 110,0	135,0 / 120,0	129,0	118,0
Sound pressure	Cooling / Heating (Hi)	dB(A)	47 / 49	54 / 54	56 / 56	54 / 53	48 / 50	52 / 52	53 / 53	54 / 55	57 / 57	57 / 58
Sound power level	Cooling / Heating (Hi)	dB	70 / 70	70 / 70	73 / 73	71 / 70	65 / 67	69 / 69	70 / 70	71 / 71	72	73
Dimensions	H x W x D	mm	619 x 799 x 299	996 x 940 x 340	996 x 940 x 340	1.416 x 940 x 340	996 x 940 x 340	1.416 x 940 x 340	1.416 x 940 x 340	1.416 x 940 x 340	1.526 x 940 x 340	1.526 x 940 x 340
Net weight		kg	40	73	85	98	69	98	98	98	118	128
Piping connections	Liquid pipe	Inch (mm)	3/8 (9,52)	3/8 (9,52)	3/8 (9,52)	3/8 (9,52)	3/8 (9,52)	3/8 (9,52)	3/8 (9,52)	3/8 (9,52)	3/8 (9,52)	1/2 (12,7)
	Gas pipe	Inch (mm)	5/8 (15,88)	5/8 (15,88)	5/8 (15,88)	5/8 (15,88)	5/8 (15,88)	5/8 (15,88)	5/8 (15,88)	5/8 (15,88)	1 (25,4)	1 (25,4)
Refrigerant Loading	R410A	kg	1,7	2,60	3,20	3,4	2,35	3,4	3,4	3,4	5,3	6,5
Elevation difference (in/out)	Max	m	30	30	30	30	30	30	30	30	30	30
Piping length	Min - Max	m	5 - 50	5 - 50	5 - 50	5 - 50	5 - 50	5 - 75	5 - 75	5 - 75	5 - 100	5 - 100
	Cooling Min - Max	°C	-10 - +43	-10 - +43	-10 - +43	-10 - +43	-15 - +46	-15 - +46	-15 - +46	-15 - +46	-15 - +46	-15 - +46
Operating range	Heating Min - Max	°C	-15 - +24	-15 - +24	-15 - +24	-15 - +24	-20 - +24	-20 - +24	-20 - +24	-20 - +24	-20 - +15	-20 - +15

¹⁾ Tentative data.
U-...1E5 Single Phase // U-...1E8 Three Phase



Compatible with all Panasonic connectivity solutions. For detailed information go to the Control Systems section.

PANASONIC VENTILATION SOLUTIONS



Panasonic ventilation solutions for maximum savings and easy integration.

AHU Kit connects PACi outdoor units to Air Handling Units system

Heat exchanger, Fan & Fan motor to be mounted in AHU Kit shall be provided in the field. AHU connection Kit (field supplied) AHU Kit system. (Contents of kit: Control for PCB, expansion valve, sensors). Application: Hotels, offices, server rooms or all large buildings where air quality control such as humidity control and fresh air and is needed.

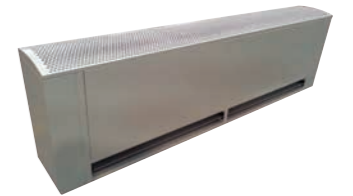


AHU Kit combine air conditioning and fresh air in just one solution. The Panasonic AHU Kits offer a wealth of connectivity possibilities so can be easily integrated into many systems. Application: Hotels, offices, server rooms or all large buildings where air quality control such as humidity control and fresh air and is needed. Besides the advantages in terms of indoor air quality, air conditioning offers also an energy saving potential. For example, while uncontrolled ventilation through open windows leads to large amounts of heat being lost to the outside during the heating season or gained from the outside during the cooling season, air conditioning systems provide possibilities to utilize the extra "free" energy in heat recovery modules so that overall operating costs will be reduced. The larger the area of the comfort range, the better the energy saving opportunities.

Air Curtain with DX Coil

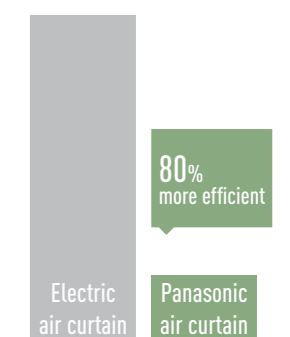
Highly efficient heating effect

The combined air stream, which has a desirable low air current induction factor (mixing factor), can carry the selected initial temperature effect over long distances, and will reach the floor area while still at room temperature. This is necessary to avoid cooling down the interior spaces.



The Panasonic range of air curtains is designed for smooth operation and efficient performance. Air curtains produce a continuous stream of air blown from the top to the bottom of an open doorway and create a barrier that people and products can flow across, but air can't. Designed to improve energy efficiency, minimise heat loss from a building, and to allow retailers to keep doors open to encourage customers, our Air Curtains are suitable for connection to both VRF and PACi Systems.

Heating capacity comparison: Electrical air curtain / Panasonic air curtain



* With the U-100PE1ESA on the PAW-20PAIRC-MS. Calculation method: Taking as consideration SCOP of the Panasonic combination of 6.0. If 100 is the energy needed for a air curtain, Panasonic Air curtain will need 1/(1-6)*100=20.

Electric Air Curtain

Air curtains can help reduce whole building heating or cooling costs by helping to stop heat escaping the building or keeping cooled air in. Panasonic offers two sizes - 900mm and 1200mm electric air curtains. Ideal for separating areas and energy saving.



Technical focus

- 2 sizes: 900mm and 1.200mm
- Powerful air flow (10 m/s)
- Very low noise, only 42 dB

Comfort

- Easy redirection of airflow by means of the manual deflector

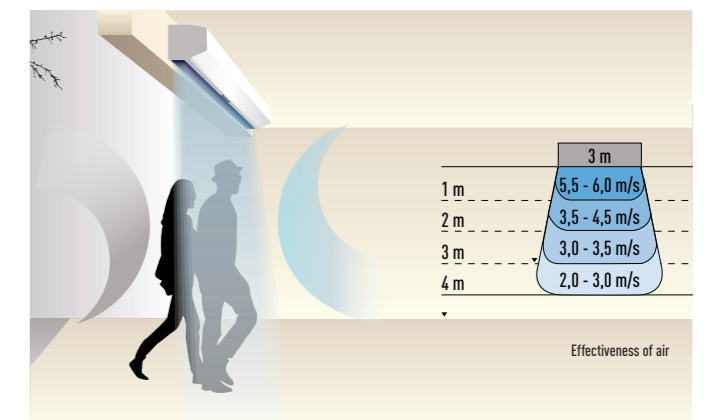
Ease of use

- Speed selector (high and low) on the unit itself

Easy installation and maintenance

- Simple installation
- Compact dimensions improve installation and positioning in any space

			FY-10ESPNAH	FY-10ELPNAH
Width			900	1.200
Watts	Hi	W	71.5	96
	Lo	W	61.5	74
Current	Hi	A	0.40	0.54
	Lo	A	0.29	0.35
Air speed	Hi	m/s	13.0	13.1
	Lo	m/s	11.1	11.0
Air volume	Hi	m ³ /min	12.5	16.7
	Lo	m ³ /min	10.5	13.8
Noise level	Hi	dB(A)	46	46
	Lo	dB(A)	42	41
Weight		kg	11	14



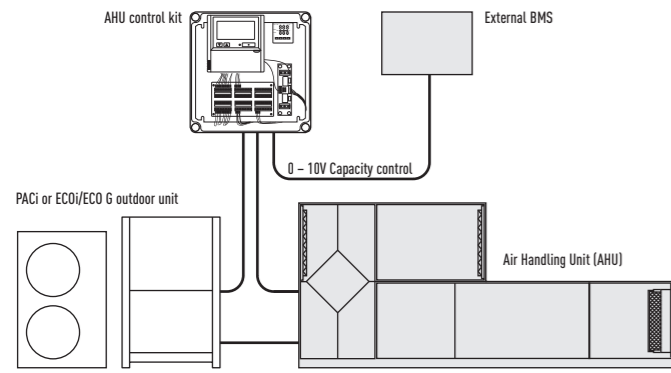
AIR HANDLING UNIT KIT 10-25kW FOR PACi



Panasonic AHU Kit, 10-25kW connected to PACi outdoor unit

The new Air Handling Unit Kit has been developed to better meet customer demand: IP 65 Box in order to be installed outside, 0-10V demand control* and easy control by BMS

* Only available with Elite PACi, up to from 6kW to 14kW.

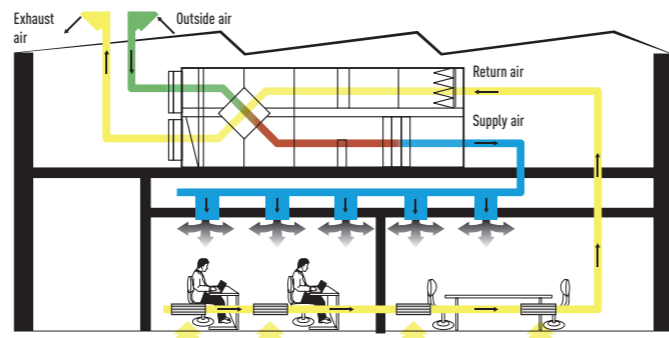


Demand control on the outdoor unit managed by external 0-10 V signal.

- Control option 1: PAW-280PAH2L**
- The system's control is simple: control of actual suction temperature vs. set point
 - Control works in the same way as that of any indoor unit
 - Fan signal issued by the PCB (OFF while defrosting, for instance)
- Control option 2: PAW-280PAH2**
- System control by probe located at air intake. Sensor works as a 0-10V control thermostat which manages the set point temperature. Control to prevent cold draughts.
 - All signals as per standard
- Control option 3: PAW-280PAH2**
- System control by external environment probe. Sensor works as a 0-10V control thermostat which manages the set point temperature. Enhances efficiency by adjusting capacity to the ambient temperature and enhances comfort as well.
 - All signals as per standard
- Control option 4: PAW-280PAH2**
- System control by a 0-10V control working from an external BMS that manages the set point for the temperature or the capacity. Enhances efficiency by adjusting capacity to the ambient temperature and enhances comfort as well.
 - All signals as per standard

Main components of mechanical ventilation systems

The main components of a mechanical ventilation system are the following: Air Handling Unit (AHU), air ducts and air distribution elements.



0-10V control

With the 0-10 v demand control the capacity of the outdoor unit can be controlled by 20 steps.

With the included resistance. 0-10V control scheme with 10V= maximum capacity

Input Voltage* [V]	0 - 0,55	1,1	1,65	2,2	2,8	3,35	3,9	4,45	5,0	5,55	6,1	6,65	7,2	7,8	8,35	8,9	9,45	10,0
Demand (% of nominal current)	Stop ¹	40	45	50	55	60	65	70	75	80	85	90	95	100	105	110	115	No limit / Full capacity ²

When you remove the resistance. 0-10V control scheme with 10V= Thermo-Off

Input Voltage* [V]	0 - 0,5	1,0	1,5	2,0	2,5	3,0	3,5	4,0	4,5	5,0	5,5	6,0	6,5	7,0	7,5	8,0	8,5	9,0	9,5 - 10,0
Demand (% of nominal current)	Stop ¹	40	45	50	55	60	65	70	75	80	85	90	95	100	105	110	115	No limit ²	Thermo-Off ³

* If a voltage range (0 - 0,5 or 9,5 - 10,0V) is indicated, the applied voltage must be within the given limits. However, if a single value (e.g. 1,0V) is indicated, the applied voltage must be within +/-0,1V of the given value to achieve the assigned demand setting.

Examples: "Stop" can be achieved with any analogue input value greater than 0V and less than or equal to 0,5 V; 40% demand can be achieved with any analogue input value greater than or equal to 0,9V and less than or equal to 1,1V etc.

1) Stop: AHU system / indoor unit is completely switched off.

2) No Limit: No restrictions applied by BMS to AHU system / indoor unit performance (equivalent to "full-load operation" of AHU system / indoor unit.

3) Thermo-Off: No cooling / heating operation (compressor is switched off; however, the fans may still be operating). For example, forced Thermo-Off mode can be used for free cooling.

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

CZ-RTC4 Timer remote controller

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

* Fan operation signal can be taken from the PCB.

CZ-CAPBC2 Mini seri-para I/O unit (advanced version only)

- Easy integration in external AHU control systems and BMS
- Demand control: 40 to 115 % (5 % steps) of nominal current by 0-10 V input signal*
- Target temperature setting by 0-10 V or 0-140 Ω input signal*
- Room supply air temperature output by 4-20 mA signal
- Mode select or/and ON/OFF control
- Fan operation control
- Operation status output/ Alarm output
- Thermostat ON/OFF control

* Demand control by external BMS cannot be combined with the demand control or target temperature setting accomplished by the thermostat. However, if simultaneous demand control and target temperature setting is needed, this can only be achieved by using a second (optional) CZ-CAPBC2 interface.

PAW-OCT, DC12 V outlet. OPTION terminal

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

CZ-T10 terminal / PAW-T10 PCB to connect to T10 connector

- A Dry contact PCB has been developed to easily control the unit
- Input signal operation ON/OFF
- Remote control prohibition
- Output signal Operation ON status maximum 230 V 5 A (NO/NC)
- Output signal alarm status max. 230 V 5 A (NO/NC)
- Alarm output (by DC12V)
- Additional available contacts:
 - External humidifier control (ON/OFF) 230 VAC 3 A
 - External fan control (ON/OFF) 12V DC
 - External filter status signal potential free
 - External float switch signal potential free
 - External leakage detection sensor or TH. OFF contact potential free (possible usage for external blow out temperature control)

AHU Kit connects PACi outdoor units to Air Handling Units system

The Panasonic AHU Kits offer a wealth of connectivity possibilities so can be easily integrated into many systems. Application: Hotels, offices, server rooms or all large buildings where air quality control such as humidity control and fresh air and is needed.

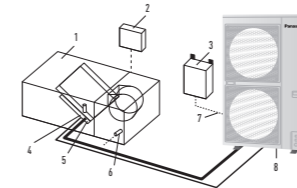
3 types of AHU Kit: Deluxe, Medium and Light

Model Code	IP 65	0-10V demand control*	Outdoor temperature shift compensation. Cold draft prevention
PAW-280PAH2	Yes	Yes	Yes
PAW-280PAH2M	Yes	Yes	No
PAW-280PAH2L	Yes	No	No

* With CZ-CAPBC2.

System & regulations. System overview

- AHU Kit equipment (Field supplied)
- AHU Kit system controller (Field supplied)
- AHU Kit controller box (with control PCB)
- Thermistor for Gas pipe (E2)
- Thermistor for Liquid pipe (E1)
- Thermistor for Suction air
- Inter-unit wiring
- Outdoor unit

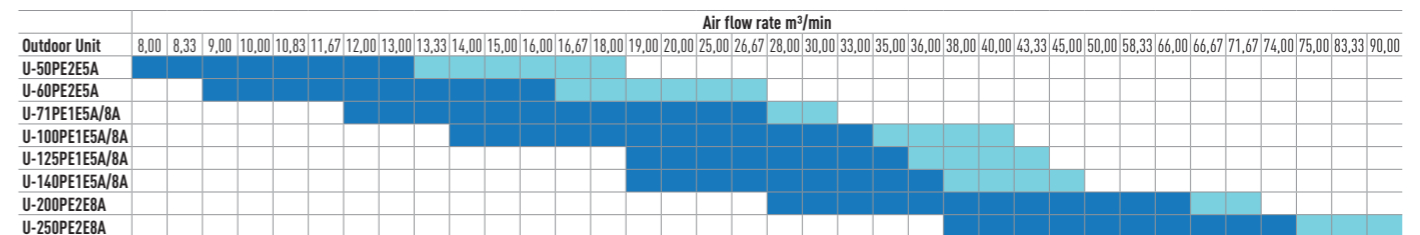


Optional Controller. Timer remote controller CZ-RTC4. Compatible with Econavi

AHU PACi Elite	Cooling capacity	Heating capacity	Air volume	Dimensions	Piping length	Elevation difference (in/out)
	Nominal	Nominal	High / Low	H x B x D	Min / Max	Min / Max
	kW	kW	m ³ /min	mm	m	m
PAW-280PAH2	6 / 25	7 / 28	8,0 / 74,0	404 x 425 x 78	5 / 30*	10
PAW-280PAH2+PAW-280PAH2	50,0	56,0	38,0 / 148,0	404 x 425 x 78	5 / 30*	10

* For U-200PE2E8A and U-250PE2E8A.

AHU connection kit / System combination	Capacity kW	Outdoor unit	AHU	Air volume	Dimensions	Piping length	Elevation difference (in/out)	Piping connections	
				High / Low	H x B x D	Min / Max	Min / Max	Liquid pipe	Gas pipe
				m ³ /min	mm	m	mm	mm	mm
5,0		U-50PE2E5A	PAW-280PAH2	8,0 / 13,0	404 x 425 x 78	5 / 30	10	1/4 (6,35)	1/2 (12,7)
6,0		U-60PE2E5A	PAW-280PAH2	9,0 / 16,0	404 x 425 x 78	5 / 30	10	3/8 (9,62)	5/8 (15,88)
7,5		U-71PE1E5A/U-71PE1E8A	PAW-280PAH2	12,0 / 25,0	404 x 425 x 78	5 / 30	10	3/8 (9,62)	5/8 (15,88)
10,0		U-100PE1E5A/U-100PE1E8A	PAW-280PAH2	14,0 / 33,0	404 x 425 x 78	5 / 30	10	3/8 (9,62)	5/8 (15,88)
12,5		U-125PE1E8A	PAW-280PAH2	19,0 / 35,0	404 x 425 x 78	5 / 30	10	3/8 (9,62)	5/8 (15,88)
14,0		U-140PE1E8A	PAW-280PAH2	19,0 / 35,0	404 x 425 x 78	5 / 30	10	3/8 (9,62)	5/8 (15,88)
20,0		U-200PE2E8A	PAW-280PAH2	28,0 / 66,0	404 x 425 x 78	5 / 70	10	3/8 (9,62)	1 (25,4)
25,0		U-250PE2E8A	PAW-280PAH2	38,0 / 74,0	404 x 425 x 78	5 / 70	10	1/2 (12,7)	1 (25,4)



Standard condition in cooling mode intake air temperature. Rating Conditions: Cooling Indoor 27°C DB / 19°C WB.

Maximum condition in cooling mode intake air restriction temperature Min18°C DB / 13°C WB Max 32°C DB / 23°C WB

AIR CURTAIN WITH DX COIL, CONNECTED TO THE VRF OR PACi SYSTEMS

High efficiency air curtain connected to your VRF installation. EC Fan motor for a smooth operation and efficient performance. 2 types of air flow available: Jet-Flow and Standard. Easy cleaning and servicing.

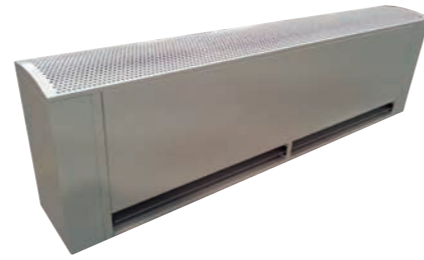
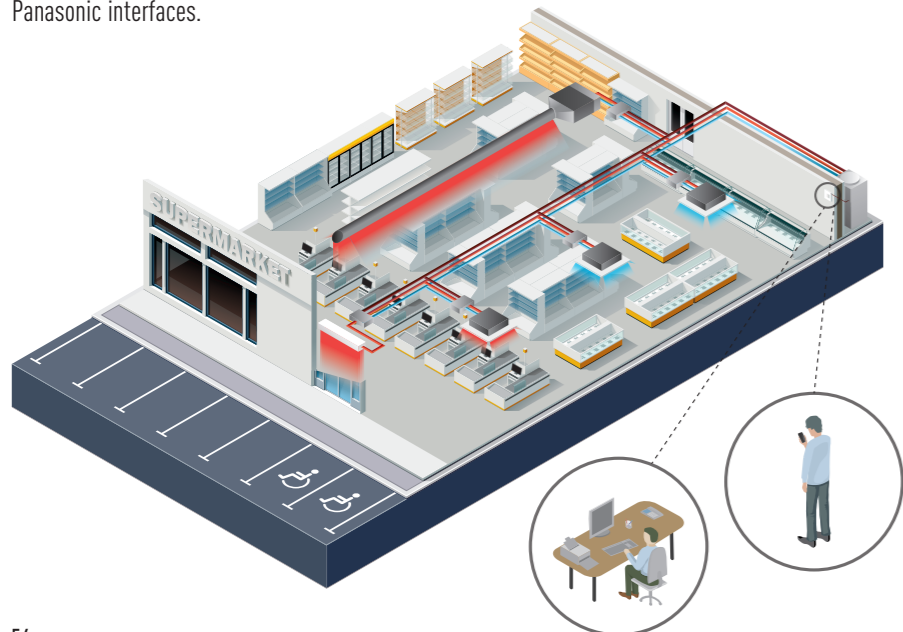
Highly efficient heating effect

The combined air stream, which has a desirable low air current induction factor (mixing factor), can carry the selected initial temperature effect over long distances, and will reach the floor area while still at room temperature. This is necessary to avoid cooling down the interior spaces. Available in different lengths to suit requirements between 1 and 2,5 m, both air curtains have outlet grilles that can be adjusted to five different positions. The jet flow model can be installed up to a height of 3,5 m with the standard model up to 3,0 m. The outlet grilles can be easily adjusted into five positions to suit different installations requirements and the air filter can be accessed without the need for specialist tools.

