



## New Mini ECOi LZ2 Series R32

For light commercial & residential use. The most flexible VRF system ever. Meeting the needs of light commercial applications.



# New Mini ECOi LZ2 Series 4 to 10 HP R32 Refrigerant



Outstanding efficiency in a compact body and continuous operation even at extreme ambient temperatures.



**INDUSTRY 1ST  
8 HP AND 10 HP  
MINI VRF  
UNITS  
WITH R32**

## 1 Low GWP and less refrigerant

The new Mini ECOi LZ2 Series utilizes environmentally friendly R32 refrigerant, reducing the total amount of refrigerant by 20 % and more, resulting in lower GWP, reduced by 75 %\*.

\* As a result of applying R32 while at the same time reducing the total refrigerant amount.

## 2 Outstanding efficiency at most challenging ambient conditions

Re-engineered for better performance, the LZ2 series produces extraordinary savings with SEER levels up to 8,5 and SCOP levels up to 5,05 (for 4 HP model). The large range of outdoor units from 12 kW to 28 kW can also work at extreme ambient temperatures, down to -20 °C in heating and up to 52 °C in cooling, providing a very wide range of operating ability.

## 3 More flexibility for your project

The ECOi LZ2 series provides ease of installation with long piping lengths and small footprints in a lightweight body. A variety of indoor units, supporting Panasonic's optional refrigerant leak detector, increases the flexibility for installers. A wide range of individual and central controllers, the new generation Smart and Service Cloud as well as apps for end users and installers provide a fully customizable monitoring and controlling solution.



### Minimum environmental impact

Panasonic has designed the LZ2 series in order to minimize the environmental impact of the system. Low GWP refrigerant R32 and highest efficiency levels, ensure this through the total operational lifetime.



# VRF with outstanding energy-saving performance and superior SEER and SCOP

## WIDE OPERATING RANGE

-20 °C in heating to 52 °C in cooling

**8,5** SEER | **5,05** SCOP  
EXTRAORDINARY SAVINGS

### ECOi LZ2 mini VRF series from 12 to 28 kW

- Improving protection 24/7. New and unique indoors with nanoe™ X, with hydroxyl radicals contained in water.
- SEER levels up to 8,5 and SCOP levels up to 5,05 (for 4 HP model)
- Low GWP and highly reduced refrigerant volume
- Improved connectivity with CONEX remote controllers and app support, Smart and Service Cloud applications and support for communication protocols for BMS integration
- Wide range of connectable units allowing wide range of installations with and without refrigerant mitigation
- Increased indoor/outdoor capacity ratio up to 150 %
- Quiet mode operation with low capacity drop
- Same Panasonic DNA with Panasonic compressors and precise temperature control thanks to discharge temperature sensors in the indoor unit
- Continuous operation at extreme ambient temperatures: -20 °C (heating) to 52 °C (cooling)
- Flexible mitigation measures, with Panasonic's leak detector/alarm to be installed only when required

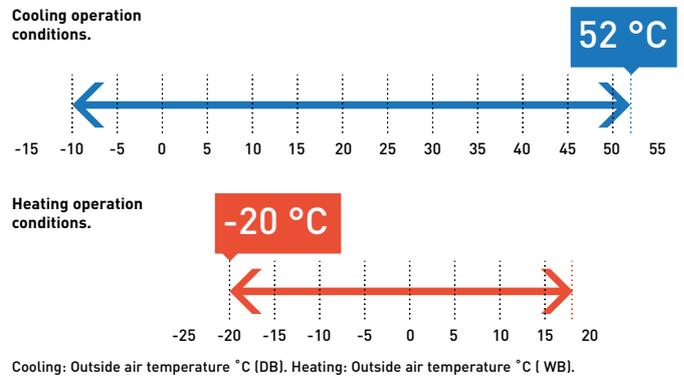
### For the most challenging spaces

The new Mini ECOi LZ2 R32 VRF system is the ideal solution to fit into any application thanks to its compact design and long piping length support.



### Extended operation conditions

LZ2 mini VRF is extremely reliable even under the most difficult conditions. The units can operate in cooling mode at extreme temperatures, 52°C in cooling and -20°C in heating mode.



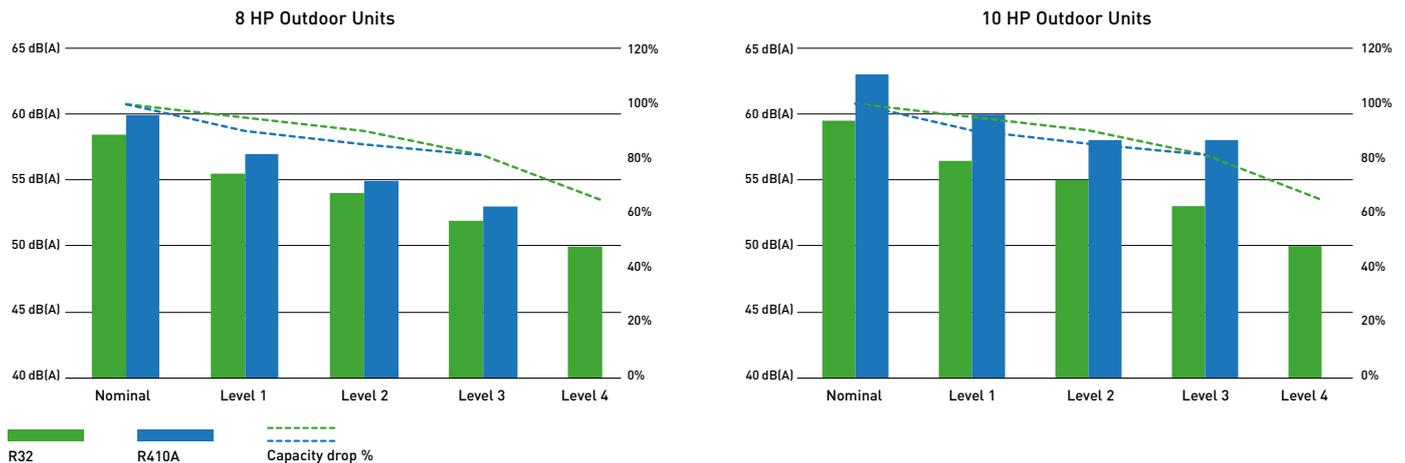
New Mini ECOi LZ2 provides the optimal performance in any climatic condition.



### Quiet mode operation with low capacity drop

Panasonic offers its customers cutting-edge technology, specially designed to ensure our air conditioning systems deliver optimal performance even in quiet mode operation.

### Silent Mode Comparison – Panasonic 8 and 10 HP R32 vs R410A

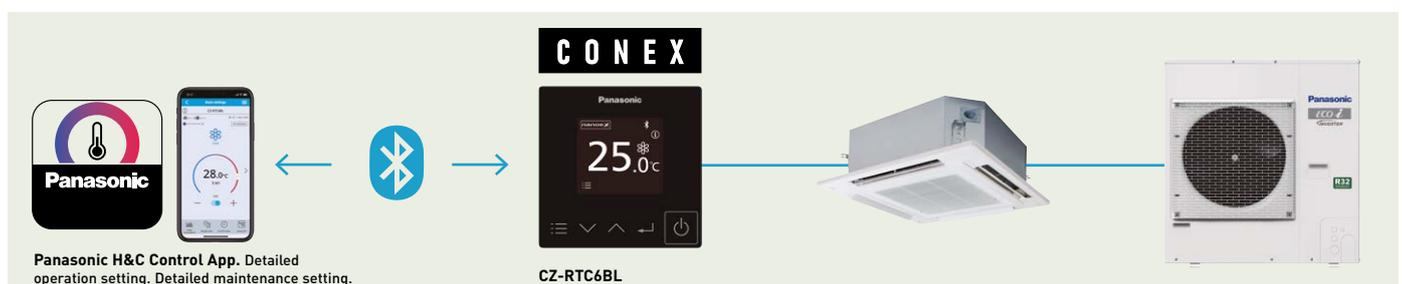


### Control is the key to offer better comfort and savings

CZ-RTC6 and CZ-RTC6BL are compatible with the R32 Mini ECOi systems. CZ-RTC6 can be used as wired remote controller. In addition, due to its Bluetooth® capability, CZ-RTC6BL offers the possibility to use the H&C Control App that perfectly meets the requirements of end users, services and installers.

### H&C Control App available functions:

- ON/OFF, mode, temperature, airflow volume, airflow direction
- Weekly timer
- All energy saving functions
- Alarm display and history
- Service contact registration
- Filter sign
- Auto-address
- Test run
- Sensor value monitor
- Simple setting mode
- Detailed setting mode
- Key lock
- Ventilation fan control
- Display contrast adjustment
- Rotation, redundancy
- Quiet mode
- nanoe™ X



## NEW Mini ECOi LZ2 Series 4 to 6 HP • R32

Outstanding efficiency in a compact body and continuous operation even at extreme ambient temperatures.



