

# AQUAREA HYDRAULIC GUIDE

Bi-Bloc Solutions  
H GENERATION



# TABLE OF CONTENTS

AQUAREA BI-BLOC HYDRAULIC DATA TABLE	4
TABLE OF RECOMMENDATIONS FOR HYDRAULIC CONNECTION DIAMETERS	5
EXPANSION VESSEL SIZING CHECK	5
CHARACTERISTIC CIRCULATION PUMP CURVES (MANOMETRIC HEIGHTS AVAILABLE)	6

AQUAREA “ALL-IN-ONE” H GENERATION BI-BLOC HYDRAULIC SCHEME DIAGRAMS: HEATING + INTEGRATED DOMESTIC HOT WATER	Application		7
	New	Renovation	
1-Zone Configurations:			7
1 direct underfloor heating zone + integrated domestic hot water	✓		7
1 direct radiator heating zone + integrated domestic hot water	✓		8
1 floor heating zone with buffer tank + integrated domestic hot water		✓	8
1 radiator heating zone with buffer tank + integrated domestic hot water		✓	9
1 radiator heating zone with buffer tank + swimming pool + integrated domestic hot water	✓	✓	9
1 direct fan coil zone + integrated domestic hot water	✓		10
1 fan coil zone with buffer tank via bypass + integrated domestic hot water		✓	10

2-Zone Configurations:			11
2 floor heating zones with buffer tank + integrated domestic hot water		✓	11
2 radiator heating zones with buffer tank + integrated domestic hot water		✓	11
2 direct radiator heating zones + integrated domestic hot water	✓	✓	12
2 direct floor heating zones + integrated domestic hot water	✓	✓	12
2 radiator heating zones + direct underfloor heating + integrated domestic hot water	✓	✓	13
2 radiator heating zones with buffer tank + underfloor heating + integrated domestic hot water		✓	13

Configurations with backup heater			14
1 floor heating zone with buffer tank + backup heat pump + integrated domestic hot water	✓	✓	14
1 radiator heating zone with buffer tank + backup heat pump + integrated domestic hot water	✓	✓	14
1 radiator heating zone with buffer tank + swimming pool + boiler backup + integrated domestic hot water		✓	15
2 radiator heating zones with buffer tank + backup boiler + integrated domestic hot water		✓	15
2 radiator heating zones with buffer tank + underfloor heating + backup boiler + integrated domestic hot water	✓	✓	16

AQUAREA H GENERATION BI-BLOC HYDRAULIC SCHEME HEATING ONLY + EXTERNAL DOMESTIC TAPWATER TANK (OPTIONAL)	17
Configuration with External domestic tapwater tank:	17
External domestic tapwater tank: generic diagram applicable to all the following configurations - SOLUTION No. 1 - 3-way valve external to the module	17
External domestic tapwater tank: generic diagram applicable to all the following configurations - SOLUTION No. 2 - 3-way valve internal to the module - buffer tank system	18

	Application		
	New	Renovation	
1-Zone Configurations:			18
1 direct fan coil zone	✓		18
1 direct underfloor heating zone	✓		19
1 direct radiator heating zone	✓		19
1 radiator heating zone with buffer tank + swimming pool	✓	✓	20
1 floor heating zone with buffer tank		✓	20
1 radiator heating zone with buffer tank		✓	21
1 fan coil heating zone with bypass		✓	21

2-Zone Configurations:			22
2 radiator heating zones with buffer tank	✓	✓	22
2 floor heating zones with buffer tank	✓	✓	22
2 radiator heating zones with buffer tank + underfloor heating	✓	✓	23

Configurations with Standby Generator:			23
1 floor heating zone with buffer tank + backup heat pump	✓	✓	23
1 radiator heating zone with buffer tank + backup heat pump	✓	✓	24
1 radiator heating zone with buffer tank + backup boiler		✓	24
1 radiator heating zone with buffer tank + swimming pool + backup boiler		✓	25
2 radiator heating zones with buffer tank + backup boiler		✓	25
2 fan coil heating zones with buffer tank + underfloor heating + backup heat pump	✓	✓	26
2 radiator heating zones with buffer tank + underfloor heating + backup boiler		✓	26
2 radiator heating zones with buffer tank + underfloor heating + solar heating	✓	✓	27
2 radiator heating zones with buffer tank + underfloor heating + solar domestic hot water	✓	✓	27

Cascaded Configurations:			28
3 cascaded heat pumps with 2 radiator heating zones with buffer tank + underfloor heating + domestic hot water via HPM		✓	28
3 Tichelmann loop cascaded heat pumps + 1 radiator heating zone with buffer tank via HPM		✓	28

ACCESSORIES	29
H Generation controllers	29
All-Generation controllers	30
Hydraulic	31

# Aquarea Bi-Bloc Hydraulic Data Table

## HIGH PERFORMANCE RANGE

Indoor unit	Outdoor unit	Nom. flow (at ΔT5 °C) in litres/ min	Minimum water volume (litre)	Expansion vessel volume (litre)	Heating connection diameter Supply/Return	Domestic hot water connection diameter
WH-SDC03H3E5-1	WH-UD03HE5-1	9.2	No	10 litres pre-inflated to 1 bar	1" 1/4 male	3/4"
WH-SDC05H3E5-1	WH-UD05HE5-1	14.3				
WH-SDC07H3E5-1	WH-UD07HE5-1	20				
WH-SDC09H3E5-1	WH-UD09HE5-1	25.8				
WH-SDC12H6E5	WH-UD12HE5	34.4				
WH-SDC16H6E5	WH-UD16HE5	45.8				
WH-SDC09H3E8	WH-UD09HE8	25.8				
WH-SDC12H9E8	WH-UD12HE8	34.4				
WH-SDC16H9E8	WH-UD16HE8	45.8				
WH-ADC0309H3E5(B)	WH-UD03HE5-1	9.2				
WH-ADC0309H3E5(B)	WH-UD05HE5-1	14.3				
WH-ADC0309H3E5(B)	WH-UD07HE5-1	20				
WH-ADC0309H3E5(B)	WH-UD09HE5-1	25.8				
WH-ADC1216H6E5	WH-UD12HE5	34.4				
WH-ADC1216H6E5	WH-UD16HE5	45.8				
WH-ADC0916H9E8	WH-UD09HE8	25.8				
WH-ADC0916H9E8	WH-UD12HE8	34.4				
WH-ADC0916H9E8	WH-UD16HE8	45.8				

## T-CAP RANGE

Indoor unit	Outdoor unit	Nom. flow (at ΔT5 °C) in litres/ min	Minimum water volume (litre)	Expansion vessel volume (litre)	Connection diameter Supply/Return	Domestic hot water connection diameter
WH-SXC09H3E5	WH-UX09HE5	25.8	No	10 litres pre-inflated to 1 bar	1" 1/4 male	3/4"
WH-SXC12H6E5	WH-UX12HE5	34.4				
WH-SXC09H3E8	WH-UX09HE8	25.8				
WH-SXC12H9E8	WH-UX12HE8	34.4				
WH-SXC16H9E8	WH-UX16HE8	45.8				
WH-ADC1216H6E5	WH-UX09HE5	25.8				
WH-ADC1216H6E5	WH-UX12HE5	34.4				
WH-ADC0916H9E8	WH-UX09HE8	25.8				
WH-ADC0916H9E8	WH-UX12HE8	34.4				
WH-ADC0916H9E8	WH-UX16HE8	45.8				

## HIGH TEMPERATURE RANGE

Indoor unit	Outdoor unit	Nom. flow (at ΔT5 °C) in litres/min	Minimum water volume (litre)	Expansion vessel volume (litre)	Connection diameter Supply/Return
WH-SHF09F3E5	WH-UH09FE5	25.8	30	10 litres pre-inflated to 1 bar	1" 1/4 male
WH-SHF12F6E5	WH-UH12FE5	34.4	50		
WH-SHF09F3E8	WH-UH09FE8	25.8	30		
WH-SHF12F9E8	WH-UH12FE8	34.4	50		

# Table of Recommendations for Hydraulic Connection Diameters

The diameters are given for copper tubes with a water temperature of 50 °C. For use of other materials, comply with the inner diameter of this table. Adhering to these diameters leads to noise-free heating water flow, with no piping erosion or significant heat loss.

	Direct	Decoupled
3 kW Heat Pump	22/20 mm	22/20 mm
5 kW Heat Pump	28/26 mm	22/20 mm
7 kW Heat Pump	28/26 mm	28/26 mm
9 kW Heat Pump	32/30 mm	28/26 mm
12 kW Heat Pump	35/33 mm	32/30 mm
16 kW Heat Pump	42/ 39 mm	35/33 mm

# Expansion Vessel Sizing Check

### 1st step: Calculate vessel's performance

- Pi = hydraulic pressure applied to the vessel membrane (weight of the water column) using cold water, in bar.
- Pg = inflating pressure of the vessel (Pg = Pi - 0.2 bar)
- Pt = Set pressure of the heating valve - 10% (usually 2.7 bar)

Vessel performance =  $\frac{(Pt + 1) - (Pg + 1)}{(Pt + 1)}$

### 2nd step: Check volume of water treated by the vessel

- Vvase = expansion vessel volume
- Vrec = collection vessel volume = Vvase x Rdt vessel
- Vtot = total volume of water that can be processed by the expansion vessel at max. water temperature

Vtot = Vrec/dilation coefficient

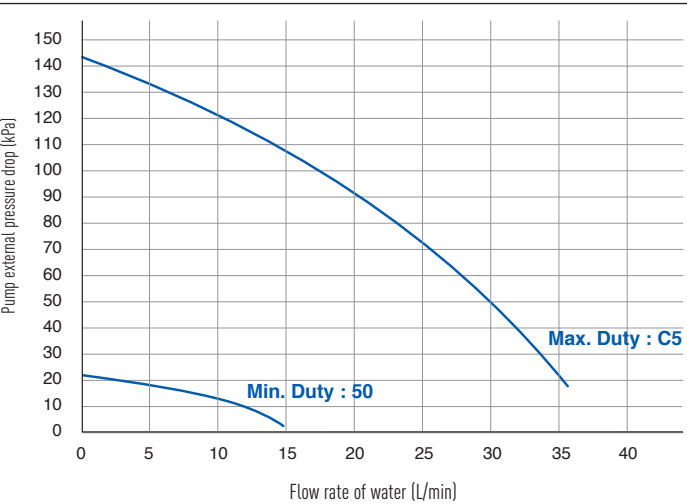
Temp.	10 °C	20 °C	30 °C	35 °C	40 °C	45 °C	50 °C	55 °C	60 °C
Dilation coefficient	0.0003	0.0018	0.0048	0.0058	0.0079	0.0098	0.0121	0.0145	0.0170

### CONCLUSION:

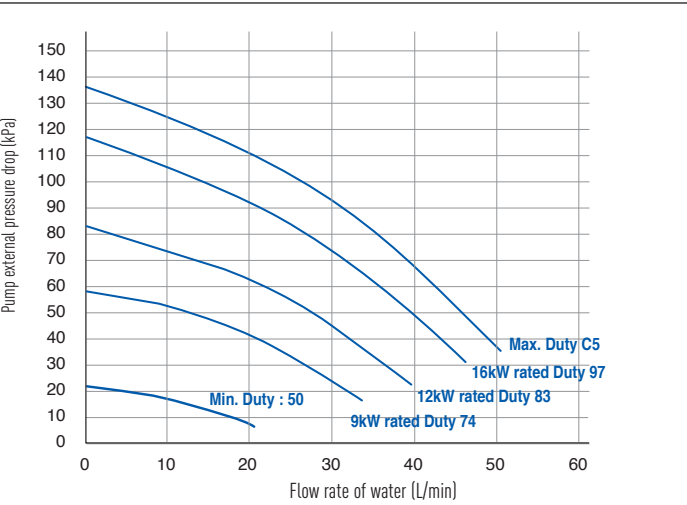
If **Vtot** is less than the actual volume of the installation, a second vessel must be added.

