

A photograph of a modern hotel building at dusk. The building features a prominent wooden facade with vertical slats and large glass windows. A courtyard with a reflecting pool is in the foreground, and a grassy area is on the right. The sky is a deep blue, and the building's lights are on, reflecting in the water.

**Panasonic**

**INTEGRATED SOLUTIONS  
FOR HOTELS**



**1958: First room air conditioner launched for domestic installation.**

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

## PANASONIC – LEADING THE WAY IN HEATING & COOLING

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



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



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



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



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



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



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



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



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



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



### 100% PANASONIC: WE CONTROL THE PROCESS

The company is also a world leader in innovation as it has filed more than 91,539 patents to improve its customers' lives. Moreover, Panasonic is determined to remain at the forefront of its market. In all, the company has produced more than 200 million compressors and its products are manufactured in 294 plants which are located all over the world. You can be assured of the extremely high quality of Panasonic's heat pumps.

This wish to excel has made Panasonic the international leader in heating and turn-key air conditioning solutions for homes, medium-sized buildings such as offices and restaurants, and large-scale buildings. These offer maximum effectiveness, comply with the strictest environmental standards and meet the most avant-garde construction requirements of our time.

At Panasonic we know what a great responsibility it is to install heating and cooling systems.



### PANASONIC EUROPE ANNOUNCES SUSTAINABILITY DECLARATION



**Panasonic establishes new targets for the business' environmental performance and CSR initiatives**  
**Best Global Green Brand 2013**

We were recently awarded Interbrand's 4th Best Global Green Brand 2013 – the highest of any consumer electronics brands.

This is the result of our commitment to energy efficient products, reduction in CO<sub>2</sub> emissions, our kids school 'eco learning' programme and much more.



#### Exemplary sustainable project. Panasonic joins Smart Electric Lyon consortium

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

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



## PANASONIC OFFERS A GLOBAL SOLUTION TO MEET ALL OF YOUR HOTEL NEEDS UNDER A SINGLE CONTROL

### INTEGRATED TECHNOLOGY THAT PERMITS BETTER WORK

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

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

We also incorporate our products in third-party systems in order to optimize and improve them. 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. With Panasonic's services and technical resources, along with experienced system integrators, we bring comprehensive solutions to our end users.

We can manage every stage of every project, like the design of the systems architecture, the setup and checkout of the system, project management, installation, service providers, plus we are also the single contact partner and bear the responsibility for the project from inception to completion.

# WITH PANASONIC YOU HAVE AN INSPIRING TECHNOLOGICAL PARTNER



## TELECOMMUNICATIONS SOLUTIONS

Providing improved communications between staff, partners, guests and visitors, via mobile or fixed technology anywhere on your premises.

A long-established provider of hotel-specific communications, Panasonic offers solutions that include hospitality-specific features and tailored applications that enable you to implement advanced business processes.



## ENHANCED CUSTOMER SERVICE

At the checkout or with a sales professional on the shop floor, Panasonic's innovative POS solutions and rugged Toughpad tablets are built to help your business run more efficiently in a stylish, compact design.



## SECURE YOUR INVESTMENT AND SAFEGUARD YOUR CUSTOMERS

To protect visitors, staff, premises and assets, Panasonic has developed a range of fire solutions with the precise requirements of the hotel sector in mind. Remote monitoring is also possible, thanks to security software.



## CAMERAMANAGER (CLOUD VIDEO SECURITY)

Providing 24/7 remote video surveillance of your premises and vehicles, accessed via your PC laptop, tablet or smartphone, Cameramanager allows you to keep a close eye on all aspects of your hotel, wherever you are.



## HOLD IMPRESSIVE PRESENTATIONS AND MEETINGS

With our interactive boardroom displays, with versatile connectivity options and projectors that can be controlled and driven via your tablets or other devices.

## KEEP GUESTS AND VISITORS INFORMED AT ALL TIMES

With our interactive digital signage solutions, you can take a proactive approach to keeping your guests informed and provide on-demand information via self-service touch devices.



## ENHANCE SAFETY

From network cameras, equipped for cutting-edge face detection and 360-degree coverage, to high-performing Full HD network video recorders, and network encoders and decoders.

## INCREASE COLLABORATION BETWEEN MULTIPLE SITES

With Full HD video collaboration solutions which allow you to communicate with colleagues and partners in perfect clarity. Product details, documents, even facial expressions – they're all made clear across multiple locations with our solutions.



## SOLAR PHOTOVOLTAIC PANELS

Panasonic HIT Photovoltaic panels are worldwide recognised for highest efficiency and durability. Produce more electricity per square meter to increase your energy savings still further.

## LED LIGHTING SOLUTIONS

Panasonic LED lamps are not only kind to the environment, they also last for many years to ensure long-term cost savings.



GAS

ELECTRICITY

ECO G

ECOi 2 and 3 way

Mini ECOi

PACi

Aquarea

## HEATING AND COOLING SOLUTIONS

Panasonic provides reliable, high quality, energy efficient and attractive heating and cooling systems, designed especially for the challenging demands of the hotel environment. Ensuring a comfortable and inviting climate, Panasonic heating and cooling units feature the latest space-saving and energy-saving technologies, are quiet and stylish, and are cleverly designed for easy installation and maintenance.

## MULTI ENERGY SOLUTION FOR MORE FLEXIBILITY

The Multi energy solution (Gas and Electric) from Panasonic gives the best in energy saving and flexibility for installation. Panasonic solutions can be connected direct expansion systems, water chiller installations and ventilation systems as air handling units.

# 10 REASON WHY PANASONIC IS THE BEST SOLUTION FOR YOUR HOTEL



1

## COMPLETE SOLUTION - MULTI ENERGY SOLUTION

Panasonic offers the widest range in Heating, Cooling, Domestic Hot Water and Ventilation based on gas or electricity. That enables us to offer the most suitable solution to any project. And this all with the peace of mind provided by a fast customer service which is available 24 hours a day, 365 days a year.