**SHORT  
HEIGHT  
996 mm**

| HP  |                       |                     | 4 HP  | 5 HP  | 6 HP  | 4 HP  | 5 HP  | 6 HP  |
|---|-----------------------|---------------------|---|---|---|---|---|---|
| <b>Outdoor units</b>  |                       |                     | <b>U-4LZ2E5</b>                                   | <b>U-5LZ2E5</b>                                   | <b>U-6LZ2E5</b>                                   | <b>U-4LZ2E8</b>                                   | <b>U-5LZ2E8</b>                                   | <b>U-6LZ2E8</b>                                   |
| Power supply  | Voltage               | V                   | 220 - 230 - 240                                   | 220 - 230 - 240                                   | 220 - 230 - 240                                   | 380 - 400 - 415                                   | 380 - 400 - 415                                   | 380 - 400 - 415                                   |
|   | Phase                 |                     | Single phase                                      | Single phase                                      | Single phase                                      | Three phase                                       | Three phase                                       | Three phase                                       |
|   | Frequency             | Hz                  | 50  | 50  | 50  | 50  | 50  | 50  |
| Cooling capacity  |                       | kW                  | 12,1  | 14,0  | 15,5  | 12,1  | 14,0  | 15,5  |
| <b>EER</b> <sup>1)</sup>  |                       | W/W                 | 4,53  | 4,12  | 3,88  | 4,53  | 4,12  | 3,88  |
| <b>SEER</b> <sup>2)</sup>                                       |                       |                     | <b>8,50</b>                                       | <b>8,12</b>                                       | <b>7,71</b>                                       | <b>8,50</b>                                       | <b>8,12</b>                                       | <b>7,71</b>                                       |
| $\eta_{sc}$   |                       | %                   | <b>337,0</b>                                      | <b>321,8</b>                                      | <b>305,4</b>                                      | <b>337,0</b>                                      | <b>321,8</b>                                      | <b>305,4</b>                                      |
| Running current cooling   |                       | A                   | 13,30 - 12,80 - 12,20                             | 16,90 - 16,20 - 15,50                             | 19,60 - 18,70 - 18,00                             | 4,37 - 4,15 - 4,00                                | 5,50 - 5,23 - 5,04                                | 6,44 - 6,12 - 5,89                                |
| Input power cooling   |                       | kW                  | 2,67  | 3,40  | 4,00  | 2,67  | 3,40  | 4,00  |
| Heating capacity  |                       | kW                  | 12,5  | 16,0  | 16,5  | 12,5  | 16,0  | 16,5  |
| <b>COP</b> <sup>1)</sup>  |                       | W/W                 | 5,27  | 4,71  | 4,42  | 5,27  | 4,71  | 4,42  |
| <b>SCOP</b> <sup>2)</sup>                                       |                       |                     | <b>5,05</b>                                       | <b>4,61</b>                                       | <b>4,59</b>                                       | <b>5,05</b>                                       | <b>4,61</b>                                       | <b>4,59</b>                                       |
| $\eta_{sc}$   |                       | %                   | <b>199,0</b>                                      | <b>181,4</b>                                      | <b>180,6</b>                                      | <b>199,0</b>                                      | <b>181,4</b>                                      | <b>180,6</b>                                      |
| Running current heating   |                       | A                   | 12,00 - 11,40 - 11,00                             | 16,90 - 16,20 - 15,50                             | 18,50 - 17,70 - 17,00                             | 3,91 - 3,71 - 3,58                                | 5,50 - 5,22 - 5,03                                | 6,02 - 5,72 - 5,51                                |
| Input power heating   |                       | kW                  | 2,37  | 3,40  | 3,73  | 2,37  | 3,40  | 3,73  |
| Starting current  |                       | A                   | 1,0   | 1,0   | 1,0   | 1,0   | 1,0   | 1,0   |
| Maximum current   |                       | A                   | 19,6  | 23,7  | 26,5  | 7,2   | 9,2   | 9,9   |
| Maximum input power   |                       | kW                  | 3,92 - 4,10 - 4,28                                | 4,76 - 4,98 - 5,19                                | 5,41 - 5,66 - 5,90                                | 4,40 - 4,63 - 4,80                                | 5,69 - 5,99 - 6,22                                | 6,15 - 6,47 - 6,72                                |
| Maximum number of connectable indoor units <sup>3)</sup>        |                       |                     | 7(10)   | 8(12)   | 9(12)   | 7(10)   | 8(12)   | 9(12)   |
| External static pressure  |                       | Pa                  | 0 - 35  | 0 - 35  | 0 - 35  | 0 - 35  | 0 - 35  | 0 - 35  |
| Air flow  |                       | m <sup>3</sup> /min | 69  | 72  | 74  | 69  | 72  | 74  |
| Sound pressure  | Cool                  | dB(A)               | 52  | 53  | 54  | 52  | 53  | 54  |
|   | Cool (Silent 1/2/3/4) | dB(A)               | 49/47/45  | 50/48/46  | 51/49/47  | 49/47/45  | 50/48/46  | 51/49/47  |
| Sound power   | Heat                  | dB(A)               | 54  | 56  | 56  | 54  | 56  | 56  |
|   | Cool / Heat           | dB(A)               | 69/72   | 70/74   | 72/75   | 69/72   | 70/74   | 72/75   |
| Dimension   | H x W x D             | mm                  | 996 x 980 x 370                                   |
| Net weight  |                       | kg                  | 94  | 94  | 94  | 94  | 94  | 94  |
| Pipe diameter   | 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)   |
|   | 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)  |
| Maximum piping length (total)                                   |                       | m                   | 90(180)   | 90(180)   | 90(180)   | 90(180)   | 90(180)   | 90(180)   |
| Elevation difference (in/out)                                   |                       | m                   | 50(Outdoor unit upper)/<br>40(Outdoor unit lower) |
| Refrigerant (R32)   |                       | kg                  | 2,7   | 2,7   | 2,7   | 2,7   | 2,7   | 2,7   |
| Maximum allowable indoor / outdoor capacity ratio <sup>4)</sup> |                       | %                   | 50 - 150(130)                                     | 50 - 150(130)                                     | 50 - 150(130)                                     | 50 - 150(130)                                     | 50 - 150(130)                                     | 50 - 150(130)                                     |
| Operating range   | Cool Min - Max        | °C                  | -10 - 52  | -10 - 52  | -10 - 52  | -10 - 52  | -10 - 52  | -10 - 52  |
|   | Heat Min - Max        | °C                  | -20 - 18  | -20 - 18  | -20 - 18  | -20 - 18  | -20 - 18  | -20 - 18  |

1) EER and COP calculation is based on EN 14511. 2) SEER/SCOP is calculated based on the seasonal space cooling/heating efficiency "η" values of the COMMISSION REGULATION (EU) 2016/2281. SEER, SCOP = (η + Correction) × PEF. 3) The number in parenthesis indicates maximum number of connectable indoor unit in case of 1,5kW indoor units connection. 4) The number in parenthesis indicates maximum allowed indoor/outdoor capacity ratio in case of 1,5 kW indoor units connection.

### Minimum environmental impact

Panasonic has designed the LZ2 series in order to minimize the environmental impact of the system. Low GWP refrigerant R32 and highest efficiency levels, ensure this through the total operational lifetime.

### For the most challenging spaces

The new Mini ECOi LZ2 R32 VRF system is the ideal solution to fit into any application thanks to its compact design and long piping length support.

### Technical focus

- SEER levels up to 8,50 and SCOP levels up to 5,05 (for 4 HP model)
- Continuous operation at extreme ambient temperatures: -20 °C (heating) to 52 °C (cooling)
- Wide range of connectable units
- New and unique indoors with nanoe™ X, hydroxyl radicals contained in water
- Allowing wide range of installations with and without mitigation measures
- Flexible mitigation measures, with Panasonic's leak detector/alarm to be installed only when required



INTERNET CONTROL: Optional.



**INDUSTRY 1<sup>ST</sup>  
8 HP AND 10 HP  
MINI VRF  
UNITS  
WITH R32**

**NEW Mini ECOi LZ2 Series 8 and 10 HP • R32**

Introducing widest range of R32 Mini VRF.

| HP  |                       |                     | 8 HP  | 10 HP   |
|---|-----------------------|---------------------|---|---|
| <b>Outdoor units</b>  |                       |                     | <b>U-8LZ2E8</b>                               | <b>U-10LZ2E8</b>                              |
| Power supply  | Voltage               | V                   | 380 - 400 - 415                               | 380 - 400 - 415                               |
|   | Phase                 |                     | Three phase                                   | Three phase                                   |
|   | Frequency             | Hz                  | 50  | 50  |
| Cooling capacity  |                       | kW                  | 22,4  | 28,0  |
| <b>EER</b> <sup>1)</sup>  |                       | W/W                 | 3,84  | 3,47  |
| <b>SEER</b> <sup>2)</sup>                                       |                       |                     | <b>7,56</b>                                   | <b>7,08</b>                                   |
| $\eta_{sc}$   |                       | %                   | <b>293,3</b>                                  | <b>274,7</b>                                  |
| Running current cooling   |                       | A                   | 9,73 - 9,25 - 8,91                            | 13,2 - 12,5 - 12,1                            |
| Input power cooling   |                       | kW                  | 5,83  | 8,07  |
| Heating capacity  |                       | kW                  | 25,0  | 28,0  |
| <b>COP</b> <sup>1)</sup>  |                       | W/W                 | 4,30  | 4,47  |
| <b>SCOP</b> <sup>2)</sup>                                       |                       |                     | <b>4,59</b>                                   | <b>4,60</b>                                   |
| $\eta_{sc}$   |                       | %                   | <b>170,3</b>                                  | <b>178,5</b>                                  |
| Running current heating   |                       | A                   | 9,81 - 9,32 - 8,98                            | 10,5 - 9,93 - 9,57                            |
| Input power heating   |                       | kW                  | 5,81  | 6,26  |
| Starting current  |                       | A                   | 1,0   | 1,0   |
| Maximum current   |                       | A                   | 13,7  | 19,5  |
| Maximum input power   |                       | kW                  | 8,21 - 8,64 - 8,96                            | 11,9 - 12,6 - 13,0                            |
| Maximum number of connectable indoor units <sup>3)</sup>        |                       |                     | 16  | 16  |
| External static pressure  |                       | Pa                  | 0 - 35  | 0 - 35  |
| Air flow  |                       | m <sup>3</sup> /min | 158   | 167   |
| Sound pressure  | Cool                  | dB(A)               | 59,0  | 60,0  |
|   | Cool (Silent 1/2/3/4) | dB(A)               | 56,0/54,0/52,0                                | 57,0/55,0/53,0                                |
| Sound power   | Cool                  | dB(A)               | 72  | 74  |
| Dimension   | H x W x D             | mm                  | 1500 x 980 x 370                              | 1500 x 980 x 370                              |
| Net weight  |                       | kg                  | 125   | 126   |
| Pipe diameter   | Liquid pipe           | Inch (mm)           | 3/8(9,52)                                     | 3/8(9,52)                                     |
|   | Gas pipe              | Inch (mm)           | 3/4(19,05)                                    | 7/8(22,22)                                    |
| Maximum piping length (total)                                   |                       | m                   | 100(300)                                      | 100(300)                                      |
| Elevation difference (in/out)                                   |                       | m                   | 50(Outdoor unit upper)/40(Outdoor unit lower) | 50(Outdoor unit upper)/40(Outdoor unit lower) |
| Refrigerant (R32)   |                       | kg                  | 4,9   | 5,1   |
| Maximum allowable indoor / outdoor capacity ratio <sup>4)</sup> |                       | %                   | 50 - 150(130)                                 | 50 - 150(130)                                 |
| Operating range   | Cool Min ~ Max        | °C                  | -10 - 52                                      | -10 - 52                                      |
|   | Heat Min ~ Max        | °C                  | -20 - 18                                      | -20 - 18                                      |

1) EER and COP calculation is based on EN 14511. 2) SEER/SCOP is calculated based on the seasonal space cooling/heating efficiency "η" values of the COMMISSION REGULATION (EU) 2016/2281. SEER, SCOP = (η + Correction) × PEF. 3) The number in parenthesis indicates maximum number of connectable indoor unit in case of 1,5kW indoor unit's connection. 4) The number in parenthesis indicates maximum allowed indoor/outdoor capacity ratio in case of 1,5 kW indoor units connection.