# Characteristic circulation pump Curves

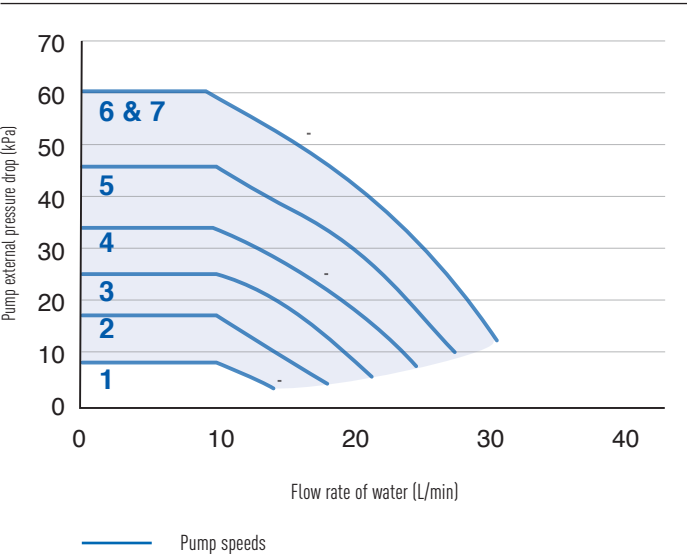
Manometric flow curve for H series pump:  
Heat pump from 3 to 9 kW



Manometric flow curve for H series pump:  
Heat pump from 9 to 16 kW



Pump curve,  
2nd zone only for All-In-One WH-ADC0309H3E5B



## GENERAL RECOMMENDATIONS



### General warning:

All Panasonic H Generation heat pumps use electric backup for defrosting assistance. For this process to be viable, Panasonic insists that the recommended diameters be observed and that the pressure drops in the existing heating system to be kept under control. In the event of a fault or failure due to a condenser flow problem, Panasonic will refuse to uphold the warranty if the manufacturer's recommendations are not met.



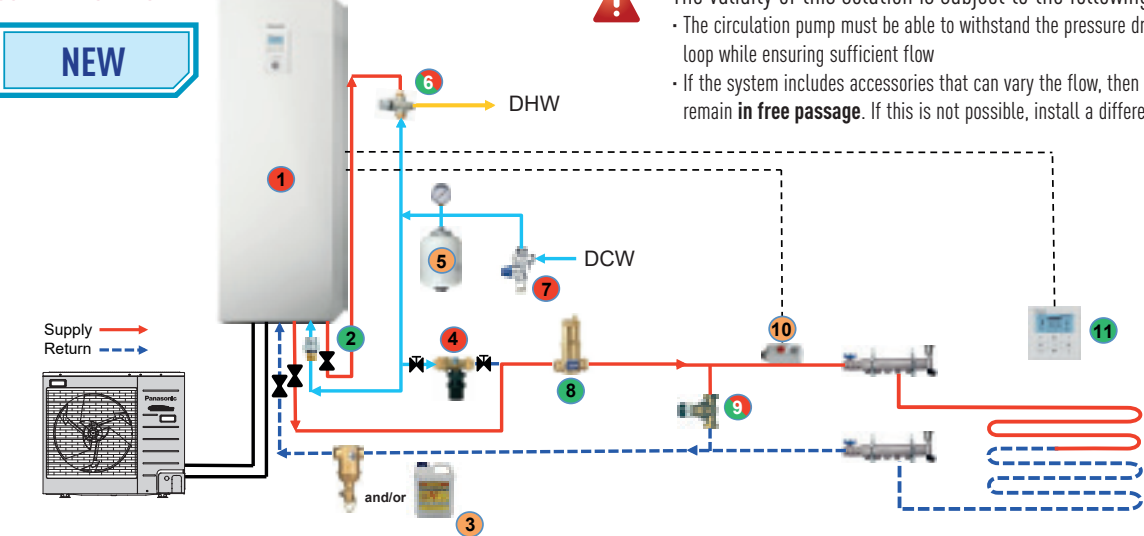
**During renovation,** if the pressure drops in the existing system cannot be correctly evaluated, a hydraulic buffer tank must be systematically installed.

# H GENERATION AQUAREA “ALL-IN-ONE” BI-BLOC HYDRAULIC SCHEME heating + integrated domestic hot water

## 1-ZONE CONFIGURATIONS

### 1 direct floor heating zone + integrated domestic hot water

#### SCHEMATIC DIAGRAM



No.	Description	Type of recommendation	Panasonic Reference
1	All-In-One module with integrated filter + valves + drain valve	Compulsory	Depending on power
2	Valve	Optional	Not provided
3	Magnetite filter	Recommended	Not provided
4	Filling valve with check valve	Compulsory	Not provided
5	Sanitary expansion vessel	Recommended	Not provided

No.	Description	Type of recommendation	Panasonic Reference
6	Thermostatic mixing valve	Compulsory if anti-legionella is activated	Not provided
7	Safety valve and closing valve	Compulsory	Not provided
8	Air separator	Optional	Not provided
9	Differential valve	As per recommendation	Not provided
10	Underfloor heating safety	Recommended	Not provided
11	Room controller*	Optional	Control (integrated in the module) that can be made remote

\* Refer to the accessories at the end of the guide

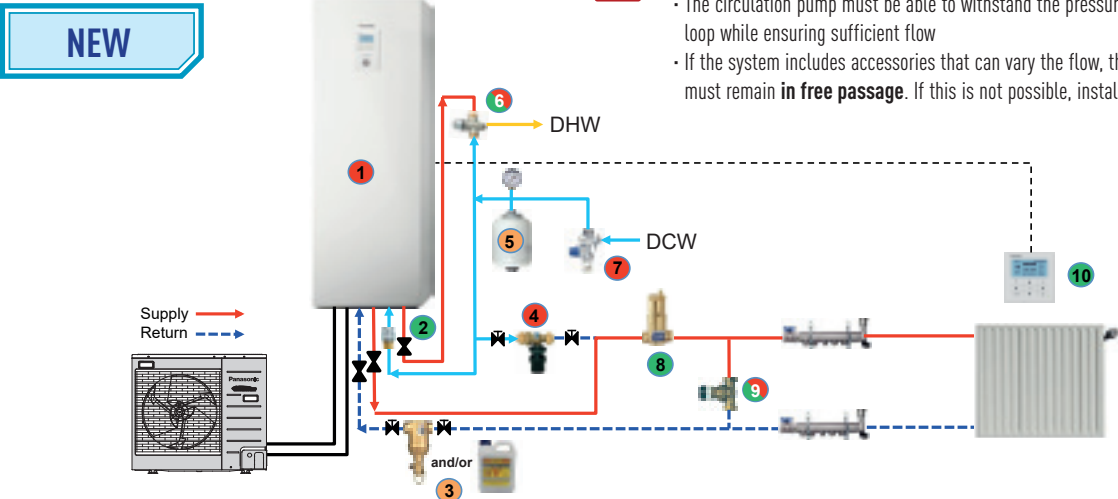


1 heating zone + integrated domestic hot water

SCHEMATIC DIAGRAM

NEW

- ⚠ The validity of this solution is subject to the following points:
- The circulation pump must be able to withstand the pressure drops of **the most resistive** heating loop while ensuring sufficient flow
  - If the system includes accessories that can vary the flow, then at least **50%** of the transmitters must remain **in free passage**. If this is not possible, install a differential valve.



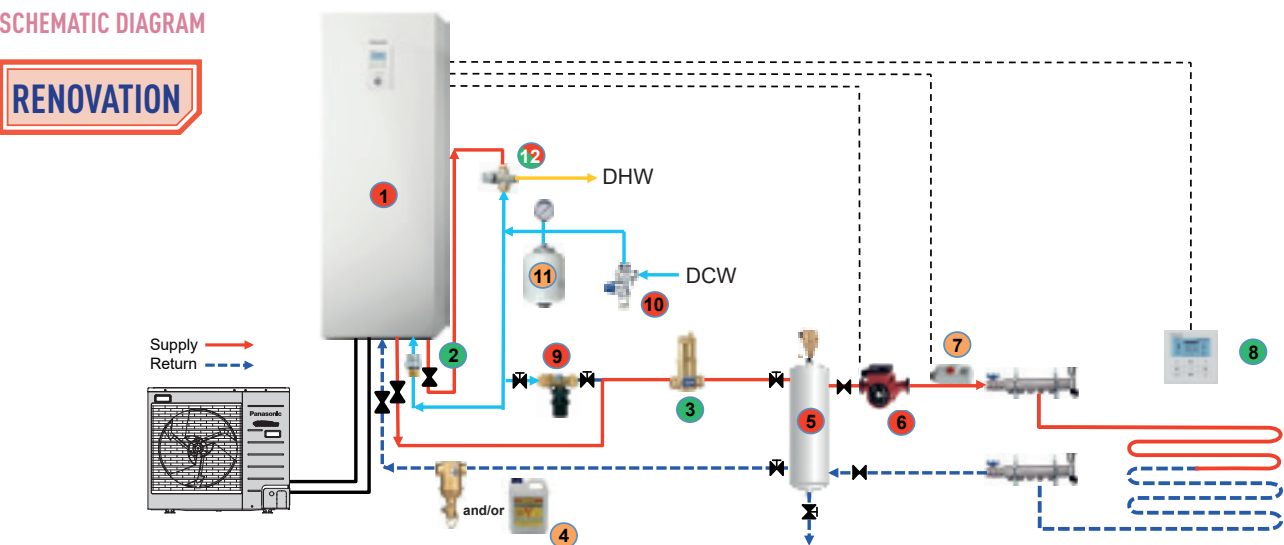
No.	Description	Type of recommendation	Panasonic Reference
1	All-In-One module with integrated filter + valves + drain valve	Compulsory	Depending on power
2	Valve	Optional	Not provided
3	Magnetite filter	Recommended	Not provided
4	Filling valve with check valve	Compulsory	Not provided
5	Sanitary expansion vessel	Recommended	Not provided

No.	Description	Type of recommendation	Panasonic Reference
6	Thermostatic mixing valve	Compulsory if anti-legionella is activated	Not provided
7	Safety valve and closing valve	Compulsory	Not provided
8	Air separator	Optional	Not provided
9	Differential valve	As per recommendation	Not provided
10	Room controller*	Optional	Control (integrated in the module) that can be made remote

1 floor heating zone with buffer tank + integrated domestic hot water

SCHEMATIC DIAGRAM

RENOVATION



No.	Description	Type of recommendation	Panasonic Reference
1	All-In-One module with integrated filter + valves + drain valve	Compulsory	Depending on power
2	Valve	Optional	Not provided
3	Air separator	Optional	Not provided
4	Magnetite filter	Recommended	Not provided
5	Buffer tank	Compulsory	PAW-BTANK50L
6	Secondary circulation pump	Compulsory	Not provided