- Super-efficient with new EC fan motor (40% lower running costs compared to a standard AC fan motor)
 - Easy Cleaning and Servicing
 - Can be connected to either Panasonic VRF or PACi systems
 - Built-in drain for cooling operation
 - Standard and Jet Flow air curtains can be controlled via Panasonic's range of remote internet controls
- The new standard and jet-flow models are ideal for connection to a ECOi or PACi system. With simple "plug and play" installation, both are fitted with an EC fan motor for a smooth operation and efficient performance. This new fan guarantees 40% lower running cost than with a standard AC fan motor. With air curtains often running for 12 hours a day as a minimum, this can lead to considerable savings.

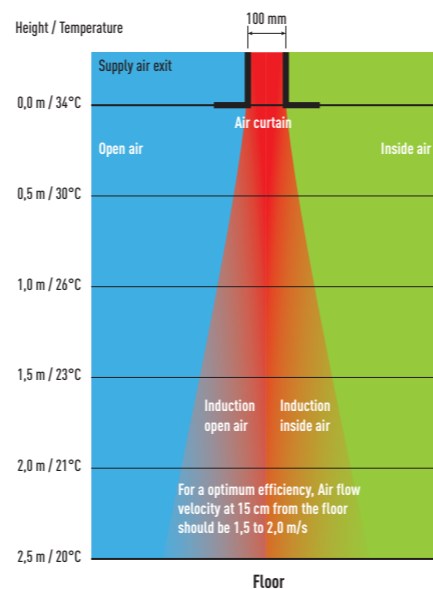
Internet Control

An app added to your tablet or smartphone or via the Internet allows you to control and manage the system remotely. There is also the option to integrate into existing BMS systems by using other Panasonic interfaces.



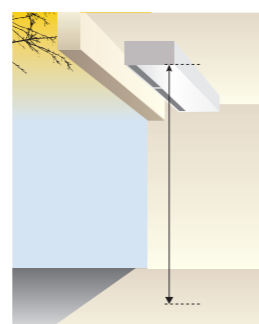
Intelligent Operation

Our air curtains combine airflow and heating / cooling technology to ensure optimum comfort and energy efficiency whilst also creating an effective barrier between indoor and outdoor environments. Design and installation is key to achieving the correct height / temperature settings to achieve optimum performance. Our air curtains are designed to answer the demands of the retail, commercial and industrial markets.



How does it work?

Stale air from the room is taken in and ejected near the door. This creates a 'roll of air' that shields the door area, mixing with the colder incoming air. It then turns away from the door, back into the room and toward the intake screen, where it is partly drawn in again. This flow of air helps to create a barrier for heat loss yet at the same time refreshes room air



Technical focus

- Save up to 40% Energy Costs by use of the integrated EC Fan Technology (Higher efficiency than conventional AC fan, soft start and longer motor duration)
- 3 Lengths of Air Curtains Jet-Flow, from 1,0 to 2,0 m and 2 lengths of Air Curtains Standard, 1,0 and 2,0 m
- Installation Height up to 3,5 m (Jet-Flow) and 3,0 m (Standard)
- Outlet Grilles can be adjusted in five positions, to suite different Indoor and installation requirements (Jet-Flow)
- Control with Panasonic Remote Control systems (optional)
- Direct integration to BMS by optional Panasonic Interfaces
- Drain included for cooling operation

Features

Comfort

- Easy redirection of Airflow by means of manual deflector (Jet-Flow)

Ease of use

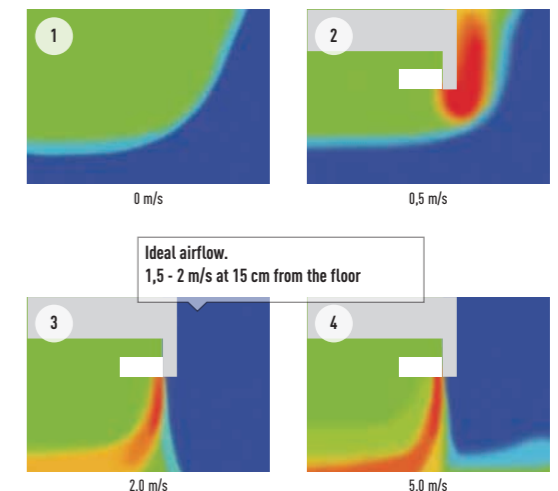
- Speed selector (high and low) on the unit itself

Easy installation and maintenance

- Easy installation
- Compact dimensions improve installation and positioning (Jet-Flow)
- Easy cleaning of grid without opening of the unit

Optimised airflow velocity

1. Energy losses, no air curtain installed
2. Too low velocity air curtain – air curtain not efficient
3. Optimum results with the Tekador air curtain connected to Panasonic VRF
4. Too high velocity air curtain – considerable turbulence, energy lost to the outside, air curtain not efficient



HP	4 HP	6 HP	8 HP	4 HP	8 HP
Air Curtain	PAW-10PAIRC-MJ	PAW-15PAIRC-MJ	PAW-20PAIRC-MJ	PAW-10PAIRC-MS	PAW-20PAIRC-MS
Air flow type	Jet-Flow			Standard	
Air Flow Length (A)	m			m	
Air volume	Hi / Med / Lo	m ³ /min		m ³ /min	
Cooling capacity nominal ¹		kW		kW	
Heating capacity with air in 20°C, air out 40°C		kW		kW	
Heating capacity with air in 20°C, air out 35°C		kW		kW	
Heating capacity with air in 20°C, air out 30°C		kW		kW	
Max installation height	Good / Normal / Bad condition	m		m	
Refrigerant	R410A				
Liquid pipe / Gas pipe	Inch (mm)				
Fan	230V / 50Hz / 1 / N / PE				
Fan type	EC				
Current	Hi / Med / Lo	A		A	
Electrical Consumption	Hi / Med / Lo	kW		kW	
Protecting Fuse	A				
Noise	dB(A)				
Dimensions / Weight	W x H x D	mm / kg		mm / kg	
Outdoor combination with PACi Elite unit 40°C	U-100PE1E5A/8A		U-140PE1E5A/8A	U-200PE2E8A	U-100PE1E5A/8A
Outdoor combination with PACi Standard unit 40°C	U-100PE1E5/8		—	—	U-100PE1E5/8
Outdoor combination with PACi Elite unit 35°C	U-71PE1E5A/8A		U-100PE1E5A/8A	U-140PE1E5A/8A	U-71PE1E5A/8A
Outdoor combination with PACi Standard unit 35°C	U-100PE1E5/8		U-100PE1E5/8	—	U-100PE1E5/8
Outdoor combination with PACi Elite unit 30°C	U-50PE2E5A		U-100PE1E5A/8A	U-100PE1E5A/8A	U-50PE2E5A
Outdoor combination with PACi Standard unit 30°C	U-60PE2E5		U-100PE1E5/8	U-100PE1E5/8	U-60PE2E5

All combinations under rated conditions: Heating Outdoor +7°C DB/+6°C WB Indoor +20°C DB. In case of lower outdoor temperatures a higher capacity outdoor unit model may be necessary.

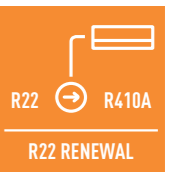
¹) Rated Conditions Cooling Outdoor +35°C DB Indoor +27°C DB/+19°C WB, Discharge temperature ²) 16°C.



R22 RENEWAL FAST, EASY TO INSTALL AND COST EFFECTIVE



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



Why renewal?

Panasonic refrigerant oil doesn't react to the most common oil types used in air-conditioning systems. This ensures the mix of oil does not damage the units. Therefore installations are easier. All Panasonic PACi units can be installed in R22 pipings, no specific models are available. Up to 33 Bar! When there is any doubt about the strength of the piping, the maximum working pressure can be reduced to 33 Bar with a setting in the software of the outdoor unit.

Panasonic are doing our part

Panasonic has developed a clean and cost effective solution to enable this latest legislation to be introduced with as minimum an effect on businesses and cash reserves as possible. The Panasonic renewal system allows good quality existing R22 pipe work to be re-used whilst installing new high efficiency R410A systems. By bringing a simple solution to the problem Panasonic can renew all Split Systems and PACi systems; and depending upon certain restrictions we don't even limit the manufacturer's equipment we are replacing. By installing a new high efficiency Panasonic R410A system you can benefit from around 30% running cost saving compared to the R22 system. 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.

Measurement Procedure for Renewal

Observe the following procedure when reusing the existing piping or carrying out renewal installation work. Flowchart of existing piping measures criteria for PE1 / PE2 Type and PEY1 Type outdoor unit.

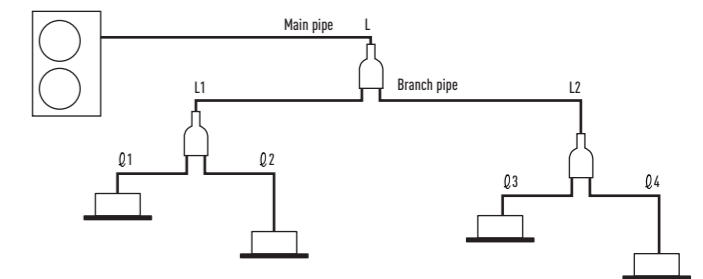
R22 - The reduction of Chlorine critical for a cleaner future

Reuse of existing piping (Renewal Design & Installation)

Notes on reuse of existing refrigerant piping. It is possible for each series of PE1 / PE2 type and PEY1 type outdoor unit to reuse the existing refrigerant piping without cleaning when obtained under certain conditions.

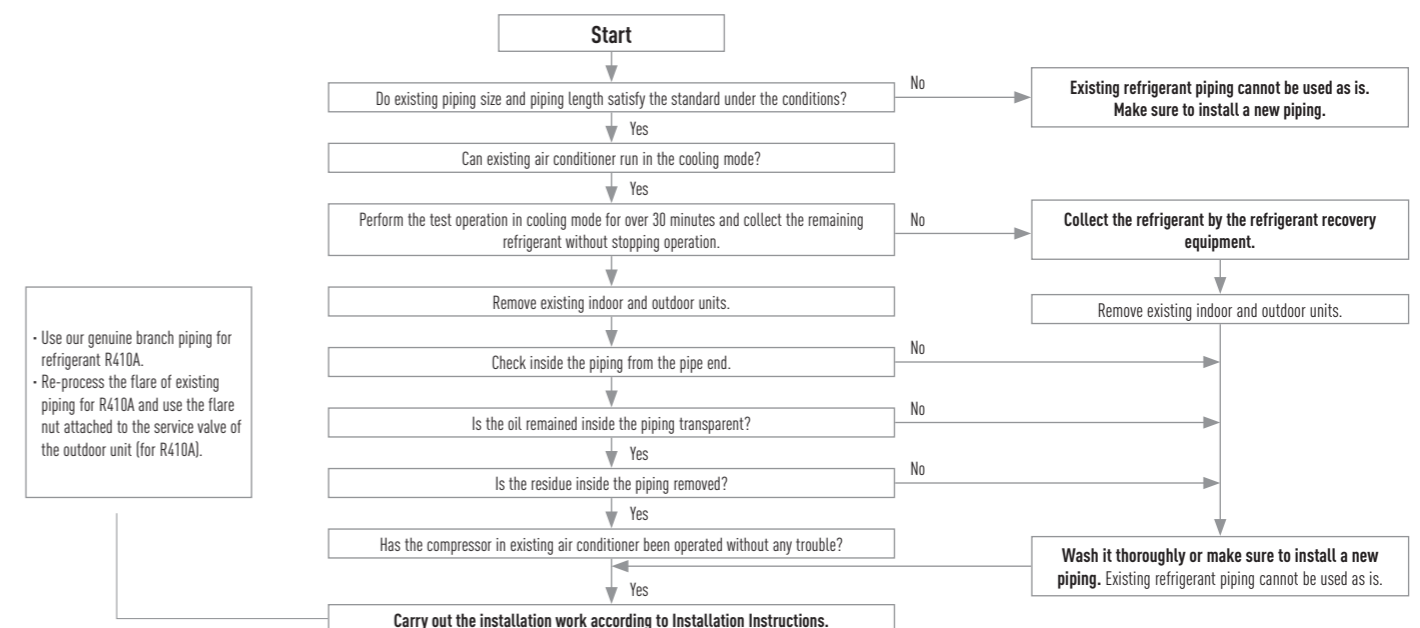
Notes on renewal for simultaneous operation of multiple units

Only main pipe is applicable for using the different diameter size. In case of different diameter size for the branch pipes, a new installation work for a standard size is necessary. Be sure to use our genuine branch piping for refrigerant R410A.



Capacity class	Standard liquid pipe size	Standard gas pipe size
Type 50	Ø 6,35	Ø 12,7
Type from 60 to 140	Ø 9,52	Ø 15,88
Type 200	Ø 9,52	Ø 25,4
Type 250	Ø 12,7	

- Only the main pipe L can be used among different diameter's existing piping
- Installation work as a standard size is capable for L1, L2, Q1 - Q4 piping
- Be sure to use our genuine branch piping for refrigerant R410A



- Use our genuine branch piping for refrigerant R410A.
- Re-process the flare of existing piping for R410A and use the flare nut attached to the service valve of the outdoor unit (for R410A).

Prerequisite: - If the refrigerant used for the existing unit is other than R22, R407C and R410A, the existing refrigerant piping cannot be used. - If the existing unit has another use than air conditioning, then existing refrigerant piping cannot be used.

CONTROL AND CONNECTIVITY

NEW PACi
TECHNOLOGY
'17

Panasonic has developed the largest range of control systems to offer the best option to each need.

From the individual remote control for the residential single units up to the newest technology to control each your buildings around the world from an easy to use software in the cloud by your portable device.



PANASONIC AC SMART CLOUD



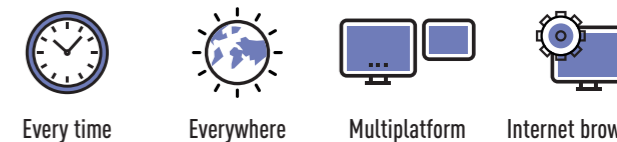
Flexible solution and scalable solution

- Energy saving
- Zero downtime
- Site(s) management

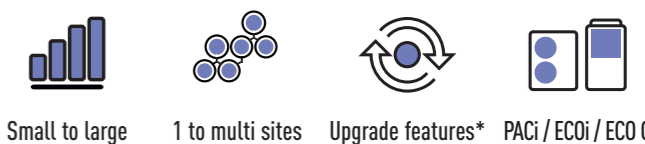
Centralize control of your business premises, from wherever you are, 24/7/365. It doesn't matter how many sites you have, or where they are! The AC Smart Cloud system from Panasonic allows you to have complete control of all your installations, from your tablet or from your computer. In a simple click, all your units from several locations, receive status updates in real-time of all your installations, preventing breakdowns and optimizing costs.

With Panasonic AC Smart Cloud, have your business under control, and start saving!

Flexible solution for your business



Scalable solution for your business



*Customized to meet user demand / Upgraded new functions / Upgraded by new products / IT smart management.

Key functions and uniqueness

Multi site monitoring

- It doesn't matter how many sites you have, easy to manage, operate, compare per sites, locations, rooms.



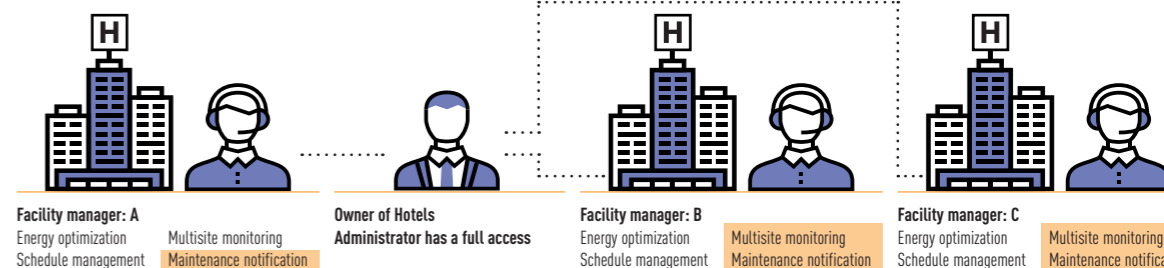
Schedule setting

- Weekly / holiday timer setting as you want
- One setting can be copied to other sites



User customization

Site administrator can create users as desired and assign customized profiles.



Powerful statistics for energy savings

- Power consumption, capacity, efficiency level can be compared per different parameters (Yearly / monthly / weekly / daily bases)



Maintenance notification

- Error notification by email and with floor layout
- Maintenance notification of ECOi / ECO G outdoor units



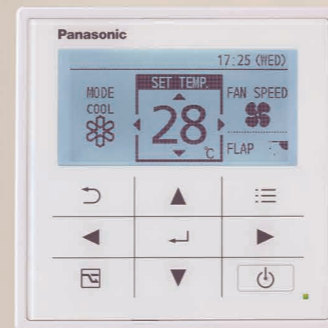
One of our uniqueness is "Stable and secured communication package"

- Connectivity is included in the service. Customers do not have to take time to find and prepare suitable connectivity.
- With an all inclusive service offering, the customer has peace of mind and a one stop shop for all AC Smart Cloud issues they may face including connectivity



REMOTE CONTROLLER WITH ECONAVI

NEW TECHNOLOGY 17



Easy to use, attractive, clear design, with new demand control functions and energy consumption display! This useful feature makes this remote control unique!

Design

The new CZ-RTC5A wired remote control is ideal for integration into the most demanding interior architectures. The touch panel features a very sleek and easy to use display, which with its compact display is only 120 x 120 x 16mm.

Display of information

The information is mainly based on pictograms to ensure easy understanding. The minimal amount of text is available in 4 languages (English / German / French / Spanish / Italian). The screen is back lit to enable reading even during the night.

Easy Access to the menus

With the new pictograms, the navigation, the selection and the settings are simple and easy to follow.

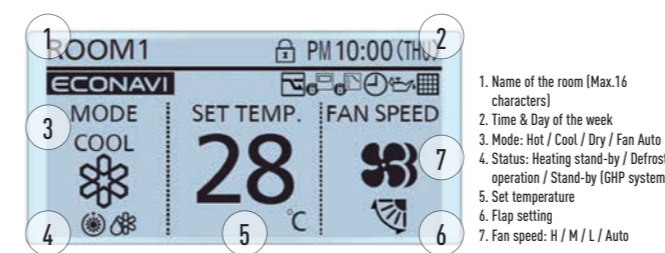
Key Functions

- Easy setup of the timer and settings of the indoor unit
- Energy consumption display (only available with PACi units with the reference ending with A)
- Limitation of the energy consumption (Demand control) by timer.

Basic function (Operation display & indication)

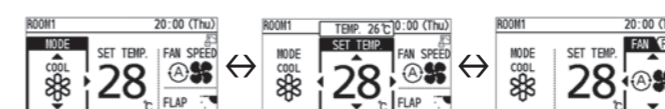
All functions are easily available on the remote controller.

- OFF/ON timer • Weekly timer • Quiet operation • Remote control sensor • Operation prohibit • Filter sign • Energy saving • Centralized control indication • Mode change prohibit • Automatic temperature return • Temperature range limitation • OFF remind • Schedule demand control • Ventilation • Out Function



Easy operation and quick access to all menus

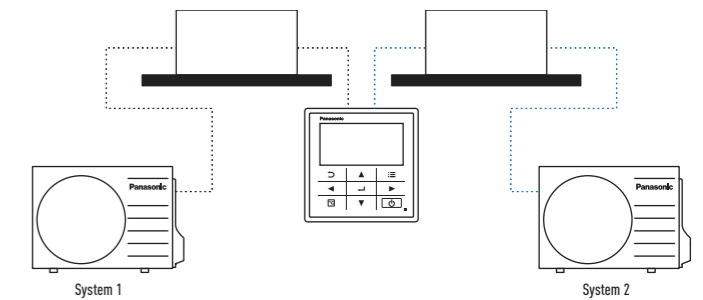
1. Set temperature will be selected, when any arrow button is touched
2. Select the item (Mode or Fan speed) by left/right ◀▶ key
3. Change the setting by up/down ▲▼ key



Backup control by using CZ-RTC5A

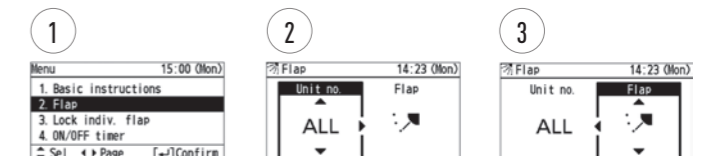
Group wiring of 2 systems of PACi can do auto individual control.

- Rotation operation
- Backup operation
- Support operation



Example of easy access to the functions: Air direction setting

1. Select "Air direction" and press "determine" key
2. Select the unit number by up/down key
3. Select the flap position by up/down key
4. Press "Return" key to go back the Menu display



Functions available on the CZ-RTC5A

Control item	Controllability	Indoor Units		
		PACi Standard	PACi Elite	All VRF
Basic Operation	Operation, Mode, Temperature setting, Airflow volume, Airflow direction	✓	✓	✓
	Time display	✓	✓	✓
	Easy ON/OFF timer	✓	✓	✓
	Weekly Program timer	✓	✓	✓
Energy saving	Outing function	✓	✓	✓
	Temperature auto return	✓	✓	✓
	Temperature setting range limitation	✓	✓	✓
	OFF remind	✓	✓	✓
	Energy saving mode	✓	✓	✓
Maintenance	Schedule demand control	—	✓	✓
	Energy monitoring	—	✓	—
	System failure information	—	✓	—
	Service contact registration	✓	✓	✓
	Filter sign (rest time display) & Reset	✓	✓	✓
	Auto-address, Test run	✓	✓	✓
	Sensor value monitor	✓	✓	✓
Others	Simple / Detail setting mode	✓	✓	✓
	Key lock	✓	✓	✓
	Ventilation fan control	✓	✓	✓
	Display contrast adjustment	✓	✓	✓
	Remote controller sensor	✓	✓	✓
Quiet operation mode	—	✓	—	
Prohibit setting control from Central controller	✓	✓	✓	

All specifications subject to change without notice.

