



## Introducing the NEW Panasonic Aquarea L Generation with R290

### The NEW Panasonic Aquarea L Generation uses R290 refrigerant and a hydraulic split design

The refrigerant will remain in the outdoor unit and should not require intervention. This document provides general guidance for those involved in installation works.



Model	R290 (kg)
WH-WDG05LE5	0.96
WH-WDG07LE5	0.96
WH-WDG09LE5	1.0

### Key Information about R290 refrigerant:

- GWP = 3
- Class (ISO 817) = A3 "Higher Flammability".
- LFL = 0.038 kg/m<sup>3</sup>.
- Properties and Appearance:
  - Colourless.
  - Odourless.
  - Exists in vapour form at normal atmospheric pressure.
  - Denser than air.

### Competency:

All personnel involved in installation works should be appropriately competent for the tasks they will perform.

### This includes:



Knowledge of and adherence to local and national, regulations and standards (e.g., EN 378).



Understand the associated risks and hazards (e.g., flammability).



The ability to create a safe working environment.



The ability to employ safe working practice.



## Important

- It is the responsibility of the installer/service engineer to ensure that they adhere to local and national regulations.
- Work should only be carried out in accordance with the manufacturer's recommendation. For the Aquarea range, please refer to the Installation and Service Manuals.

### Storage and Transport:

ADR Regulation: 'European Agreement concerning the International Carriage of Dangerous Goods by Road.'

This regulation sets out rules that allow for the safe transportation of goods. Dangerous goods are classified and have a 'UN number' assigned by the consignor. Control measures and limitations can then be applied.

In the case of the Aquarea L Generation, UN number 3358 and Transport Category 2 is applicable. This is the same UN number and Transport Category as the Panasonic R32 products. Therefore, the control measures for transportation by road remain unchanged.

If the total vehicle load remains below '1000 points', systems remain below the ADR threshold. Therefore, the minimum safety requirements would apply:

- General training for driver (ADR 1.3.2). A record should be kept (ADR 1.3.3).
- Carry one 2 kg dry powder fire extinguisher or equivalent (ADR 8.1.4.2).
- Stow the dangerous goods properly (ADR 7.5.7).

For more information, please refer to the latest edition of ADR Regulations.

Storage is subject to each local fire brigades' assessment and should be checked individually. Although it is expected that storage measures remain unchanged; for R290 systems, it is the same as for R32 systems.

### Protective Workwear, Equipment and Tools:

Protective workwear requirements are the same as with existing R32 products.

General personal protective clothing requirements:

- Appropriate workwear (protective clothing and shoes).
- Eye protection or face shield.
- Protective gloves.

### Protective Zone:

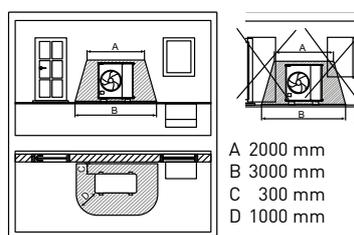
This outdoor unit contains R290 refrigerant (safety group A3 per ISO 817 – Higher Flammability). This refrigerant has a higher density than air. In case of a refrigerant leak, the leaked refrigerant may accumulate near the ground. The refrigerant must not be collected in any way that is potentially dangerous, explosive, or suffocating.

To help ensure that the outdoor unit is sited safely, the following clearances and instructions should be followed:

#### 1) Protective zone for ground installation (or flat-roof installation) at the open areas.

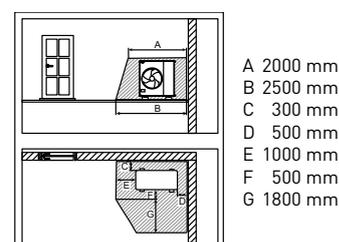


#### 2) Protective zone for ground installation in front of a building wall.



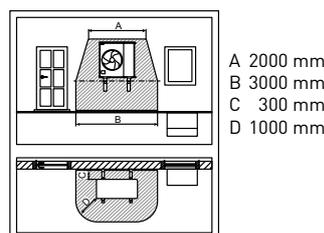
- A 2000 mm
- B 3000 mm
- C 300 mm
- D 1000 mm

#### 3) Protective zone for ground installation in a building corner.



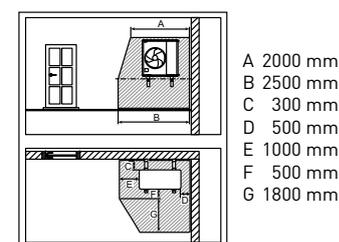
- A 2000 mm
- B 2500 mm
- C 300 mm
- D 500 mm
- E 1000 mm
- F 500 mm
- G 1800 mm

#### 4) Protective zone for wall installation in front of a building wall.



- A 2000 mm
- B 3000 mm
- C 300 mm
- D 1000 mm

#### 5) Protective zone for wall installation in a building corner.



- A 2000 mm
- B 2500 mm
- C 300 mm
- D 500 mm
- E 1000 mm
- F 500 mm
- G 1800 mm

The protective zone under the product extends to the floor.

### Protective Zone Requirements:

#### 1. No possible sources of ignition.

Such as open flames, electrical systems, plug sockets, lamps, electrical switches, and objects with high surface temperatures (>360°C).

#### 2. No building openings.

Such as doors, windows, light shafts, cellar entrances, ventilation system openings.

#### 3. No drainage and wastewater shafts.

In the event of a refrigerant leak, it is important that refrigerant cannot enter these places.

In the protective zone, you are not permitted to make any subsequent structural alterations which infringe the stated rules for the protective zone.