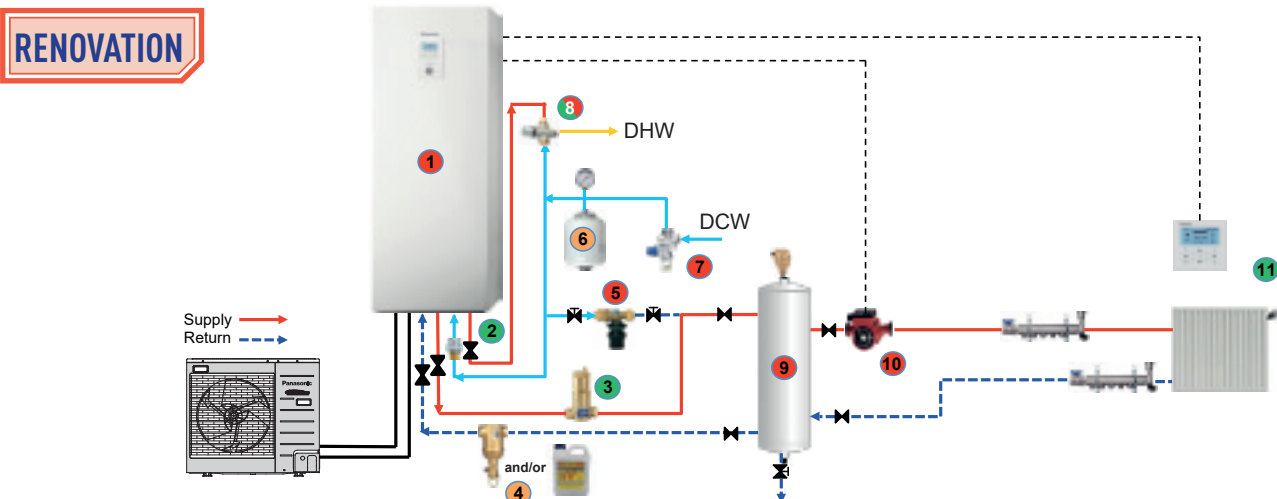
No.	Description	Type of recommendation	Panasonic Reference
7	Underfloor heating safety	Recommended	Not provided
8	Room controller*	Optional	Control (integrated in the module) that can be made remote
9	Filling valve with check valve	Compulsory	Not provided
10	Safety valve and closing valve	Compulsory	Not provided
11	Sanitary expansion vessel	Recommended	Not provided
12	Thermostatic mixing valve	Compulsory if anti-legionella is activated	Not provided

\* Refer to the accessories at the end of the guide

1 radiator heating zone with buffer tank + integrated domestic hot water

SCHEMATIC DIAGRAM

RENOVATION



No.	Description	Type of recommendation	Panasonic Reference
1	All-In-One module with integrated filter + valves + drain valve	Compulsory	Depending on power
2	Valve	Optional	Not provided
3	Air separator	Optional	Not provided
4	Magnetite filter	Recommended	Not provided
5	Filling valve with check valve	Compulsory	Not provided
6	Sanitary expansion vessel	Recommended	Not provided

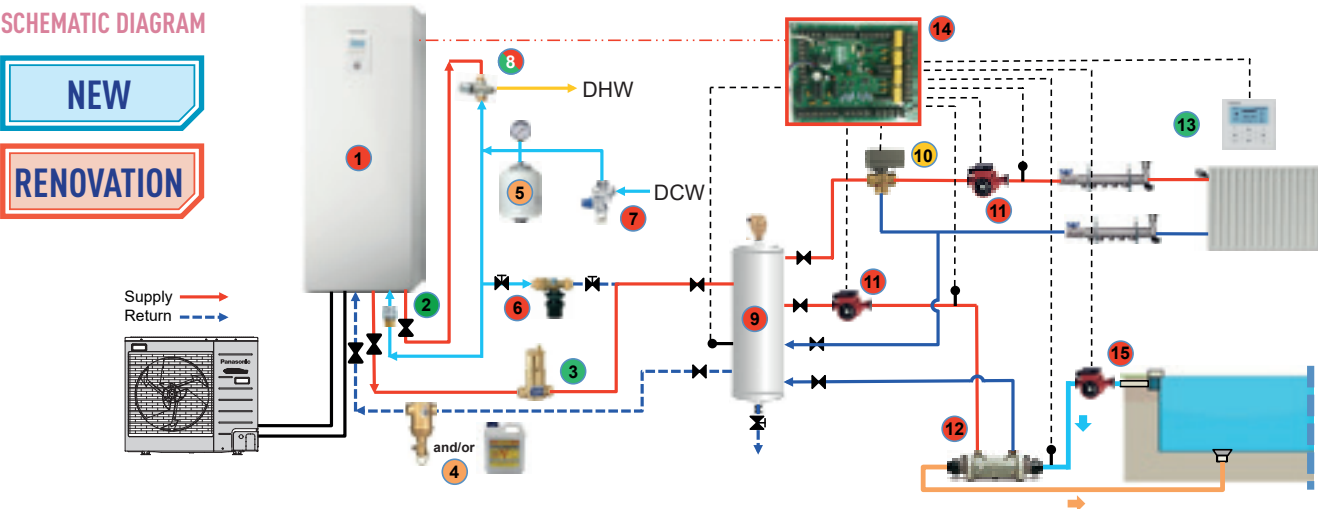
No.	Description	Type of recommendation	Panasonic Reference
7	Safety valve and closing valve	Compulsory	Not provided
8	Thermostatic mixing valve	Compulsory if anti-legionella is activated	Not provided
9	Buffer tank	Compulsory	PAW-BTANK50L
10	Secondary circulation pump	Compulsory	Not provided
11	Room controller*	Optional	Control (integrated in the module) that can be made remote

1 radiator heating zone with buffer tank + swimming pool + integrated domestic hot water

SCHEMATIC DIAGRAM

NEW

RENOVATION



No.	Description	Type of recommendation	Panasonic Reference
1	All-In-One module with integrated filter + valves + drain valve	Compulsory	Depending on power
2	Valve	Optional	Not provided
3	Air separator	Optional	Not provided
4	Magnetite filter	Recommended	Not provided
5	Sanitary expansion vessel	Recommended	Not provided
6	Filling valve with check valve	Compulsory	Not provided
7	Safety valve and closing valve	Compulsory	Not provided
8	Thermostatic mixing valve	Compulsory if anti-legionella is activated	Not provided

No.	Description	Type of recommendation	Panasonic Reference
9	Buffer tank	Compulsory	Not provided
10	3-way motorized mixing valve	Recommended	Not provided
11	Secondary circulation pump	Compulsory	Not provided
12	Pool heat exchanger	Compulsory	Not provided
13	Room controller*	Optional	Control (integrated in the module) that can be made remote
14	CZ-NS4P integrated optional circuit board + 1 PAW-AZW-TSBU probe + 3 PAW-AZW-TSHC probes	Compulsory	CZ-NS4P + PAW-AZW-TSBU + PAW-AZW-TSHC
15	Pool pump	Depending on system	Not provided

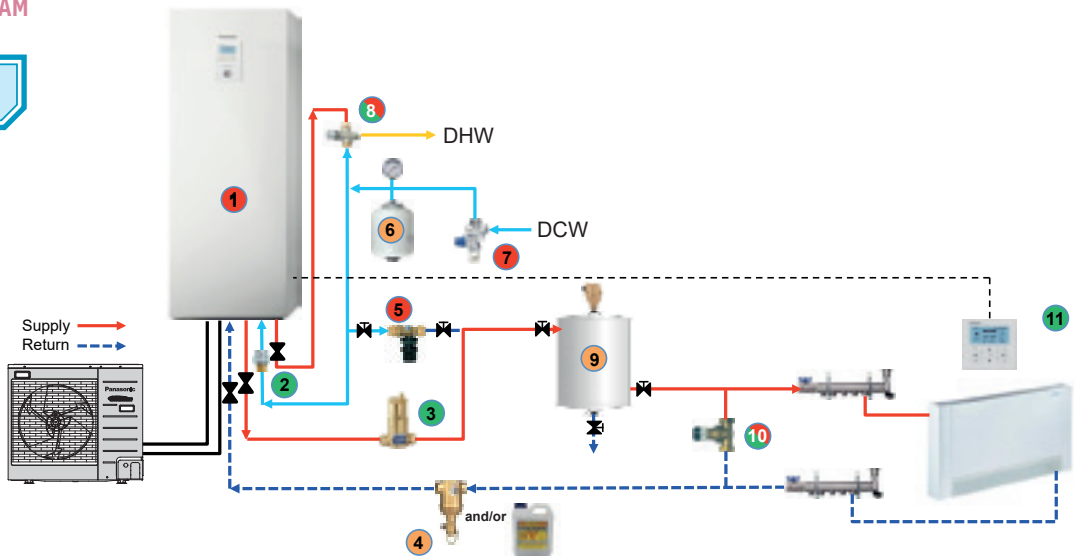
\* Refer to the accessories at the end of the guide

\* To view all the selectable accessories, please refer to the AZW Aquarea contract catalog or contact your Panasonic dealer.

1 direct fan coil zone + integrated domestic hot water

SCHEMATIC DIAGRAM

NEW



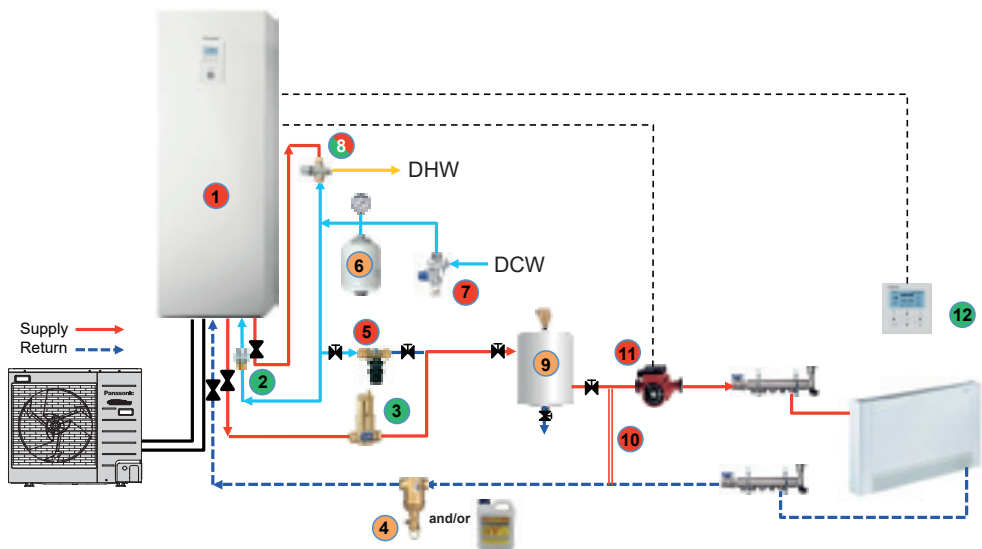
No.	Description	Type of recommendation	Panasonic Reference
1	All-In-One module with integrated filter + valves + drain valve	Compulsory	Depending on power
2	Valve	Optional	Not provided
3	Air separator	Optional	Not provided
4	Magnetite filter	Recommended	Not provided
5	Filling valve with check valve	Compulsory	Not provided
6	Sanitary expansion vessel	Recommended	Not provided