ECONAVI SENSOR



The all new Econavi Sensor detects presence in the room, and quietly adapts the PACi or VRF air conditioning system in order to improve comfort and maximise energy savings.

- Detects human activity and adjusts temperature by 2 degrees (up or down) to optimize comfort and efficiency
- If there is no activity detected for a set time, the Econavi will stop the unit or move to a new temperature previously set
- The Econavi device is installed independently of the indoor unit, and is located in the area best suited for detection

Applications

Saving Energy for Offices: if the air conditioning is left on after the last employee leaves the office, Econavi will automatically react, reducing or stopping the system.
Increased comfort in hotel rooms: when presence is detected in the room, the temperature is automatically adjusted to achieve best comfort.

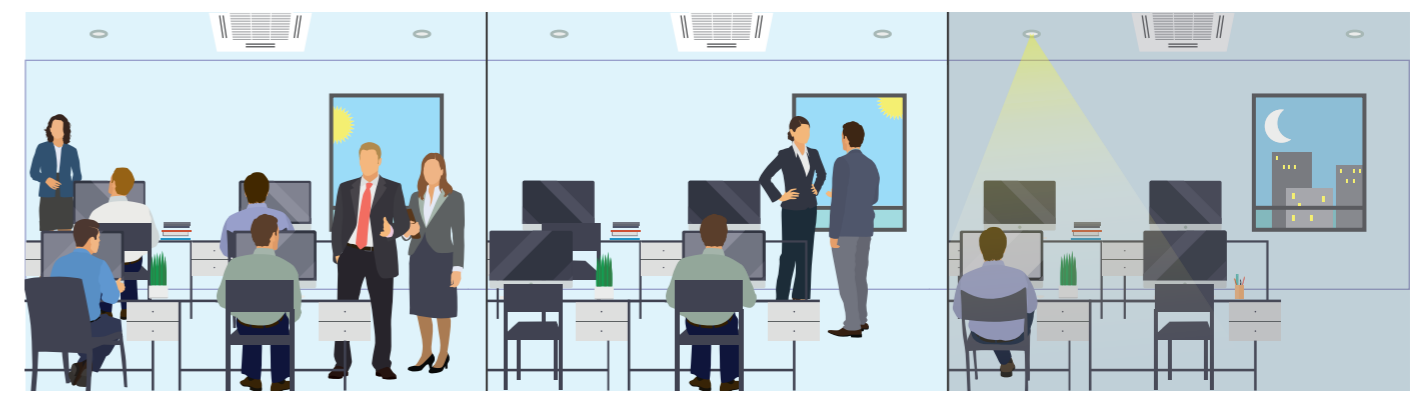
Key points

- Compatible with Cassette, Wall Mounted, Hide Away and Ceiling
- Improves efficiency
- Better Comfort
- Can be installed in the best place of the room for detection purposes

Providing outstanding energy-saving performance, Panasonic's Inverter system can be connected to Econavi to detect when energy is being wasted. Econavi senses the presence or absence of people and the level of activity in each area of an office. When unnecessary heating or cooling is detected, indoor units are individually controlled to match office conditions for energy-saving operation.

Detection of the level of activity enables precise power saving

Presence or absence of people at their desks and the level of activity in the office are detected in real time. Set temperature is automatically adjusted to optimise the lower power consumption.

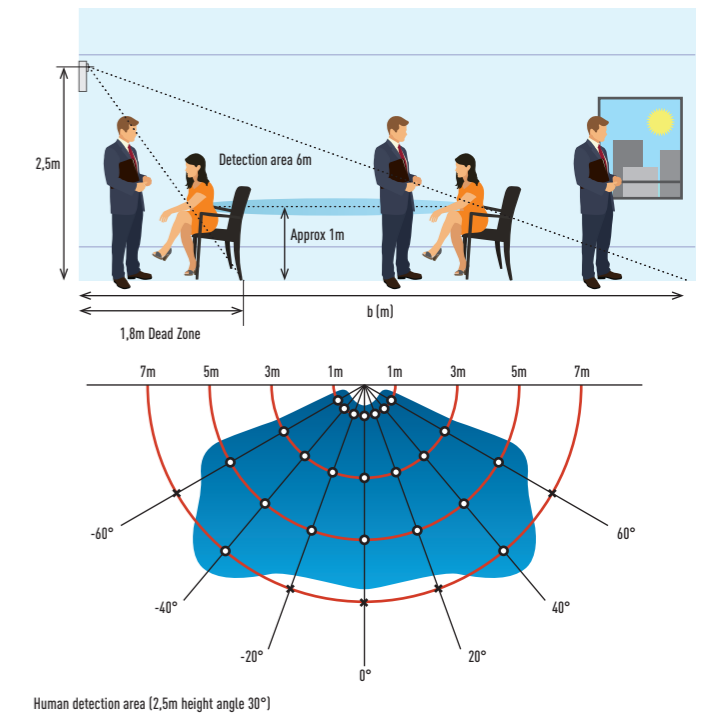


In the morning
Thorough cooling when there is a high level of activity

In the afternoon
Reduced cooling when there are fewer people

At night
Automatic Thermo Off depending on conditions at the end of the day

Sensor location image



Remote Econavi sensor allows optimum energy operation

Pillars, walls, cabinets and other fittings obstruct the sensor, reducing the area of detection and lowering the energy-saving effect. Taking into consideration blind spots, Panasonic enables the optimum layout for sensors in any office.

NEW INTELLIGENT CONTROLLER

NEW TECHNOLOGY 17



This controller is the smart solution for your advanced requirement in buildings.

Intuitive operation

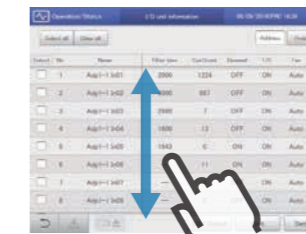
The screens used for operations all follow a common pattern, with the screens being easy to read and easy to use.

- Enlarged screen (10,4 inch) with colour LCD
- Smartphone-like operations (Swiping, flicking)

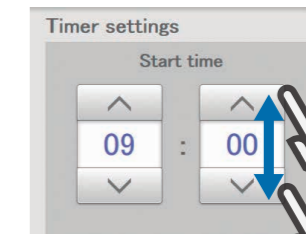
Large screen display. Enlarged by 60%



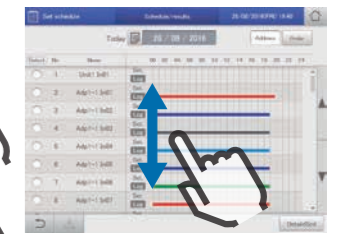
Easy Swipe or flick operation



Swipe
This is an operation where the finger is slid in a direction (up or down) on the touch panel. This is used to scroll slowly.



Select
This is an up and down movement of the finger touching the screen, used to pick settings in elements such as spin boxes.

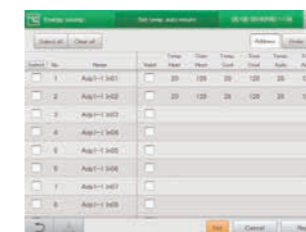


Pull out
This is an operation where the finger on the touch panel is flicked in a direction (up or down). This is used to scroll quickly.

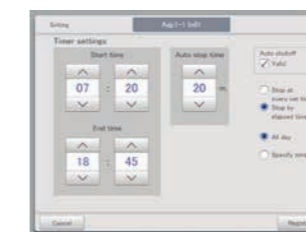
Enhanced functions for energy saving as standards

- Set temperature auto return settings, Auto shutoff, Set temperature range limit settings
- Demand control function

Screen of Set temperature auto return setting



Auto shutoff



Screen of Outdoor demand control

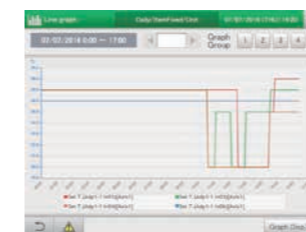


- Outdoor demand input and timer settings possible
- Indoor can be set at $\pm 1^{\circ}\text{C}$ / $\pm 2^{\circ}\text{C}$ or thermostat OFF
- Indoor units controlled in sequence at 10-minute intervals

Energy Visualization

- Energy-saving plans are supported with graph display function
- Displays electricity & gas usage distribution

Screen of graph display



Useful parameters are shown for your better energy saving.

Ex.) Bar graph:

- Indoor Unit: Total operating time, thermostat ON operation time (Min.)
- Amount used (electricity, gas)
- Electricity or gas charges
- Outdoor unit: Outdoor unit operation cycles (# cycles)
- Engine time in operation (Hrs.)
- Cumulative Inverter power output
- Cumulative PV power output

Pulse value selection per different data intervals 1 hour/1 day/ 1 month compared with last year.

Main new function

Gesture function (Flick, Swipe)	✓
Graph display (Trends, comparisons)	✓
Web functions (Max. 64 users)	✓
Recipient setting for warning email	✓ (Maximum 8)
Automatic return to setting temperature	✓
Limitation of setting temperature range	✓
Left-on prevention	✓
Quiet operation of outdoor unit	✓
Occupant sensor linkage	✓
Demand function	✓
Charge calculation	✓
Log display	Warning 10,000 items Status change 50,000 items
Linked control Event definition 50 events, Input: 32, Output: 32	✓
Under maintenance (Under inspection registration)	✓

CONTROL FOR HOTEL APPLICATION



More easier to install, cheaper to integrate one only control to integrate all devices. Nice, easy and cost effective! Panasonic has developed an innovative line up of remote controls specially designed for applications.

- Easy to install
- Cost effective installation as all electrical cable are centralized on this remote
- Architect inspired attractive design
- Direct connection to the Indoor unit with most of the functions of the indoor unit
- 3 options available: Stand-Alone, Modbus or LonWorks communication
- 2 frame colours: White and aluminium

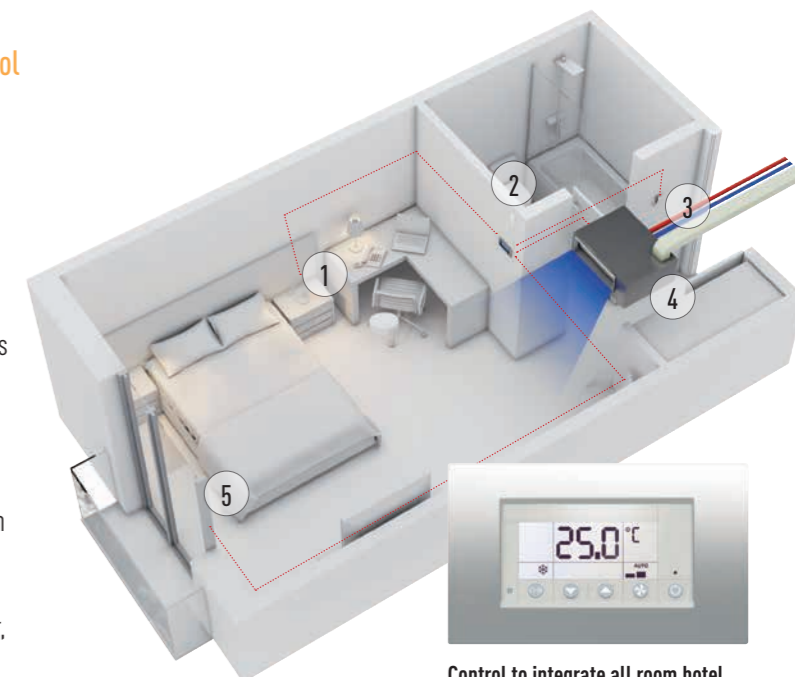
From this remote control: The lighting, card contact, motion detector, window contact and the air conditioning are controlled.

Energy saving functions included on the device: Turns Off air conditioning and lighting when room is unoccupied. Disables air conditioning when window is open. Maximum/minimum setpoint temperature configurable

Easy remote control: The hotel customer will have access to limited functions to control the air conditioning:

ON/OFF, Temperature (under a certain limit fixed during the start up) and Fan speed

Easy set up: Stand-Alone model with easy configuration menu to access all parameters. The installation is simplified as all the cables should arrive to the remote control. A pre-define scenario can be uploaded on the remote control connected to a computer to make installation on site plug and play (only on the Modbus and LonWorks models).



Control to integrate all room hotel needs in one device: Card switch. Heating and cooling control. Light control. Window control. Possible to connect to Modbus



Lighting control

- 3. Room card switch*
- 2. Human sensor



Indoor unit. Variable static pressure hide away

- 5. Window contact*
- * Field supply

Four preconfigured systems (option 1 to 4)

The remote control have a 4 preconfigured systems in order to easily integrate it.

4 options available I/O configurations: Inputs

Configurations	Digital 1-2	Digital 3-4	Digital 5-6	Analog 7-8
Option 1	Card	Window	Lighting	Temperature
Option 2	Card	Window	Blinds up	Blinds down
Option 3	Motion sensor	Window	Door contact	Temperature
Option 4	Lighting	Window	Blinds up	Blinds down

Available I/O Configurations: Outputs

Configurations	Relay 15-16	Relay 13-14	Relay 11-12	Relay 9-10
Option 1	Courtesy	Lighting	Not used	Valve actuator
Option 2	Courtesy	Lighting	Blinds up	Blinds down
Option 3	Courtesy	Lighting	Not used	Valve actuator
Option 4	Not used	Lighting	Blinds up	Blinds down

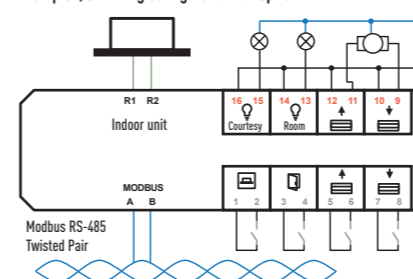
I/O Definitions: Inputs

Description	Functionality
Card	Occupancy room status. Enable HVAC Control and automatically switches ON Courtesy and Lighting outputs
Window	Temporary disables HVAC System
Lighting	Push button to turn ON/OFF Lighting Output when room occup.
Temperature	Analog input for Valve Actuator output control on 2nd zone
Blinds up	Push button for Blind Up motor output control
Blinds down	Push button for Blind Down motor output control
Motion sensor	In combination with Door Contact, enables HVAC Control and automatically switches ON Courtesy and Lighting outputs
Door contact	In combination with Motion Sensor, enables HVAC Control and automatically switches ON Courtesy and Lighting outputs

I/O Definitions: Outputs

Description	Functionality
Courtesy	Automatically turns ON when room changes to occupied or unoccupied mode. It turns to OFF after a configurable time-out
Lighting	Automatically turns ON/OFF when room changes to occupied/unoccupied. Manual override with Lighting input
Valve actuator	HVAC Control for a 2nd zone
Blinds up	Output for Blind Up motor control
Blinds down	Output for Blind Down motor control

Example I/O: Wiring configuration for Option 2



Example I/O: Option 2

Terminals	Description	Type
A, b	Modbus RS-485	Bi-directional
R1, r2	Indoor unit	Bi-directional
1, 2	Card contact	Digital input
3, 4	Window contact	Digital input
5, 6	Blinds up	Digital input
7, 8	Blinds down	Analog input
9, 10	Blinds down	Relay output
11, 12	Blinds up	Relay output
13, 14	Lighting room	Relay output
15, 16	Lighting courtesy	Relay output

Panasonic Reference

PAW-RE2C3-WH	Stand-Alone with I/O White frame
PAW-RE2C3-GR	Stand-Alone with I/O Grey Frame
PAW-RE2C3-MOD-WH	Modbus RS-485 with I/O White frame
PAW-RE2C3-MOD-GR	Modbus RS-485 with I/O Grey frame
PAW-RE2C3-LON-WH	LonWorks TP/FT-10 with I/O White frame
PAW-RE2C3-LON-GR	LonWorks TP/FT-10 with I/O Grey frame

CONTROL AND CONNECTIVITY

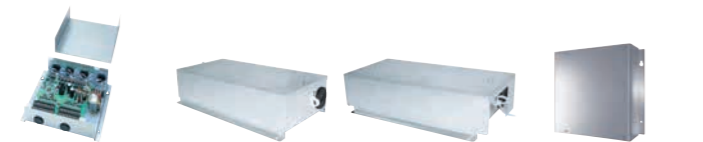
Centralized Control Systems

BMS System. PC Base



P-AIMS. Basic Software
Up to 1024 groups. Controls 1024 units.
CZ-CSWK2

Connection with 3rd Party Controller



Seri-Para I/O unit for outdoor unit. Up to 4 outdoor units. CZ-CAPDC2
Local adaptor for ON/OFF control. Controls 1 to 8 units. CZ-CAPC2
Mini Seri-Para I/O Unit 0 - 10V. Controls 1 to 8 units. CZ-CAPBC2
Communication Adaptor. Up to 128 groups. Controls 128 units. CZ-CFUNC2

AC Smart Cloud



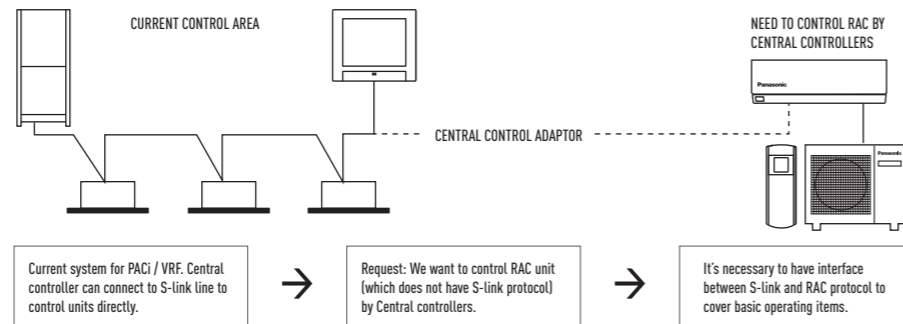
Cloud internet control. Up to 128 groups. Controls 128 units. CZ-CFUSCC1

New Domestic integration to P-Line - CZ-CAPRA1

Can connect all ranges to P-Line. Full control is now possible.

Integrates any unit in big system control

- PKEA Server room integration
- Small offices with Domestic indoors
- Tender for refurbishment (old system Domestic and VRF in one installation)



Basic operation items	
ON/OFF	✓
Mode select	✓
Temperature setting	✓
Fan speed	✓
Flap setting	✓
Remote control prohibit	✓
Econavi ON/OFF	✓

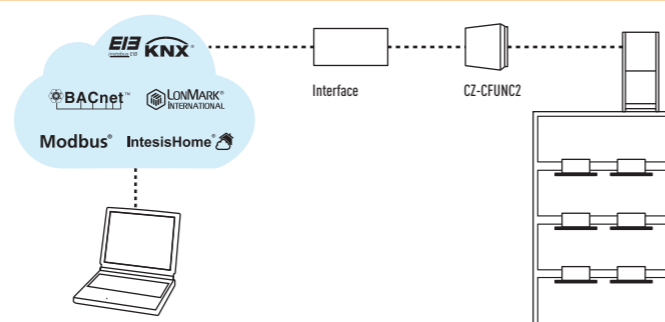
External input	
ON/OFF control signal	✓
Abnormal stop signal	✓
External output for Relay ¹	
Operation status (ON/OFF)	✓
Alarm status output	✓

¹) Because current CN-CNT connector can not provide the power for external output relay, additional Input power for external relay is necessary.

Easy connection to KNX, Modbus, LonWorks and BACnet

Great flexibility for integration into your KNX / Modbus / LonWorks / BACnet projects allows fully bi-directional monitoring and control of all the functioning parameters.

For more information, contact Panasonic.



			Econavi control	Built-in thermostat	Indoor units which can be controlled	Use limitations	Function ON/OFF	Mode setting	Fan speed setting	Temperature setting	Air flow direction	Permit/Prohibit switching	Weekly program	BMS protocol
Individual Controllers														
Control for hotel application. Intelligent Controller		PAW-RE2C3-WH /-GR PAW-RE2C3-MOD-WH /-GR PAW-RE2C3-LON-WH /-GR White / Grey	-	✓	1 indoor unit	-	✓	✓	✓	✓	-	✓	-	Stand alone Modbus or Lonworks
Wired remote controller. Normal operation		CZ-RTC4	✓	✓	1 group, 8 units	Up to 2 controllers can be connected per group	✓	✓	✓	✓	✓	-	✓	-
Wired remote controller. Design wired remote controller		CZ-RTC5A	✓	✓	1 group, 8 units	Up to 2 controllers can be connected per group	✓	✓	✓	✓	✓	-	✓	-
Wireless remote controller		CZ-RWSU3 / CZ-RWSL2N / CZ-RWSK2 / CZ-RWSD2 / CZ-RWST3N / CZ-RWSK2 + CZ-RWSC3	-	✓	1 group, 8 units	Up to 2 controllers can be connected per group	✓	✓	✓	✓	✓ ¹	-	-	-
Quick and easy operation Simplified remote controller		CZ-RE2C2	-	✓	1 group, 8 units	CZ-RE2C2: up to 2 controllers can be connected per group	✓	✓	✓	✓	✓ ¹	-	-	-
Centralized Controllers														
Central controller with weekly timer		CZ-64ESMC3	✓	-	64 groups, maximum 64 units	Up to 10 controllers, can be connected to one system Main unit/sub unit (1 main unit + 1 sub unit) connection is possible Use without remote controller is possible	✓	✓	✓	✓	✓ ¹	✓	✓	-
Only ON/OFF operation from center station. ON/OFF Controller		CZ-ANC2 CZ-ANC3 (available in September 2017)	-	-	16 groups, maximum 64 units	Up to 8 controllers (4 main units + 4 sub units) can be connected to one system Use without remote controller is impossible	✓	-	-	-	-	✓	-	-
Simplified load distribution ratio (LDR) for each tenant. Intelligent Controller (Touch screen panel)		CZ-256ESMC3	✓	-	Main unit: 128. Up to 256 units can be expanded	Communication adaptor CZ-CFUNC2 is necessary for connection with more than 128 units	✓	✓	✓	✓	✓ ¹	✓	✓	-

¹. Setting is not possible when a remote control unit is present (use the remote control for setting). * All specifications subject to change without notice.