No matter how big your hotel is, Panasonic has the solution that offers you the best profitability. Working from as low an outside temperature of -25°C and a 5 year warranty on the compressor, both you and your guests will sleep calmly.

2

## FLEXIBILITY AND ADAPTATION

The modularity as well as the flexibility of our systems allow for easy adaptation to any technical or architectural constraints. Be it for small or big hotels, our solution is the one that adapts best, both to new projects and to refurbishing existing ones.

Compact Heat recovery boxes powered by the indoor unit (no need of additional power line). Quieter, more efficient and smaller than ever, the new super-efficient design also means reduced installation and maintenance.

The new kits provide installation flexibility, particularly appropriate for hotels whilst also meeting the latest industry regulations.

Additional available space: Due to the modularity applied to our systems, our customers have free space for public use: Terraces, swimming pools, meeting rooms, parkings.

3

## PUMP DOWN SYSTEM: IMPROVING SECURITY, DETECT REFRIGERANT LEAKS EARLY!

Panasonic has developed two innovative solutions to detect refrigerant leaks that offer complete assurance and protection for end users, building occupiers and the environment.

Panasonic's innovative Pump Down Systems help buildings equipped with this system qualify for additional BREEAM points and help to achieve compliance with current EN378 2008 standard, where refrigeration concentration levels exceed practical safety limits of 0,44 kg/m<sup>3</sup>.

4

## GO GREEN HOTEL: LOWEST CO<sub>2</sub> EMISSIONS

Excellent all year round efficiency. Its operational performance while working at partial load is, by far, the variable that will offer real running cost savings throughout the year.

The energy savings provided by our solutions, plus the available choice between electricity and gas, will enable you to reduce your CO<sub>2</sub> emissions.

5

## COMFORT - MAXIMUM SATISFACTION

The satisfaction of the guests depends to a great extent on two elements: comfort and noise. Panasonic solutions not only ensure a higher customer satisfaction but also delivers peace of mind that is assured by Panasonic's extensive experience in these fields.

- Precise temperature: Panasonic is the first manufacturer to incorporate real control of real temperature felt by the guest. This delivers enhanced comfort and reduced energy costs. This will bring about enhanced comfort and a reduced energy bill.
- Quieter rooms: Both the interior and outdoor units have been designed with extremely low noise levels. Besides which, Panasonic offers the possibility of installing the expansion valve up to 15 meters away from the indoor unit which reduces noise levels further.
- User-friendly Intuitive controls. Besides the simplified controls for the hotel, we have a remote control unit that is tailor-made for hotel rooms. With a single unit, the guest can control the lighting, the blinds, switch air conditioning on and off... The advantage for the Hotel is that it controls and coordinates several devices and provides an output for the BMS system.



## 6 RENOVATING WITHOUT INTERFERING WITH THE HOTEL OPERATIONS

Panasonic is carrying out important refurbishing projects, replacing both VRF and water equipment. Panasonic solutions allow replacing equipment in stages, substituting equipments in stages, without interfering with the normal hotel operations, thanks to its shutoff valves. Besides which, the piping for the R22 gas used by older installations can be reused with our R22 Renewal solution. An important drive to further reduce the potential damage to our ozone. By installing a new high efficiency Panasonic R410A system you can benefit from around 30% running cost saving compared to the R22 system.

## 7 FUTURE EXPANSION

An advantage of the modularity is that it allows for expansion in a simple way. For instance, if an expansion of the air conditioning system is required, we add an additional system with the requisite capacity, with the maximum flexibility in terms of its location. But, beyond doubt, one of the distinct traits with Panasonic is that it allows for cutout valves. When there are plans for future expansion, the installation can be built using the units sized for future expansion requirements.

## 8 PANASONIC IS DEFINITELY THE MOST EFFICIENT SYSTEM OVER THE YEARS

Super high efficiency at part load conditions: When many others manufactures do not declare performance data under 50% part load, Panasonic covers up to 30% part load with extremely high efficiency.

LOAD %	110 %	100 %	60 %	50 %	40 %	30 %
Other competitors	3,52	3,38	3,45	3,50		
Panasonic VRF 6N Series 32HP Standard	3,38	3,41	4,41	4,69	4,85	4,93
Panasonic VRF 6N Series 32HP HI COP	3,91	3,94	5,14	5,54	6,03	6,51

Conditions: Outdoor temperature 0°C DB, Room temperature 20°C DB.

## 9 HIGH QUALITY OF SERVICE WITH PANASONIC PRO-PARTNER INSTALLATION TEAM

Panasonic is able to deliver outstanding level of service quality through the Panasonic Pro-Partner team:

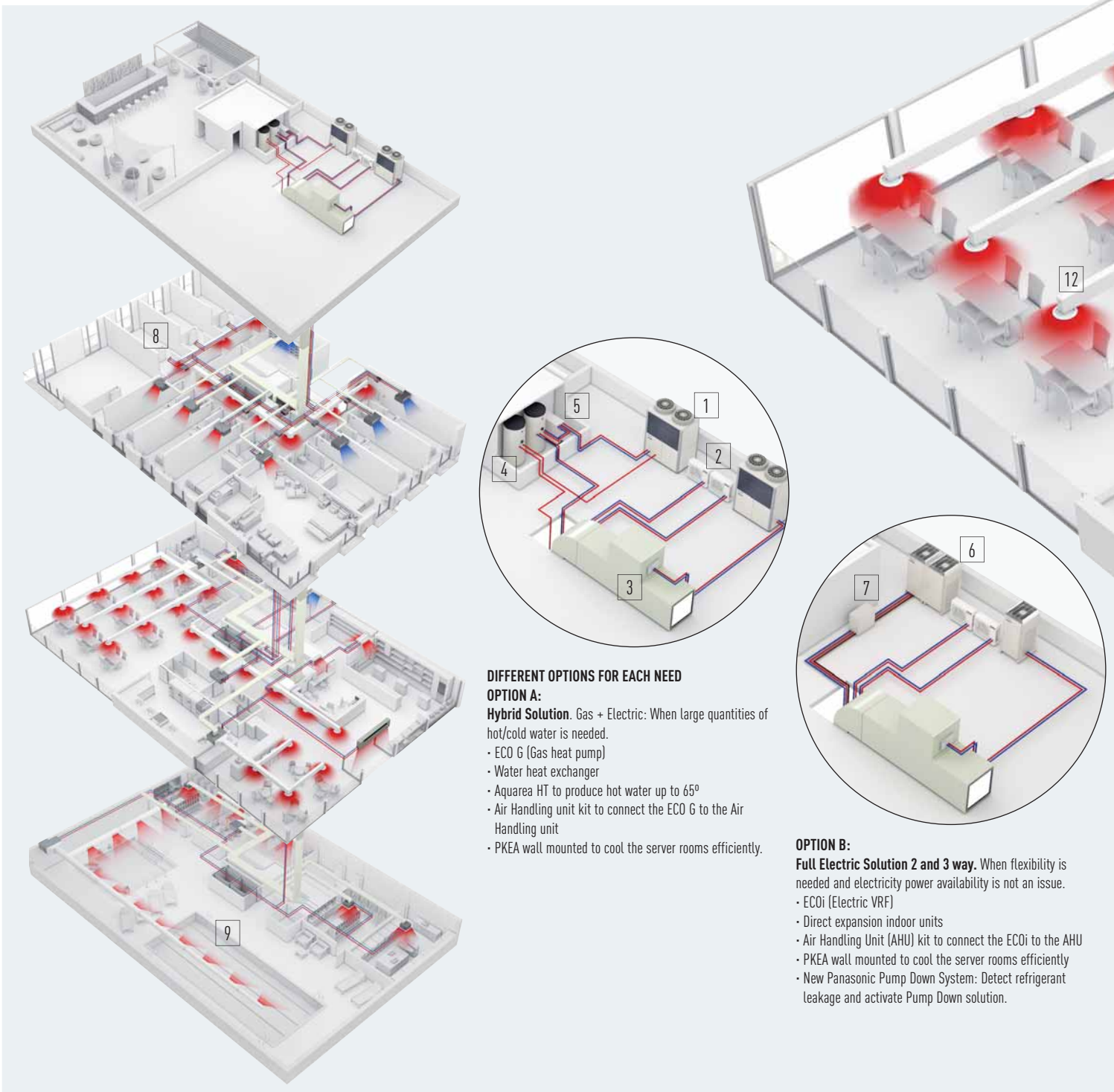
- Spare part delivery in 24h or next day dispatch directly to the installer
- Dedicated hotline to answer to technical questions
- 5 years compressor warranty
- Warranty extension plan to 5 years and 10 years (see conditions with Panasonic representative)

Panasonic Spec-in team and Key Account team is also able to follow your retrofit and expansion plan and offers you the best option to meet your targets.

## 10 OTHER PANASONIC BENEFITS

- Efficient defrost operation. Panasonic use the second unit to defrost the first unit. This makes the system more efficient during defrost and does not affect comfort.
- Panasonic ECOi operates up to -25°C. This unique feature demonstrate the supremacy of Panasonic ECOi 6N Series Panasonic use the second unit to defrost the first unit. This makes the system more efficient during defrost and does not affect the comfort. The system will still operate up to 25% of the connected indoor units. System will not stop when up to 25% of indoor units have power supply breakdown when they are ON Mode.
- High safety operation in case of breakdown! Ensures heating and cooling. AUTOMATIC BACK-UP OPERATION. It is possible for the system to keep working, even if the compressors, fan motor and the temperature sensor are damaged (even when compressor fails in single unit with 2 or more compressor inside).

# MANAGE YOUR ENTIRE HOTEL: MAXIMUM SAVINGS, MAXIMUM CONTROL AND COMFORT



**DIFFERENT OPTIONS FOR EACH NEED**

**OPTION A:**

**Hybrid Solution.** Gas + Electric: When large quantities of hot/cold water is needed.

- ECO G (Gas heat pump)
- Water heat exchanger
- Aquarea HT to produce hot water up to 65°
- Air Handling unit kit to connect the ECO G to the Air Handling unit
- PKEA wall mounted to cool the server rooms efficiently.

**OPTION B:**

**Full Electric Solution 2 and 3 way.** When flexibility is needed and electricity power availability is not an issue.

- ECOi (Electric VRF)
- Direct expansion indoor units
- Air Handling Unit (AHU) kit to connect the ECOi to the AHU
- PKEA wall mounted to cool the server rooms efficiently
- New Panasonic Pump Down System: Detect refrigerant leakage and activate Pump Down solution.



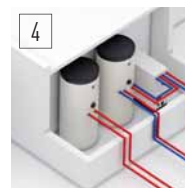
**ECO G (Gas heat pump)**  
ECO G gas VRF is specially designed for buildings where the electricity is restricted or CO<sub>2</sub> emissions must be reduced. Very high preliminary efficiency ratio. Very low electrical consumption. Sanitary hot water is produced freely in summer.



**PKEA outdoor unit for server room**  
Steady cooling, nonstop, even at -20°C and still with high efficiency. Ready for continuous operation and easy to connect 2 systems to automatically alternate and ensure server rooms are kept cool with maximum operating guaranteed.



**Air Handling Unit kits for efficient ventilation**  
The new AHU kit is specially designed to improve the efficiency of the pre-heating or pre-cooling process of the ventilation.



**Domestic Hot Water production and buffer tanks**  
Panasonic has developed a wide range of efficient domestic hot water tanks and buffer tanks.



**Hydronic units**  
For obtaining hot and cold water for heating and refrigeration (Aquarea Air radiators, underfloor heating, radiators...)