No.	Description	Type of recommendation	Panasonic Reference
7	Safety valve and closing valve	Compulsory	Not provided
8	Thermostatic mixing valve	Compulsory if anti-legionella is activated	Not provided
9	Buffer volume 30 to 50 L depending on heat pump model	Recommended	PAW-BTANK50L
10	Differential valve	As per recommendation	Not provided
11	Room controller*	Optional	Control (integrated in the module) that can be made remote

1 fan coil zone with buffer tank via bypass + integrated domestic hot water

SCHEMATIC DIAGRAM

RENOVATION



No.	Description	Type of recommendation	Panasonic Reference
1	All-In-One V2 module with integrated filter + valves	Compulsory	Depending on power
2	Valve	Optional	Not provided
3	Air separator	Optional	Not provided
4	Magnetite filter	Recommended	Not provided
5	Filling valve with check valve	Compulsory	Not provided
6	Sanitary expansion vessel	Recommended	Not provided
7	Safety valve and closing valve	Compulsory	Not provided

No.	Description	Type of recommendation	Panasonic Reference
8	Thermostatic mixing valve	Compulsory if anti-legionella is activated	Not provided
9	Buffer volume 30 to 50 L depending on heat pump model	Recommended	PAW-BTANK50L
10	Smooth bypass	Compulsory	Not provided
11	Secondary circulation pump	Compulsory	Not provided
12	Room controller*	Optional	Control (integrated in the module) that can be made remote

\* Refer to the accessories at the end of the guide

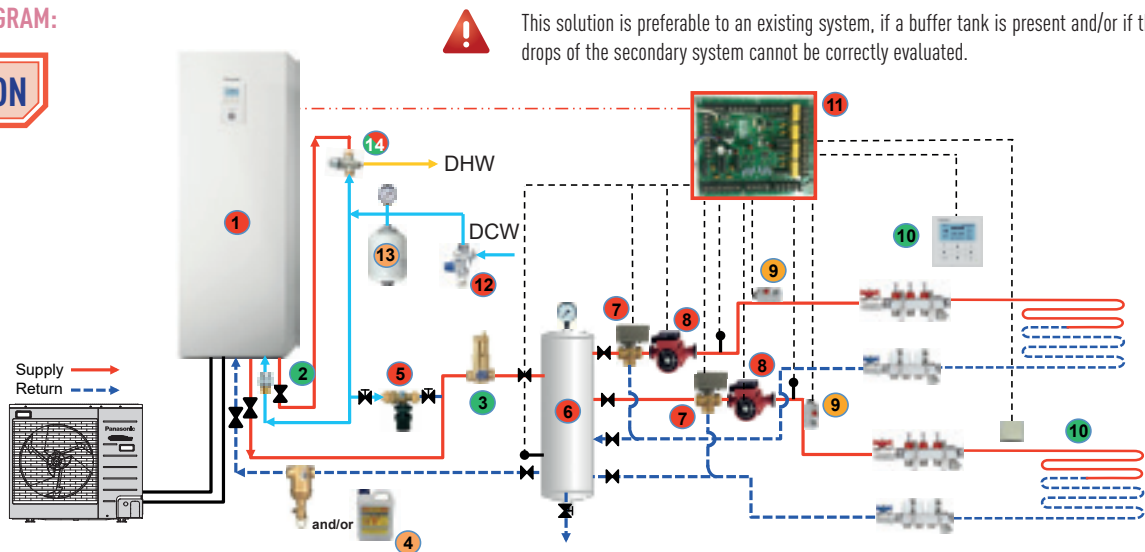
\* To view all the selectable accessories, please refer to the A2W Aquarea contract catalog or contact your Panasonic dealer.

2-ZONE CONFIGURATIONS

2 floor heating zones with buffer tank + integrated domestic hot water

SCHEMATIC DIAGRAM:

RENOVATION



! This solution is preferable to an existing system, if a buffer tank is present and/or if the pressure drops of the secondary system cannot be correctly evaluated.

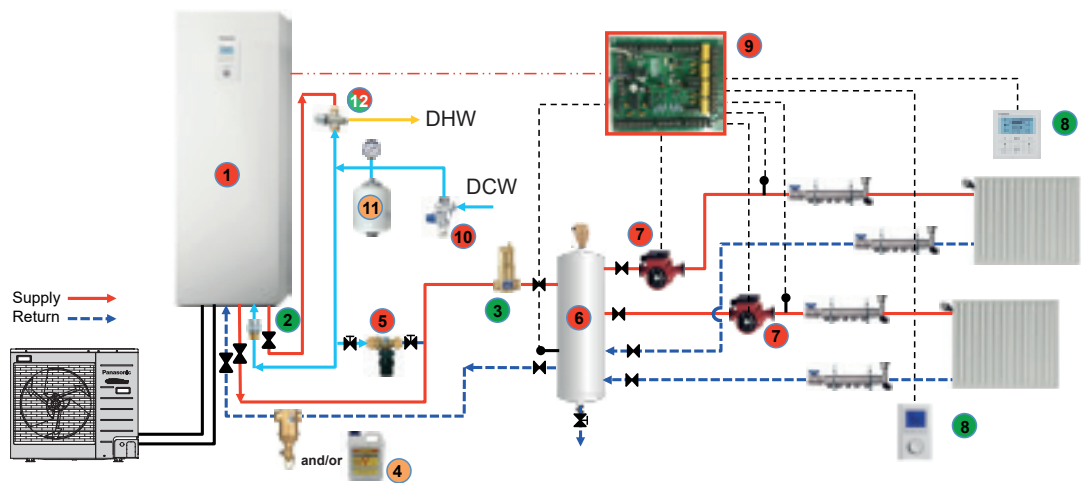
No.	Description	Type of recommendation	Panasonic Reference
1	All-In-One module with integrated filter + valves + drain valve	Compulsory	Depending on power
2	Valve	Optional	Not provided
3	Air separator	Optional	Not provided
4	Magnetite filter	Recommended	Not provided
5	Filling valve with check valve	Compulsory	Not provided
6	Buffer tank	Compulsory	Not provided
7	3-way motorized mixing valve	Compulsory	Not provided
8	Secondary circulation pump	Compulsory	Not provided
9	Underfloor heating safety	Recommended	Not provided

No.	Description	Type of recommendation	Panasonic Reference
10	Room controller*	Optional	Control (integrated in the module) that can be made remote
11	CZ-NS4P integrated optional circuit board + 1 PAW-AZW-TSBU probe + 2 PAW-AZW-TSHC probes	Compulsory	CZ-NS4P + PAW-AZW-TSBU + PAW-AZW-TSHC
12	Safety valve and closing valve	Compulsory	Not provided
13	Sanitary expansion vessel	Recommended	Not provided
14	Thermostatic mixing valve	Compulsory if anti-legionella is activated	Not provided

2 radiator heating zones with buffer tank + integrated domestic hot water

SCHEMATIC DIAGRAM:

RENOVATION



No.	Description	Type of recommendation	Panasonic Reference
1	All-In-One module with integrated filter + valves + drain valve	Compulsory	Depending on power
2	Valve	Optional	Not provided
3	Air separator	Optional	Not provided
4	Magnetite filter	Recommended	Not provided
5	Filling valve with check valve	Compulsory	Not provided
6	Buffer tank	Compulsory	Not provided
7	Secondary circulation pump	Compulsory	Not provided

No.	Description	Type of recommendation	Panasonic Reference
8	Room controller*	Optional	Control (integrated in the module) that can be made remote
9	CZ-NS4P integrated optional circuit board + 1 PAW-AZW-TSBU probe + 2 PAW-AZW-TSHC probes	Compulsory	CZ-NS4P + AW-AZW-TSBU + PAW-AZW-TSHC
10	Safety valve and closing valve	Compulsory	Not provided
11	Sanitary expansion vessel	Recommended	Not provided
12	Thermostatic mixing valve	Compulsory if anti-legionella is activated	Not provided

\* Refer to the accessories at the end of the guide

2 direct radiator heating zones + integrated domestic hot water

SCHEMATIC DIAGRAM:

NEW

RENOVATION

No.	Description	Type of recommendation	Panasonic Reference
1	All-In-One module, 2 zones with integrated filter + valves + drain valve	Compulsory	WH-ADC0309H3E5B
2	Valve	Optional	Not provided
3	Filling valve with check valve	Compulsory	Not provided
4	Magnetite filter	Recommended	Not provided
5	Sanitary expansion vessel	Recommended	Not provided
6	Thermostatic mixing valve	Compulsory if anti-legionella is activated	Not provided

No.	Description	Type of recommendation	Panasonic Reference
7	Differential valve	Depending on configuration	Not provided
8	Safety valve and closing valve	Compulsory	Not provided
9	Air separator	Optional	Not provided
10	Room controller*	Optional	Control (integrated in the module) that can be made remote

2 direct floor heating zones + integrated domestic hot water

SCHEMATIC DIAGRAM:

NEW

RENOVATION

No.	Description	Type of recommendation	Panasonic Reference
1	All-In-One module, 2 zones with integrated filter + valves + drain valve	Compulsory	WH-ADC0309H3E5B
2	Valve	Optional	Not provided
3	Filling valve with check valve	Compulsory	Not provided
4	Magnetite filter	Recommended	Not provided
5	Sanitary expansion vessel	Recommended	Not provided
6	Thermostatic mixing valve	Compulsory if anti-legionella is activated	Not provided

No.	Description	Type of recommendation	Panasonic Reference
7	Safety valve and closing valve	Compulsory	Not provided
8	Air separator	Recommended	Not provided
9	Differential valve	Depending on configuration	Not provided
10	Underfloor heating safety	Recommended	Not provided
11	Room controller*	Optional	Control (integrated in the module) that can be made remote

\* Refer to the accessories at the end of the guide

2 heating zones + direct underfloor heating + integrated domestic hot water

SCHEMATIC DIAGRAM

NEW

RENOVATION

No.	Description	Type of recommendation	Panasonic Reference
1	All-In-One module, 2 zones with integrated filter + valves + drain valve	Compulsory	WH-ADC0309H3E5B
2	Valve	Optional	Not provided
3	Filling valve with check valve	Compulsory	Not provided
4	Safety valve and closing valve	Compulsory	Not provided
5	Sanitary expansion vessel	Recommended	Not provided
6	Thermostatic mixing valve	Compulsory if anti-legionella is activated	Not provided

No.	Description	Type of recommendation	Panasonic Reference
7	Magnetite filter	Recommended	Not provided
8	Differential valve	Depending on configuration	Not provided
9	Air separator	Optional	Not provided
10	Underfloor heating safety	Recommended	Not provided
11	Room controller*	Optional	Control (integrated in the module) that can be made remote

2 radiator heating zones with buffer tank + underfloor heating + integrated domestic hot water