INDIVIDUAL CONTROLLERS

Control for hotel application. Intelligent Controller (for VRF)



PAW-RE2C3-WH // PAW-RE2C3-GR // PAW-RE2C3-MOD-WH // PAW-RE2C3-MOD-GR // PAW-RE2C3-LON-WH // PAW-RE2C3-LON-GR

- Easy to install
- Cost effective installation as all electrical cable are centralized on this remote
- Architect inspired attractive design
- Direct connection to the Indoor unit with most of the functions of the indoor unit
- 3 options available: Stand-Alone, Modbus or LonWorks communication
- 2 frame colours: White and aluminium

From this remote control

The lighting, card contact, motion detector, window contact and the air conditioning are controlled.

Energy saving functions included on the device

- Turns Off air conditioning and lighting when room is unoccupied
- Disables air conditioning when window is open
- Maximum/minimum setpoint temperature configurable

Wired remote controller. Normal operation with Econavi



CZ-RTC4

- Time Function 24 hours real time clock (week day indicator)
- Weekly programme function (a maximum of 6 actions can be programmed for each day)
- Sleeping function (this function controls the room temperature for comfortable sleeping)
- Maximum 8 indoor units can be controlled from one remote controller
- Remote control by main remote controller and sub controller is possible (maximum 2 remote controllers (main remote controller and sub controller) can be installed for one indoor unit)
- Possible to connect to the outdoor unit using PAW-MRC cable for servicing purposes

- Outing function (this function can prevent the room temperature from dropping or rising when the occupants are out for a long time)
- Dimensions (H x W x D): 120 x 120 x 20mm
- Weight: 160 g

Basic remote controller ON/OFF

- Econavi compatible
- Operation mode changeover (Cooling, Heating, Dry, Auto, Fan)
- Temperature setting (Cooling / Dry: 18-30°C Heating: 16-30°C)
- Fan speed setting High / Medium / Low and Auto
- Air flow direction adjustment



Wired remote controller. Design wired remote controller



CZ-RTC5A

- Power consumption monitor (only for PACi)
- Flat face design & Touch sensor switch for stylish design and operating usability
- New functions such as for Energy saving & monitoring and for Service use are available on the Full dot LCD (3,5" display)
- Improved illumination
- White LED backlight
- Blink when alarm occurs

Basic Operation

- Operation • Mode • Temperature setting • Airflow volume
- Airflow direction

Timer function

- Outing function • Weekly Program timer • Easy ON/OFF timer
- Time display

Energy saving

- Outing function • Temperature setting range limitation
- Temperature auto return • OFF remind • Schedule demand control • Energy saving mode • Energy monitoring

Others

- Key lock • Ventilation fan control • Display contrast adjustment
- Remote controller sensor • Quiet operation mode • Prohibit setting control from Central controller

* Several functions can not use on some outdoor unit. Ex. Power consumption monitor is not available for PACi Standard, Backup/Rotation control for PACi system.



Control contents	Part name, model No.	Quantity
Standard Control	Timer remote controller: CZ-RTC4 // CZ-RTC5A Wired remote controller: CZ-RE2C2 // CZ-RE2C3 Wireless remote controller: CZ-RWSU3 // CZ-RWLSL2N // CZ-RWSK2 // CZ-RE2C2 // CZ-RE2C3	1 unit each
(1) Group control	Timer remote controller: CZ-RTC4 // CZ-RTC5A Wired remote controller: CZ-RE2C2 // CZ-RE2C3 Wireless remote controller: CZ-RWSU3 // CZ-RWLSL2N // CZ-RWSK2 // CZ-RE2C2 // CZ-RE2C3	1 unit
(2) Main/sub remote control	Main or sub. Timer remote controller: CZ-RTC4 // CZ-RTC5A Wireless remote controller: CZ-RWSU3 // CZ-RWLSL2N // CZ-RWSK2 // CZ-RE2C2 // CZ-RE2C3	As required

Wireless remote controller



CZ-RWSC3 // CZ-RWLSL2N // CZ-RWSK2 // CZ-RWSD2 // CZ-RWST3N // CZ-RWSK2 + CZ-RWSC3

- Easy installation for the 4 Way cassette type simply by replacing the corner part
- 24 hour timer function
- Remote control by main remote controller and sub controller is possible (Max. 2 remote controllers (main remote controller and sub controller) can be installed for one indoor unit)

- When CZ-RWSC3 is used, wireless control becomes possible for all indoor units [1: when a separate receiver is set up in a different room, control from that room also becomes possible. 2: automatic operation by means of the emergency operation button is possible even when the remote controller has been lost or the batteries have been exhausted]
- Operation of separate energy recovery ventilators (When commercial ventilation fans or heat-exchange ventilation fans have been installed, they can be operated with this remote control (interlocked operation with the indoor unit or independent ventilation ON/OFF))

Simplified remote controller. Quick and easy operation

CZ-RE2C2. A remote controller with simple functions and basic operation

- Suitable for open rooms or hotels where detailed functions are not required
- ON/OFF, operation mode switching, temperature setting, air speed switching, air flow direction setting, alarm display, and remote controller self-diagnosis can be performed

- Batch group control for up to 8 indoor units
- Remote control by main remote controller and sub controller is possible with a simplified remote controller or a wired remote controller (up to two units)
- Dimensions (H x W x D): 120 x 70 x 16mm



Remote sensor

CZ-CSRC3

- This remote sensor can be connected to any indoor unit. Please use it to detect the room temperature when no remote controller sensor or body sensor is used (connection to a system without a remote controller is possible)
- For joint use with a remote control switch, use the remote control switch as main remote controller
- Batch group control for up to 8 indoor units

- Appearance design based on simplified remote controller chassis
- Dimensions (H x W x D): 120 x 70 x 17mm
- Weight: 70 g
- Temperature/Humidity range: 0 °C to 40 °C / 20 % to 80 % (no condensation) (indoor use only)
- Power Source: DC16 V (supplied from indoor unit)
- Maximum number of connectable indoor units: Up to 8 units



CENTRALISED CONTROLLERS

New System Controller with Schedule timer. Operation with various function from center station

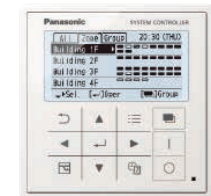


Sample display image / Operation status display

Operation Status ALL



Operation Status ZONE



Operation Status GROUP



CZ-64ESMC3

Panasonic unveils state-of-the-art digital controller

Panasonic has launched its latest controller, an innovative and easy to use interface that offers full functionality with an integrated schedule timer and system controller, making managing heating and cooling systems easier than ever before. The CZ-64ESMC3 includes Panasonic's popular schedule timer, which gives users full flexibility over when they want their property heated or cooled. Users can adjust the system for holidays, pausing operations for long periods of time so that energy isn't wasted heating or cooling an empty home or office. The controller also allows six operations per day to be programmed.

Mix of current 2 controllers: System controller + Schedule timer

New system controller will be designed by taking priority on these 2 operations with following technical key points:

- Same operation feeling as new wired remote controller by touch-key panel
- High visibility and usability by Full-dot LCD
- Based on High wired remote controller
- Maximum 64 group of indoor units, Individual control for 64 units
- 4 zone control; 1 zone = Maximum 16 groups
- Several energy saving function (based on CZ-RTC5A)
- 6 timer program per day for 1 week (7 days) operation (Total 6 x 7 = 42 programs)
- Basic setting items (Temperature, Mode, Fan speed, Flap position) can be set by same manner as CZ-RTC5A

Function list

From CZ-64ESMC2 System controller:

- Central control / individual setting
 - Start-stop prohibition for remote controller
 - Start-stop / Mode change / Temperature setting prohibition for remote controller
 - Mode change / Temperature setting prohibition for remote controller
 - Mode change prohibition for remote controller
 - Select items for prohibition

- Filter information
 - Filter sign
 - Filter sign reset
- Ventilation setting

From CZ-ESWC2 Schedule timer:

- Weekly Timer
 - Timer setting Enable / Disable
 - Copy of Timer setting
- Maintenance
 - External signal (Start / Stop) (Demand control)
 - Centralized control master-slave setting
 - Alarm history
- Initial setting
 - Clock

From CZ-RTC5A

- Energy-saving control
 - Econavi On/Off
- Filter information
 - Filter sign and Hour counter display
- Maintenance
 - Service contact
- Initial setting
 - Clock display setting
 - Name Setting
 - Operation lock setting
 - Operation sound setting
 - LCD contrast setting
 - LCD backlight setting
 - Select displayed language (EN / FR / IT / ES / DE)
 - Administrator password
- Setting information list



ON/OFF Controller. Only ON/OFF operation from center station



CZ-ANC2 / CZ-ANC3 (available in September 2017)

- 16 groups of indoor units can be controlled
- Collective control and individual group (unit) control can also be performed
- Up to 8 ON/OFF controller (4 main, 4 sub) can be installed in one link system
- The operation status can be determined immediately
- Dimensions (H x W x D): 121 x 122 x 14 + 52mm (embedding dimension)

Power supply: AC 220 to 240V.

I/O part: Remote input (effective voltage: within DC 24V): ALL ON/OFF.
Remote output (allowable voltage: within DC 30V): ALL ON, ALL alarm.

Note: As operation mode and temperature settings are not possible with the ON/OFF controller, it must be used together with a remote controller, a system controller etc.

Intelligent Controller (Touch screen panel). Simplified load distribution ratio (LDR) for each tenant

CZ-256ESMC3

Dimensions (H x W x D): 240 x 280 x 20 (+60)mm.

Power supply: Single phase 100-240V ~ 50/60Hz.

Number of connectable units per link¹: Up to 100 units of the combined total of the following:

- Indoor unit: Up to 64 units²
- Outdoor unit: Up to 30 units
- Central control device: Up to 10 units

Enlarged Display Screen: 10,4 inch Touch-panel color LCD.

Pursuing visibility, ease of use.

Retrieve data from USB memory: Place the USB port inside the panel (USB memory available in stores).

Communication adaptor: CZ-CFUNC2.

1) The maximum number of connectable units is shown below:

- When using only this unit: 128 indoor units and 60 outdoor units
- When connecting a communication adaptor: 256 indoor units and 120 outdoor units

2) The number of indoor units includes the interface adaptor.

New Functions

- Graph display (trends, comparisons)
- Econavi ON/OFF
- Outdoor unit quiet operation ON/OFF
- Energy-saving functions: Set temperature auto return settings, Auto shutoff, Set temperature range limit settings, Energy saving for PAC current value, etc.
- Event control (such as equipment linkage)
- Performs closing at end of any period

Operation and status

You can check operational status (ON/OFF, operating mode, alarms, etc.) of all indoor units and outdoor units in real time. You can also select indoor units to change their settings.

Operation scheduling

You can register daily operation schedules (ON/OFF time, operating modes, set temperatures, etc.) for individual indoor units or groups of indoor units.

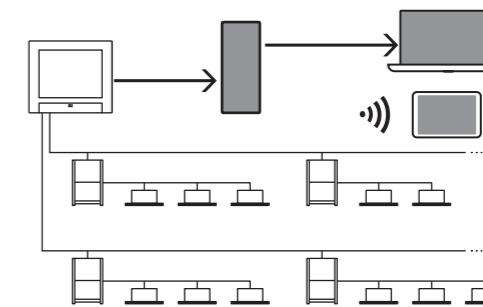
Operations can be schedule for up to 2 years in advance.

Distributing air conditioner energy

You can view cumulative operating times for indoor units, engine operating times for outdoor units, and operation cycles in a list (cumulative values). Using these data, you can calculate the distribution ratio of electricity or gas consumed for air conditioning and volumes used (kWh, m³) per indoor unit or in an area, then show these calculations in a list.

Remote control

The LAN terminal on this unit enables you connect it to a network. Connecting to Internet will enable you to operate the unit and check the status using a PC from a remote location.



New back up tool to save your commissioning time

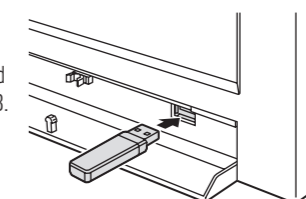
Various data such as distribution, setting, log history etc. can be saved by CSV file.

Setting data of CSV file is available to edit and import to the controller again.

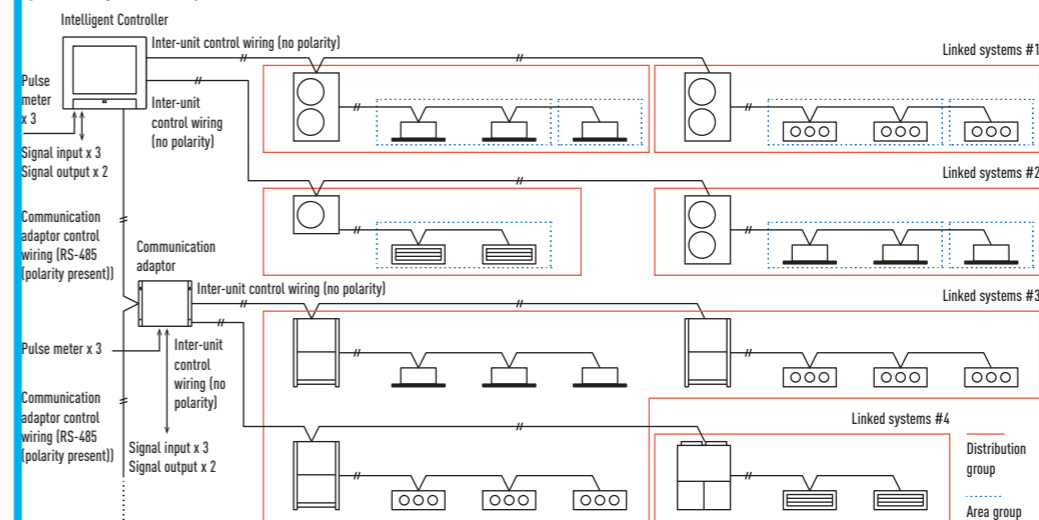
You can save time for commissioning and change setting flexibly and easily by your PC.

- Customize data
- Data recovery

Data can be imported again by general USB.



System Configuration Example



CENTRALISED CONTROLLERS

P-AIMS. Panasonic Total Air Conditioning Management System



CZ-CSWKC2 / P-AIMS Basic software

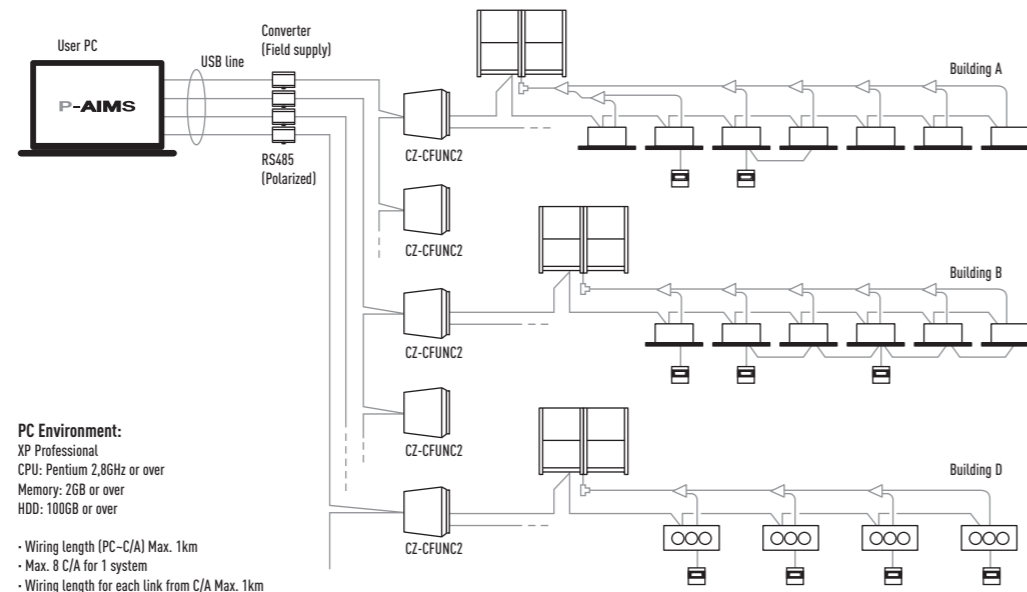
Up to 1024 indoor units can be controlled by one PC.

Functions of basic software

- Standard remote control for all indoor units.
- Many timer schedule programs can be set on the calendar.
- Detailed information display for alarms.
- CSV file output with alarm history, operating status.
- Automatic data backup to HDD.

P-AIMS is suitable for large shopping centers and universities with many areas/ buildings. 1 "P-AIMS" PC can have 4 independent systems at once.

Each system can have maximum 8 C/A units, and control maximum 512 units. In total, 1024 indoor units can be controlled by 1 "P-AIMS" PC.



PC Environment:

XP Professional
CPU: Pentium 2,8GHz or over
Memory: 2GB or over
HDD: 100GB or over

- Wiring length (PC-C/A) Max. 1km
- Max. 8 C/A for 1 system
- Wiring length for each link from C/A Max. 1km

P-AIMS optional software CZ-CSWAC2 for Load distribution. Load distribution calculation for each tenant

- Air-conditioner load distribution ratio is calculated for each unit (tenant) with used energy consumption data (m³, kWh)
- Calculated data is stored as a CSV type file
- Data from the last 365 days is stored

P-AIMS optional software CZ-CSWBC2 for Web application.

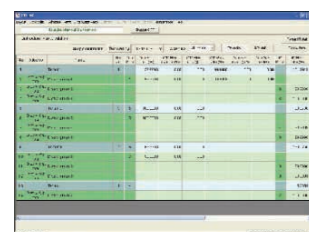
- Web access & control from remote station**
- Accessing P-AIMS software from remote PC
 - You can monitor/operate ECOi 6N system by using Web browser (Internet Explorer)

P-AIMS optional software CZ-CSWGC2 for Object layout display. Whole system can be controlled visually

- Operating status monitor is available on the layout display
- Object's layout and indoor unit's location can be checked at once
- Each unit can be controlled by virtual remote controller on the display
- Max. 4 layout screens are shown at once

P-AIMS optional software CZ-CSWBC2 for BACnet software interface. Connectable to BMS system

- Can communicate with other equipment by BACnet protocol
- ECOi 6N system can be controlled by both BMS and P-AIMS
- Max. 255 indoor units can be connected to 1 PC (that has P-AIMS basic & BACnet software).



With 4 upgrade packages the basic software can be upgraded to suit individual requirements

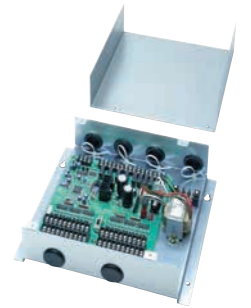
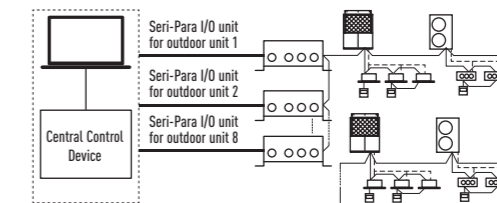
Seri-Para I/O unit for outdoor unit. Connection with 3rd Party Controller

CZ-CAPDC2 for ECOi / CZ-CAPDC3 for Mini ECOi and PACi

- This unit can control up to 4 outdoor units
- From the central control device, mode changing and batch operation/batch stop are possible
- Required for demand control

Dimensions (H x W x D): 80 x 290 x 260mm.
Power supply: Single Phase 100/200V (50/60Hz), 18W.
Input: Batch operation/Batch stop (non-voltage contact/DC 24 V, pulse signal). Cooling/Heating (non-voltage contact/static signal). Demand 1/2 (non-voltage contact/static signal) (Local stop by switching).

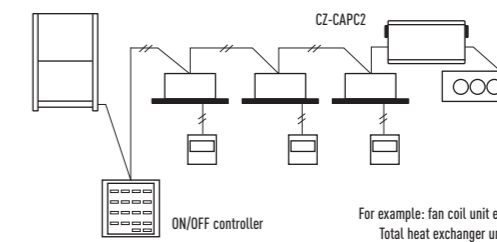
Output: Operation output (non-voltage contact). Alarm output (non-voltage contact).
Wiring length: Indoor/Outdoor operation lines: Total length 1km.
Digital signal: 100m or shorter.



Local adaptor for ON/OFF control. Connection with 3rd Party Controller

CZ-CAPC2 / CZ-CAPC3 (available in December 2017)

- Control and status monitoring is possible for individual indoor unit (or any external electrical device up to 250 V AC, 10 A) by contact signal



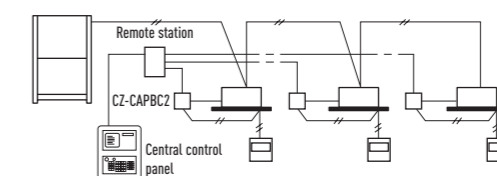
MINI Seri-Para I/O Unit 0 -10V. Connection with 3rd Party Controller

CZ-CAPBC2

- Control and status monitoring is possible for individual indoor unit (1 group)
- In addition to operation and stop, there is a digital input function for air speed and operation mode
- Temperature setting and measuring of the indoor suction temperature can be performed from central monitoring
- Power is supplied from the CZ-T10 terminal of the indoor units
- The analog input for demand of the outdoor capacity by 20 steps (from 40% to 120%) by 0-10V

- The analog input for temperature setting is 0 to 10V, or 0 to 140 Ohm
- Separate power supply also is possible (in case of suction temperature measuring)

* Ask to your distributor.