### Perfect fit for small to medium size projects

8 and 10 HP LZ2 Mini VRF units bring in the total benefits of a VRF system in a smaller application. You can enjoy advanced individual and central VRF control options including the revolutionary Panasonic AC Smart Cloud and AC Service Cloud.

### For the most difficult conditions

New ECOi LZ2 series are able to operate at the hardest conditions from -20 °C up to +52 °C providing continuous and efficient, heating and cooling for your space all year long.

### Technical focus

- SEER levels up to 7,56 and SCOP levels up to 4,59 (for 8 HP model)
- Continuous operation at extreme ambient temperatures: -20 °C (heating) to 52 °C (cooling)
- Widest range of connectable units in R32 VRF
- New and unique indoors with nanoe™ X, with hydroxyl radicals contained in water
- Allowing wide range of installations with and without refrigerant mitigation
- Flexible mitigation measures, with leak detector/alarm to be installed only when required



INTERNET CONTROL: Optional.

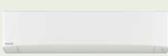
Rating Conditions: Cooling Indoor 27 °C DB / 19 °C WB. Cooling Outdoor 35 °C DB / 24 °C WB. Heating Indoor 20 °C DB. Heating Outdoor 7 °C DB / 6 °C WB. (DB: Dry Bulb; WB: Wet Bulb). Specifications subject to change without notice. For detailed information about ErP / Energy Labelling, please visit our websites [www.aircon.panasonic.eu](http://www.aircon.panasonic.eu) or [www.ptc.panasonic.eu](http://www.ptc.panasonic.eu).

# Compatible with a large range of indoor units and controls

An expansion of Panasonic VRF line up, the new mini ECOi R32 is compatible with a large range of indoor units and can utilize all Panasonic's scalable control and monitoring solutions.



Wide range of indoor units, either supporting Panasonic's optional R32 leak detector alarm or having built-in detectors provide a great flexibility for all types of installation.

|   |  |   |   |
|---|--|---|---|
|  | <b>4 way 90x90 cassette</b>                    |  | <b>Connects to Panasonic R32 sensor</b> |
|  | <b>4 way 60x60 cassette</b>                    |  | <b>Connects to Panasonic R32 sensor</b> |
|  | <b>Wall Mounted</b>                            |  | <b>Connects to Panasonic R32 sensor</b> |
|  | <b>Slim variable static pressure hide-away</b> |  | <b>Connects to Panasonic R32 sensor</b> |
|  | <b>Variable static pressure adaptive duct</b>  |  | <b>Built-in R32 sensors</b>             |

## Scaling your control options from a single zone to geographically distributed facilities

LZ2 series are fully compatible with all control and connectivity solutions from Panasonic. With a wide range of individual controllers, hotel room controllers, optional wireless adapters, VRF Smart Connectivity+, easy BMS connection with P-link and AC Smart Cloud compatibility. LZ2 series, the most flexible control and monitoring R32 solution in the market.

|   |   |   |   |
|---|---|---|---|
|  |  |  | <b>Control options</b><br><b>Individual controllers – wired / wireless</b><br>CZ-RTC5B ✓<br>CZ-RTC6 / BL ✓<br>Smart Connectivity+ ✓<br>CZ-RWS3 ✓<br>PAW-RE2C4-MOD ✓<br>PAW-RE2D4 ✓<br>CZ-CAPWFC1 Wi-Fi Adaptor ✓<br>CZ-CENSC1 ✓<br><b>Centralized controllers</b><br>CZ-64ESMC3 ✓<br>CZ-256ESMC3 ✓<br>CZ-ANC3 ✓<br>AC Smart/Service Cloud (CZ-CFUSCC1) ✓<br><b>3rd Party connectivity</b><br>CZ-CAPDC3 ✓<br>CZ-CAPC3 ✓<br>CZ-CAPBC2 ✓<br>CZ-CFUNC2 ✓<br><b>BMS interface with P-Link</b><br>Interfaces for indoor unit connection ✓<br>Interfaces for P-Link connection ✓ |
|  |  |  |   |
|  |  |   |   |

# nanoe™ X: improving protection 24/7

The new Panasonic Mini ECOi R32 connects to indoor units incorporating nanoe™X technology covering a wide range of capacities and solutions.

nanoe™X



## Bringing nature's balance indoors

### nanoe™ X, technology with the benefits of hydroxyl radicals

Abundant in nature, hydroxyl radicals (also known as OH radicals) have the capacity to inhibit pollutants, viruses, and bacteria to clean and deodorise. nanoe™ X, technology can bring these incredible benefits indoors so that hard surfaces, soft furnishings, and the indoor environment can be a cleaner and pleasant place to be, whether at home, at work, or visiting hotels, shops, restaurants etc.

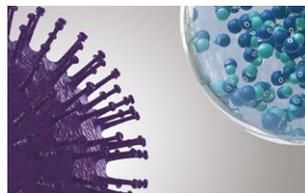
## A naturally occurring process

Hydroxyl radicals are unstable molecules looking to react with other elements like hydrogen, capturing it. Thanks to this reaction, hydroxyl radicals have the potential to inhibit the growth of pollutants such as bacteria, viruses, moulds, and odours, breaking them down and neutralising the unpleasant effects. This naturally occurring process has major benefits to improve indoor environments.

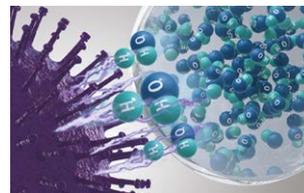
**Panasonic's nanoe™ X technology takes this a step further and brings nature's detergent – hydroxyl radicals – indoors to help create an ideal environment.**

## Panasonic's nanoe™ X technology takes this a step further and brings nature's detergent – hydroxyl radicals – indoors to help create an ideal environment

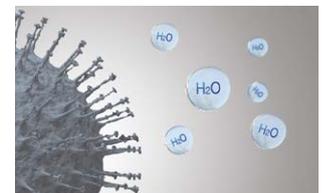
Thanks to the nanoe™ X properties, several types of pollutants can be inhibited such as certain types of bacteria, viruses, mould, allergens, pollen and certain hazardous substances.



nanoe™ X reliably reaches pollutants.



Hydroxyl radicals denature pollutants' proteins.



Pollutants activity is inhibited.



## Built-in nanoe X Generator Mark 2.

U2 Type 4 way 90x90 cassette. Built-in:

S-\*\*\*MU2E5B. 11 capacities: 2,2 - 16,0 kW.

F3 Type variable static pressure adaptive duct. Built-in:

S-\*\*\*MF3E5B. 12 capacities: 1,5 - 16,0 kW.

# New 4 way 90x90 cassette with nanoe™ X



Large capacity VRF. Trusted power and high efficiency. These Cassettes offer upgraded Econavi and nanoe™ X technology as accessories for making application space more comfortable and efficient.

Thanks to advances in design and technology such as the new high performance turbo fan which is more efficient and silent, and nanoe™ X technology and the floor temperature and humidity sensor to more control, the U2 Panasonic 4 way 90x90 cassette offers comfort.

The nanoe™ X performance varies depending on the room size, environment and usage and it may take several hours to reach the full effect. nanoe™ X is not medical device, local regulations on building design and sanitary recommendations must be followed.



## nanoe™ X: improving protection 24/7

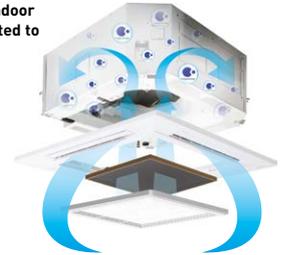
Acts to clean your air, so that the indoor environment can be a cleaner and pleasant place to be all day long. nanoe™ X works together with heating or cooling function when the during the day and can work independently when the area is not occupied. Give the air conditioning the strength to increase the protection of your indoor spaces with nanoe™ X technology and convenient control via the Panasonic Comfort Cloud App.



After cooling/drying operation, the inside of the indoor unit is automatically dried and nanoe™ X is activated to suppress mould growth and to reduce odour.



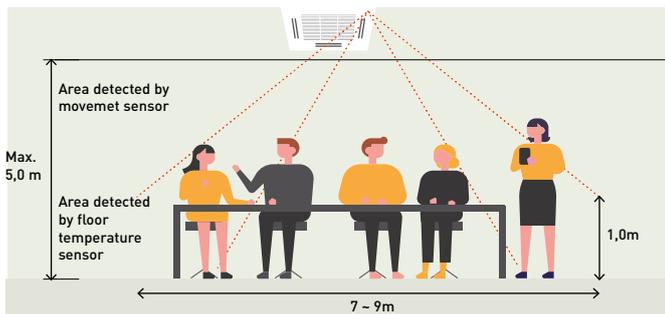
Operates the fan to discharge internal humidity.



Operate the fan to circulate nanoe™ X internally.

## Optional Econavi intelligent sensor

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

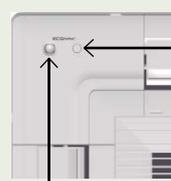


## Advanced Econavi functions.

2 sensors (movement and floor temperature) can provide a reduction in wasted energy by means of effective control. The floor temperature can be detected with a ceiling height of 5 m.



### Econavi exclusive panel. Optional (CZ-KPU3AW)



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

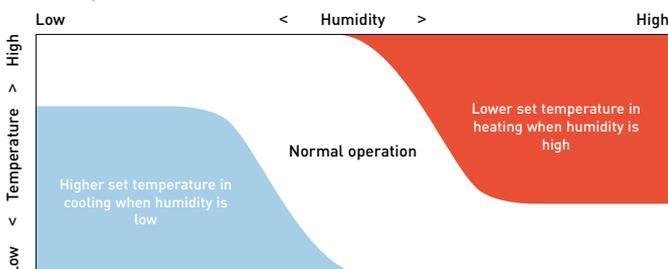
**Movement sensor.**  
This sensor detects the amount of human activity, and operates effectively.



Wired remote controller CZ-RTC5B or CZ-RTC6/BL/BLW is required.

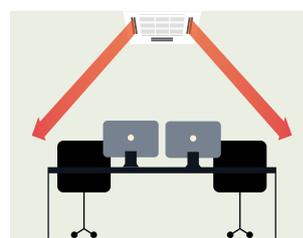
## Humidity sensor.

A humidity sensor positioned in the air inlet provides comfort and saves energy based on temperature and humidity.



## Group control, circulation function.

Circulating operation is activated when a room is unoccupied to evenly distribute air and minimize thermal stratification in both heating and cooling operation.



Circulation by detecting no movement (10 min.)



Indirect air flow by detecting movement.



nanoe™ X as a standard.