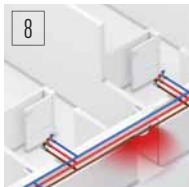
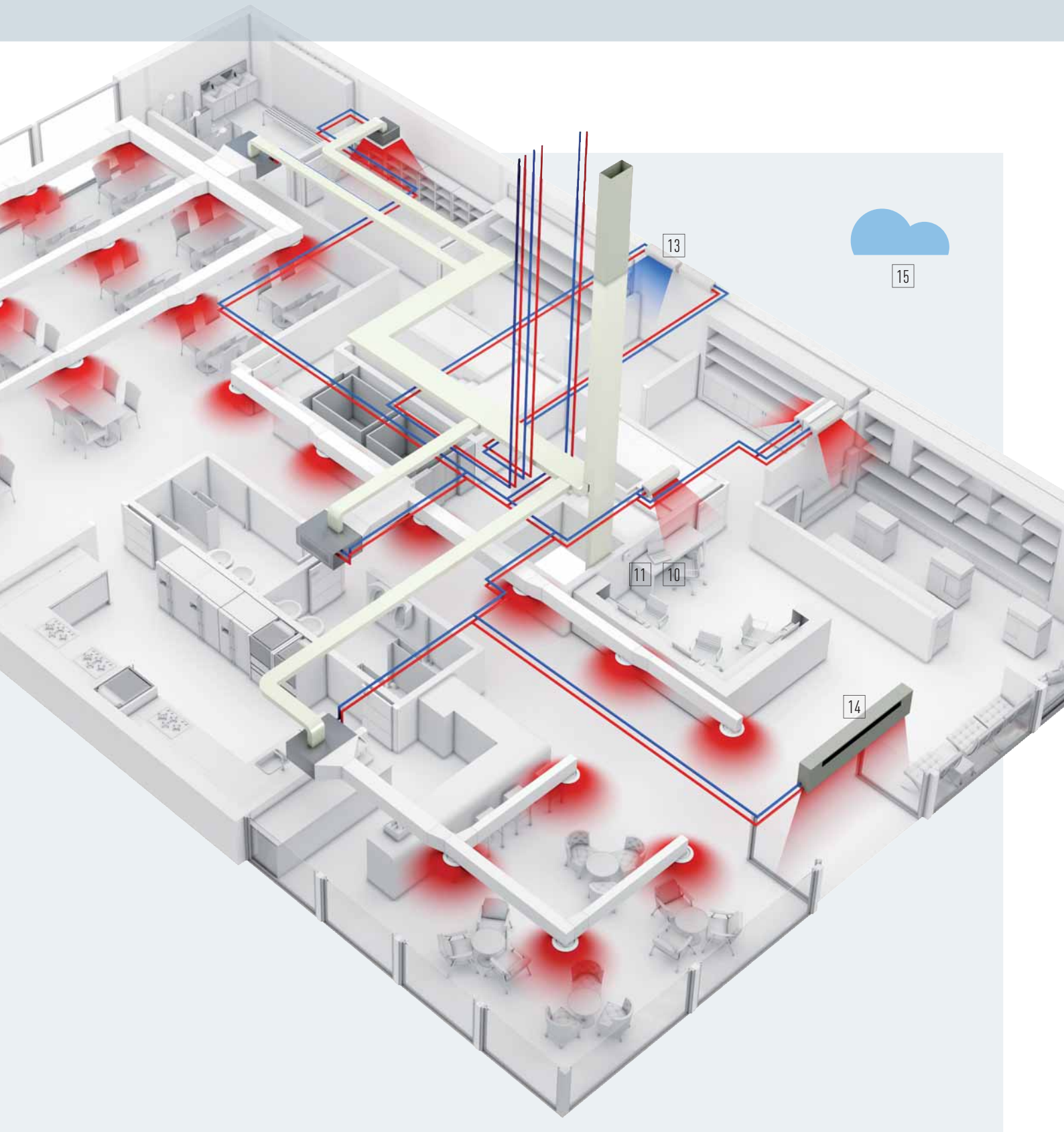


**Ecoi (Electric VRF)**  
ECOi electrical VRF is specifically designed for the most demanding hotels. High efficiency system. Extended operating range to provide heating at outdoor temperature as low as -25 °C. Suitable for refurbishment projects.



**Improving security, detect refrigerant leaks early!**  
Panasonic's innovative Pump Down Systems help to detect refrigerant leaks that offer complete assurance and protection for end users, building occupiers and the environment.

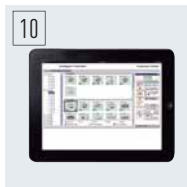




**8**  
**Cutoff valves**  
 When there are plans for future expansion, the installation can be built using the units sized for future expansion requirements.



**9**  
**Maximum savings on hot water production**  
 Hot water for swimming pool, spa and laundry for free thanks to the residual heat generated by the ECO G units



**10**  
**Protocol friendly**  
 Great flexibility for integration into your KNX / EnOcean / Modbus / LonWorks / BACnet projects allows fully bi-directional monitoring and control of all the functioning parameters. Range of solutions to control locally or remotely the full system in bi-directional mode.



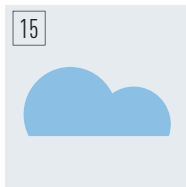
**11**  
**Control your way**  
 Wide variety of controls, from simple user control to full system control via remote access functionality. Touch panel, web server, consumption monitoring, smartphone control... everything is possible.



**12**  
**Wide range of indoor units**  
 Complete range of indoor units that fits any need. All units provided with supply air temperature sensor and low operation sound level to guarantee maximum guests comfort. From 1,5kW up to 30kW.



**14**  
**Air Curtain with DX coil**  
 The Panasonic range of air curtains is designed for smooth operation and efficient performance.



**15**  
**Cloud Service**  
 Connect several hotels with a secure Cloud Service for remote and predictive maintenance. Improves operating efficiencies and reduces costs.