Communication adaptor for VRF Connectivity

CZ-CFUNC2

This communication interface is required to connect a ECOi and GHP systems to a BMS. An additional interface is needed to convert the information into KNX/Modbus/Bacnet language. CZ-CFUNC2 is very easy to operate and to connect to the Panasonic P-Link, which is the ECOi bus. From the CZ-CFUNC2, all

the indoor and outdoor units of the installation can be easily control. Two linked wiring systems can be connected to one CZ-CFUNC2.

Dimensions (H x W x D): 260 x 200 x 68mm

* As this is not a splash-proof design, it must be installed indoors or in the control panel, etc.



CENTRALISED CONTROLLERS

Centralised Control Systems

A custom web application to manage the centralized operation of AZW and GHP systems.

Operation and monitoring of devices connected to the new Management System can be realized both remotely/locally from any device with connection to the internet (Laptop, Tablet, Mobile)

The new system will make the interaction with air conditioning systems easier, improving the operation set as well as the global control of installations.

The application will act with various units, regardless of whether they are available in the same intranet or in different locations, transparently to users at any time. In this way, our solution allows to overcome main restrictions like onsite maintenance or the lack of centralization.

In addition, the application offers significant improvements in terms of control:

- Aircon units can be grouped in a totally custom way
- Possibility to realize group commands and batch commands (in succession)
- Alarms and events can be controlled more efficiently and a lot more...

Features of current system

Operation Functions

- Start & Stop
- Temperature settings
- Operation mode selection
- Fan speed, Fan direction settings
- Prohibition of use of remote controller

Operation Monitoring

- Monitoring of operation status and alarms
- Monitoring of filter cleaning signs
- Display of alarm logs

Program Timers

- Up to 50 types of weekly timer
- Holiday and Special Days

Benefits

The new solution offers significant benefits for the different actors involved in its management:

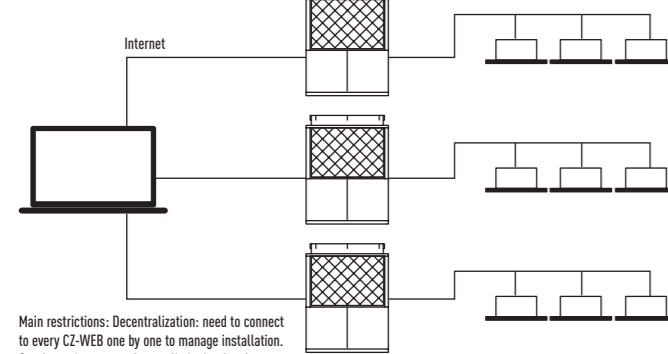
For the building Ownership:

- Maximum equipment performance
- Energy saving
- Increased lifetime of equipment
- Savings in maintenance costs

For Maintenance companies:

- Instant knowledge of any incident
- Possibility of preventive alarms
- Reduction of systematic visits (warning and remote control)
- More effective maintenance support

Current installation



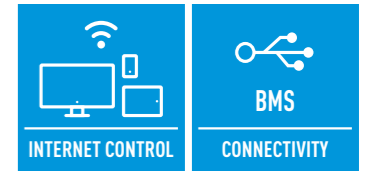
Main restrictions: Decentralization: need to connect to every CZ-WEB one by one to manage installation.
On-site maintenance: Access limited to local network.

Offer reliable solution to improve existing functionalities

- Running timer
- Remote control through Web Cloud Application or local. Accessible anytime, anywhere, via a device with internet connection
- Centralized Control: Manage several installations in one single interface. Ideal for multi-site organizations
- Easy monitoring and maintenance thanks to group commands, and batch commands. Easy supervision of complex installations
- Secure Remote Access. Powerful identity protection and convenient access control



PACi AND VRF CONNECTIVITY & CONTROL



Aware of the importance of both control and connectivity in offering the best comfort at the lowest price, Panasonic offers its customers cutting-edge technology, specially designed to ensure our air conditioning systems deliver maximum performance. You can properly manage the air conditioning and perform comprehensive monitoring and control, with all of the features the remote control provides at home, from anywhere in the world thanks to the internet applications Panasonic has created for you.

Internet Control

Control your air conditioning system with your smart device -smartphone & internet for PACi and VRF Systems.

What's Internet Control?

Internet Control is a next generation system providing user-friendly remote control of air conditioning or heat pump units from anywhere, by the simple use of an Android or iOS smartphone, tablet or PC via internet. With the option of the Wired Room temperature sensor, the system can display the temperature.

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.

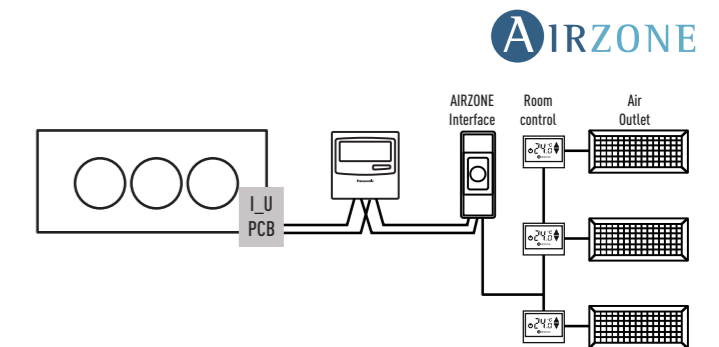
Airzone. Control of the PACi Hide Aways

Airzone has developed interfaces to easily connect to Panasonic PACi Hide Away units. Ensuring optimum performance, comfort and energy savings, the new system is efficient and easy to install.

Airzone full range of accessories for any duct project



KX-UT670 Smart Desktop Phone from Panasonic.



ECOi and GHP Connectivity

New Plug and play interface connected directly to the P-Link

The interface has been designed specifically for Panasonic and provides complete monitoring, control and full functionality of the line-up from IntesisHome, KNX, EnOcean, Modbus, BacNet and Lonworks installations.

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

1) Interface Modbus RTU/TCP is needed in case if Modbus TCP connection. PAW-MBS-TCP2RTU (ModBus RTU Slave devices).
2) Interface CZ-CFUNC2 needed.

	Model name	Interface	Maximum number of indoor units connected
ECOi / PACi Indoor Units	PAW-RC2-KNX-1i	KNX	1 (1 Group of Indoor units)
	PAW-RC2-MBS-1	Modbus RTU ¹	1 (1 Group of Indoor units)
	PAW-RC2-MBS-4	Modbus	4 indoor/groups
	PAW-RC2-ENO-1i	EnOcean	1 (1 Group of Indoor units)
	PA-RC2-WIFI-1	IntesisHome	1 (1 Group of Indoor units)
ECOi P-Link	PAW-AC-KNX-64	KNX ²	64
	PAW-AC-KNX-128	KNX ²	128
	PAW-AC-MBS-64	Modbus	64
	PAW-AC-MBS-128	Modbus	128
	PAW-TM-MBS-RTU-64	Modbus RTU ²	64
	PAW-TM-MBS-TCP-128	Modbus TCP ²	128
	PAW-AC-BAC-1	Bacnet	1
	PAW-AC-BAC-64	Bacnet ²	64
PAW-AC-BAC-128	Bacnet ²	128	
CZ-CLNC2	Lonworks	16 groups of max. 8 indoor units, in total max. 64 indoor units	

ECOi, ECO G AND PACi CONNECTIVITY INDOOR UNITS

PCB's and cables for ECOi, ECO G and PACi indoor units

Name of the cables	Function	Comment
CZ-T10	All T10 functions	Requires field supplied accessory
PAW-FDC	Operate external fan	Requires field supplied accessory
PAW-OCT	All option monitoring signals	Requires field supplied accessory
CZ-CAPE2	Option monitoring signals wo. fan	Requires additional wires from spare part supply
PAW-EXCT	Forced Thermo OFF/Leakage D.	Requires field supplied accessory
Name of the PBC	Function	Comment
PAW-T10	All T10 functions	Allows easy connection "Plug & Play"
PAW-T10V	All T10 functions + powermonitoring	Same like PAW-T10 + monitoring the power supply of indoor unit
PAW-T10H	ON/OFF; Prohibit 5VDC & 230VAC	Specials for single hotel card or window contact
PAW-T10HW	ON/OFF; Prohibit 5VDC	For hotel card + window contact at same time
PAW-PACR3	Redundancy of 2 or 3 systems; for ECOi and PACi	Redundancy of 2 or 3 ECOi or PACi systems including temperature monitoring, error indication, backup, alternative run
PAW-SERVER-PKEA	Redundancy of 2 units PKEA	Redundancy of 2 units PKEA including temperature monitoring, error indication, backup, alternative run

T10 connector (CN015)



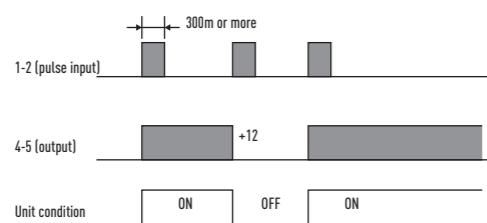
CZ-T10

Panasonic has developed an optional accessory (consisting of plug + wires) called CZ-T10 to enable an easy connection to this T10 connector.

Connecting an ECOi indoor unit to an external device is easy. The T10 terminal featured in the electronic circuit board of all indoor units enables digital connection to external devices.

T10 terminal Specification (T10: CN015 at indoor unit PCB)

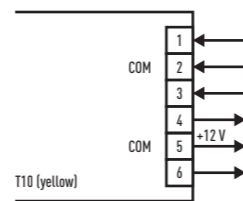
- Control items: 1. Start/stop input
- 2. Remote controller prohibit input
- 3. Start signal output
- 4. Alarm signal output



NOTE: The wire length from indoor unit to the Relay must be within 2.0m. Pulse signal changeable to static with JP cutting. (Refer to JP001)

- Condition

- 1-2 (Pulse input): Unit ON/OFF condition switching with a pulse signal. (1 pulse signal: shortage status more than 300msec. or more)
 - 2-3 (Static input): Open / Operation with Remote is permitted (Normal condition) Close / Remote controller is prohibited
 - 3-4 (Static output): 12V output during the unit ON / No output at OFF
 - 4-5 (Static output): 12V output when some errors occur / No output at normal
- Example of wiring



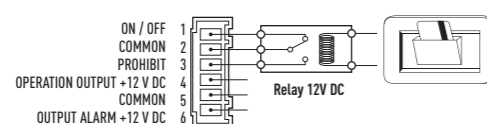
Usage Example

Forced OFF control

Term 1 & 2: Free contact for ON/OFF signal (cut *JP1* for static signal) when the hotel card is it connected the contact must be close (the unit can be used).

Term 2 & 3: Free contact to prohibit all function in the remote controller install in the room when the hotel card is it removed the contact must be closed (the unit can not work).

Terminal = T10

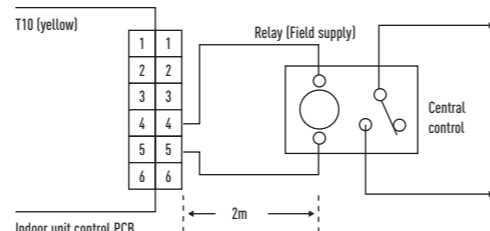


Operation ON/OFF signal output

- Condition:

4-5 (Static output): 12V output during the unit ON / No output at OFF

- Example of wiring



NOTE: The wire length from indoor unit to the Relay must be within 2.0m. Pulse signal changeable to static with JP cutting. (Refer to JP001)

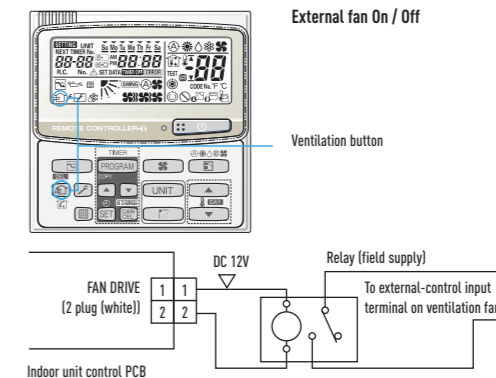
Fan Drive Connector (CN032)

PAW-FDC

Panasonic has developed an optional accessory (consisting of plug + wires) called PAW-FDC to enable an easy connection to this Fan Drive Connector (CN032).

Operating the ventilation fan from the remote controller

- Start / stop of external ventilation and total heat exchanger fans
- Works even if indoor unit is stopped
- In case of group control → all fans will operate; no individual control

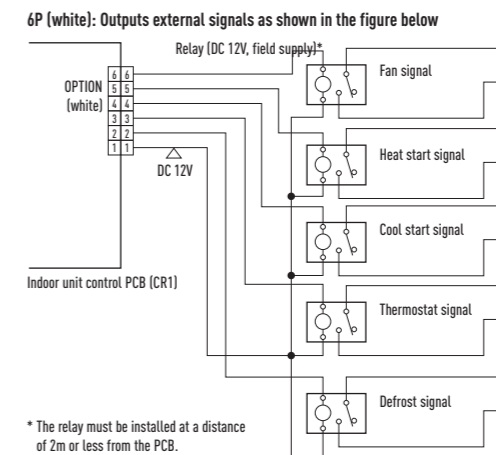


Option Connector (CN060) Output external signals

PAW-OCT

Panasonic has developed an optional accessory (consisting of plug + wires) called PAW-OCT to enable an easy connection to this Option Connector (CN060).

With the combination of the T10 and the option CN060 an external control of the indoor units is possible!



* The relay must be installed at a distance of 2m or less from the PCB.

EXCT Connector (CN009)

PAW-EXCT

Panasonic has developed an optional accessory (consisting of plug + wires) called PAW-EXCT to enable an easy connection to this EXCT Connector (CN009).

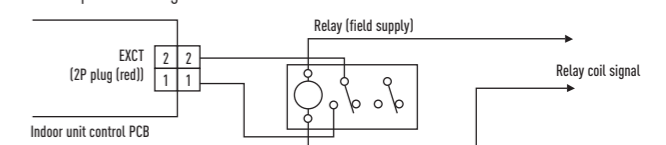
A) With static input

→ STATIC INPUT → THERMO OFF → ENERGY SAVING

2P plug (red): Can be used for demand control. When input is present, forces the unit to operate with the thermostat OFF.

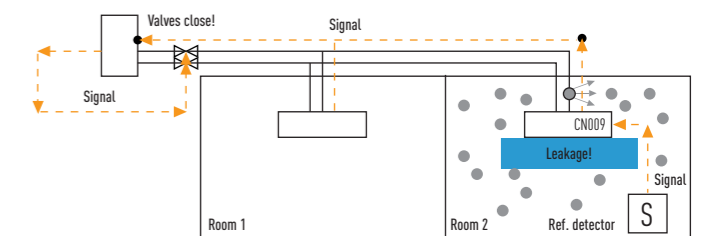
Note: The length of the wiring from the indoor unit control PCB to the relay must be 2m or less.
* Lead wire with 2P plug (special—order part: WIRE K/854 05280 75300)

- Examples of wiring:



B) Example: In connection with a refrigerant sensor

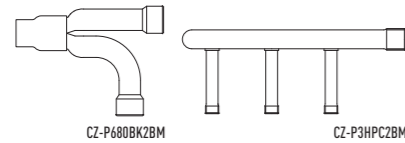
- Signal from leakage detector: non voltage, static.
- Indoor unit setting: Code 0b → 1
- Connector for leak detector: EXCT
- Outdoor unit setting:
 - Code C1 → 1 power output if alarm from O2 connector 230V
 - Code C1 → 2 power output if alarm from O2 connector 0V
- Displayed alarm message P14



ACCESSORIES & CONTROL

Branch Pipes, Header

- CZ-P155BK1**
Branch pipe.
- CZ-P224BK2BM**
Branch pipe.
- CZ-P680BK2BM**
Branch pipe (from 22.4kW to 68kW).
- CZ-P3HPC2BM**
Header.



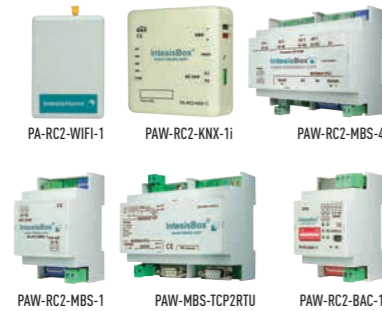
Outdoor accessories

- PAW-WTRAY**
Tray for condenser water compatible with base ground support.
- PAW-GRDSTD40**
Outdoor elevation platform 400 x 900 x 400mm.
- PAW-GRDBSE20**
Outdoor base ground support for noise and vibration absorption (600 x 95 x 130mm, 500kg).
- PAW-WPH7**
Wind protection shield for U-50PE2E5A.
- PAW-WPH8**
Wind protection shield for U-200PE2E8A, U-250PE2E8A.
- PAW-WPH9**
Wind protection shield for U . .PE1E5A/8A 60 & 70, U . .PEY1E5/8 100 & 125.
- PAW-WPH10**
Wind protection shield for U . .PE1E5A/8A 100, 125 & 140, U-140PEY1E8.



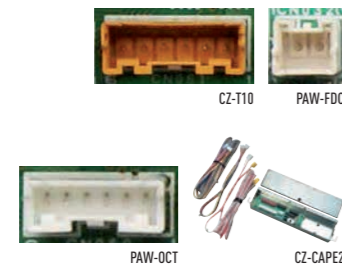
Accessories Interfaces

- PA-RC2-WIFI-1**
Interface for Intesishome for PACi.
- PAW-RC2-KNX-1i**
KNX Interface.
- PAW-RC2-MBS-4**
Modbus interface to control 4 indoor/groups.
- PAW-RC2-MBS-1**
Modbus Interface.
- PAW-MBS-TCP2RTU**
ModBus RTU Slave devices
- PAW-RC2-BAC-1**
BACnet Interface.
- CZ-CAPRA1**
Domestic with CZ-CNT port integration to PACi and ECOi.



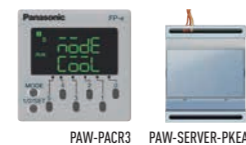
Accessories Cables

- CZ-T10**
All T10 functions.
- PAW-FDC**
Operate external EC fan.
- PAW-OCT**
All Option monitoring signals.
- PAW-EXCT**
Force Thermo OFF/leakage Detection.
- CZ-CAPEZ**
Option monitoring signals wo. Fan.



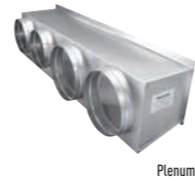
Accessories PCB

- PAW-T10**
All T10 functions.
- PAW-T10V**
All T10 functions + powermonitoring.
- PAW-T10H**
ON/OFF; Prohibit 5VDC & 230VAC.
- PAW-T10HW**
ON/OFF; Prohibit 5VDC.
- PAW-PACR3**
Redundancy of 2 or 3 systems; for PACi and ECOi.
- PAW-SERVER-PKEA**
Redundancy of 2 units PKEA.



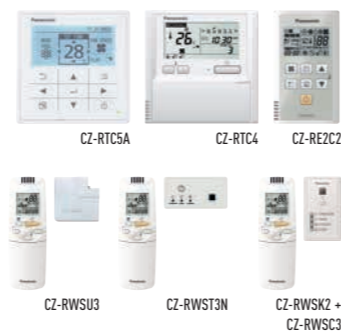
Plenums

- CZ-DUMPA90MF2**
Air Inlet Plenum S . .PF1E5A 60 & 71.
- CZ-DUMPA160MF2**
Air Inlet Plenum S . .PF1E5A 100, 125 & 140.
- CZ-56DAF2**
Air Outlet Plenum S . .PF1E5A 36, 45 & 50.
- CZ-90DAF2**
Air Outlet Plenum S . .PF1E5A 60 & 71 .
- CZ-160DAF2**
Air Outlet Plenum S . .PF1E5A 100, 125 & 140.
- CZ-TREMIESPW705**
Air Outlet Plenum S-200PE2E5.
- CZ-TREMIESPW706**
Air Outlet Plenum S-250PE2E5.



Remote Control

- CZ-RTC5A**
Wired remote control with Econavi button.
- CZ-RTC4**
Standard Wired remote control with Econavi button.
- CZ-RE2C2**
Simplified remote control.
- CZ-RWSU3**
Wireless remote control for 90x90 Cassette PUZ.
- CZ-RWST3N**
Wireless remote control for Ceiling.
- CZ-RWSK2**
Wireless remote control for Wall mounted (and CZ-RWSC3).
- CZ-RWSC3**
Wireless receiver kit (need CZ-RWSK2 separately).



Other Accessory

- CZ-CNEXU1**
Nanoe™ air purifying system for 90x90 Cassette PUZ.
- CZ-CENSC1**
Econavi energy savings sensor.

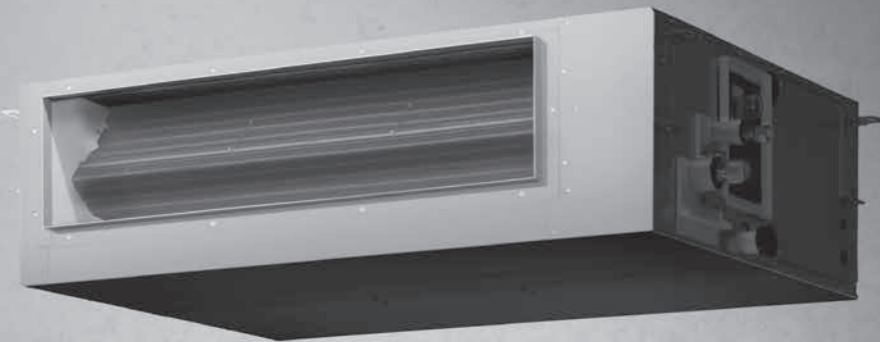


Panels

- CZ-KPU3**
Normal panel for 90x90 Cassette PUZ.
- CZ-KPU3A**
Econavi panel for 90x90 Cassette PUZ.
- CZ-KPY3A**
Panel for 60x60 Cassette size 700 x 700mm.
- CZ-KPY3B**
Panel for 60x60 Cassette size 625 x 625mm.