## NEW U2 Type 4 way 90x90 cassette • R32

## The 4 way 90x90 cassettes with integrated nanoe X Generator Mark 2 and new panel design.

Panasonic introduces a modern flat panel design to blend into any space. These cassettes have been developed to satisfy today's customer needs such as high energy saving, comfort and better indoor air quality.

COMPATIBLE WITH ALL PANASONIC CONNECTIVITY SOLUTIONS.

| Model               | S . .MU2E5B | 22                  | 28                        | 36                        | 45                        | 56                        | 60                        | 73                        | 90                        | 106                       | 140                       | 160                       |                           |
|---------------------|-------------|---------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|
| Cooling capacity    | kW          | 2,2                 | 2,8                       | 3,6                       | 4,5                       | 5,6                       | 6,0                       | 7,3                       | 9,0                       | 10,6                      | 14,0                      | 16,0                      |                           |
| Input power cooling | W           | 20,00               | 20,00                     | 20,00                     | 20,00                     | 25,00                     | 35,00                     | 40,00                     | 40,00                     | 90,00                     | 95,00                     | 105,00                    |                           |
| Current (cool)      | A           | 0,21                | 0,21                      | 0,21                      | 0,21                      | 0,23                      | 0,33                      | 0,36                      | 0,38                      | 0,71                      | 0,74                      | 0,82                      |                           |
| Heating capacity    | kW          | 2,5                 | 3,2                       | 4,2                       | 5,0                       | 6,3                       | 7,1                       | 8,0                       | 10,0                      | 11,4                      | 16,0                      | 18,0                      |                           |
| Input power heating | W           | 20,00               | 20,00                     | 20,00                     | 20,00                     | 25,00                     | 35,00                     | 40,00                     | 40,00                     | 85,00                     | 90,00                     | 100,00                    |                           |
| Current (heat)      | A           | 0,20                | 0,20                      | 0,20                      | 0,20                      | 0,22                      | 0,32                      | 0,35                      | 0,37                      | 0,69                      | 0,72                      | 0,80                      |                           |
| Fan type            |             | Turbo fan           | Turbo fan                 | Turbo fan                 | Turbo fan                 | Turbo fan                 | Turbo fan                 | Turbo fan                 | Turbo fan                 | Turbo fan                 | Turbo fan                 | Turbo fan                 |                           |
| nanoe X Generator   |             | Mark 2              | Mark 2                    | Mark 2                    | Mark 2                    | Mark 2                    | Mark 2                    | Mark 2                    | Mark 2                    | Mark 2                    | Mark 2                    | Mark 2                    |                           |
| Air flow            | Hi/Med/Lo   | m <sup>3</sup> /min | 14,50/<br>13,00/<br>11,50 | 14,50/<br>13,00/<br>11,50 | 14,50/<br>13,00/<br>11,50 | 15,50/<br>13,00/<br>11,50 | 16,50/<br>13,50/<br>11,50 | 21,00/<br>16,00/<br>13,00 | 22,50/<br>16,00/<br>13,00 | 23,00/<br>18,50/<br>14,00 | 34,00/<br>25,00/<br>19,00 | 36,00/<br>26,00/<br>20,00 | 37,00/<br>28,00/<br>24,00 |
| Sound pressure      | Hi/Med/Lo   | dB(A)               | 30/29/28                  | 30/29/28                  | 30/29/28                  | 31/29/28                  | 32/30/28                  | 36/32/29                  | 37/32/29                  | 38/35/32                  | 44/38/34                  | 45/39/35                  | 46/40/38                  |
| Sound power         | Hi/Med/Lo   | dB(A)               | 45/44/43                  | 45/44/43                  | 45/44/43                  | 46/44/43                  | 47/45/43                  | 51/47/44                  | 52/47/44                  | 53/50/47                  | 59/53/49                  | 60/54/50                  | 61/55/53                  |
| Dimension (HxWxD)   | Indoor      | mm                  | 256 x 840<br>x 840        | 319 x 840<br>x 840        | 319 x 840<br>x 840        | 319 x 840<br>x 840        |
|                     | Panel       | mm                  | 33,5 x 950<br>x 950       |
| Net weight (Panel)  |             | kg                  | 19 (5)                    | 19 (5)                    | 19 (5)                    | 19 (5)                    | 19 (5)                    | 20 (5)                    | 20 (5)                    | 25 (5)                    | 25 (5)                    | 25 (5)                    |                           |
| Pipe diameter       | Liquid      | Inch (mm)           | 1/4 (6,35)                | 1/4 (6,35)                | 1/4 (6,35)                | 1/4 (6,35)                | 1/4 (6,35)                | 3/8 (9,52) <sup>1)</sup>  | 3/8 (9,52) <sup>1)</sup>  | 3/8 (9,52) <sup>1)</sup>  | 3/8 (9,52)                | 3/8 (9,52)                | 3/8 (9,52)                |
|                     | Gas         | Inch (mm)           | 1/2 (12,70)               | 1/2 (12,70)               | 1/2 (12,70)               | 1/2 (12,70)               | 1/2 (12,70)               | 5/8 (15,88) <sup>1)</sup> | 5/8 (15,88) <sup>1)</sup> | 5/8 (15,88) <sup>1)</sup> | 5/8 (15,88)               | 5/8 (15,88)               | 5/8 (15,88)               |

## Accessories

|                            |   |
|----------------------------|---|
| <b>CZ-RTC6</b>             | CONEX wired remote controller (non-wireless)  |
| <b>CZ-RTC6BL</b>           | CONEX wired remote controller with Bluetooth® |
| <b>CZ-RTC5B</b>            | Wired remote controller with Econavi function |
| <b>CZ-RWS3 + CZ-RWRU3W</b> | Infrared remote controller                    |
| <b>PAW-RE2C4</b>           | Wired remote controller for hotel application |

## Accessories

|                        |                               |
|------------------------|-------------------------------|
| <b>CZ-KPU3W</b>        | Standard panel.               |
| <b>CZ-KPU3AW</b>       | Econavi exclusive panel       |
| <b>CZ-CENSC1</b>       | Econavi energy savings sensor |
| <b>CZ-FDU3+CZ-ATU2</b> | Fresh air-intake kit          |

1) When the pipe diameter is (Liquid) Ø6,35(1/4) - (Gas) Ø12,7(1/2), connect the liquid socket tube (Ø6,35 - Ø9,52) to the liquid tubing side indoor unit and connect the gas socket tube (Ø12,7 - Ø15,88) to the gas tubing side indoor unit. \* Above values are in the case of nanoe™ X OFF.

## Technical focus

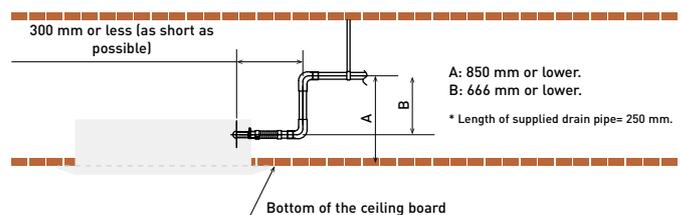
- High performance turbo fan, new path system for heat exchanger
- Lower noise in slow fan operation
- Ceiling height up to 5,0 m
- Industry top light weight, easy piping
- Econavi: Floor temperature and humidity sensor added. Activity amount detection and new circulator
- nanoe™ X (Generator Mark 2= 9,6 trillion hydroxyl radicals/sec) as standard for better indoor air quality, indoor unit internal cleaning with nanoe™ X and dry operation
- Powerful drain pump gives 850 mm lift
- Fresh air knockout
- Branch duct connection
- High volume fresh air input with optional air-intake plenum and chamber (CZ-FDU3+CZ-ATU2)

## Panel design

Flat design, well-matched with interior.  
Position of 4 air wings can be set individually.

## The drain pipe can be raised to a maximum height of 850 mm from the bottom of the ceiling

Integrated drain pump allows a drain height of 850 mm making the installation much easier.



ECONAVI, nanoe™ X and INTERNET CONTROL: Optional.

Rating Conditions: Cooling Indoor 27 °C DB / 19 °C WB. Cooling Outdoor 35 °C DB / 24 °C WB. Heating Indoor 20 °C DB. Heating Outdoor 7 °C DB / 6 °C WB. [DB: Dry Bulb; WB: Wet Bulb]. Specifications subject to change without notice. For detailed information about ErP / Energy Labelling, please visit our websites www.aircon.panasonic.eu or www.ptc.panasonic.eu.



## NEW Y2 Type 4 way 60x60 cassette • R32

**Designed to fit exactly into a 600 x 600 mm ceiling grid without the need to alter the bar configuration.**

The Y2 is ideal for small commercial and retrofit applications. In addition, the improvements to efficiency make this one of the most advanced units in the industry.

COMPATIBLE WITH ALL PANASONIC CONNECTIVITY SOLUTIONS.

| Model                     |               |                     | S-15MY2E5B      | S-22MY2E5B      | S-28MY2E5B      | S-36MY2E5B      | S-45MY2E5B      | S-56MY2E5B      |
|---------------------------|---------------|---------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Cooling capacity          |               | kW                  | 1,5             | 2,2             | 2,8             | 3,6             | 4,5             | 5,6             |
| Input power cooling       |               | W                   | 35,00           | 35,00           | 35,00           | 40,00           | 40,00           | 45,00           |
| Operating current cooling |               | A                   | 0,30            | 0,30            | 0,30            | 0,30            | 0,32            | 0,35            |
| Heating capacity          |               | kW                  | 1,7             | 2,5             | 3,2             | 4,2             | 5,0             | 6,3             |
| Input power heating       |               | W                   | 30,00           | 30,00           | 30,00           | 35,00           | 35,00           | 40,00           |
| Operating current heating |               | A                   | 0,25            | 0,25            | 0,30            | 0,30            | 0,30            | 0,30            |
| Fan type                  |               |                     | Centrifugal fan |
| Air flow (Hi / Med / Lo)  | Cool          | m <sup>3</sup> /min | 8,90/8,20/5,60  | 9,10/8,20/5,60  | 9,30/8,40/5,60  | 9,70/8,70/6,00  | 10,00/9,30/8,20 | 10,40/9,80/8,50 |
|                           | Heat          | m <sup>3</sup> /min | 9,10/8,40/5,60  | 9,30/8,40/5,60  | 9,60/8,70/5,60  | 9,90/9,10/6,00  | 10,30/9,60/8,20 | 11,10/9,80/8,70 |
| Sound pressure            | Hi / Med / Lo | dB(A)               | 34/31/25        | 35/31/25        | 35/31/25        | 36/32/26        | 38/34/28        | 40/37/34        |
| Sound power               | Hi / Med / Lo | dB(A)               | 49/46/40        | 50/46/40        | 50/46/40        | 51/47/41        | 53/49/43        | 55/52/49        |
|                           | Indoor        | mm                  | 288 x 583 x 583 |
| Dimension (H x W x D)     | Panel AW      | mm                  | 31 x 700 x 700  |
|                           | Panel BW      | mm                  | 31 x 625 x 625  |
| Net weight                |               | kg                  | 20,4(18+2,4)    | 20,4(18+2,4)    | 20,4(18+2,4)    | 20,4(18+2,4)    | 20,4(18+2,4)    | 20,4(18+2,4)    |
| Pipe diameter             | Liquid pipe   | Inch (mm)           | 1/4(6,35)       | 1/4(6,35)       | 1/4(6,35)       | 1/4(6,35)       | 1/4(6,35)       | 1/4(6,35)       |
|                           | Gas pipe      | Inch (mm)           | 1/2(12,70)      | 1/2(12,70)      | 1/2(12,70)      | 1/2(12,70)      | 1/2(12,70)      | 1/2(12,70)      |

| Accessories      |   |
|------------------|---|
| <b>CZ-RTC6</b>   | CONEX wired remote controller (non-wireless)  |
| <b>CZ-RTC6BL</b> | CONEX wired remote controller with Bluetooth® |
| <b>CZ-RTC5B</b>  | Wired remote controller with Econavi function |
| <b>CZ-RWS3</b>   | Infrared remote controller                    |