# NEW CONTROL AND ROOM SOLUTIONS FOR HOTEL



1

**Nº1**  
FOR HOTEL APPLICATIONS  
**ALL IN ONE!**

## CONTROL TO INTEGRATE ALL ROOM HOTEL NEEDS IN ONE DEVICE

- Design: attractive design with adaptable colour frame
- Devices to control: Card switch, light control, curtains and blinds,... and heating and cooling system
- Connected to your hotel Protocol (Lon, Modbus,...)
- Multiple possibilities:
  - Turn on system when check-in
  - Set up scenarios: temperature and light set up (vacant, empty, occupied, night, day...)
  - Saving energy by fixing minimum and maximum temperature ranges
  - Optimise the comfort and running cost.



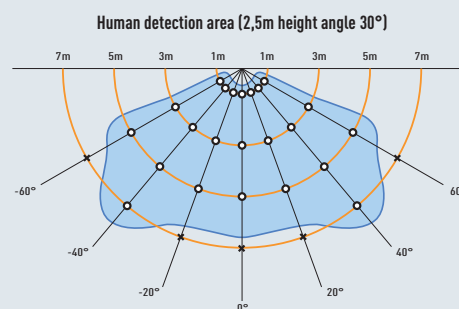
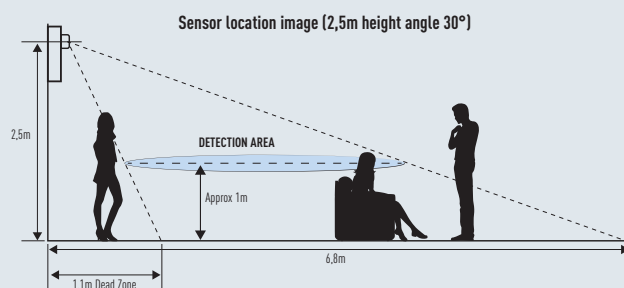
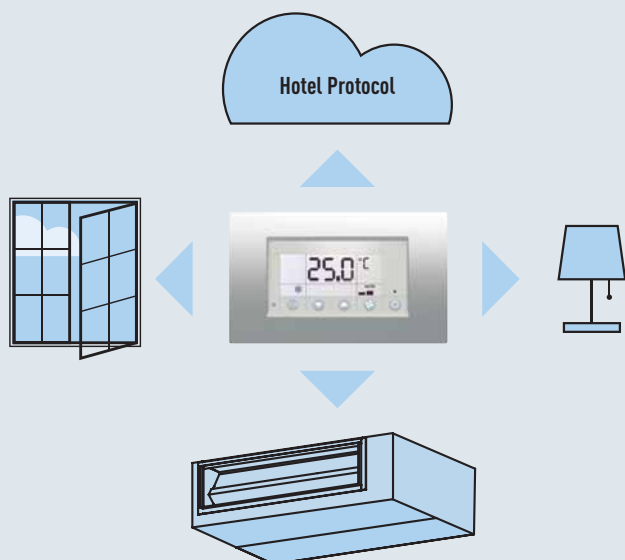
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**ECONAVI**

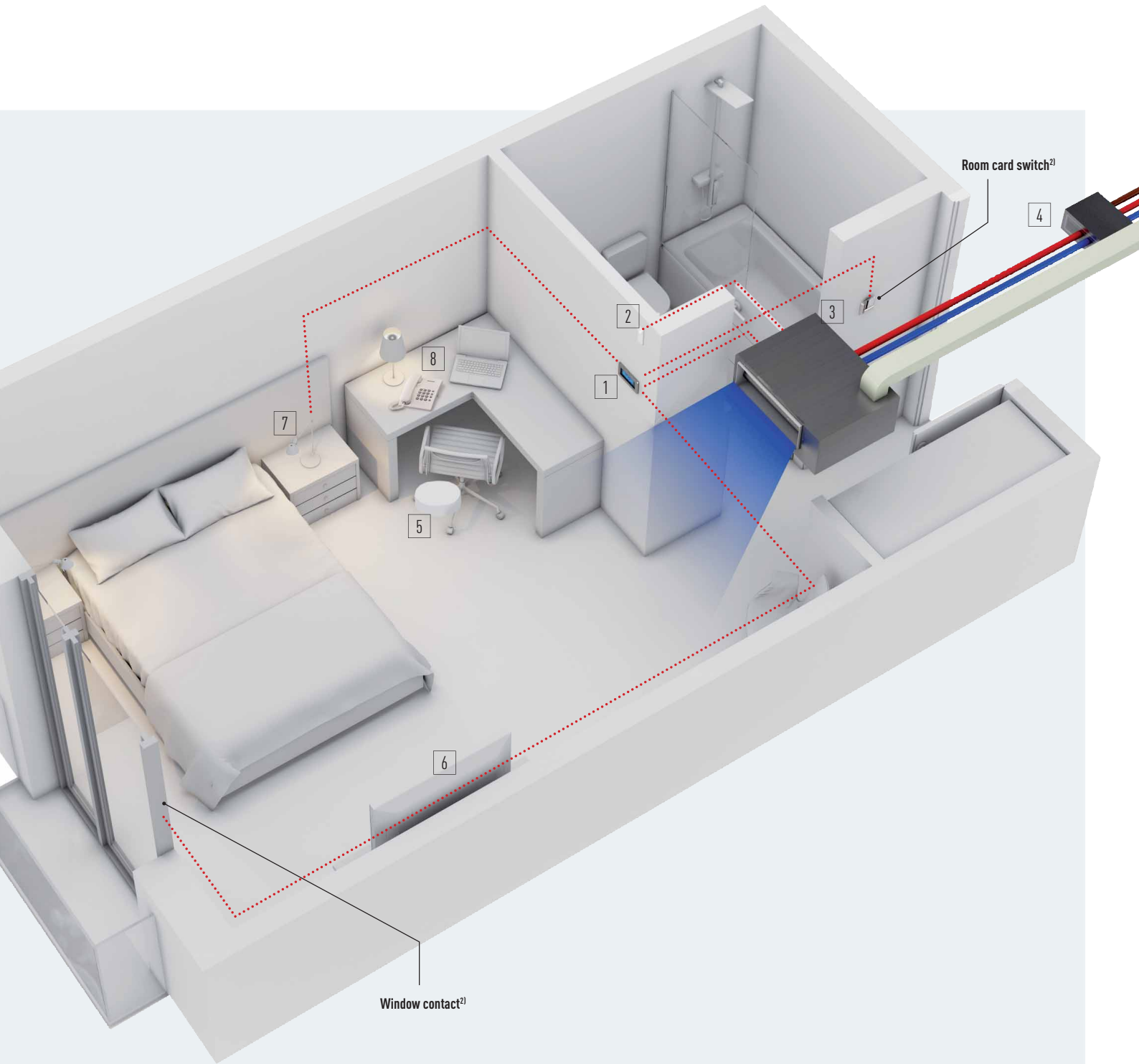
## ECONAVI SENSOR <sup>1)</sup>. BETTER COMFORT, SAVINGS AND BETTER EFFICIENCY

