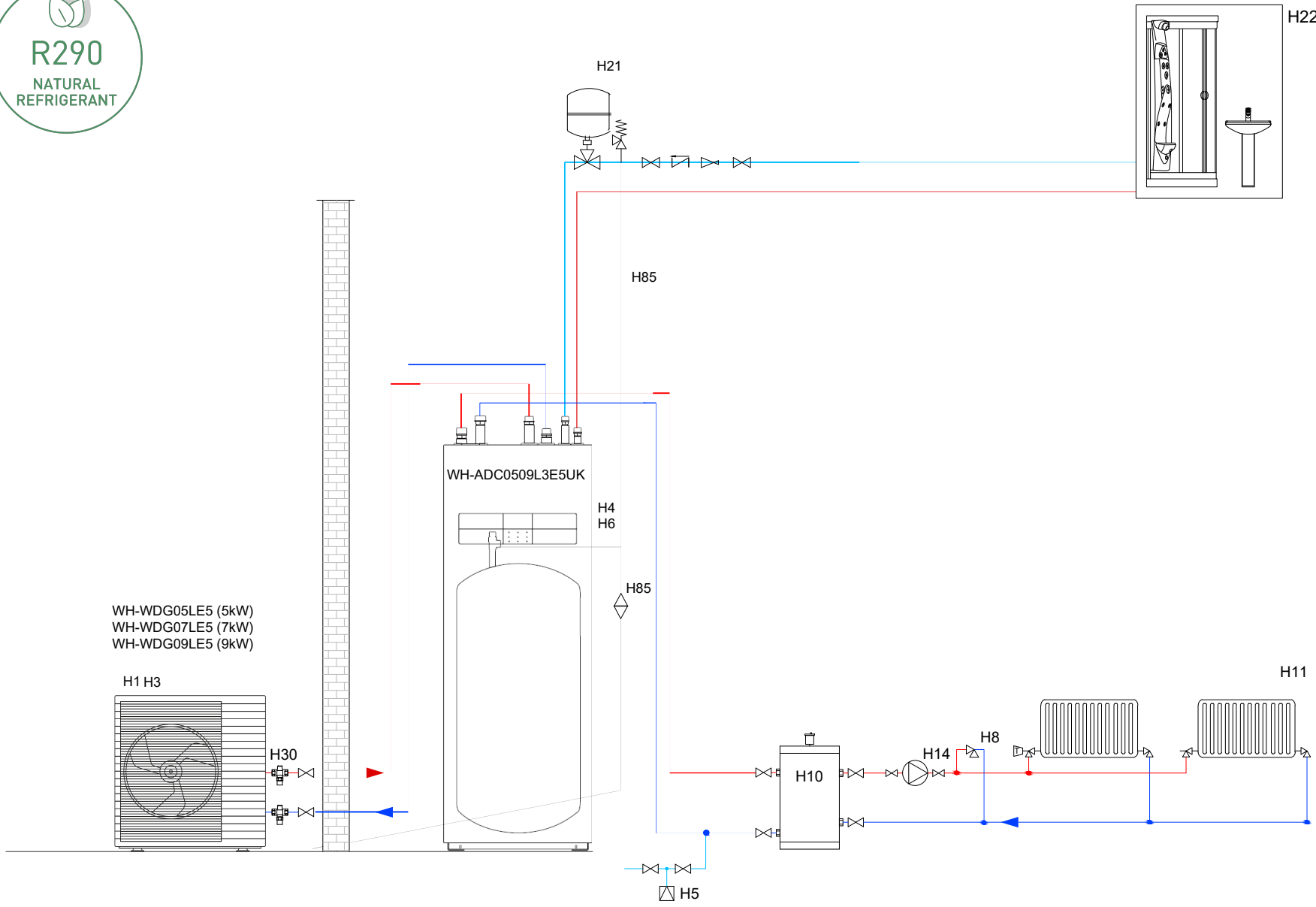




**R290**  
NATURAL  
REFRIGERANT



WH-WDG05LE5 (5kW)  
WH-WDG07LE5 (7kW)  
WH-WDG09LE5 (9kW)

H1 H3

H30

WH-ADC0509L3E5UK

H4  
H6

H85

H21

H85

H5

H10

H14

H8

H11

H22

General Notes:

- Scan QR Code for a link to the Aquarea Installation Guide
- Please ensure that you have attended training and have read the installation and operation manuals regarding this product
- Panasonic accept no responsibility for the design or errors, schematic is for indication purposes only
- Pending of water test, correct inhibitor levels and biocide should be used
- Freeze protection must be considered using either glycol or anti-freeze valve's
- Please ensure PRV/ PTRV discharge discharge pipework is compliant with local laws
- By-pass required if flow rate is not sufficient when rad valves are closed
- Maximum distance between indoor and outdoor unit is 30m



- Flow Pipework
- Return Pipework
- Discharge pipework
- ⊗ Isolation Valve
- ⊕ Anti-freeze valves (optional)
- ⊘ Non Return Valve
- ⊘ Pressure Regulator
- ⊘ Safety Valve
- ⊘ Bypass Valve
- ⊘ Pump

Legend:

- H1 Heat Pump Outdoor unit
- H3 Refrigerant inside the Heat Pump is R290
- H4 Magnetic Particle Filter is inside AIO unit
- H5 Mains (city) water connection
- H6 10L Expansion Vessel (heating) is inside AIO unit, additional vessel maybe required to meet system requirements
- H8 Auto Bypass - minimum 1" full bore recommended
- H10 Buffer Tank
- H11 Heat Distribution system
- H14 Secondary water pump
- H21 Expansion Vessel (Cold Water)
- H22 Domestic Hot Water Circuit
- H30 Anti-freeze valves (PAW-A2W-AFVLV)-optional, 2 required per heat pump
- H85 Discharge pipework (Must be compliant with local laws)

Aquarea Single Fan L generation AIO		
Model	Flow Rate	Min. Pipe Size Ø*
5kW	14.3 l/min	22 mm
7kW	20.7 l/min	22 mm
9kW	25.8 l/min	28 mm