SCHEMATIC DIAGRAM

RENOVATION

No.	Description	Type of recommendation	Panasonic Reference
1	All-In-One module, 1 zone with integrated filter + valves + drain valve	Compulsory	Depending on power
2	Valve	Optional	Not provided
3	Air separator	Optional	Not provided
4	Magnetite filter	Recommended	Not provided
5	Filling valve with check valve	Compulsory	Not provided
6	Sanitary expansion vessel	Recommended	Not provided
7	Safety valve and closing valve	Compulsory	Not provided
8	Thermostatic mixing valve	Compulsory if anti-legionella is activated	Not provided

No.	Description	Type of recommendation	Panasonic Reference
9	Buffer tank	Compulsory	Not provided
10	Secondary circulation pump	Compulsory	Not provided
11	3-way motorized mixing valve	Compulsory	Not provided
12	Underfloor heating safety	Recommended	Not provided
13	Room controller*	Optional	Control (integrated in the module) that can be made remote
14	CZ-NS4P integrated circuit board + 1 PAW-AZW-TSBU probe + 2 PAW-AZW-TSHC probes	Compulsory	CZ-NS4P + PAW-AZW-TSBU + PAW-AZW-TSHC

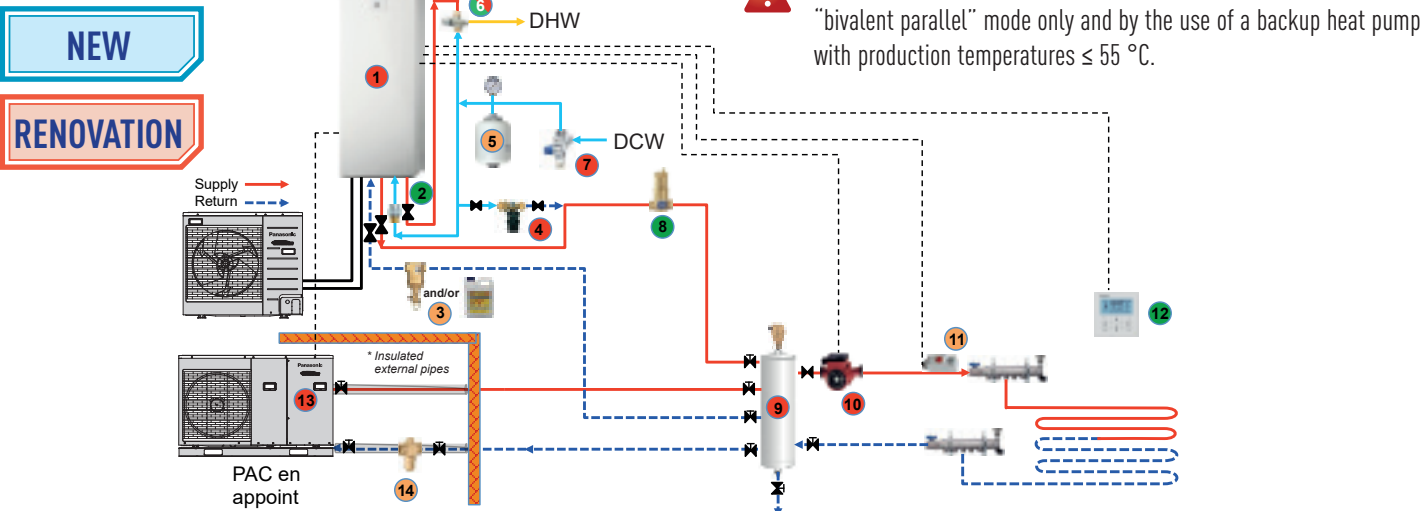
\* Refer to the accessories at the end of the guide



CONFIGURATIONS WITH BACKUP

1 floor heating zone with buffer tank + backup heat pump + integrated domestic hot water

SCHEMATIC DIAGRAM

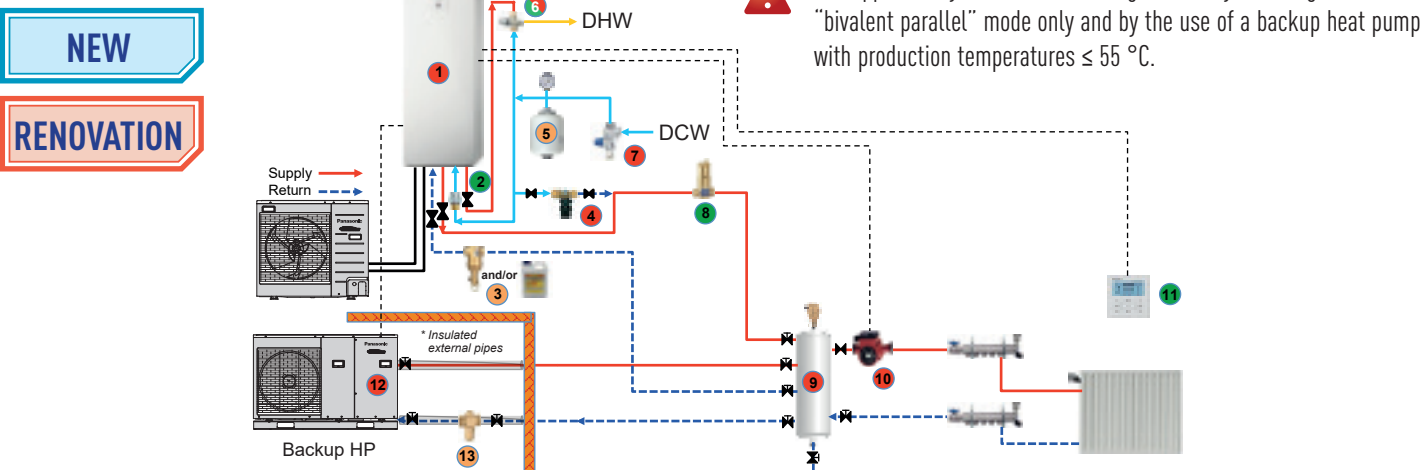


No.	Description	Type of recommendation	Panasonic Reference
1	All-In-One module with integrated filter + valves + drain valve	Compulsory	Depending on power
2	Valve	Optional	Not provided
3	Magnetite filter	Recommended	Not provided
4	Filling valve with check valve	Compulsory	Not provided
5	Sanitary expansion vessel	Recommended	Not provided
6	Thermostatic mixing valve	Compulsory if anti-legionella is activated	Not provided
7	Safety valve and closing valve	Compulsory	Not provided

No.	Description	Type of recommendation	Panasonic Reference
8	Air separator	Optional	Not provided
9	Buffer tank	Compulsory	Compulsory
10	Secondary circulation pump	Compulsory	Not provided
11	Underfloor heating safety	Recommended	Not provided
12	Room controller*	Optional	Control (integrated in the module) that can be made remote
13	Backup heat pump connected in parallel	Compulsory	Not provided
14	Anti-freeze valve	Recommended	Not provided

1 radiator heating zone with buffer tank + backup heat pump + integrated domestic hot water

SCHEMATIC DIAGRAM



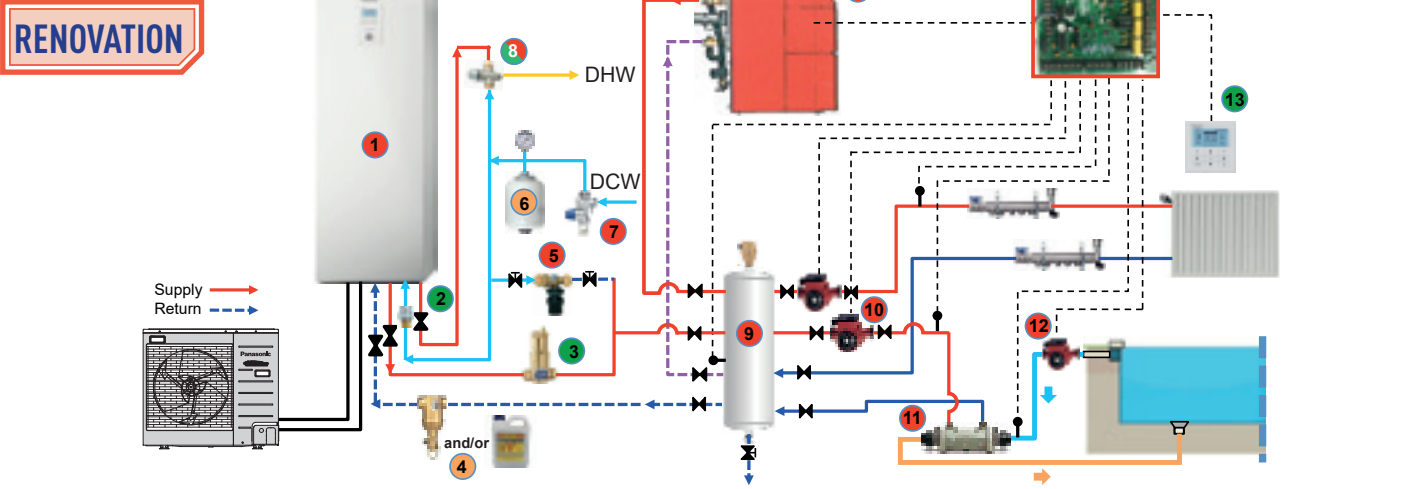
No.	Description	Type of recommendation	Panasonic Reference
1	All-In-One module with integrated filter + valves + drain valve	Compulsory	Depending on power
2	Valve	Optional	Not provided
3	Magnetite filter	Recommended	Not provided
4	Filling valve with check valve	Compulsory	Not provided
5	Sanitary expansion vessel	Recommended	Not provided
6	Thermostatic mixing valve	Compulsory if anti-legionella is activated	Not provided

No.	Description	Type of recommendation	Panasonic Reference
7	Safety valve and closing valve	Compulsory	Not provided
8	Air separator	Optional	Not provided
9	Buffer tank	Compulsory	Compulsory
10	Secondary circulation pump	Compulsory	Not provided
11	Room controller*	Optional	Control (integrated in the module) that can be made remote
12	Backup heat pump connected in parallel	Compulsory	Not provided
13	Anti-freeze valve	Recommended	Not provided

\* Refer to the accessories at the end of the guide

1 radiator heating zone with buffer tank + swimming pool + boiler backup + integrated domestic hot water