The all new Econavi Sensor detects presence in the room, and quietly adapts the 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 (lower) temperature previously set
- Item ready for installation in most suitable place. For meeting rooms and guest rooms.



1) Only with CZ-RTC3 remote control



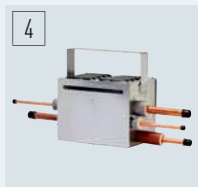
**1**  
**Simplified remote control of the air conditioning**

The easy to handle remote control has been designed specifically for hotels rooms.



**3**  
**Duct designed for hotel guest rooms**

Super silent units deliver the ideal air supply for hotel guest rooms. Units available from 1.5kW providing precise temperature control even in small rooms. Two models available: slim unit for height restricted areas (MM unit only 200mm deep), another which allows 100% fresh air (MF).



**4**  
**Compact Heat recovery boxes powered by the indoor unit (no need of additional power line)**

Quieter, more efficient and smaller than ever, the new super-efficient design also means reduced installation and maintenance. The new kits provide installation flexibility, particularly appropriate for hotels whilst also meeting the latest industry regulations.



**5**  
**Fire detector sensor**

Connected to the heating and cooling devices. To protect visitors, staff, premises and assets, Panasonic has developed a range of fire solutions with the precise requirements of the hotel sector in mind.



**6**  
**Viera Flat Screen TV**

The new Panasonic Smart Viera TV, redefines your TV viewing experience. Boasting excellent picture quality, stunning design and so many new & intelligent features, it's much more than a Smart TV.



**7**  
**LED Lighting**

Panasonic LED lamps are not only kind to the environment, they also last for many years to ensure long-term cost savings.



**8**  
**Panasonic Smart Desk Phone**

Panasonic Smart Desk Phone provides an environment for developing applications that enhance business productivity and service. They let you develop applications that meet customer needs, and operate them on the Smart Desk Phone.

2) Field supply



Panasonic offers a purposely engineered solution which allows for a quick and simple installation. The unit contains 5 actuating ball valves, a 30L storage vessel and PLC all housed in an IP54 rated container. Terminals on the front of the unit allow for easy wiring to the alarm terminal, high / low pressure transducers and discharge temperature sensor(s) of the condensing unit(s).

## LEAK DETECTION AND AUTOMATIC REFRIGERANT PUMP DOWN

### IMPROVING SAFETY AND THE ENVIRONMENT

Panasonic has developed an innovative solution to detect refrigerant leaks that offer complete assurance and protection for end users, building occupiers and the environment. Panasonic's Pump Down System is ideal for hotels, offices and public buildings where safety for occupants and the building owners is of utmost importance. The system monitors refrigerant leakage continually and provides a warning before refrigerant leaks, preventing major refrigerant loss and potentially damaging the system's efficiency. The new system can improve potential refrigerant loss to approximately 90%.

As well as ensuring safe and reliable operation, Panasonic's Pump Down System contributes to a building qualifying for additional BREEAM points and enables compliance with current EN378 2008 standards, covering applications where refrigeration concentration levels exceed practical safety limits of 0.44 kg/m<sup>3</sup>.

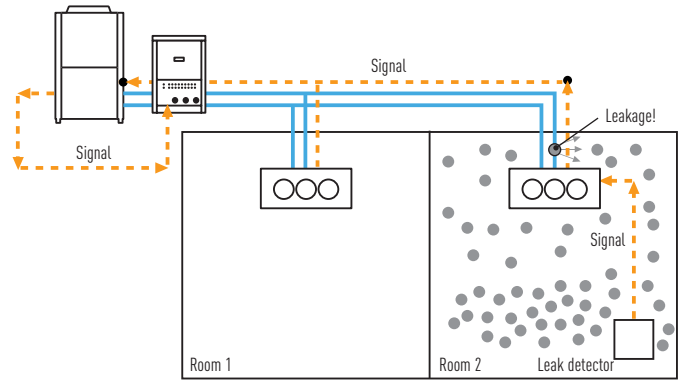
Panasonic has developed two detection methods that can operate simultaneously to offer complete protection for owners, building occupiers and the environment.

**Direct Leak Detection Method: The Safest Solution for Small Rooms**

This option should be implemented in any area in non-compliance with BS EN 378:2008. The leak detector is connected directly to the indoor unit via the dedicated PAW-EXCT connector and the Pump Down System is directly connected to the outdoor unit PCB.

The Pump Down System will activate when a leak is detected in the room and initiate a refrigerant reclaim operation immediately, the refrigerant will be collected inside the outdoor units' heat exchanger and optional receiver tank for larger systems. This immediate reaction and large refrigerant storage capacity offers very high level of safety for end users, building occupiers as well as being environmentally friendly.