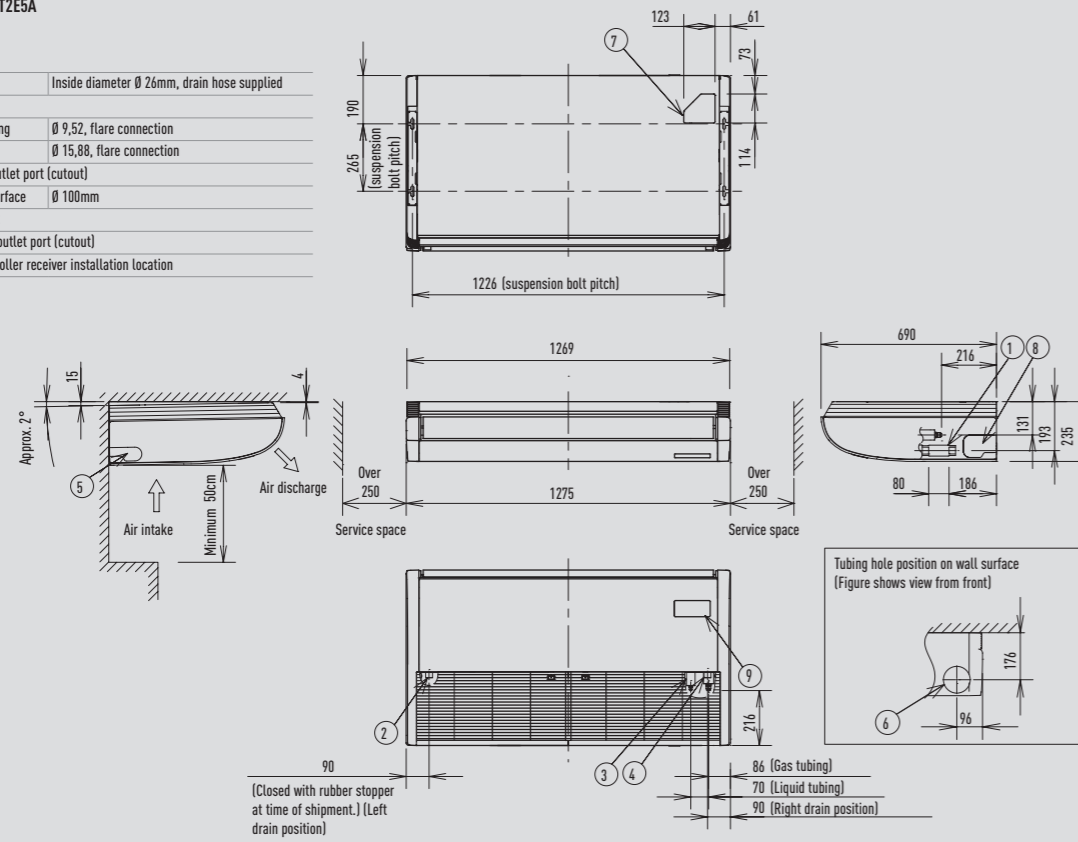
DIMENSIONS



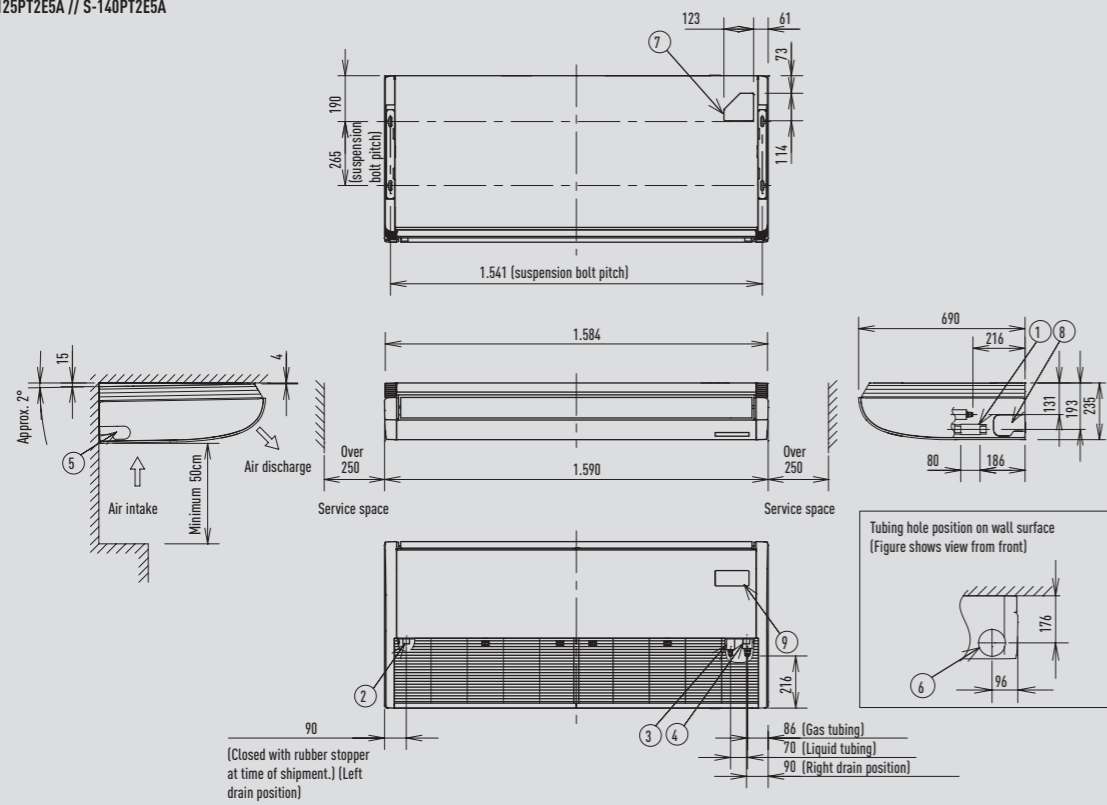
Ceiling

S-60PT2E5A // S-71PT2E5A

1 Drain port VP20	Inside diameter Ø 26mm, drain hose supplied
2 Left drain position	
3 Refrigerant liquid tubing	Ø 9,52, flare connection
4 Refrigerant gas tubing	Ø 15,88, flare connection
5 Left side drain hose outlet port (cutout)	
6 Tubing hole on wall surface	Ø 100mm
7 Upper side tubing port	
8 Right side drain hose outlet port (cutout)	
9 Wireless remote controller receiver installation location	



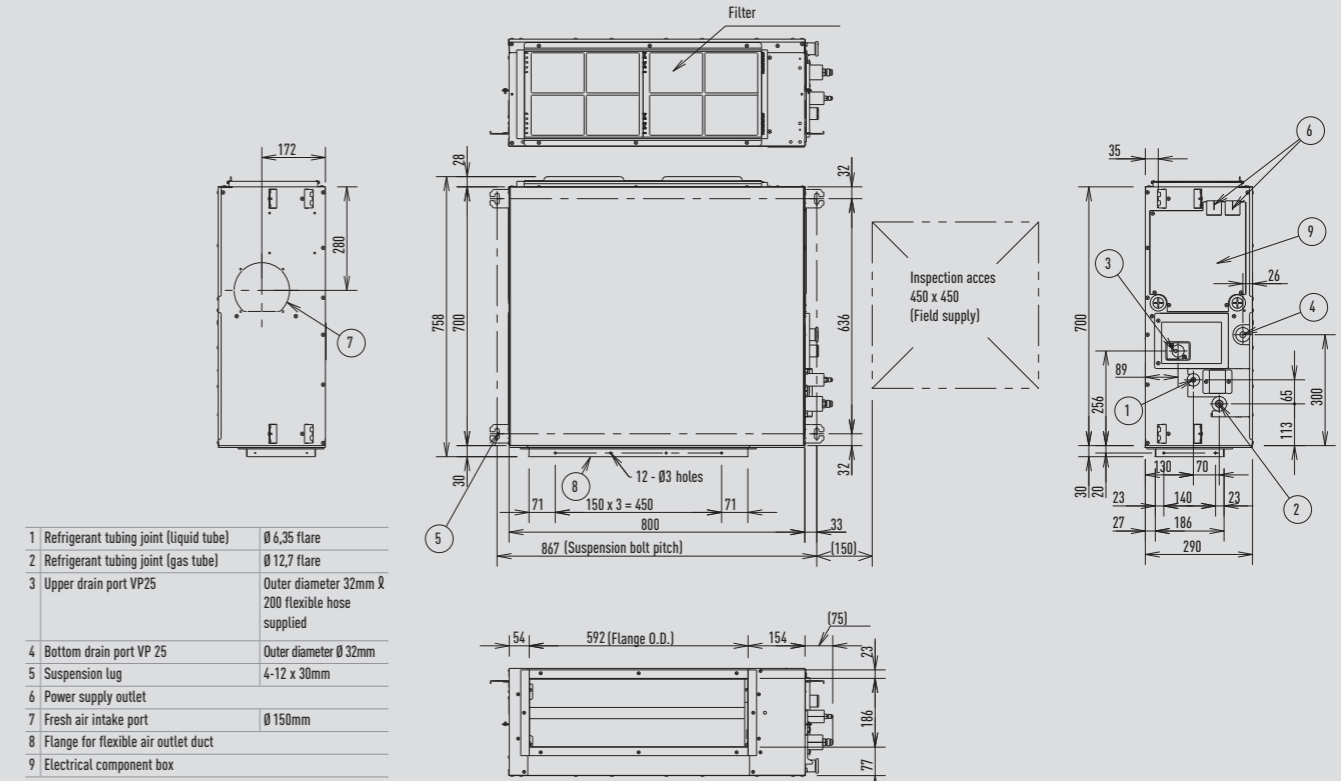
S-100PT2E5A // S-125PT2E5A // S-140PT2E5A



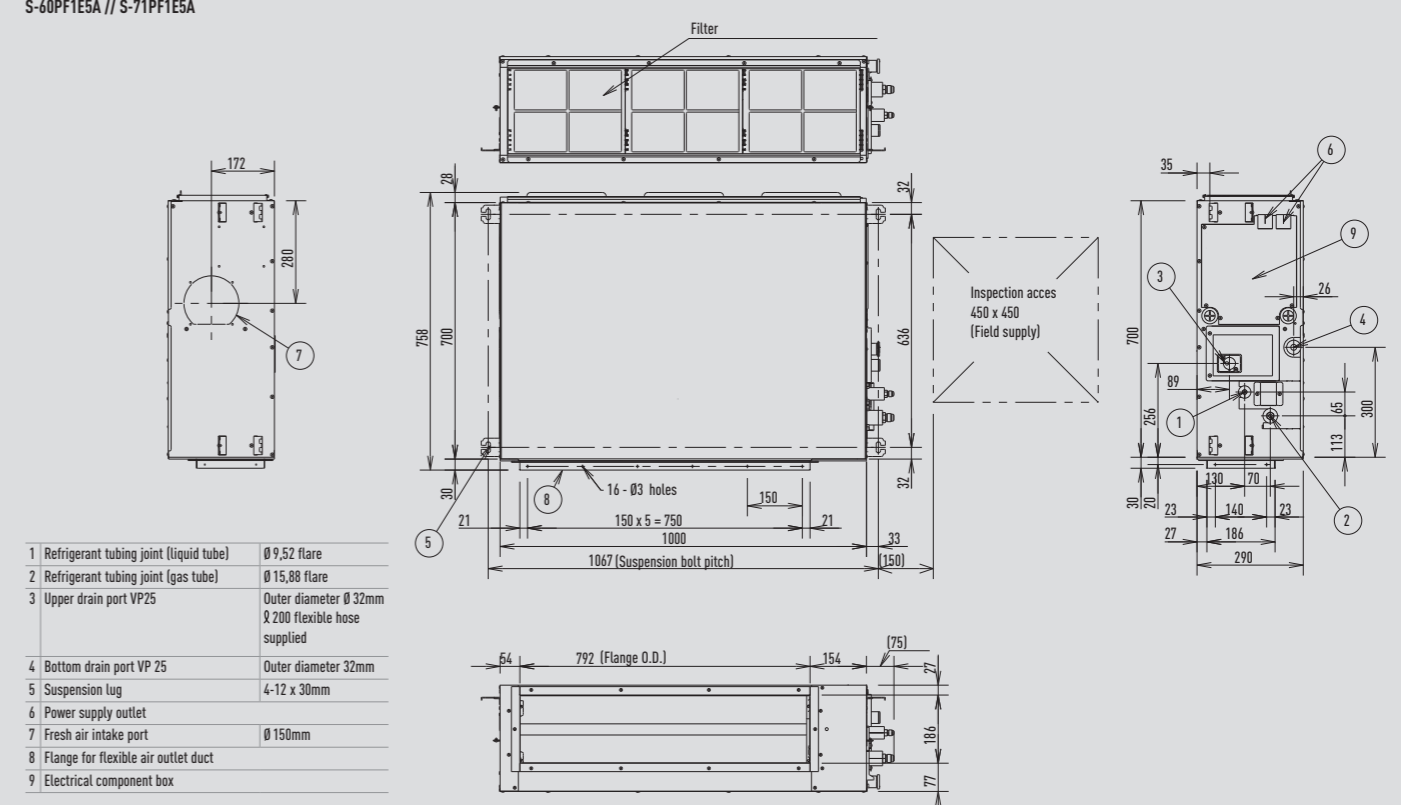
Dimensions: mm

High Static Pressure Hide Away

S-36PF1E5A // S-45PF1E5A // S-50PF1E5A



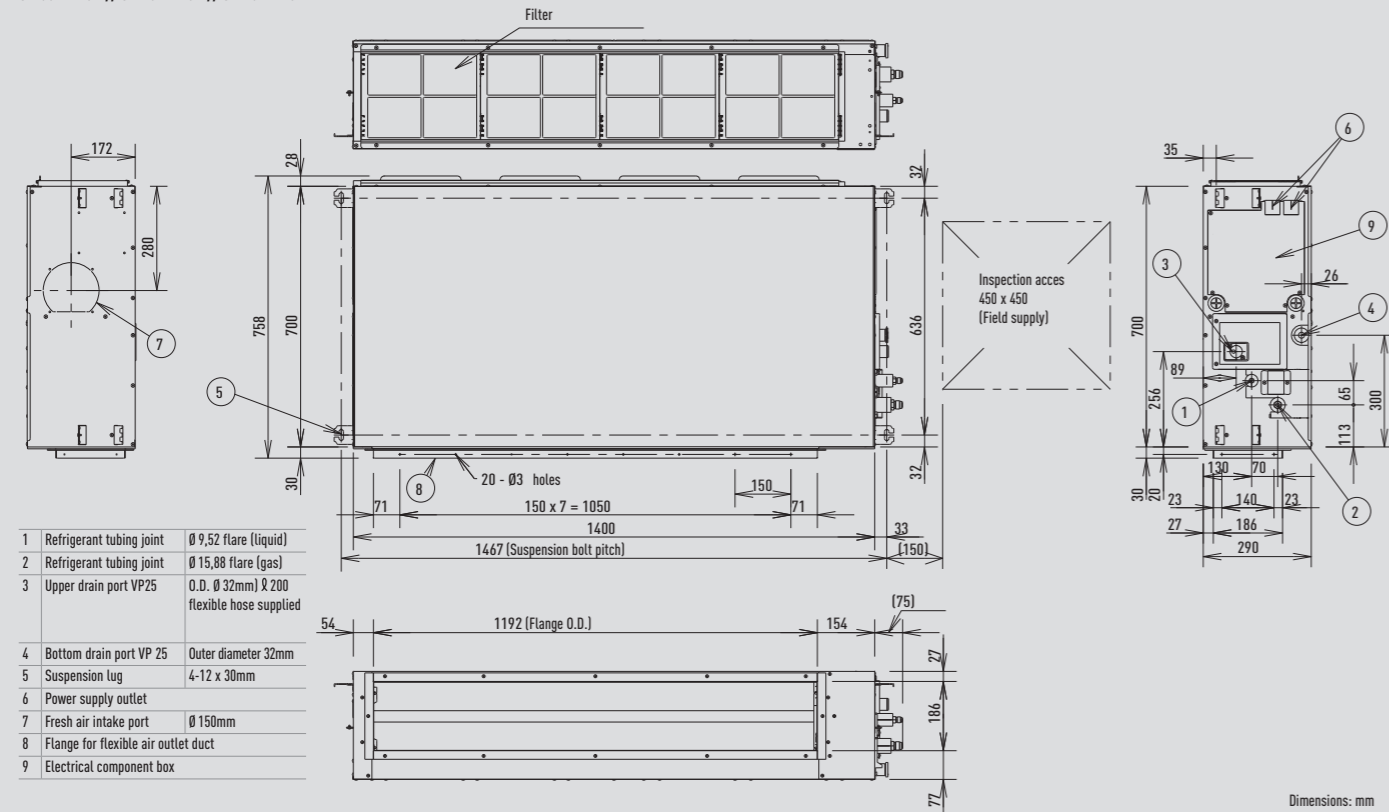
S-60PF1E5A // S-71PF1E5A



Dimensions: mm

High Static Pressure Hide Away (Cont.)

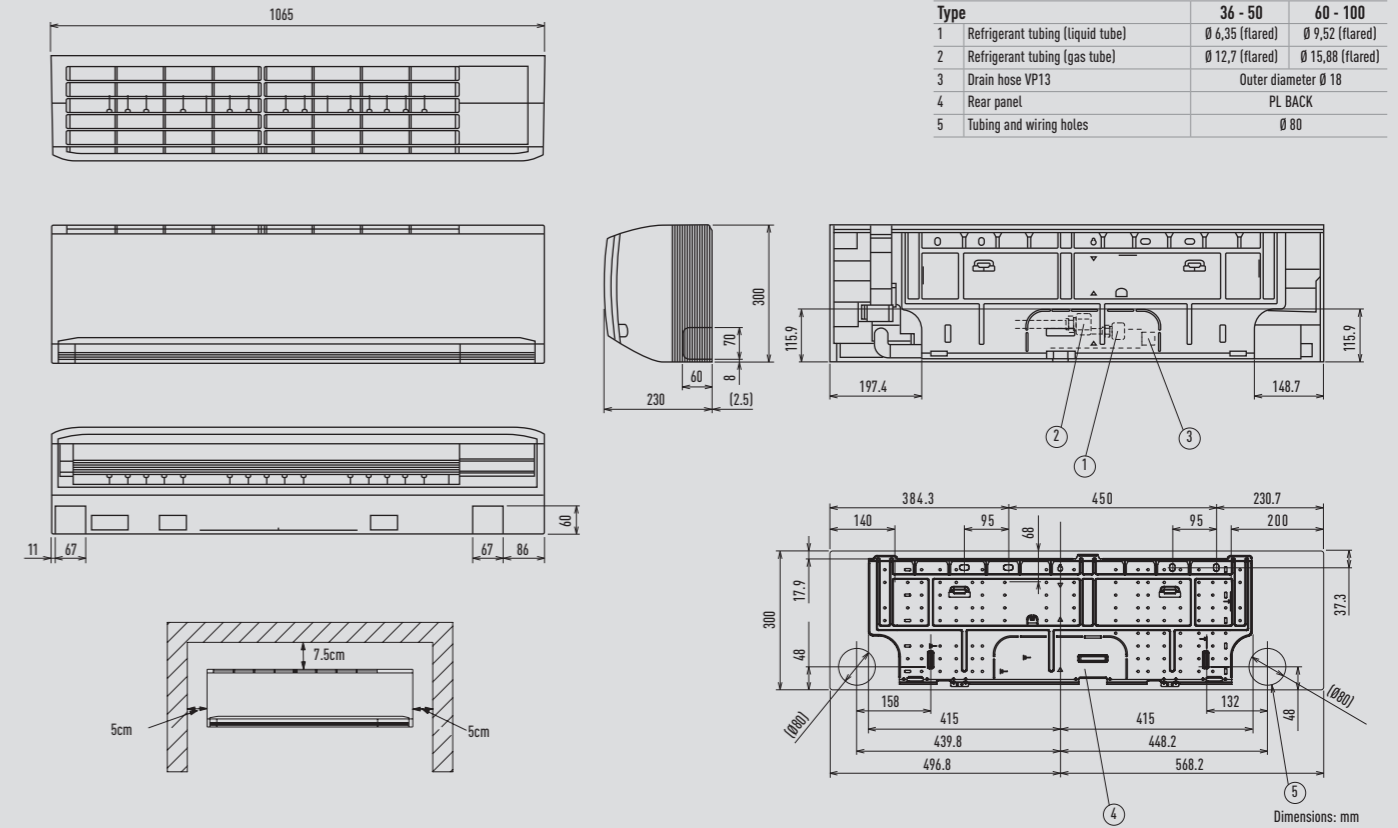
S-100PF1E5A // S-125PF1E5A // S-140PF1E5A



1	Refrigerant tubing joint	Ø 9,52 flare (liquid)
2	Refrigerant tubing joint	Ø 15,88 flare (gas)
3	Upper drain port VP25	O.D. Ø 32mm) & 200 flexible hose supplied
4	Bottom drain port VP 25	Outer diameter 32mm
5	Suspension lug	4-12 x 30mm
6	Power supply outlet	
7	Fresh air intake port	Ø 150mm
8	Flange for flexible air outlet duct	
9	Electrical component box	