SCHEMATIC DIAGRAM

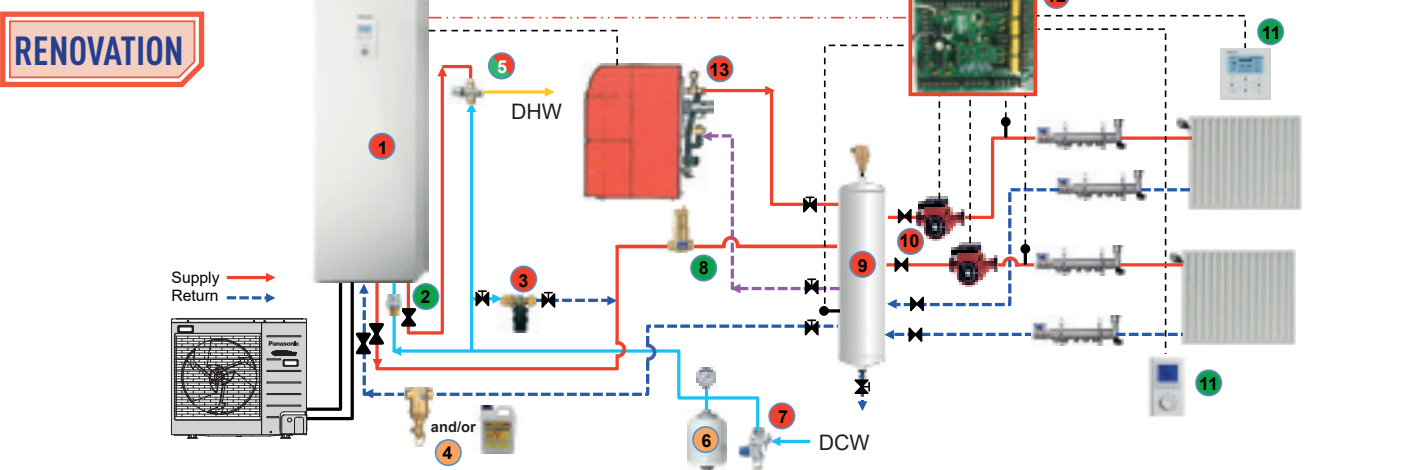


No.	Description	Type of recommendation	Panasonic Reference
1	All-In-One module with integrated filter + valves + drain valve	Compulsory	Depending on power
2	Valve	Optional	Not provided
3	Air separator	Optional	Not provided
4	Magnetite filter	Recommended	Not provided
5	Filling valve with check valve	Compulsory	Not provided
6	Sanitary expansion vessel	Recommended	Not provided
7	Safety valve and closing valve	Compulsory	Not provided
8	Thermostatic mixing valve	Compulsory if anti-legionella is activated	Not provided

No.	Description	Type of recommendation	Panasonic Reference
9	50-100 L buffer tank	Compulsory	Not provided
10	Secondary circulation pump	Compulsory	Not provided
11	Pool heat exchanger	Compulsory	Not provided
12	Pool pump	Compulsory	Not provided
13	Room controller*	Optional	Control (integrated in the module) that can be made remote
14	CZ-NS4P integrated optional circuit board + 1 PAW-AZW-TSBU probe + 3 PAW-AZW-TSHC probes	Compulsory	CZ-NS4P + PAW-AZW-TSBU + PAW-AZW-TSHC
15	Boiler connected in parallel	Compulsory	Not provided

2 radiator heating zones with buffer tank + backup boiler + integrated domestic hot water

SCHEMATIC DIAGRAM



No.	Description	Type of recommendation	Panasonic Reference
1	All-In-One module with integrated filter + valves + drain valve	Compulsory	Depending on power
2	Valve	Optional	Not provided
3	Filling valve with check valve	Compulsory	Not provided
4	Magnetite filter	Recommended	Not provided
5	Thermostatic mixing valve	Compulsory if anti-legionella is activated	Not provided
6	Sanitary expansion vessel	Recommended	Not provided
7	Safety valve and closing valve	Compulsory	Not provided

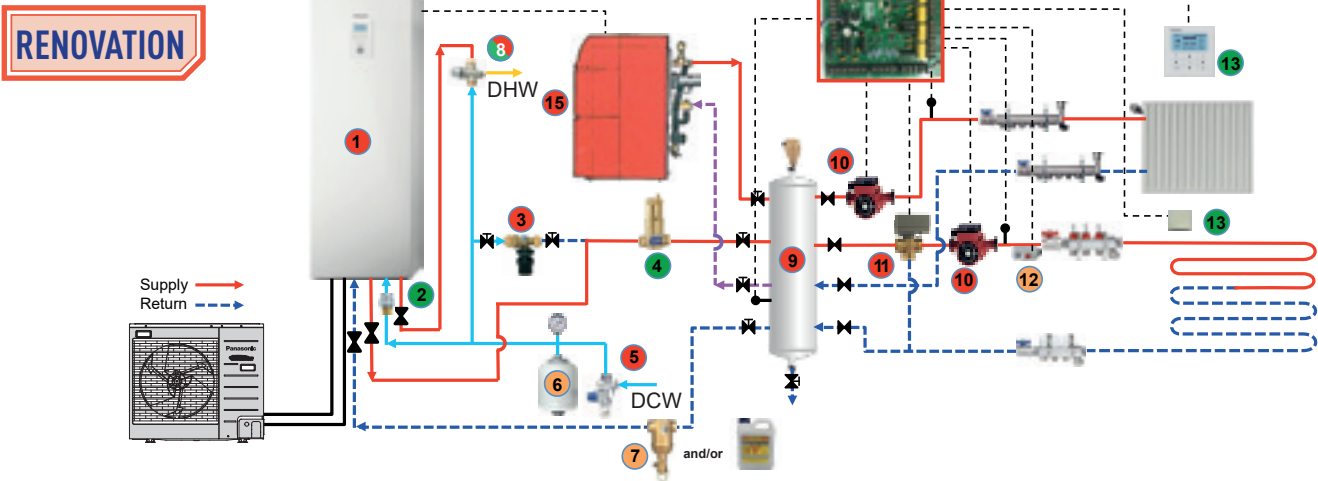
No.	Description	Type of recommendation	Panasonic Reference
8	Air separator	Optional	Not provided
9	50-100 L buffer tank	Compulsory	Not provided
10	Secondary circulation pump	Compulsory	Not provided
11	Room controller*	Optional	Control (integrated in the module) that can be made remote
12	CZ-NS4P integrated optional circuit board + 1 PAW-AZW-TSBU probe + 2 PAW-AZW-TSHC probes	Compulsory	CZ-NS4P + PAW-AZW-TSBU + PAW-AZW-TSHC
13	Boiler connected in parallel	Compulsory	Not provided

\* Refer to the accessories at the end of the guide



2 radiator heating zones with buffer tank + underfloor heating + backup boiler + integrated domestic hot water

SCHEMATIC DIAGRAM



No.	Description	Type of recommendation	Panasonic Reference
1	All-In-One module with integrated filter + valves + drain valve	Compulsory	Depending on power
2	Valve	Optional	Not provided
3	Filling valve with check valve	Compulsory	Not provided
4	Air separator	Optional	Not provided
5	Safety valve and closing valve	Compulsory	Not provided
6	Sanitary expansion vessel	Recommended	Not provided
7	Magnetite filter	Recommended	Not provided
8	Thermostatic mixing valve	Compulsory if anti-legionella is activated	Not provided

No.	Description	Type of recommendation	Panasonic Reference
9	50-100 L buffer tank	Compulsory	Not provided
10	Secondary circulation pump	Compulsory	Not provided
11	3-way motorized mixing valve	Compulsory	Not provided
12	Underfloor heating safety	Recommended	Not provided
13	Room controller*	Optional	Control (integrated in the module) that can be made remote
14	CZ-NS4P integrated optional circuit board + 1 PAW-AZW-TSBU probe + 2 PAW-AZW-TSHC probes	Compulsory	CZ-NS4P + PAW-AZW-TSBU + PAW-AZW-TSHC
15	Boiler connected in parallel	Compulsory	Not provided

\* Refer to the accessories at the end of the guide

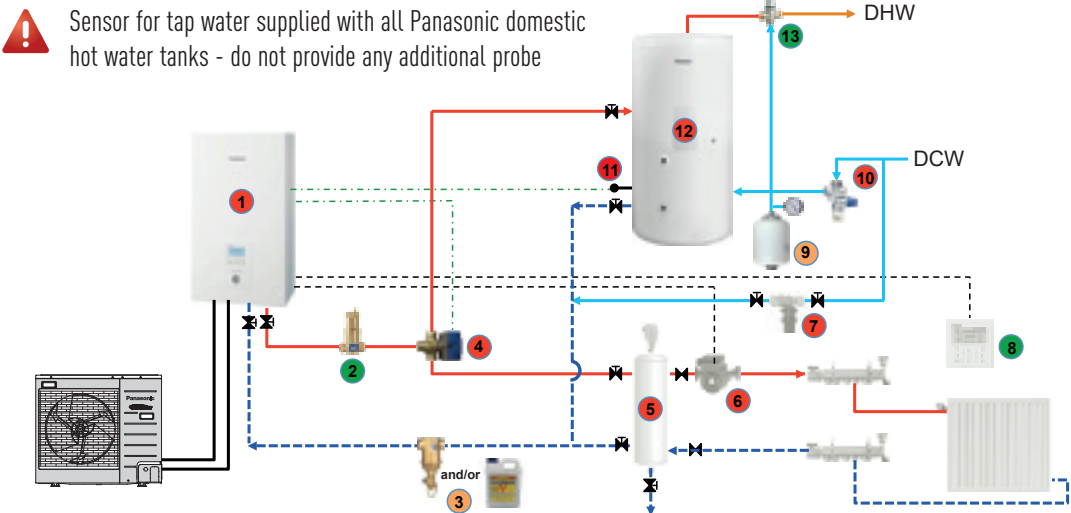
# AQUAREA H GENERATION BI-BLOC HYDRAULIC SCHEME Heating Only + external domestic hot water tank (optional)



## CONFIGURATIONS WITH OPTIONAL EXTERNAL DOMESTIC HOT WATER TANK

Optional external domestic hot water tank: generic diagram applicable to all the following configurations - **SOLUTION No. 1 - 3-way valve external to the module**

SCHEMATIC DIAGRAM



No.	Description	Type of recommendation	Panasonic Reference
1	Hydraulic module with integrated filter + valves	Compulsory	Depending on power
2	Air separator	Optional	Not provided
3	Magnetite filter	Recommended	Not provided
4	3-way motorized directional valve	Compulsory	PAW-3WVVLV-SI
5	Buffer tank	Compulsory	Not provided
6	Secondary circulation pump	Compulsory	Not provided
7	Filling valve with check valve	Compulsory	Not provided

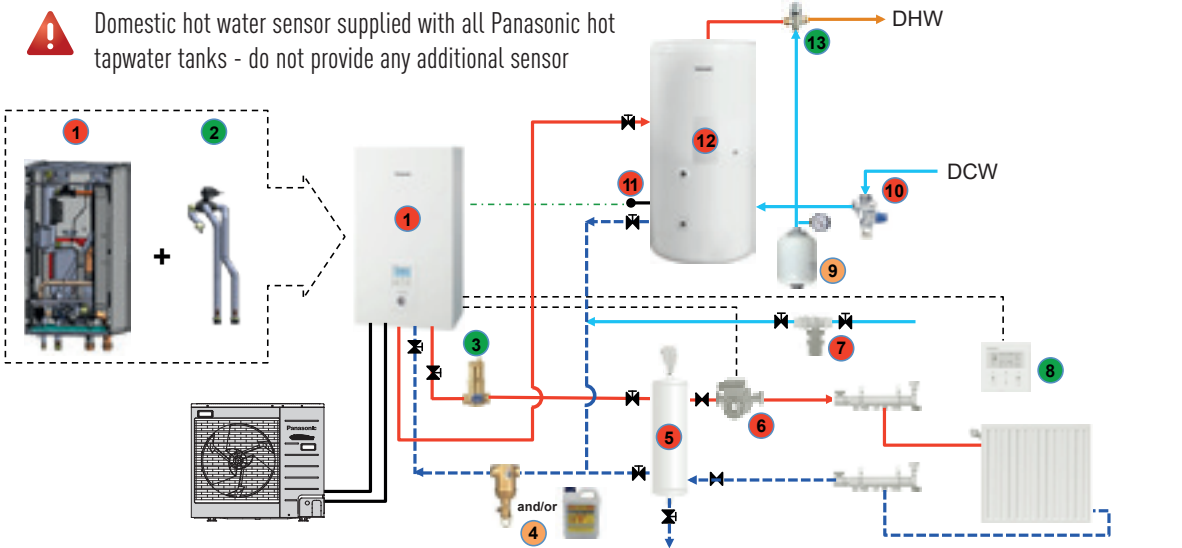
No.	Description	Type of recommendation	Panasonic Reference
8	Room controller*	Optional	Control (integrated in the module) that can be made remote
9	Sanitary expansion vessel + manometer	Recommended	Not provided
10	Safety valve and closing valve	Compulsory	Not provided
11	PAW-TS1 sanitary probe (6m) / PAW-TS2** (20m) / PAW-TS4 (6m / Ø = 6mm) as required	Compulsory	PAW-TS1 (6m) / PAW-TS2 (20m) / PAW-TS4 (6m / Ø = 6mm) as required
12	Heat pump compatible domestic hot water	Compulsory	Not provided
13	Thermostatic mixing valve	Optional	Not provided

\* Refer to the list of accessories at the end of the guide.