\* calculated at dt5.  
Pipework sizes stated for copper

**Panasonic**

Description:  
Typical schematic drawing for piping layout of L Generation AIO

Piping Layout Schematic:  
Buffer tank single zone, Third party controls

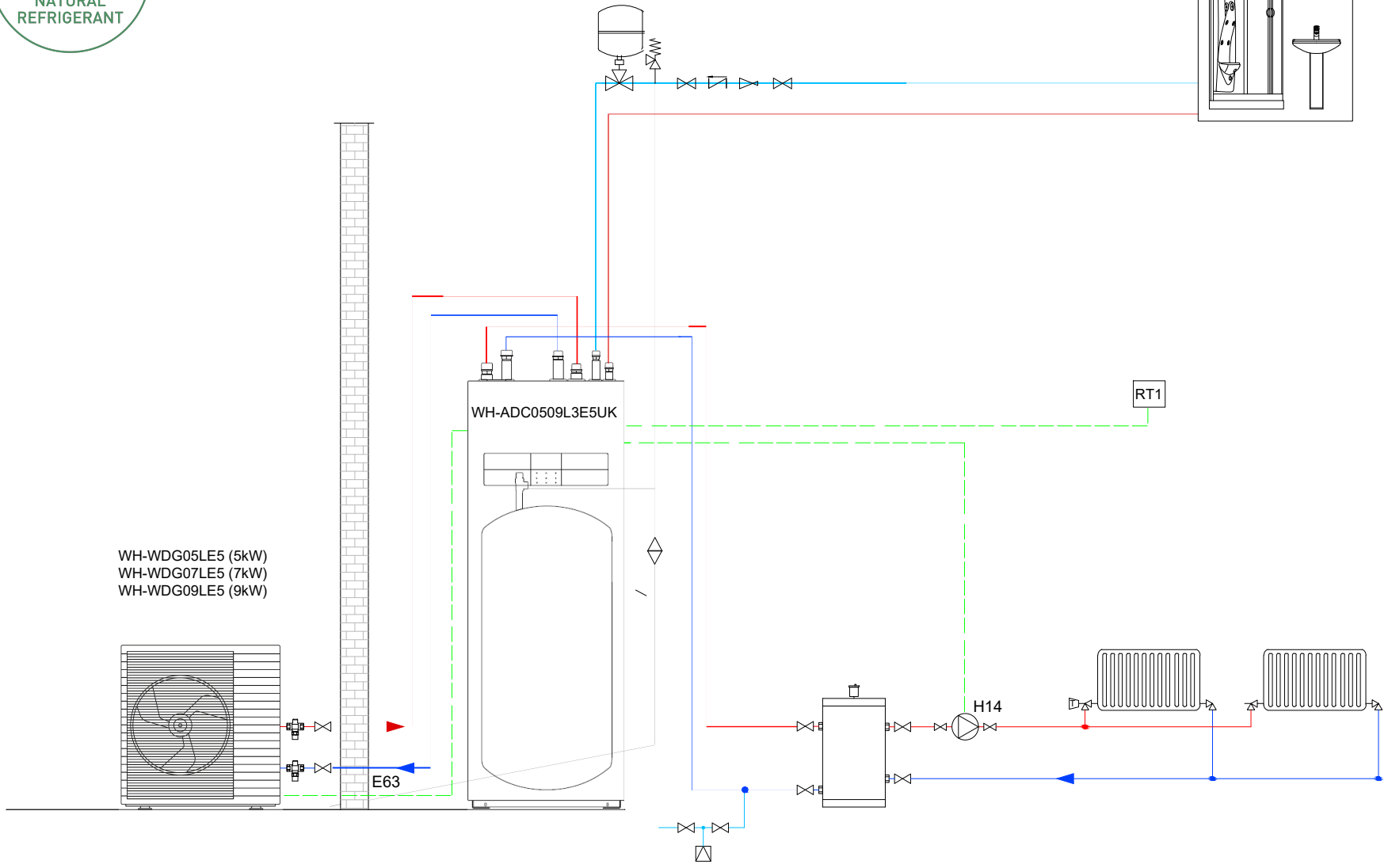
Drawing Number:  
L-AIO-B-1-T

Issue:  
1.0

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**R290**  
NATURAL  
REFRIGERANT



WH-WDG05LE5 (5kW)  
WH-WDG07LE5 (7kW)  
WH-WDG09LE5 (9kW)

**Notes:**

- Note E26:** Main Board PCB
- The maximum cable length for sensor inputs is 30 meters and the maximum cable length for outputs and other inputs is 50m

- Legend:**
- H14 Circulation Pump
  - RT1 Room Thermostat (Zone 1 - field supply)
  - E63 Connection to the outdoor unit: The outdoor unit power supply/communication comes from the indoor unit, so it is not necessary to bring a direct power supply to the outdoor unit

Aquarea L generation AIO WH-ADC0509L3E5UK			
Model	Power Supply Cord	Isolating Devices	Recommended RCD
WH-WDG05LE5	1	25A	30mA, 2P, type A
WH-WDG07LE5 WH-WDG09LE5	2	15/16A	30mA, 2P, type AC

\* Refer to installation manual for IEC/EN61000-XX compliance requirements



Description:  
Typical schematic drawing for electrical layout of L Generation AIO