Due to the exclusive ECOi software the leak detection sensors are able to communicate directly via the P-link which means no additional communication panels, cabling or software is required.



**In-Direct Leak Detection Method: Unique PLC Algorithm to Determine Refrigerant Leakage**

Pressure and temperature sensors constantly monitor the low / high pressure and discharge of the condensing unit to protect against potential leakage in areas not covered by leak detectors. If low pressure decreases and compressor discharge temperature increases at pre-defined values according to a pre-set algorithm then the unit will trigger a pump down sequence. The new innovative algorithm is able to detect leakage of R410A based on abnormal changes in the following conditions, high pressure, low pressure and compressor discharge temperature.

Once initiated via either direct or in-direct detection, the unit will immediately close the liquid / discharge actuating ball valves close the alarm terminals on the Pump Down PCB allowing an alarm to be raised at any nominated location.

Reclaim of the refrigerant is via the suction line to the heat exchanger(s) of the outdoor unit(s), any surplus refrigerant is collected in the 30l receiver tank. Once fully pumped down the suction line is closed and the unit awaits a 'Reset' and 'Recharge' command.

Fig 1: Panasonic's Pump Down System

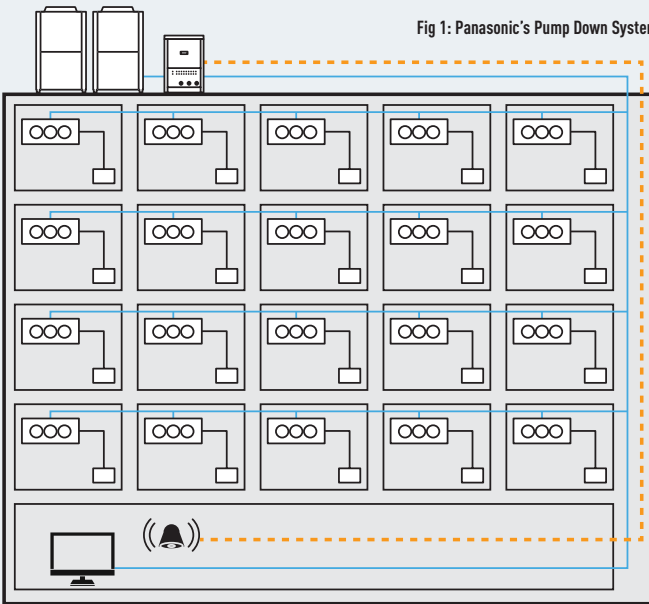
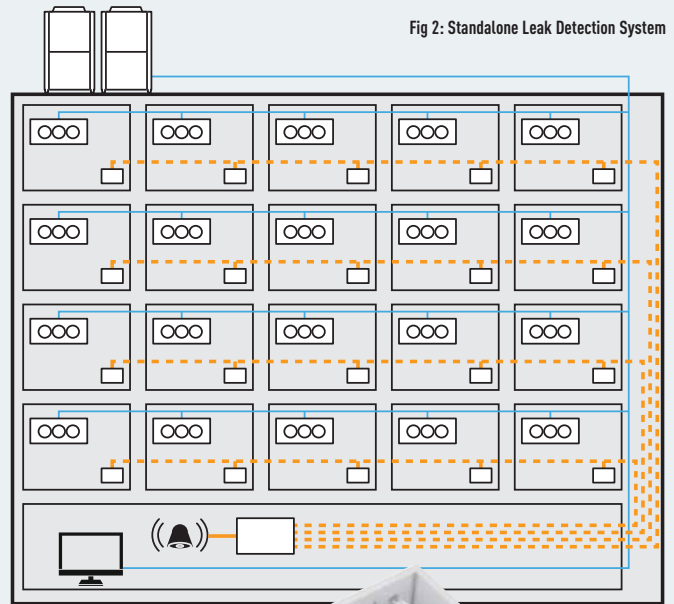
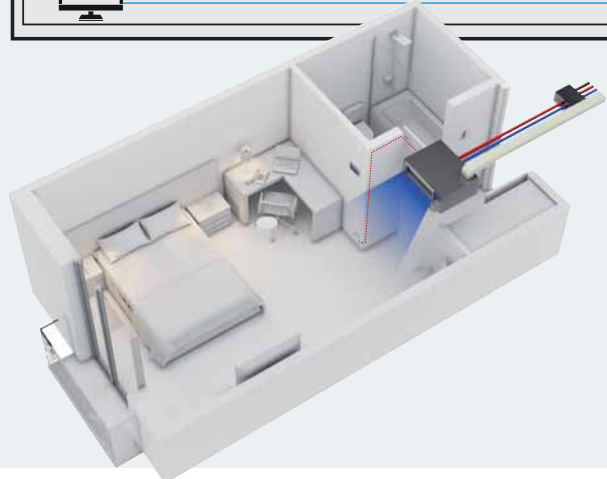


Fig 2: Standalone Leak Detection System



Due to the simplistic installation and control interfacing, shown in Fig 1, Panasonic's ECOi Pump Down System can provide dramatic reduction in capital cost and installation time when compared to a standalone leak detection system, shown in Fig 2. This option is ideal for hotels, offices and public buildings where safety of building occupiers is a must and is extremely cost effective, savings of 40% can be easily achieved.





## SUPPORTING MAJOR NAMES ACROSS THE HOTEL INDUSTRY

### PROJECTS & CASE STUDIES OF PANASONIC HEATING AND COOLING SOLUTIONS



#### **HOTEL OD PORT PORTALS, PORTALS NOUS, CALVIÀ. PALMA DE MALLORCA**

The Hotel Port Portals take advantage of, its location, its topography and orientation to offer in each of their rooms, the best views over the sea. The project was designed with a total of 10 VRF systems (338kW). Two of these systems are ECO G (156kW) units. This two units supply cooling and heating to the ground floor and common areas. The remaining eight systems ECOi (182kW) serving the 77 rooms.