\*\* PAW-TS2: Factory supplied with all Panasonic tanks

Optional external domestic hot water tank: generic diagram applicable to all the following configurations -  
**SOLUTION No. 2 - 3-way valve internal to the module - system with buffer tank**

SCHEMATIC DIAGRAM



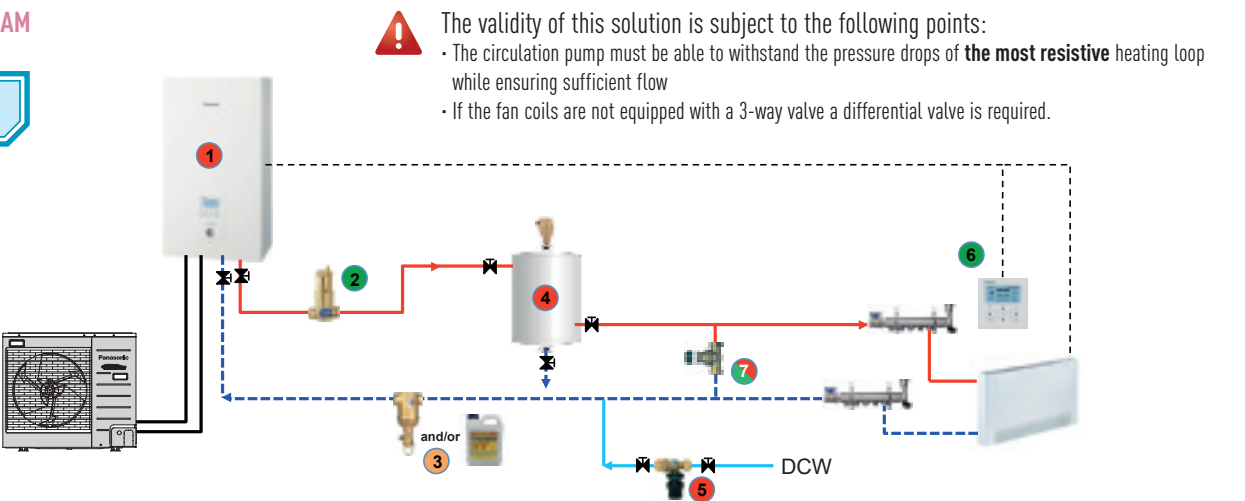
No.	Description	Type of recommendation	Panasonic Reference
1	Hydraulic module with integrated filter + valves	Compulsory	Depending on power + CZ-NV1
2	Domestic hot water integrated 3-way valve kit	Optional	CZ-NV1
3	Air separator	Optional	Not provided
4	Magnetite filter	Recommended	Not provided
5	30-50 L Buffer tank	Compulsory	Not provided
6	Secondary circulation pump	Compulsory	Not provided
7	Filling valve with check valve	Compulsory	Not provided

No.	Description	Type of recommendation	Panasonic Reference
8	Room controller*	Optional	Control (integrated in the module) that can be made remote
9	Sanitary expansion vessel + manometer	Recommended	Not provided
10	Safety valve and closing valve	Compulsory	Not provided
11	PAW-TS1 sanitary probe (6m) / PAW-TS2** (20m) / PAW-TS4 (6m / Ø = 6mm) as required	Compulsory	PAW-TS1 (6m) / PAW-TS2 (20m) / PAW-TS4 (6m / Ø = 6mm) as required
12	Heat pump compatible domestic hot water tank	Compulsory	Not provided
13	Thermostatic mixing valve	Optional	Not provided

1-ZONE CONFIGURATIONS

1 direct fan coil zone

SCHEMATIC DIAGRAM



No.	Description	Type of recommendation	Panasonic Reference
1	Hydraulic module with integrated filter + valves	Compulsory	Depending on power
2	Air separator	Optional	Not provided
3	Magnetite filter	Recommended	Not provided
4	Buffer tank with a capacity of 30 to 50 L depending on heat pump power	Compulsory	PAW-BTANK50L

No.	Description	Type of recommendation	Panasonic Reference
5	Filling valve with check valve	Compulsory	Not provided
6	Room controller* or pilot wire	Optional	Control (integrated in the module) that can be made remote
7	Differential valve	As per recommendation	Not provided

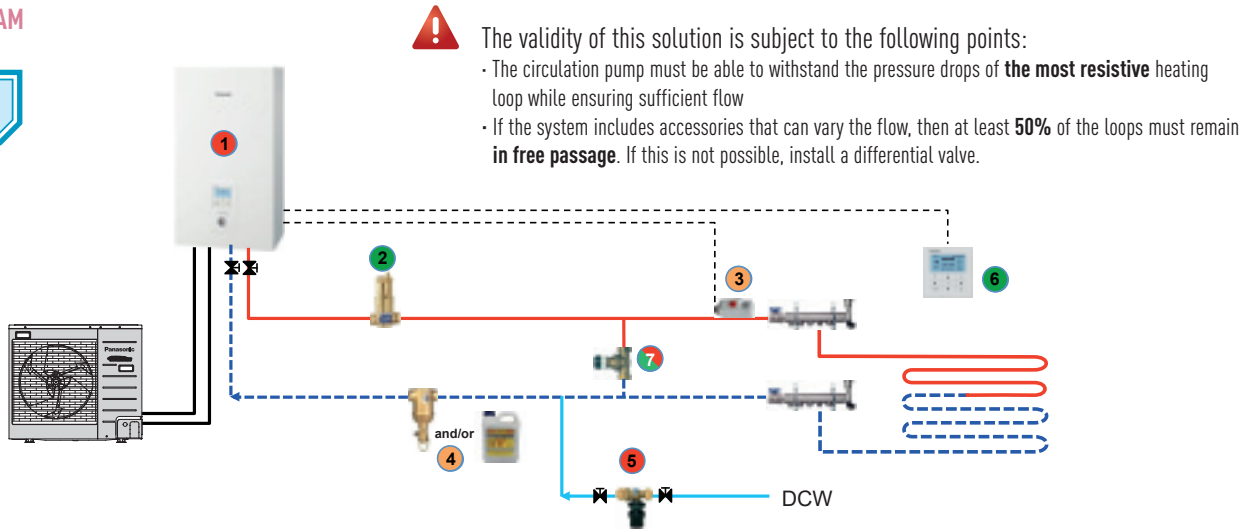
\* Refer to the list of accessories at the end of the guide.

\*\* PAW-TS2: Factory supplied with all Panasonic tanks

1-ZONE CONFIGURATIONS

1 direct underfloor heating zone

SCHEMATIC DIAGRAM

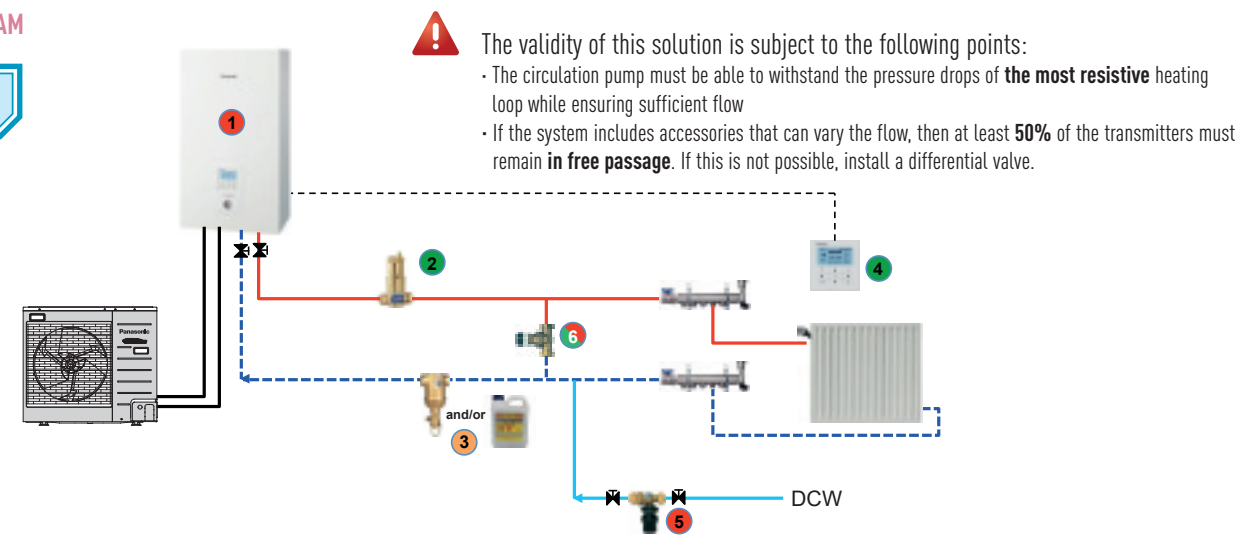


No.	Description	Type of recommendation	Panasonic Reference
1	Hydraulic module with integrated filter + valves	Compulsory	Depending on power
2	Air separator	Optional	Not provided
3	Underfloor heating safety	Recommended	Not provided
4	Magnetite filter	Recommended	Not provided

No.	Description	Type of recommendation	Panasonic Reference
5	Filling valve with check valve	Compulsory	Not provided
6	Room controller*	Optional	Control (integrated in the module) that can be made remote
7	Differential valve	As per recommendation	Not provided