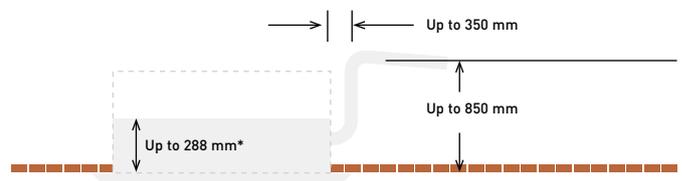
| Accessories      |   |
|------------------|---|
| <b>PAW-RE2C4</b> | Wired remote controller for hotel application |
| <b>CZ-KPY3AW</b> | Panel 700 x 700 mm                            |
| <b>CZ-KPY3BW</b> | Panel 625 x 625 mm                            |
| <b>CZ-CENSC1</b> | Econavi energy savings sensor                 |

### Technical focus

- Mini cassette fits into a 600 x 600 mm ceiling grid
- Optimized air distribution
- Multidirectional air flow
- Powerful drain pump gives 850 mm lift
- Variable speed DC fan motors and optimized heat exchanger to maximize efficiency

### A drain height of approximately 850 mm from the ceiling surface

The drain height can be increased by approximately 350 mm over the conventional value by using a high-lift drain pump, and long horizontal piping is possible. A lightweight unit at 18,4 kg the unit is also very slim with a height of only 288 mm, making installation possible even in narrow ceilings.



ECONAVI and INTERNET CONTROL: Optional.

## NEW K2 Type wall-mounted • R32



The wall-mounted unit has a stylish smooth panel that looks good and easy to clean.

The unit is also smaller, lighter and substantially quieter than previous models making it ideal for small offices and other commercial applications.

COMPATIBLE WITH ALL PANASONIC CONNECTIVITY SOLUTIONS.

| Model                     |                    |                     | S-15MK2E5B         | S-22MK2E5B         | S-28MK2E5B         | S-36MK2E5B          | S-45MK2E5B            | S-56MK2E5B            | S-73MK2E5B               | S-106MK2E5B           |
|---------------------------|--------------------|---------------------|--------------------|--------------------|--------------------|---------------------|-----------------------|-----------------------|--------------------------|-----------------------|
| Cooling capacity          | kW                 |                     | 1,5                | 2,2                | 2,8                | 3,6                 | 4,5                   | 5,6                   | 7,3                      | 10,6                  |
| Input power cooling       | W                  |                     | 25,00              | 25,00              | 25,00              | 30,00               | 30,00                 | 35,00                 | 55,00                    | 80,00                 |
| Operating current cooling | A                  |                     | 0,20               | 0,21               | 0,23               | 0,25                | 0,32                  | 0,35                  | 0,51                     | 0,70                  |
| Heating capacity          | kW                 |                     | 1,7                | 2,5                | 3,2                | 4,2                 | 5,0                   | 6,3                   | 8,0                      | 11,4                  |
| Input power heating       | W                  |                     | 25,00              | 25,00              | 25,00              | 30,00               | 30,00                 | 35,00                 | 55,00                    | 80,00                 |
| Operating current heating | A                  |                     | 0,20               | 0,21               | 0,23               | 0,25                | 0,32                  | 0,35                  | 0,51                     | 0,70                  |
| Fan type                  |                    |                     | Cross flow         | Cross flow         | Cross flow         | Cross flow          | Cross flow            | Cross flow            | Cross flow               | Cross flow            |
| Air flow                  | Cool Hi / Med / Lo | m <sup>3</sup> /min | 7,90/7,40/<br>6,50 | 9,00/7,50/<br>6,50 | 9,50/8,30/<br>6,50 | 10,90/9,00/<br>6,50 | 14,50/12,50/<br>10,00 | 16,00/14,00/<br>12,00 | 19,50/17,00/<br>14,00    | 21,50/18,50/<br>15,00 |
|                           | Heat Hi / Med / Lo | m <sup>3</sup> /min | 9,00/7,70/<br>6,80 | 9,20/8,30/<br>6,80 | 9,70/8,50/<br>6,80 | 11,20/9,50/<br>6,80 | 14,50/12,50/<br>10,00 | 16,00/14,00/<br>12,00 | 19,50/17,00/<br>14,00    | 21,50/18,50/<br>15,00 |
| Sound pressure            | Hi / Med / Lo      | dB(A)               | 34/32/29           | 36/33/29           | 37/34/29           | 40/36/29            | 38/35/33              | 40/37/35              | 47/44/40                 | 49/46/42              |
| Sound power               | Hi / Med / Lo      | dB(A)               | 49/47/44           | 51/48/44           | 52/49/44           | 55/51/44            | 53/50/48              | 55/52/50              | 62/59/55                 | 64/61/57              |
| Dimension                 | H x W x D          | mm                  | 290 x 870<br>x 214  | 302 x 1120<br>x 236   | 302 x 1120<br>x 236   | 302 x 1120<br>x 236      | 302 x 1120<br>x 236   |
| Net weight                |                    | kg                  | 9                  | 9                  | 9                  | 9                   | 13                    | 13                    | 14                       | 14                    |
| Pipe diameter             | Liquid pipe        | Inch (mm)           | 1/4(6,35)          | 1/4(6,35)          | 1/4(6,35)          | 1/4(6,35)           | 1/4(6,35)             | 1/4(6,35)             | 3/8(9,52) <sup>1)</sup>  | 3/8(9,52)             |
|                           | Gas pipe           | Inch (mm)           | 1/2(12,70)         | 1/2(12,70)         | 1/2(12,70)         | 1/2(12,70)          | 1/2(12,70)            | 1/2(12,70)            | 5/8(15,88) <sup>1)</sup> | 5/8(15,88)            |

## Accessories

|                  |   |
|------------------|---|
| <b>CZ-RTC6</b>   | CONEX wired remote controller (non-wireless)  |
| <b>CZ-RTC6BL</b> | CONEX wired remote controller with Bluetooth® |
| <b>CZ-RTC5B</b>  | Wired remote controller with Econavi function |
| <b>CZ-RWS3</b>   | Infrared remote controller                    |

## Accessories

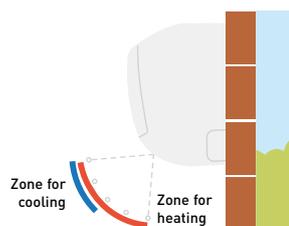
|                    |   |
|--------------------|---|
| <b>PAW-RE2C4</b>   | Wired remote controller for hotel application |
| <b>CZ-CENSC1</b>   | Econavi energy savings sensor                 |
| <b>CZ-P56SVK2</b>  | External valve for model sizes 15 to 56       |
| <b>CZ-P160SVK2</b> | External valve for model sizes 73 to 106      |

1) When the pipe diameter is [Liquid] Ø6,35(1/4) - [Gas] Ø12,7(1/2), connect the liquid socket tube (Ø6,35 - Ø9,52) to the liquid tubing side indoor unit and connect the gas socket tube (Ø12,7 - Ø15,88) to the gas tubing side indoor unit.

## Technical focus

- Closed discharge port
- Lighter and smaller units make the installation easy
- Quiet operation
- Smooth and durable design
- Piping outlet in six directions
- Air distribution is automatically altered depending on the operational mode

**Air distribution is automatically altered depending on the operational mode of the unit**



## Quiet operation

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

## Lighter and smaller units

Light and small units make the installation easy. When the unit is turned OFF, the flap closes completely to prevent entry of dust into the unit and to keep the equipment clean.



## Piping outlet in six directions

Piping outlet is possible in the six directions of right, right rear, right bottom, left, left rear and left bottom, making the installation work easier.



## External valve (optional)

CZ-P56SVK2 (model sizes 15 to 56)  
CZ-P160SVK2 (model sizes 73<sup>1)</sup> to 106)

1) When the pipe diameter is liquid 1/4 (6,35) and gas 1/2 (12,70), use CZ-P56SVK2



ECONAVI and INTERNET CONTROL: Optional.

Rating Conditions: Cooling Indoor 27 °C DB / 19 °C WB, Cooling Outdoor 35 °C DB / 24 °C WB, Heating Indoor 20 °C DB, Heating Outdoor 7 °C DB / 6 °C WB. [DB: Dry Bulb, WB: Wet Bulb]. Specifications subject to change without notice. For detailed information about ErP / Energy Labelling, please visit our websites [www.aircon.panasonic.eu](http://www.aircon.panasonic.eu) or [www.ptc.panasonic.eu](http://www.ptc.panasonic.eu).



nanoe™ X as a standard.

NEW F3 Type variable static pressure adaptive duct • R32

New design adaptive ducted F3 range.

2 installation possibilities (horizontal / vertical) with high ESP 150Pa allows flexible installation.