Dimensions: mm

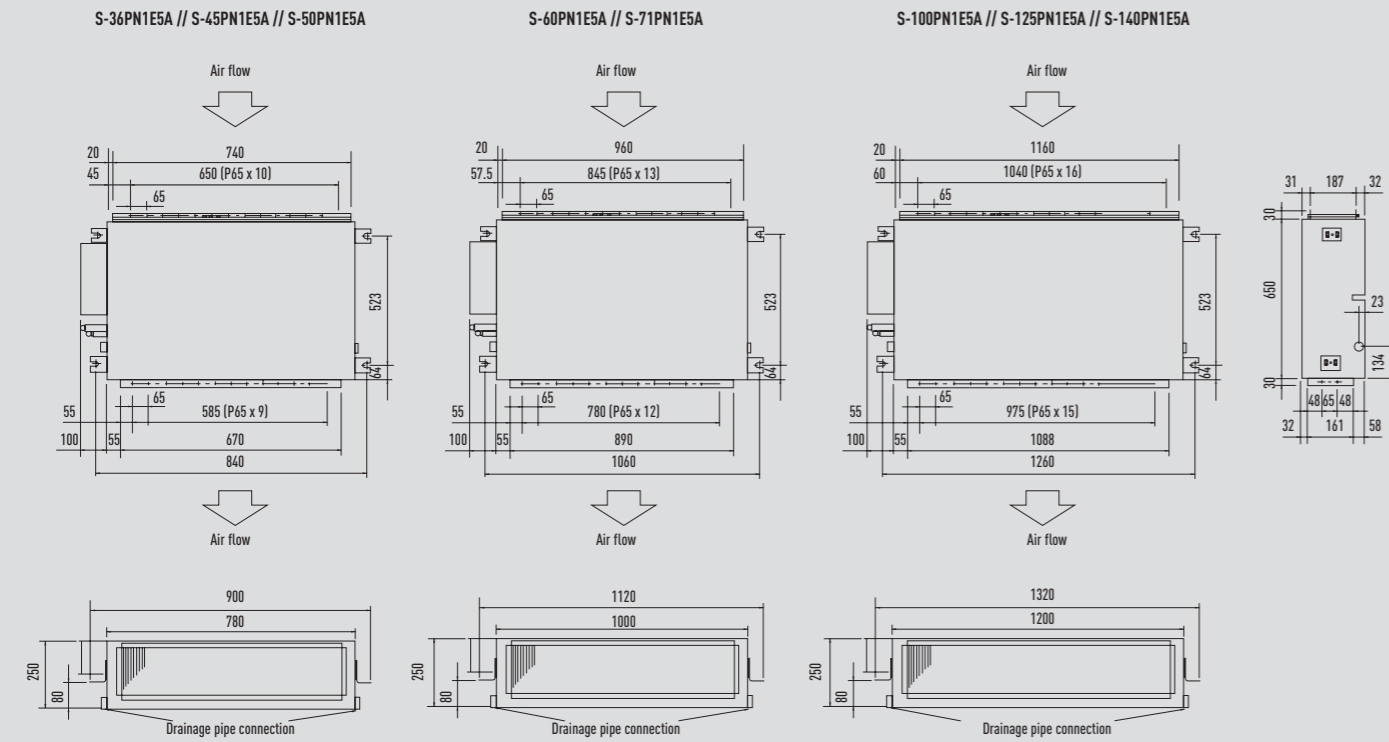
Wall



Type	36 - 50	60 - 100
1	Refrigerant tubing (liquid tube)	Ø 6,35 (flared) Ø 9,52 (flared)
2	Refrigerant tubing (gas tube)	Ø 12,7 (flared) Ø 15,88 (flared)
3	Drain hose VP13	Outer diameter Ø 18
4	Rear panel	PL BACK
5	Tubing and wiring holes	Ø 80

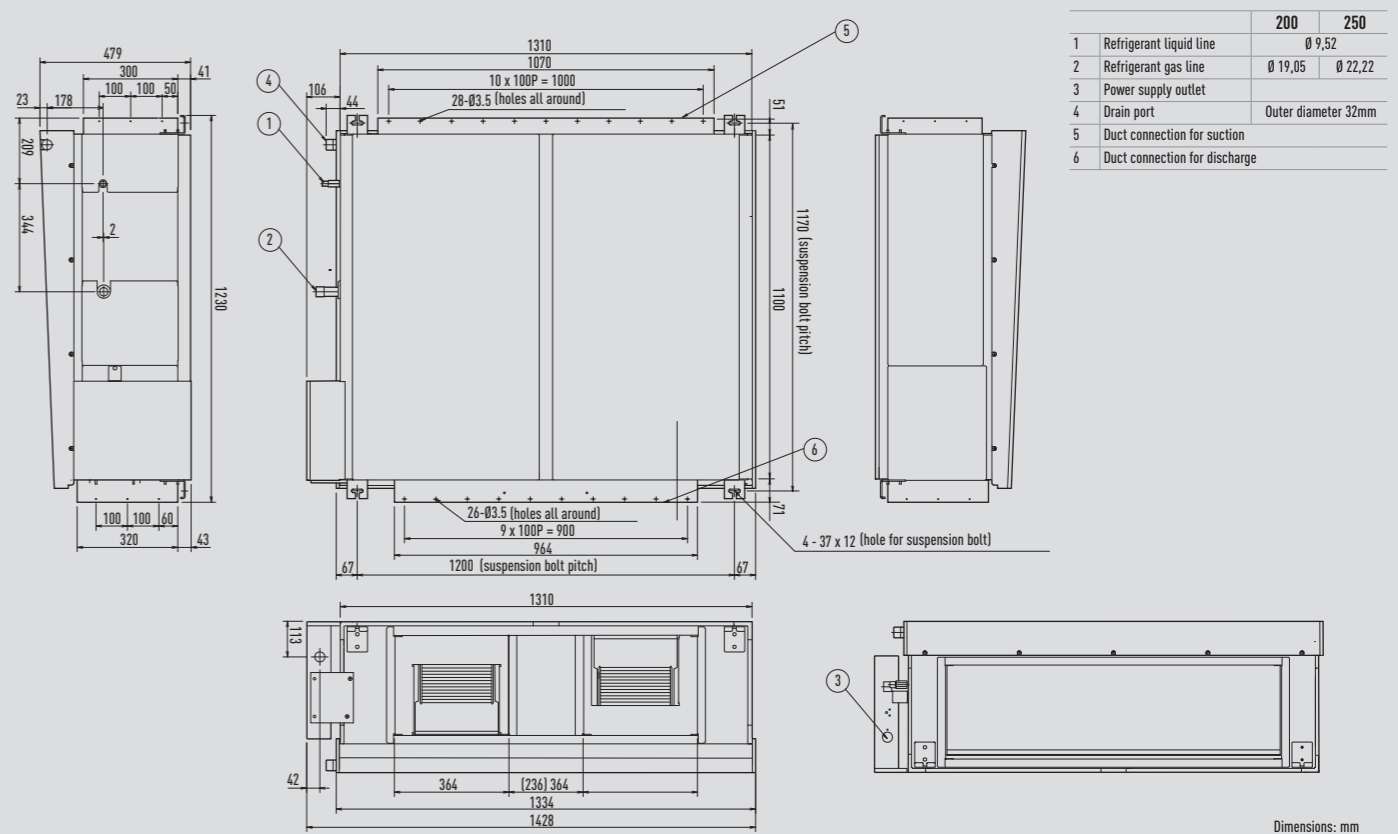
Dimensions: mm

Low Static Pressure Hide Away



Dimensions: mm

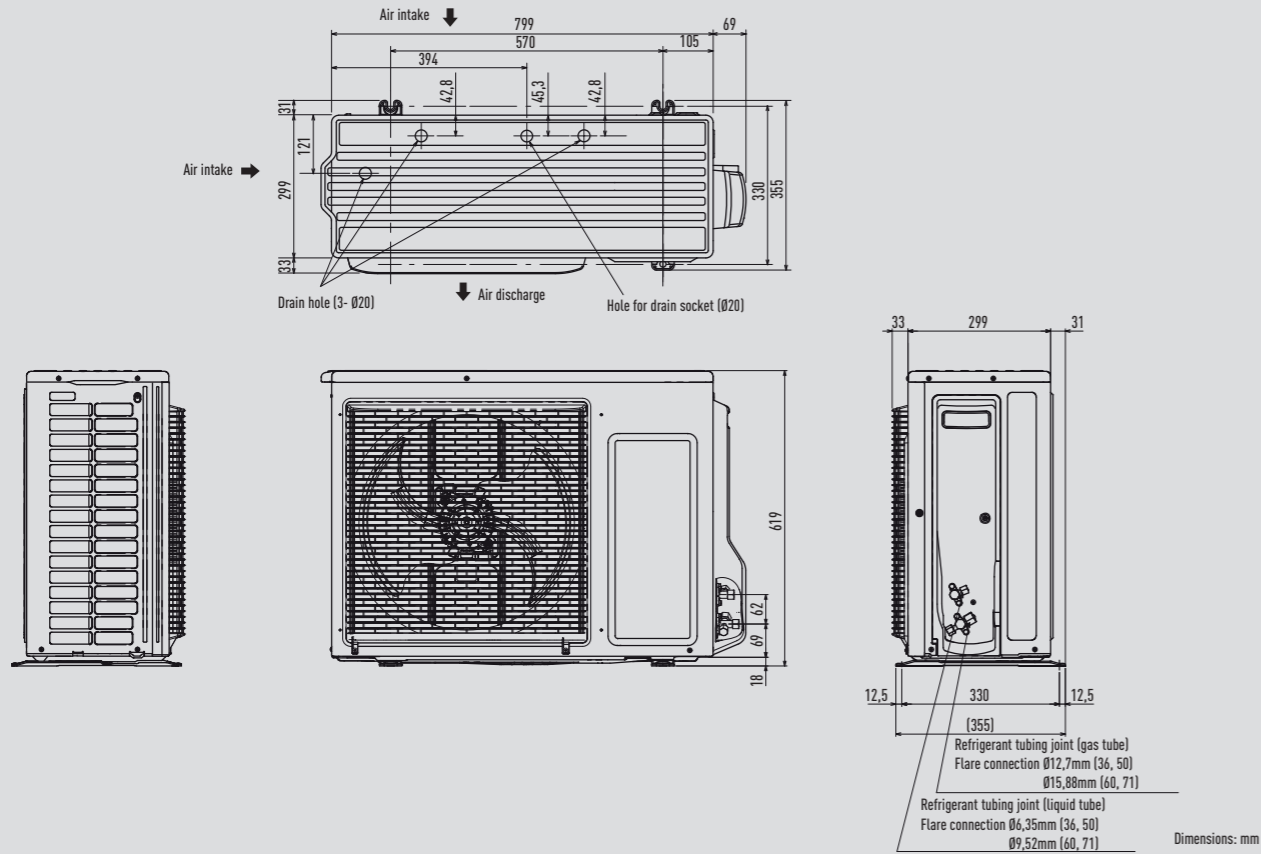
High Static Pressure Hide Away 20,0-25,0kW



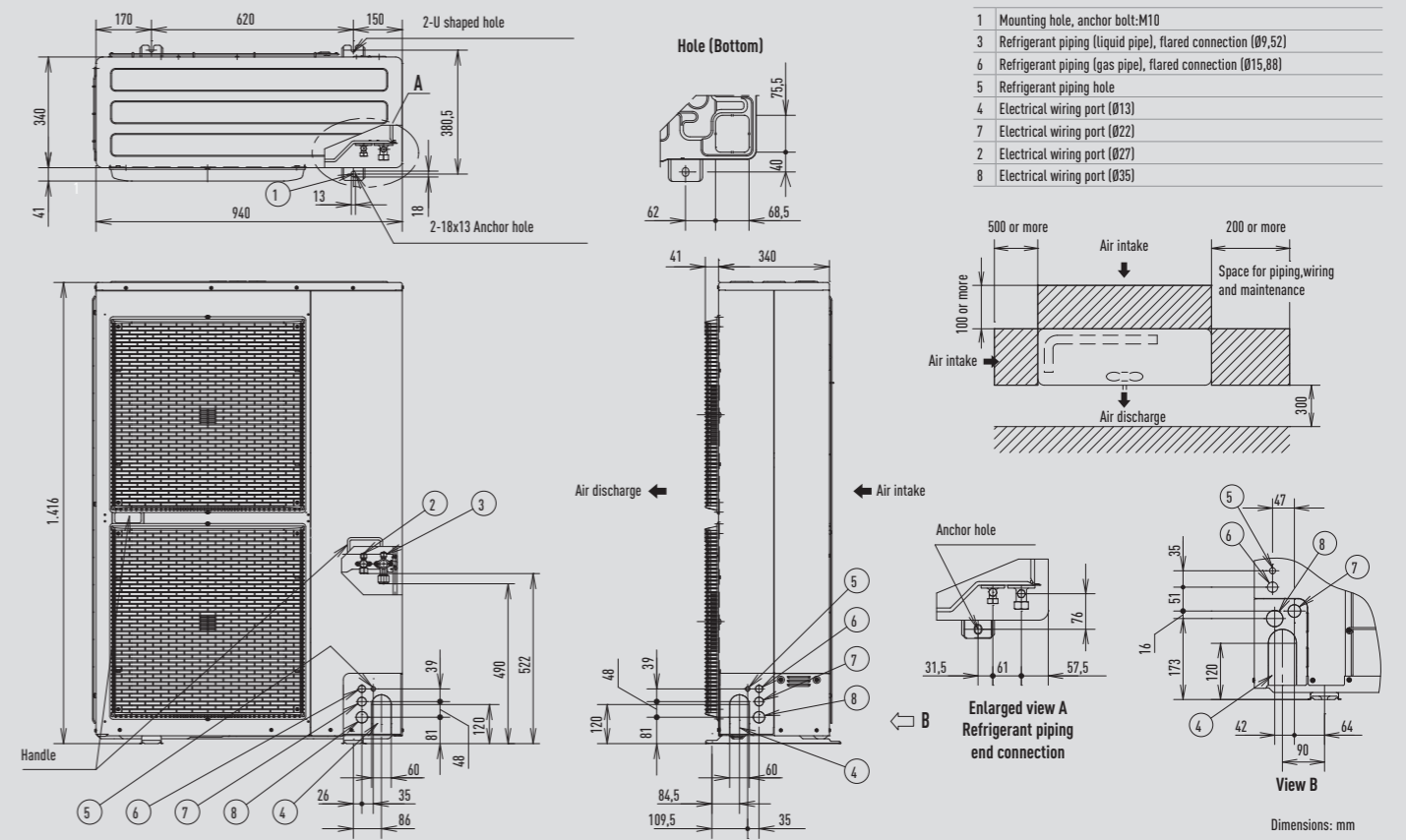
	200	250
1	Refrigerant liquid line	Ø 9,52
2	Refrigerant gas line	Ø 19,05 Ø 22,22
3	Power supply outlet	
4	Drain port	Outer diameter 32mm
5	Duct connection for suction	
6	Duct connection for discharge	

Dimensions: mm

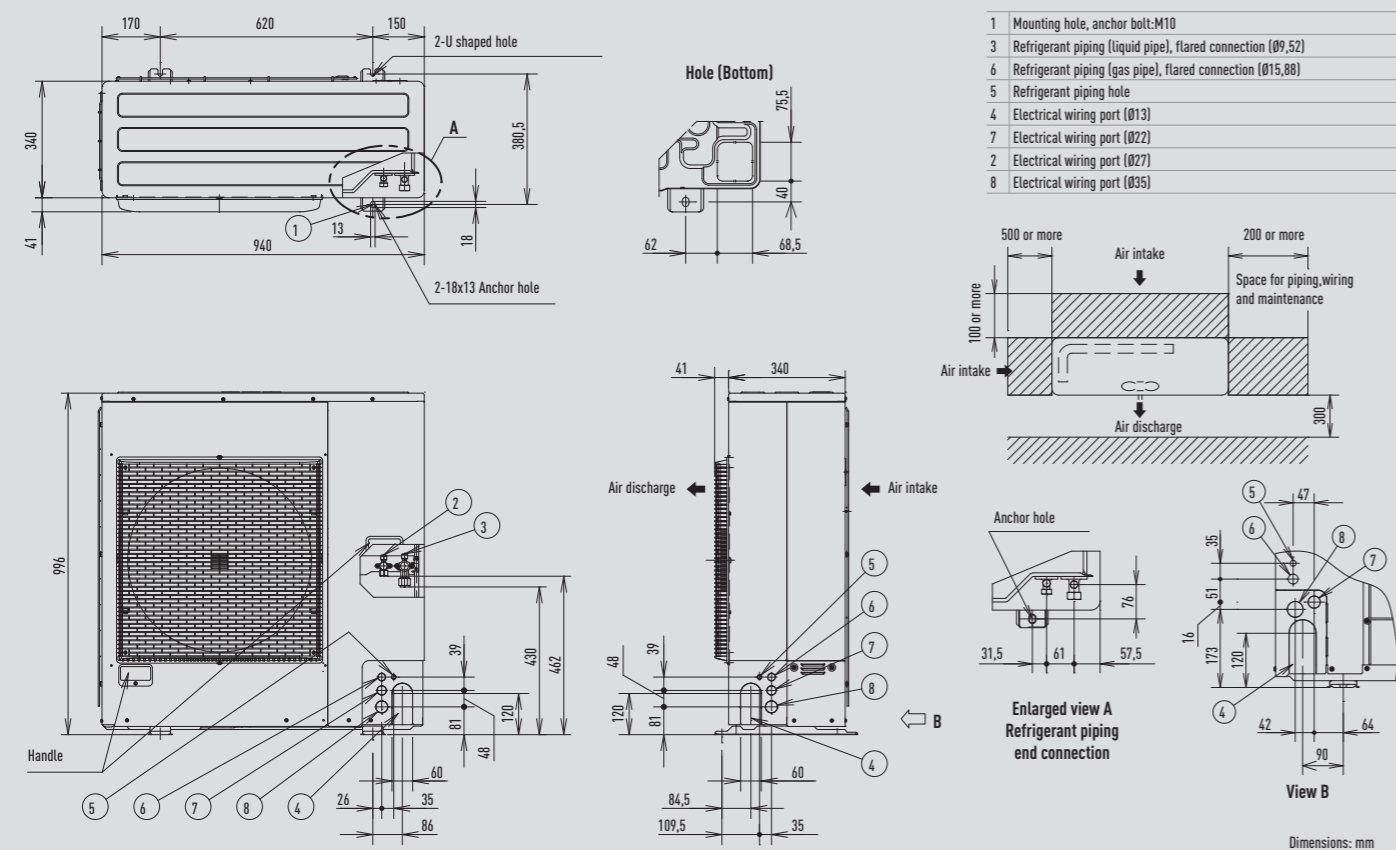
Outdoor Unit PACi Standard 6,0 and 7,1kW and PACi Elite from 3,6 to 6,0kW



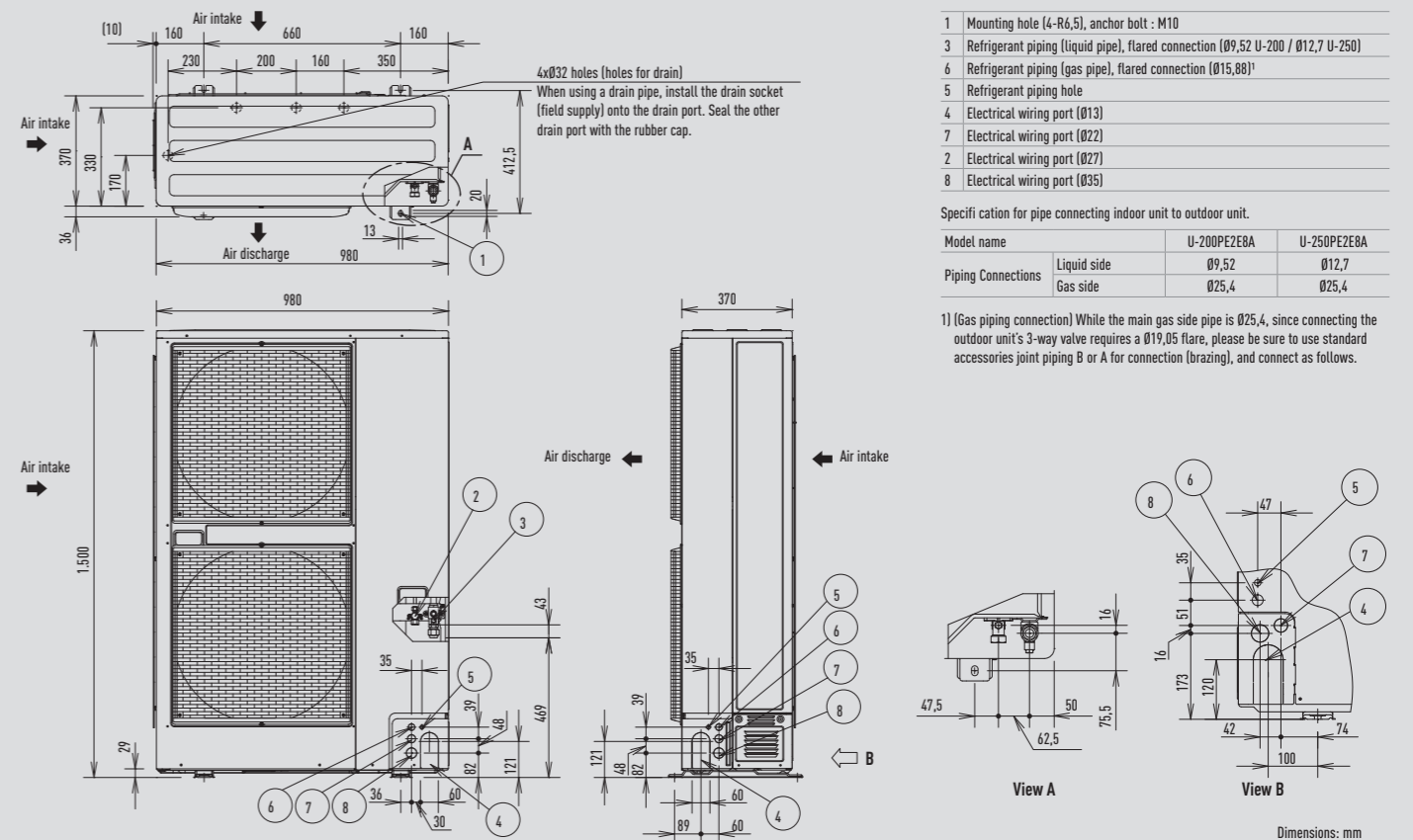
Outdoor unit PACi Standard 14,0kW and PACi Elite from 10,0 to 14,0kW