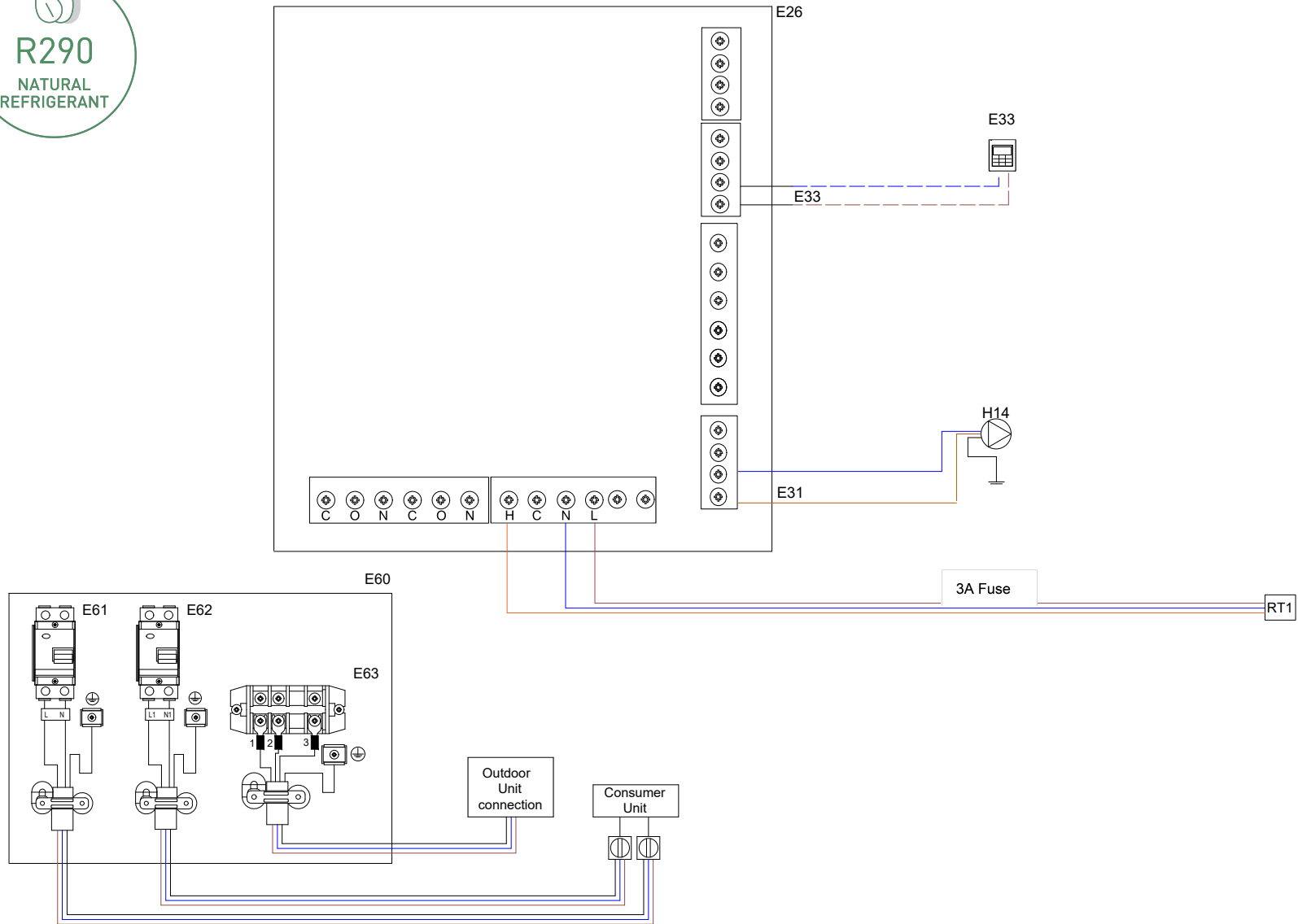
Piping Layout Schematic:  
Buffer tank, single zone, Third party controls

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Drawing Number: L-AIO-B-1-T  
Issue: 1.0



R290  
NATURAL  
REFRIGERANT



Notes:

- Note E26:** Main Board PCB
- The maximum cable length for sensor inputs is 30 meters and the maximum cable length for outputs and other inputs is 50m

- Legend:**
- E26 Main board PCB - see notes
  - E33 Panasonic remote controller
  - E31 Extra Pump Control
  - H14 Secondary water pump
  - E60 @ Unit Power Supply
  - E61 Unit Power Supply 1- Main compressor unit power supply
  - E62 Unit Power Supply 2 - Electric Back-Up Heater
  - E63 Connection to the outdoor unit: The outdoor unit power supply comes from the indoor unit, so it is not necessary to bring a direct power supply to the outdoor unit
- Field Supply:**  
RT1 Room Thermostat

Aquarea L generation AIO WH-ADC0509L3E5UK			
Model	Power Supply Cord	Isolating Devices	Recommended RCD
WH-WDG05LE5	1	25A	30mA, 2P, type A
WH-WDG07LE5 WH-WDG09LE5	2	15/16A	30mA, 2P, type AC

\* Refer to installation manual for IEC/EN61000-XX compliance requirements

**Panasonic**

Description:  
PCB Connections - AIO heat pump system

Piping Layout Schematic:  
Buffer tank, single zone, Third party controls

Drawing Number:  
L-AIO-B-1-T

Issue:  
1.0

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