COMPATIBLE WITH ALL PANASONIC CONNECTIVITY SOLUTIONS.



| R32 model*               | S . MF3E5B          | 15                 | 22                 | 28                 | 36                 | 45                 | 56                 | 60                  | 73                  | 90                  | 106                 | 140                 | 160                 |
|--------------------------|---------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| Cooling capacity         | kW                  | 1,5                | 2,2                | 2,8                | 3,6                | 4,5                | 5,6                | 6,0                 | 7,3                 | 9,0                 | 10,6                | 14,0                | 16,0                |
| Input power cooling      | W                   | 60,00              | 60,00              | 60,00              | 60,00              | 60,00              | 89,00              | 79,00               | 79,00               | 136,00              | 146,00              | 265,00              | 330,00              |
| Current (cool)           | A                   | 0,45               | 0,45               | 0,45               | 0,45               | 0,45               | 0,63               | 0,52                | 0,52                | 0,90                | 1,00                | 1,76                | 2,14                |
| Heating capacity         | kW                  | 1,7                | 2,5                | 3,2                | 4,2                | 5,0                | 6,3                | 7,1                 | 8,0                 | 10,0                | 11,4                | 16,0                | 18,0                |
| Input power heating      | W                   | 60,00              | 60,00              | 60,00              | 60,00              | 60,00              | 89,00              | 79,00               | 79,00               | 136,00              | 146,00              | 265,00              | 330,00              |
| Current (heat)           | A                   | 0,45               | 0,45               | 0,45               | 0,45               | 0,45               | 0,63               | 0,52                | 0,52                | 0,90                | 1,00                | 1,76                | 2,14                |
| R32 leakage sensors      |                     | 2                  | 2                  | 2                  | 2                  | 2                  | 2                  | 2                   | 2                   | 2                   | 2                   | 2                   | 2                   |
| Fan type                 |                     | Sirocco fan         | Sirocco fan         | Sirocco fan         | Sirocco fan         | Sirocco fan         | Sirocco fan         |
| nanoe X Generator        |                     | Mark 2              | Mark 2              | Mark 2              | Mark 2              | Mark 2              | Mark 2              |
| Air flow <sup>1)</sup>   | Hi/Med/Lo<br>m³/min | 14/12/8            | 14/12/8            | 14/12/8            | 14/12/8            | 14/12/8            | 16/14/10           | 21/18/15            | 21/18/15            | 25/23/16            | 32/26/21            | 37/32/26            | 40/34/28            |
| External static pressure | Pa                  | 30<br>(10-150)      | 30<br>(10-150)      | 40<br>(10-150)      | 40<br>(10-150)      | 50<br>(10-150)      | 50<br>(10-150)      |
| Sound pressure           | Hi/Med/Lo<br>dB(A)  | 31/28/20           | 31/28/20           | 31/28/20           | 31/28/20           | 31/28/20           | 35/32/24           | 31/28/23            | 31/28/23            | 35/33/25            | 36/32/27            | 41/36/32            | 43/37/33            |
| Sound power              | Hi/Med/Lo<br>dB(A)  | 54/51/43           | 54/51/43           | 54/51/43           | 54/51/43           | 54/51/43           | 58/55/47           | 54/51/46            | 54/51/46            | 58/56/48            | 59/55/50            | 64/59/55            | 66/60/56            |
| Dimension                | H x W x D<br>mm     | 250 x 800<br>x 730 | 250 x 1000<br>x 730 | 250 x 1000<br>x 730 | 250 x 1000<br>x 730 | 250 x 1400<br>x 730 | 250 x 1400<br>x 730 | 250 x 1400<br>x 730 |
| Net weight               | kg                  | 26                 | 26                 | 26                 | 26                 | 26                 | 26                 | 31                  | 31                  | 31                  | 40                  | 40                  | 40                  |
| Pipe diameter            | Liquid<br>Inch (mm) | 1/4(6,35)          | 1/4(6,35)          | 1/4(6,35)          | 1/4(6,35)          | 1/4(6,35)          | 1/4(6,35)          | 1/4(6,35)           | 1/4(6,35)           | 1/4(6,35)           | 3/8(9,52)           | 3/8(9,52)           | 3/8(9,52)           |
|                          | Gas<br>Inch (mm)    | 1/2(12,70)         | 1/2(12,70)         | 1/2(12,70)         | 1/2(12,70)         | 1/2(12,70)         | 1/2(12,70)         | 1/2(12,70)          | 1/2(12,70)          | 1/2(12,70)          | 5/8(15,88)          | 5/8(15,88)          | 5/8(15,88)          |

| Accessories      |   |
|------------------|---|
| <b>CZ-RTC6</b>   | CONEX wired remote controller (non-wireless)  |
| <b>CZ-RTC6BL</b> | CONEX wired remote controller with Bluetooth® |
| <b>CZ-RTC5B</b>  | Wired remote controller with Econavi function |

| Accessories               |   |
|---------------------------|---|
| <b>CZ-RWS3 + CZ-RWRC3</b> | Infrared remote controller                    |
| <b>PAW-RE2C4</b>          | Wired remote controller for hotel application |
| <b>CZ-CENSC1</b>          | Econavi energy savings sensor                 |

1) Value referred to standard settings at shipment (H curve 8, M curve 5, L curve 1). \* Available in summer 2021.

Technical focus

- 4 installation possibilities with horizontal and vertical mounting and selectable rear or bottom air inlet
- Industry leading low noise with super quiet operation, minimum 22 dB(A)
- Only 250 mm height and lightweight unit from 26 to 42 kg
- Integrated R32 leak detectors
- Improved drain pan suitable for both horizontal / vertical installation
- Drain pump included <sup>1)</sup>
- nanoe™ X (Generator Mark 2= 9,6 trillion hydroxyl radicals/sec) as standard, effective even at duct connections up to 10 m and 3 bends <sup>2)</sup>

1) For use with horizontal installation only  
2) Panasonic internal survey.

Vertical Installation

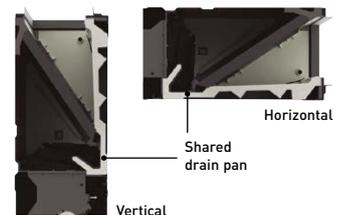
New vertical installation option. Variable external static pressure to support ducted installations with bends.

\* Vertical installation requires additional settings on field, please check the installation manual.



Improved drain pan design

Drain pan is shared in both cases horizontal and vertical installation. No need to alternate anymore.



ECONAVI and INTERNET CONTROL: Optional.

## NEW M1 Type slim variable static pressure hide-away concealed duct • R32



The ultra slim M1 type is one of the leading products of its type in the industry.

With a depth of only 200 mm it provides greater flexibility and can be used in far more applications.

COMPATIBLE WITH ALL PANASONIC CONNECTIVITY SOLUTIONS.

| Model                     |                             |                     | S-15MM1E5B             | S-22MM1E5B             | S-28MM1E5B             | S-36MM1E5B             | S-45MM1E5B             | S-56MM1E5B             |
|---------------------------|-----------------------------|---------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|
| Cooling capacity          |                             | kW                  | 1,5                    | 2,2                    | 2,8                    | 3,6                    | 4,5                    | 5,6                    |
| Input power cooling       |                             | W                   | 36,00                  | 36,00                  | 40,00                  | 42,00                  | 49,00                  | 64,00                  |
| Operating current cooling |                             | A                   | 0,26                   | 0,26                   | 0,30                   | 0,31                   | 0,37                   | 0,48                   |
| Heating capacity          |                             | kW                  | 1,7                    | 2,5                    | 3,2                    | 4,2                    | 5,0                    | 6,3                    |
| Input power heating       |                             | W                   | 26,00                  | 26,00                  | 30,00                  | 32,00                  | 39,00                  | 54,00                  |
| Operating current heating |                             | A                   | 0,23                   | 0,23                   | 0,27                   | 0,28                   | 0,34                   | 0,45                   |
| Fan type                  |                             |                     | Sirocco fan            |
| Air flow                  | Hi / Med / Lo               | m <sup>3</sup> /min | 8,00/7,00/6,00         | 8,00/7,00/6,00         | 8,50/7,50/6,50         | 9,00/8,00/7,00         | 10,50/9,50/8,00        | 12,50/11,50/10,00      |
| External static pressure  |                             | Pa                  | 10(30)                 | 10(30)                 | 15(30)                 | 15(40)                 | 15(40)                 | 15(40)                 |
| Sound pressure            | Hi / Med / Lo <sup>1)</sup> | dB(A)               | 28/27/25<br>(30/29/27) | 28/27/25<br>(30/29/27) | 30/29/27<br>(32/31/29) | 32/30/28<br>(34/32/30) | 34/32/30<br>(36/34/32) | 35/33/31<br>(37/35/32) |
| Sound power               | Hi / Med / Lo               | dB(A)               | 43/42/40               | 43/42/40               | 45/44/42               | 47/45/43               | 49/47/45               | 50/48/46               |
| Dimension                 | H x W x D                   | mm                  | 200 x 750 x 640        |
| Net weight                |                             | kg                  | 19                     | 19                     | 19                     | 19                     | 19                     | 19                     |
| Pipe diameter             | Liquid pipe                 | Inch (mm)           | 1/4(6,35)              | 1/4(6,35)              | 1/4(6,35)              | 1/4(6,35)              | 1/4(6,35)              | 1/4(6,35)              |
|                           | Gas pipe                    | Inch (mm)           | 1/2(12,70)             | 1/2(12,70)             | 1/2(12,70)             | 1/2(12,70)             | 1/2(12,70)             | 1/2(12,70)             |

### Accessories

|                           |   |
|---------------------------|---|
| <b>CZ-RTC6</b>            | CONEX wired remote controller (non-wireless)  |
| <b>CZ-RTC6BL</b>          | CONEX wired remote controller with Bluetooth® |
| <b>CZ-RTC5B</b>           | Wired remote controller with Econavi function |
| <b>CZ-RWS3 + CZ-RWRC3</b> | Infrared remote controller                    |

1) By DIP switches or by RC setting.

### Accessories

|                  |   |
|------------------|---|
| <b>PAW-RE2C4</b> | Wired remote controller for hotel application |
| <b>CZ-CENSC1</b> | Econavi energy savings sensor                 |
| <b>CZ-CGLSC1</b> | R32 refrigerant leak detector                 |

## Technical focus

- Ultra-slim profile: 200 mm for all models
- DC fan motor greatly reduces power consumption
- Ideal for hotel application with very narrow false ceilings
- Easy maintenance and service by external electrical box
- 40 Pa static pressure enables ductwork to be fitted
- Includes drain pump

In addition, its high-efficiency and extremely quiet sound levels make it very popular with many users, including hotels and small offices.