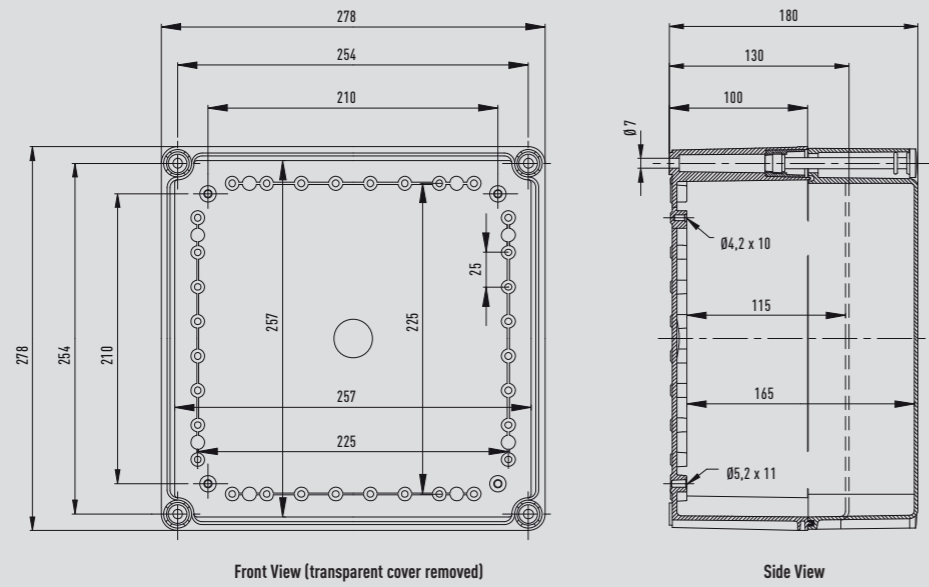
Outdoor unit PACi Standard 10,0 and 12,5kW and PACi Elite 7,1kW



Outdoor unit Big PACi 20,0 and 25,0kW



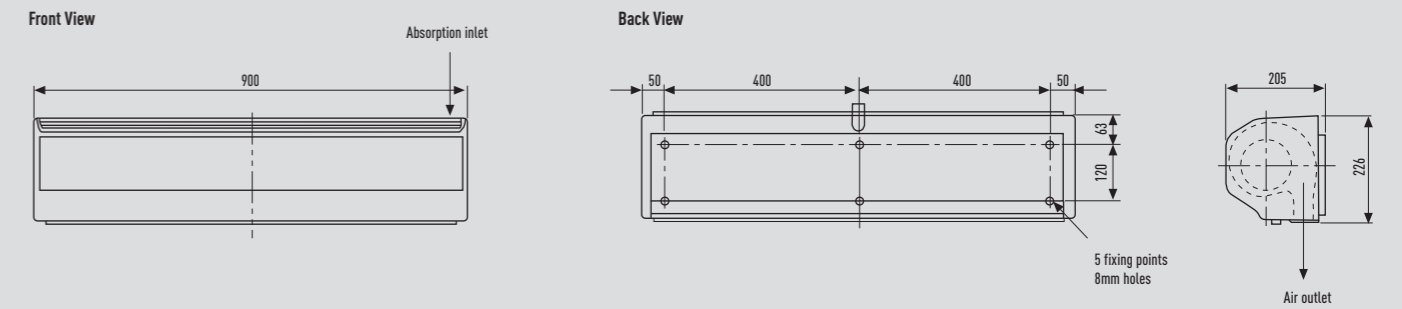
AHU Connection Kit



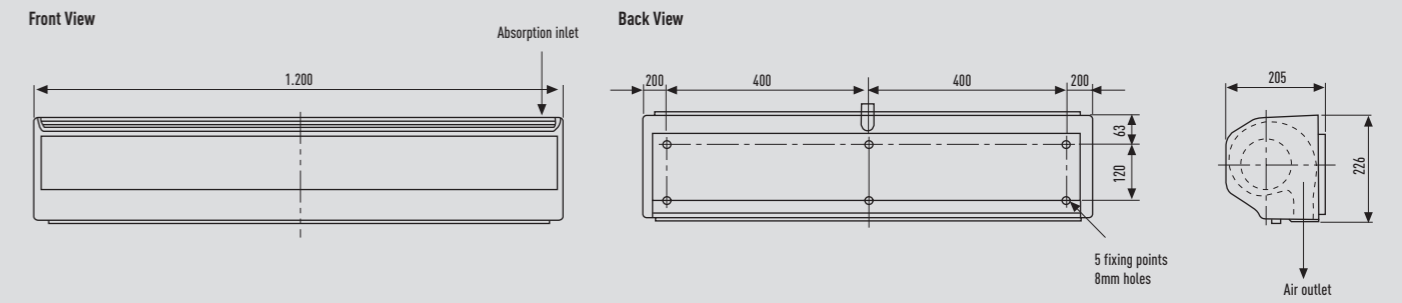
Dimensions: mm

Electric Air Curtain

Indoor unit dimensions FY-10ESPNAH



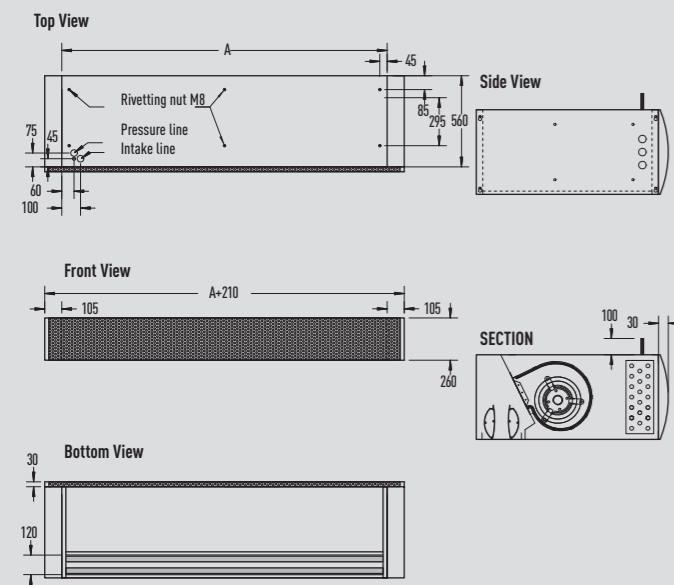
Indoor unit dimensions FY-10ELPNAH



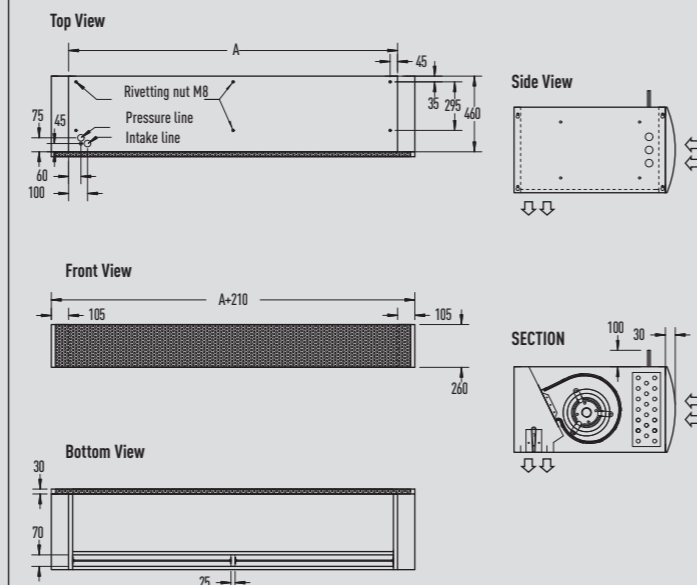
Dimensions: mm

Air Curtain with DX Coil

Jet-flow dimensions



Standard dimensions

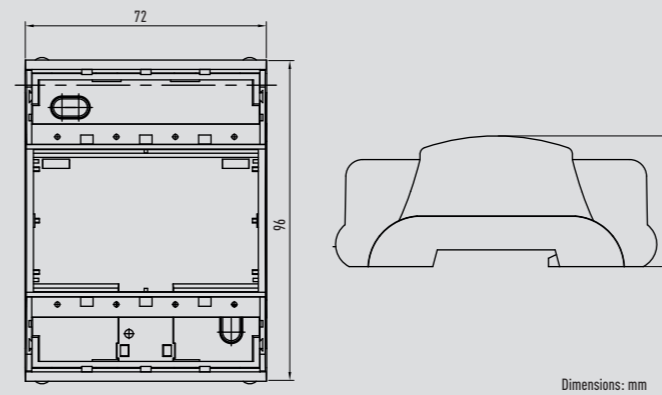


	PAW-10PAIRC-MJ	PAW-15PAIRC-MJ	PAW-20PAIRC-MJ	PAW-25EAIRC-MJ
A	1.000	1.500	2.000	2.500

	PAW-10PAIRC-MS	PAW-20PAIRC-MS
A	1.000	2.000

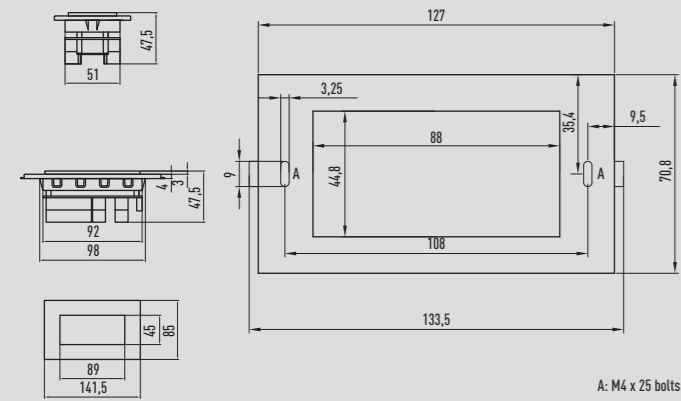
Dimensions: mm

PAW-SERVER-PKEA for PKEA

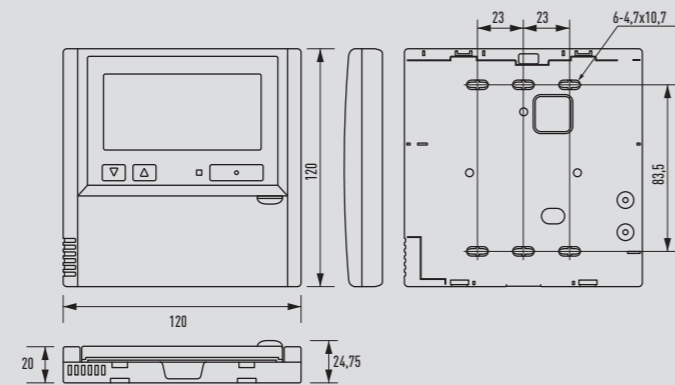


Dimensions: mm

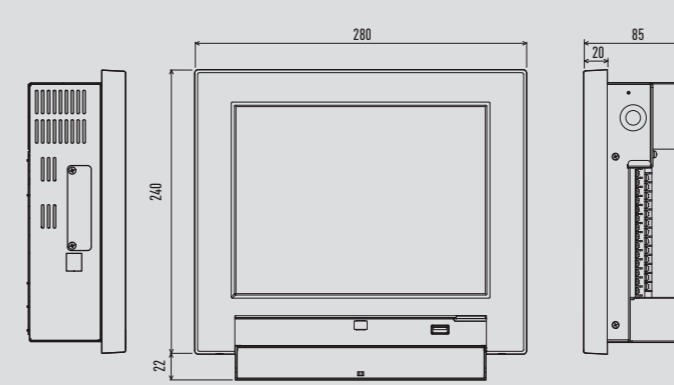
PAW-RE2C3 Intelligent Controller



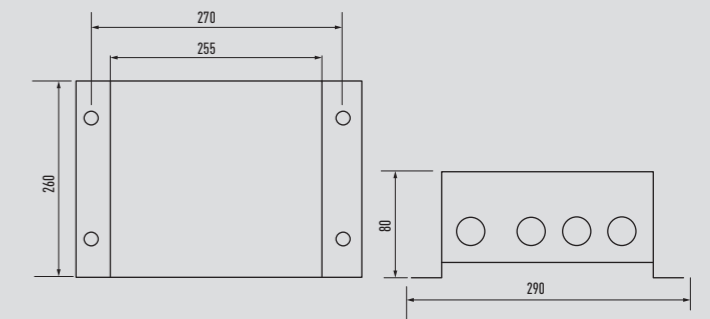
CZ-RTC4 Wired remote controller



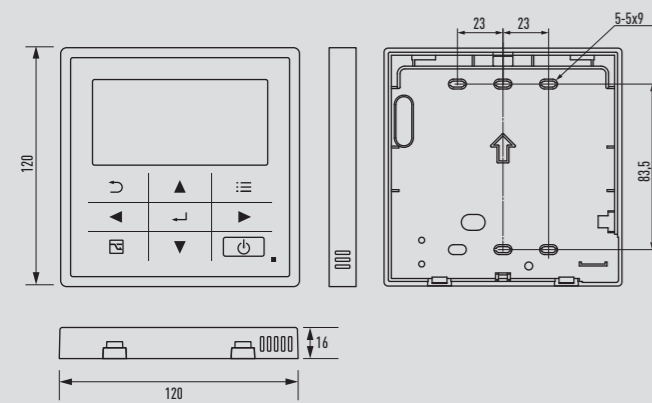
CZ-256ESMC3 Intelligent Controller (Touch screen panel)



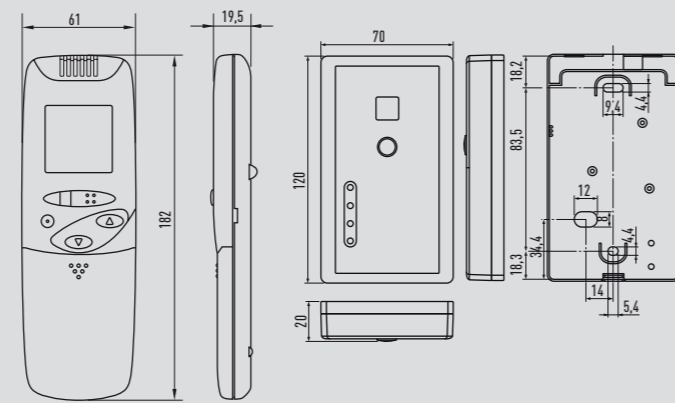
CZ-CAPDC2 Seri-Para I/O unit for outdoor unit



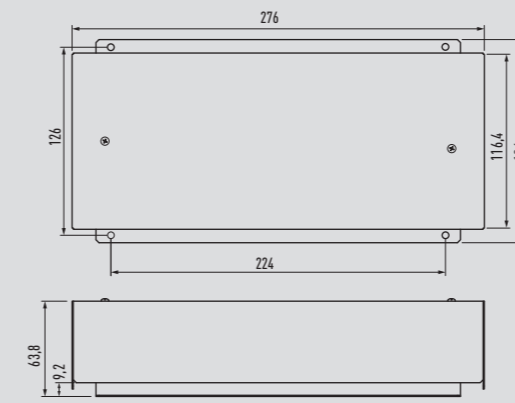
CZ-RTC5A Design wired remote controller



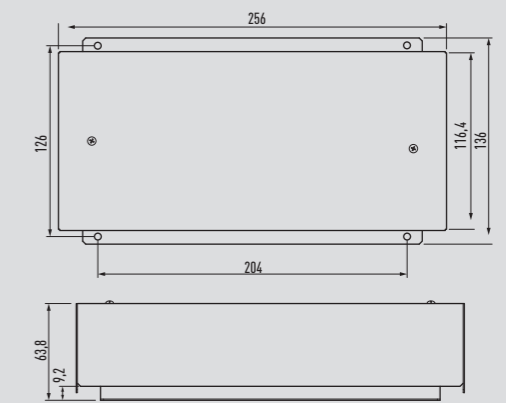
Wireless remote controller



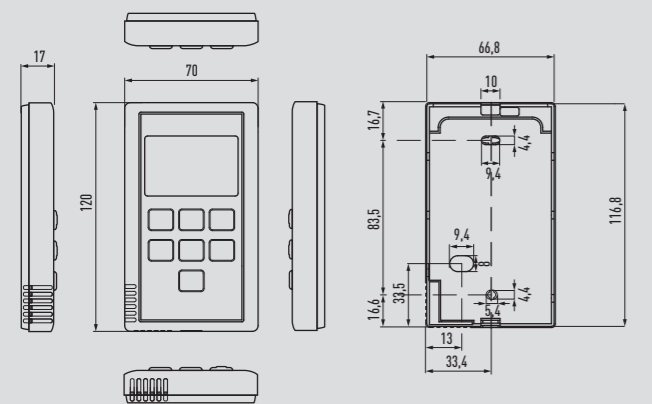
CZ-CAPC2 Local adaptor for ON/OFF control



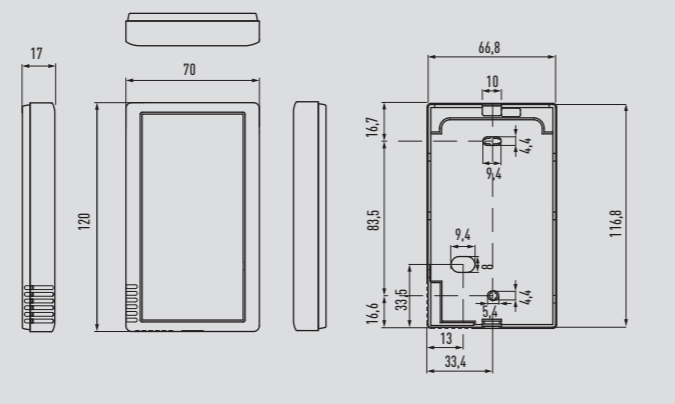
CZ-CAPBC2 Mini Seri-Para I/O Unit 0-10V



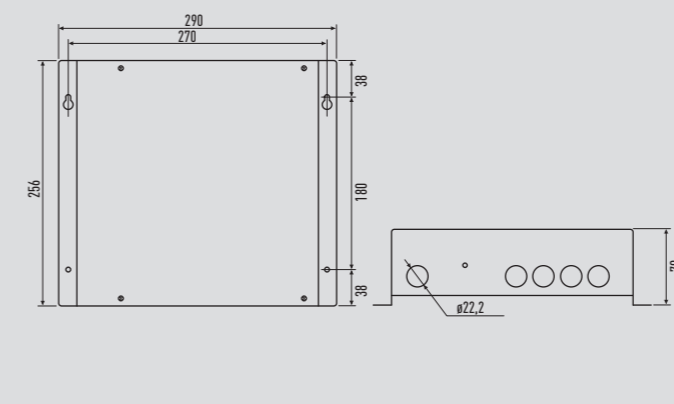
CZ-RE2C2 Simplified remote controller



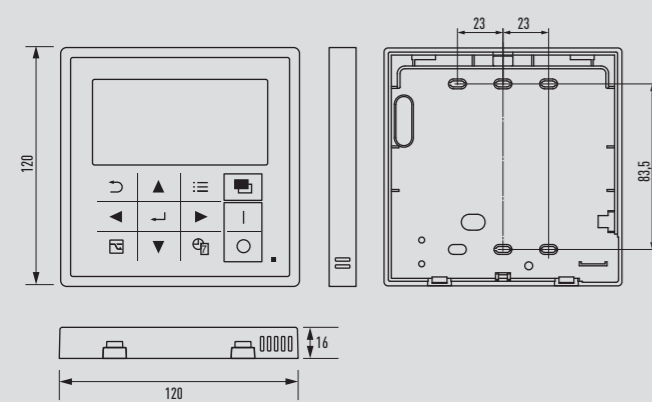
CZ-CSRC3 Remote sensor



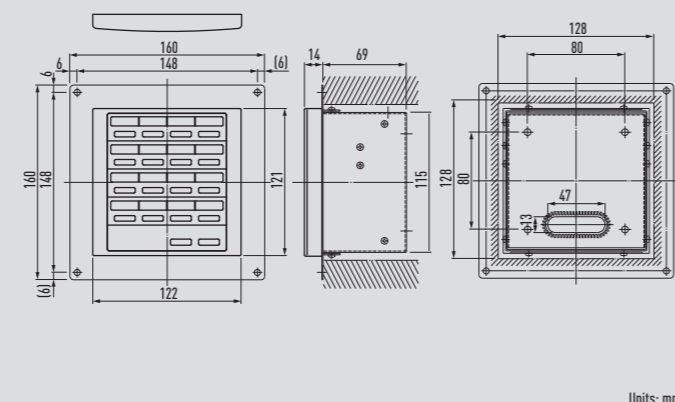
CZ-CFUNC2 Communication Adaptor



CZ-64ESMC3 System Controller with Schedule timer



CZ-ANC2 ON/OFF Controller



Units: mm

Units: mm

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Panasonic Marketing Europe GmbH
Panasonic Air Conditioning
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