#### **HOTEL VINCCI GALA. BARCELONA**

The Vincci Hotel Gala is a 4 \* hotel with 78 rooms and common areas located in an old elegant building dated 1914, in Barcelona.

As one of the points most impact on the power consumption of a hotel is the generation of domestic hot water (DHW), engineering project manager proposed an innovative cogeneration system based three ECO G systems plus seven ECOi systems. The new Vincci Gala saves up to 70% energy with ECO G Panasonic systems.



#### **HOTEL CLARIS 5\* GL. BARCELONA**

The challenge presented by this project was to replace an existing VRF system without affecting the normal activity of hotel. The main objectives were to reduce running costs, provide a more comfortable atmosphere with more precise temperature control, and quieter operation for guests.

The heat recovery system is ideal for a hotel of this category. Thanks to the modularity of the system ECOi, the installation was performed plant-by-plant without affecting the normal activity of hotel.



#### **THOMAS COOK. SUNPRIME ATLANTIC VIEW SUITES & SPA**

Located in the Canary Islands, this 4\* Hotel needed to upgrade existing plant without affecting daily life. The old system was two chillers to cool 250 rooms (240kW) and two boilers (69kW) providing hot water for heating swimming pools and Spa. Panasonic's Gas driven VRF (GHP) with Hydrokit was the ideal solution as it provides superior performance with impressive energy savings. The new system cools the rooms and provides 'free' hot water. With Panasonic unique solution significant energy savings are achieved.

Installation was simple and the upgrade was made without impacting the hotel resort's normal operation.



#### **EUROPA PARK, GERMANY**

Europa-Park is the second most popular theme park resort across the world with around 5 million visitors per year, mainly from Germany, Switzerland and France.

The Mediterranean elegance surrounds you when staying overnight in the themed 4\* hotel "El Andaluz". The other 4\* hotel "Castillo Alcazar" showing a mysticism and magnificent interior of an old castle combined with all modern comforts of our times.

The installation for both hotels had to be done during the winter break within 9 weeks, which has been a big challenge for hotels with approximately 300 rooms. Panasonic ECOi has been chosen for the reliability and because it is easy to install. The high efficiency of the units throughout the year has also been taking into consideration.



#### **RIVER PARK HOTEL, NOVOSIBIRSK, RUSSIA**

Words from the River Park managing director:

The main reason we chose a Panasonic VRF system was for its cost performance. Our decision took into account the costs associated with the VRF equipment, the installation, and ongoing operation—an important point that a lot of companies don't consider.

Knowing the strong reputation of the Panasonic brand also helped us feel confident in our choice, as did the recommendations of business colleagues who have recently installed Panasonic systems in their buildings.



#### **TRAVELODGE HOBART HOTEL, AUSTRALIA**

This Travelodge Hotel is located in the historic part of Hobart, close to the city's top tourist attractions. The hotel is owned by the Toga Group, an Australia-based group of companies specialising in property development, construction, investment, and management. When Toga decided to upgrade the hotel's conventional split-type air conditioning, a number of VRF suppliers offered solutions. But in the end the owners opted for a sophisticated solution proposed by Panasonic Australia.



#### **PATRA JASA BANDUNG HOTEL, INDONESIA**

This hotel in Bandung is part of the Patra Jasa hotel chain, which operates in many locations around Indonesia. Opened in 2012, the hotel has 85 guest rooms shared across two buildings, with all of the hotel's facilities housed in one of those buildings. Here, Panasonic's DC motor mid-static ducted indoor units work to make guest rooms quiet and comfortable.

# R22 RENEWAL

AN IMPORTANT DRIVE TO FURTHER REDUCE THE POTENTIAL DAMAGE TO OUR OZONE

Possible to use on R22 pipings  
R22 RENEWAL

## R22 replacement. Why do we need to replace R22?

By 1st January 2015 it will become illegal to use R22 refrigerant for serving and maintenance of all air conditioning systems. Hydrochlorofluorocarbon, also known as HCFC, refrigerants have ozone depletion potential which is very harmful to the environment if leaked. As of January 2010 a ban in the use of virgin R22 refrigerant came into force for the servicing and maintaining R22 air conditioning systems under the EC Ozone Regulation No.1005/2009.

R22 replacement will also provide a cost effective solution thanks to the highly energy efficient systems of Panasonic.

## Unique R22 renewal from Panasonic: fast, easy to install and cost effective

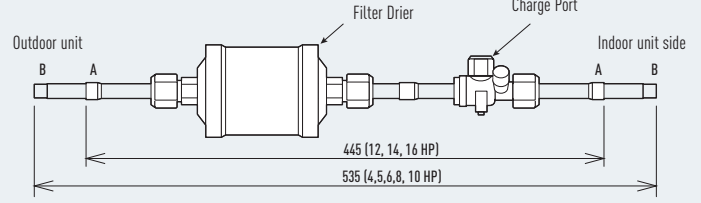
Panasonic systems offer a renewal solution that enables rapid conversion of existing gas systems (including R22) into newer high-efficiency R410A systems at a dramatically reduced cost.

- All Panasonic units can be installed using R22 pipe work if the specifications are met.
- Panasonic software has been specially modified for the R-22 renewal application being able to decrease the working pressure 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.
- The Panasonic units can replace other manufacturers equipment.

## VRF renewal kit (CZ-SLK2) and sight glass

The following shows an overview of the VRF Renewal Kit (CZ-SLK2) that is required when existing tubing is reused. If the exact tube length and tube size of the existing tubing are uncertain, attach a sight glass in accordance with the figure below. It will be used for checking the amount of additional refrigerant charge.

### VRF Renewal Kit: CZ-SLK2



Connecting tube dimensions (Inch (mm)): A Ø 1/2 (12.7) (12, 14, 16 HP) - B Ø 3/8 (9.52) (4,5,6,8 10 HP)

Note: If the tube size does not match that of the existing tubing, use a reducer (field supply) to adjust the tube diameter.

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