## Air outlet & inlet plenum

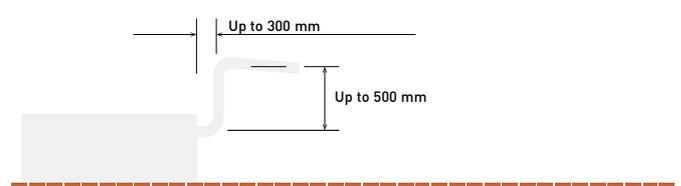
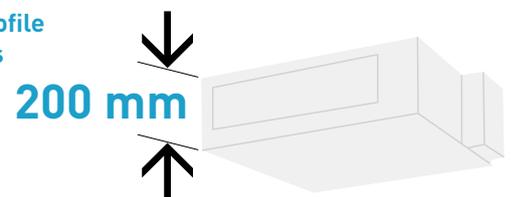
|             | Diameters | Air outlet plenum | Diameters | Air inlet plenum |
|-------------|-----------|-------------------|-----------|------------------|
| 22, 28 & 36 | 2 x Ø200  | CZ-DUMPA22MMS2    | 2 x Ø200  | CZ-DUMPA22MMR2   |
| 45 & 56     | 3 x Ø160  | CZ-DUMPA45MMS3    | 2 x Ø200  | CZ-DUMPA45MMR3   |

\* Plenums installed with an R32 Mini ECOi system may only be used when no refrigerant leak detector is required. Please refer to technical data manual for refrigerant installation requirements.

## Drain pump with increased power!

By adoption of a high-lift drain pump, the drain piping rise height can be increased to 785 mm from the lower surface of the body.

## Ultra-slim profile for all models



ECONAVI and INTERNET CONTROL: Optional.

Rating Conditions: Cooling Indoor 27 °C DB / 19 °C WB. Cooling Outdoor 35 °C DB / 24 °C WB. Heating Indoor 20 °C DB. Heating Outdoor 7 °C DB / 6 °C WB. [DB: Dry Bulb, WB: Wet Bulb]. Specifications subject to change without notice. For detailed information about ErP / Energy Labelling, please visit our websites [www.aircon.panasonic.eu](http://www.aircon.panasonic.eu) or [www.ptc.panasonic.eu](http://www.ptc.panasonic.eu).

## Control and connectivity

Panasonic offers different control solutions to adapt to each site and its owner needs. Small installations can easily connected to Panasonic Comfort Cloud allowing the control of the units remotely with simple smartphone App. For more professional approach and bigger installations or shop/office network style the Panasonic AC Smart Cloud is the best option.

### Panasonic Comfort Cloud, the advanced smartphone control

Indoor units with your smartphone from wherever and whenever you are, by using Panasonic Comfort Cloud App and Commercial Wi-Fi Adaptor. This scalable solution is ideal for one system, one site or multiple locations. Coupling the adapter with the already feature rich systems, makes it an ideal solution for residential and commercial applications.

#### 1 From 1 to 200 units

User can control up to 10 different sites, with up to 20 units / groups per site. Additionally, one adaptor can be connected to 1 indoor or to a group of maxium 8 indoors.

#### 2 Voice control compatible

When registering the unit to Panasonic Comfort Cloud App it makes compatible with most popular voice assistants.

#### 3 Multi user

The Panasonic Comfort Cloud App allows multi-user access control. Restrict user access to specific units.

#### 4 Easy scheduling

Complex weekly scheduling made simple. Not only for one unit, but across multiple sites and from a smartphone.

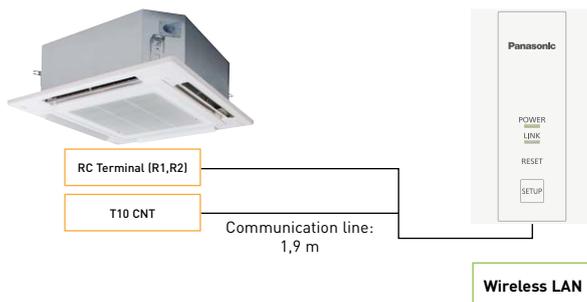
#### 5 Error codes

Error code notification through the App, provides early notification and allows for faster repair.



### Connection Diagram

Commercial Wi-Fi Adaptor wiring length is 1,9 m and connects to indoor unit thru T10 connector and R1/R2 terminal connectors.



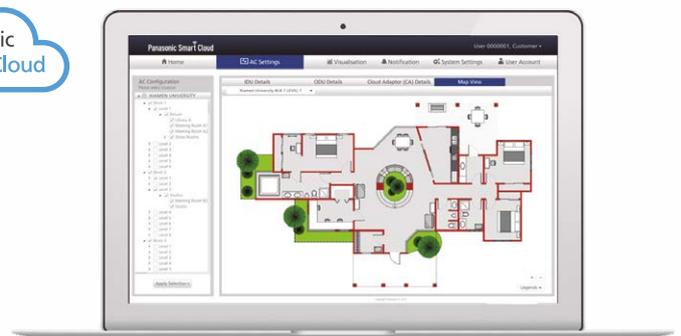
**Download free app:**  
**Panasonic Comfort Cloud App.**  
 Other hardware requirements: Router and Internet (purchase and subscribe separately).



### Panasonic AC Smart Cloud

The AC Smart Cloud system from Panasonic allows you to have complete control of all your installations from your remote device. In a simple click, control all your units from several locations, receive status updates in real-time, reduce the risk of potential breakdowns and improve operational cost.

Panasonic  
AC Smart Cloud

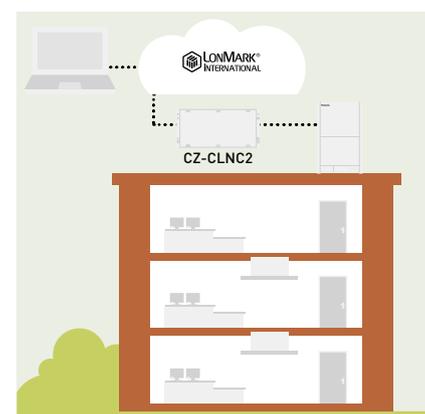
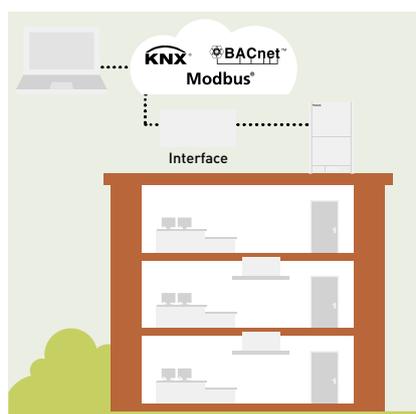


|   |   |   | Econavi control | Built-in thermostat | Indoor units which can be controlled | Use limitations                                  | Function ON/OFF | Mode setting | Fan speed setting | Temperature setting | Air flow direction | Permit/Prohibit switching | Weekly program | BMS protocol                   |
|---|---|---|-----------------|---------------------|--------------------------------------|--|-----------------|--------------|-------------------|---------------------|--------------------|---------------------------|----------------|--------------------------------|
| Wired remote controller                           |    | CZ-RTC6<br>Non-wireless   | ✓               | ✓                   | 1 group,<br>8 units                  | · Up to 2 controllers can be connected per group | ✓               | ✓            | ✓                 | ✓                   | ✓                  | —                         | —              | —                              |
|   |   | CZ-RTC6BL<br>With Bluetooth®  | ✓               | ✓                   | 1 group,<br>8 units                  | · Up to 1 controller can be connected per group  | ✓               | ✓            | ✓                 | ✓                   | ✓                  | —                         | ✓              | —                              |
| Design wired remote controller                    |    | CZ-RTC5B  | ✓               | ✓                   | 1 group,<br>8 units                  | · Up to 2 controllers can be connected per group | ✓               | ✓            | ✓                 | ✓                   | ✓                  | —                         | ✓              | —                              |
| Touch room controller for hotel with Dry Contacts |    | PAW-RE2C4-MOD-WH<br>PAW-RE2C4-MOD-BK<br><br>WH: White, BK: Black.<br>Bespoke finish available on request. | —               | ✓                   | 1 indoor unit                        | —  | ✓               | ✓            | ✓                 | ✓                   | —                  | ✓                         | —              | Modbus + 4 digital I/O signals |
| Touch display control for hotel with Dry Contacts |  | PAW-RE2D4-WH<br>PAW-RE2D4-BK<br><br>WH: White, BK: Black.<br>Bespoke finish available on request.         | —               | ✓                   | 1 indoor unit                        | —  | ✓               | ✓            | ✓                 | ✓                   | —                  | ✓                         | —              | Stand Alone + 2 digital inputs |

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

### 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. This connectivity solution with "PAW" model names is made by a third party company, please contact Panasonic for more information.



|                         | Room controller                 | Interface          | BMS Type                 | Maximum number of indoor units connected                              |
|-------------------------|---------------------------------|--------------------|--------------------------|---|
| Connect to indoor units | SER8150R0B1194 / SER8150R5B1194 |                    | Modbus / BACnet          | 1 Unit/group  |
|                         |                                 | PAW-RC2-KNX-1i     | KNX                      | 1 (1 Group of indoor units)   |
|                         |                                 | PAW-RC2-MBS-1      | Modbus RTU <sup>1)</sup> | 1 (1 Group of indoor units)   |
|                         |                                 | PAW-RC2-MBS-4      | Modbus                   | 4 Indoor/groups   |
|                         |                                 | PA-RC2-WIFI-1      | IntesisHome              | 1 (1 Group of indoor units)   |
|                         |                                 | PAW-RC2-BAC-1      | BACnet                   | 1   |
|                         |                                 | PAW-AC2-KNX-16P    | KNX                      | 16  |
|                         |                                 | PAW-AC2-KNX-64P    | KNX                      | 64  |
|                         |                                 | PAW-AC2-MBS-16P    | Modbus                   | 16  |
|                         |                                 | PAW-AC2-MBS-64P    | Modbus                   | 64  |
| Connect to P-Link       |                                 | PAW-AC2-MBS-128P   | Modbus                   | 128   |
|                         |                                 | PAW-TM-MBS-RTU-64  | Modbus RTU <sup>2)</sup> | 64  |
|                         |                                 | PAW-TM-MBS-TCP-128 | Modbus TCP <sup>2)</sup> | 128   |
|                         |                                 | PAW-AC2-BAC-16P    | BACnet                   | 16  |
|                         |                                 | PAW-AC2-BAC-64P    | BACnet                   | 64  |
|                         |                                 | PAW-AC2-BAC-128P   | BACnet                   | 128   |
|                         |                                 | CZ-CLNC2           | LonWorks                 | 16 Groups of maximum 8 indoor units, in total maximum 64 indoor units |

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.

# Safe Usage of R32 in Panasonic Mini VRF systems

R32 being a mildly flammable refrigerant (category A2L), the design and installation of systems operating with R32 must comply with the relevant refrigerant safety regulations. Those regulations which apply to our Mini VRF systems and the unique “incorporated circulation air flow” method are:

1. EN 378 (ISO 5149) for safety and toxicity,
2. IEC 60335-2-40 (ed. 6.0) for safety and flammability.

The restrictions imposed on the refrigerant charges in a system due to the flammability of R32 are more severe than those imposed by toxicity. Therefore, in standard applications using our Mini VRF systems, toxic concentrations cannot occur.

## Incorporated circulation airflow – Mitigation method applied by Panasonic

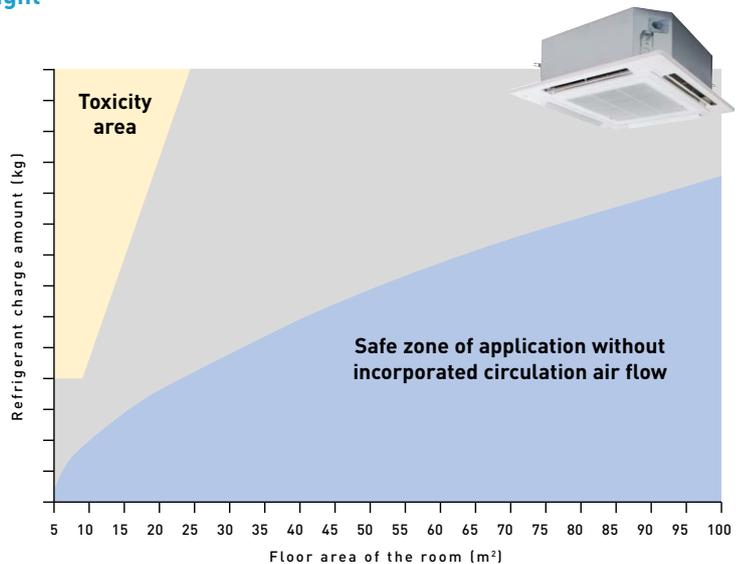
In applications where the refrigerant charge of a system exceeds the limits allowed for a specific room size, Panasonic Mini VRF systems offer the so-called “incorporated circulation air flow method” in combination with an R32 leak detector, which substantially helps considerably to overcome such limitations. As soon as a leak occurs and is detected by the sensor, the detector triggers an alarm, the compressor stops and the indoor unit fan is set to high speed to circulate the air in the room, thus diluting the R32 concentration.



## Example of a 10.6 kW cassette model installed at 2.2 m height

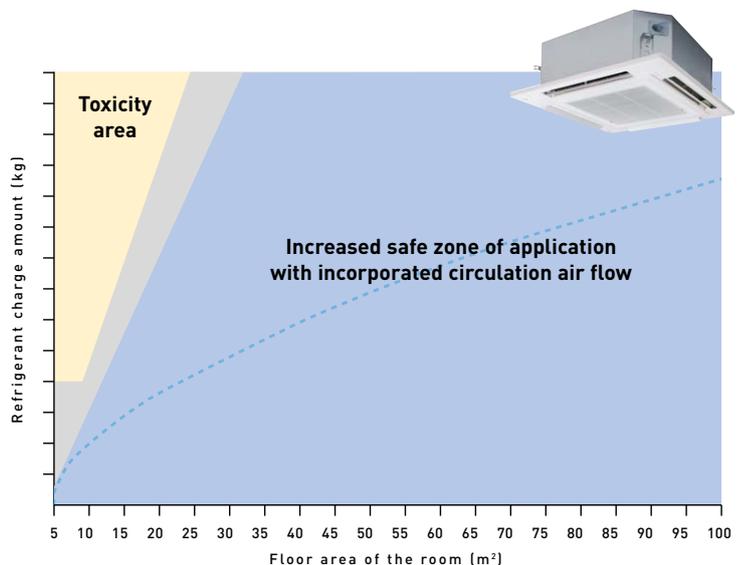
### a) Application without leak detector nor circulation air flow:

The refrigerant charge of the system, in relation to the floor area, must lie within the blue zone. Installation outside this zone is not allowed.



### b) Application with leak detector and circulation air flow:

The refrigerant charge of the system in relation to the floor area can be considerably increased due to the circulation air flow.



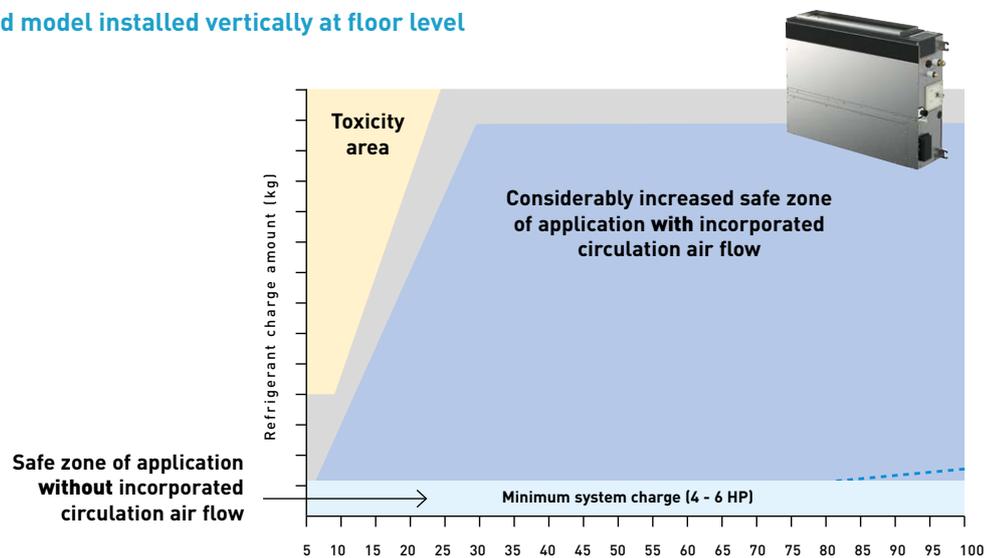
### Panasonic Refrigerant Leak Detector CZ-CGLSC1

Panasonic's incorporated circulation air flow method is a remarkable way to comply with the mitigation rules specified in the standards and regulations, thus allowing for higher system refrigerant charges per room area.

To trigger the circulation airflow, R32 leak detectors are required. Panasonic has developed 2 types of leak detectors, an external, optional detector, as well as 2 integrated sensors for the flexible Adaptive Ducted model to assure a positive detection in case of a refrigerant leak.

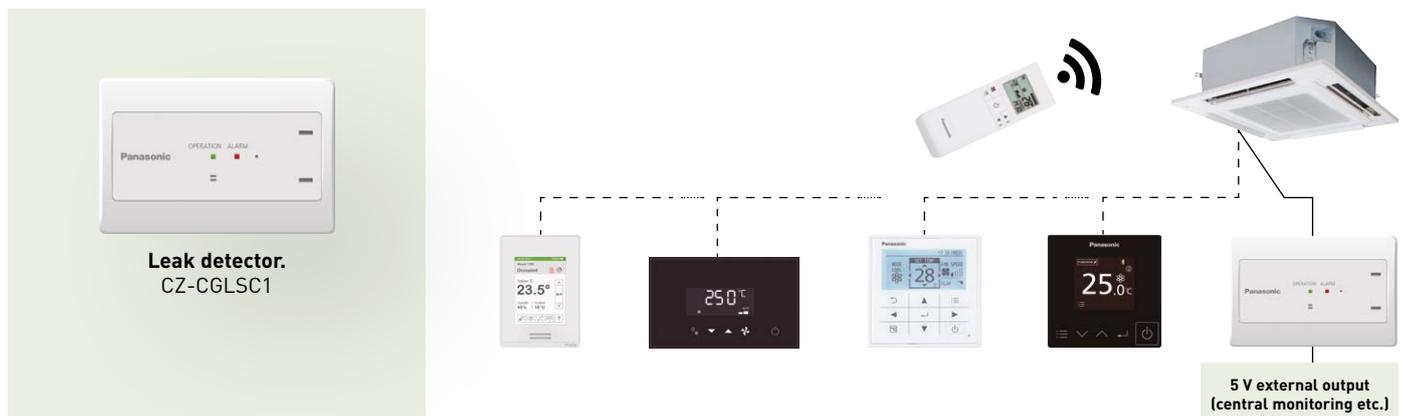
Without any additional measure, it is practically impossible to operate such a unit at floor level in VRF systems, whereas the combination of leak detector and incorporate circulation airflow provides the adaptability customers expect.

### Example of a 10.6 kW adaptive ducted model installed vertically at floor level

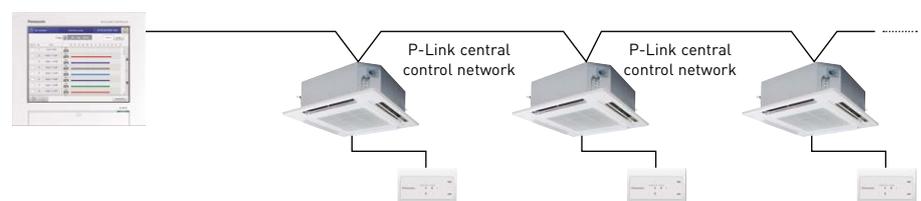


For any other indoor unit models, Panasonic offers its optional external leak detector (CZ-CGLSC1). This enables the customer to decide if a leak detector is required to comply with the restrictions, or if the indoor unit may be safely installed in this room without it.

This optional leakage detection sensor has an integrated alarm buzzer and can output a signal to a central alarm system in the building. The device is connected to the remote control terminals of the indoor unit and can be used in combination with any of the Panasonic VRF remote controllers, either wired or wireless.



**The alarm triggered by the leak detector will also be transmitted and displayed on any connected centralised controller.**



Please refer to the installation manuals **for the tables for every indoor unit model and capacity**, specifying the maximum refrigerant charge per floor area for each recommended installation height as well as for applications with and without leak detector. Charts displaying the relation between refrigerant charge and floor area are also provided in the installation manuals.

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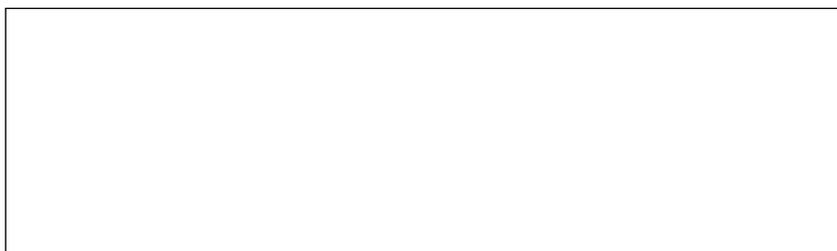
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