1 direct radiator heating zone

SCHEMATIC DIAGRAM



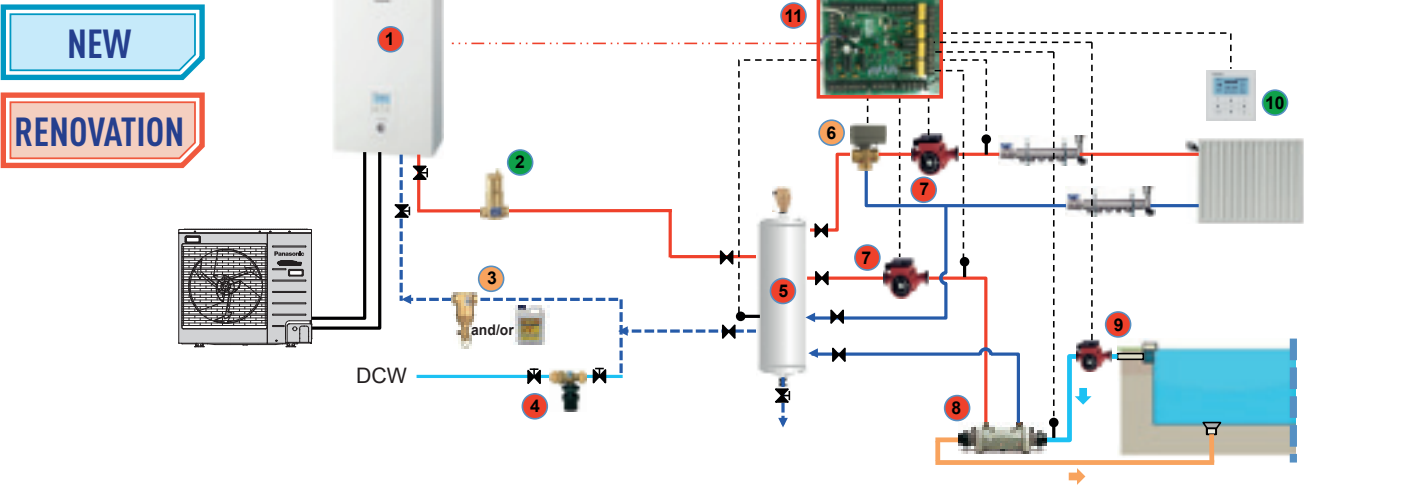
No.	Description	Type of recommendation	Panasonic Reference
1	Hydraulic module with integrated filter + valves	Compulsory	Depending on power
2	Air separator	Optional	Not provided
3	Magnetite filter	Recommended	Not provided

No.	Description	Type of recommendation	Panasonic Reference
4	Room controller*	Optional	Control (integrated in the module) that can be made remote
5	Filling valve with check valve	Compulsory	Not provided
6	Differential valve	As per recommendation	Not provided

\* Refer to the accessories at the end of the guide

1 radiator heating zone with buffer tank + swimming pool

SCHEMATIC DIAGRAM

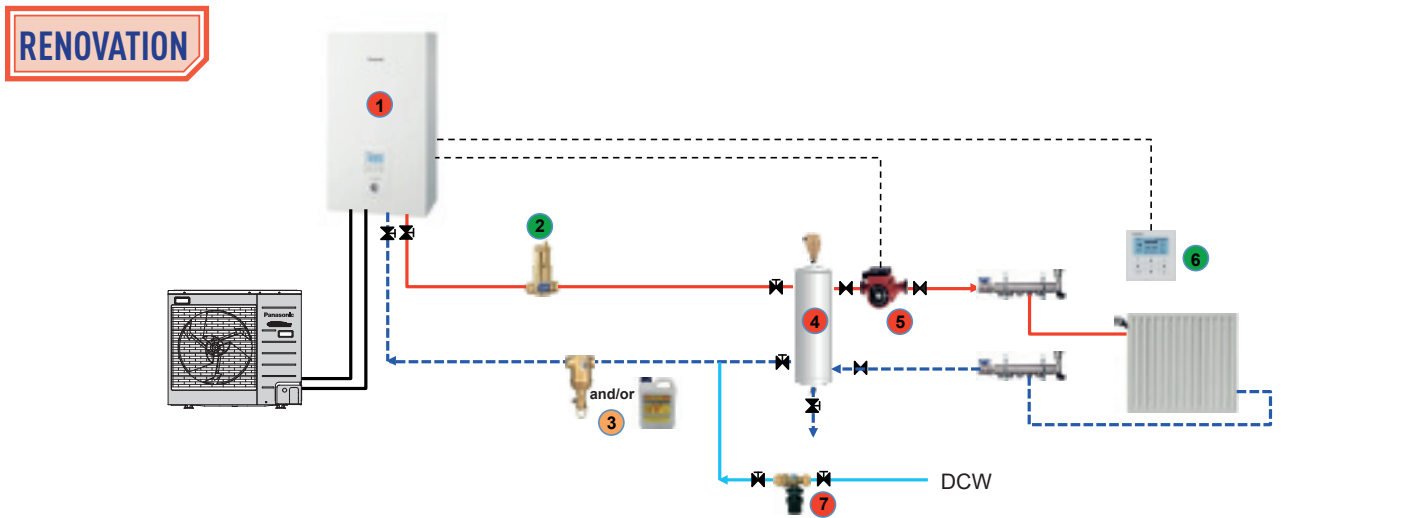


No.	Description	Type of recommendation	Panasonic Reference
1	Hydraulic module with integrated filter + valves	Compulsory	Depending on power
2	Air separator	Optional	Not provided
3	Magnetite filter	Recommended	Not provided
4	Filling valve with check valve	Compulsory	Not provided
5	Buffer tank	Compulsory	Not provided
6	3-way motorized mixing valve	Recommended	Not provided
7	Secondary circulation pump	Compulsory	Not provided

No.	Description	Type of recommendation	Panasonic Reference
8	Pool heat exchanger	Compulsory	Not provided
9	Pool pump	Depending on system	Not provided
10	Room controller*	Optional	Control (integrated in the module) that can be made remote
11	CZ-NS4P integrated optional circuit board + 1 PAW-AZW-TSBU probe + 3 PAW-AZW-TSHC probes	Compulsory	CZ-NS4P + PAW-AZW-TSBU + PAW-AZW-TSHC

1 radiator heating zone with buffer tank

SCHEMATIC DIAGRAM

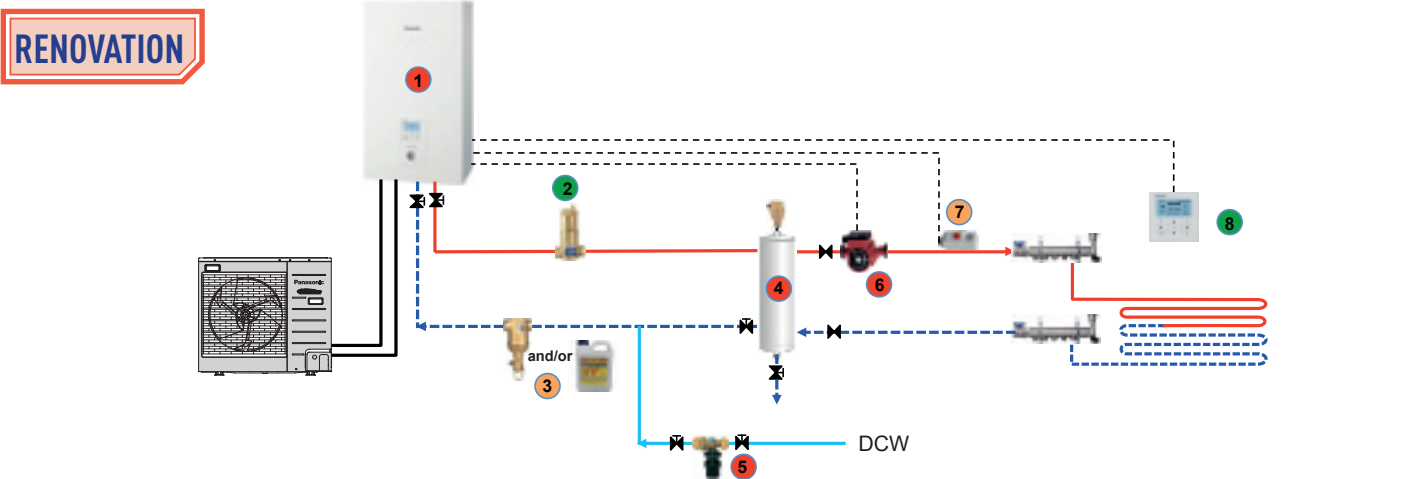


No.	Description	Type of recommendation	Panasonic Reference
1	Hydraulic module with integrated filter + valves	Compulsory	Depending on power
2	Air separator	Optional	Not provided
3	Magnetite filter	Recommended	Not provided
4	Buffer tank	Compulsory	PAW-BTANK50L

No.	Description	Type of recommendation	Panasonic Reference
5	Secondary circulation pump	Compulsory	Not provided
6	Room controller*	Optional	Control (integrated in the module) that can be made remote
7	Filling valve with check valve	Compulsory	Not provided

1 floor heating zone with buffer tank

SCHEMATIC DIAGRAM

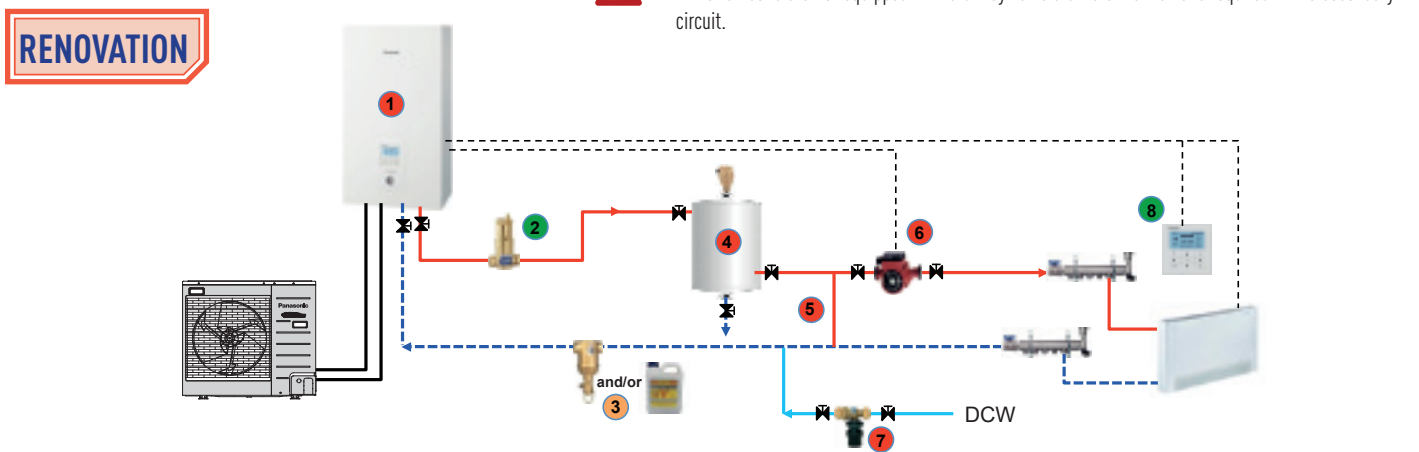


No.	Description	Type of recommendation	Panasonic Reference
1	Hydraulic module with integrated filter + valves	Compulsory	Depending on power
2	Air separator	Optional	Not provided
3	Magnetite filter	Recommended	Not provided
4	Buffer tank	Compulsory	PAW-BTANK50L

No.	Description	Type of recommendation	Panasonic Reference
5	Filling valve with check valve	Compulsory	Not provided
6	Secondary circulation pump	Compulsory	Not provided
7	Underfloor heating safety	Recommended	Not provided
8	Room controller*	Optional	Control (integrated in the module) that can be made remote

1 fan coil zone with buffer tank via bypass

SCHEMATIC DIAGRAM



No.	Description	Type of recommendation	Panasonic Reference
1	Hydraulic module with integrated filter + valves	Compulsory	Depending on power
2	Air separator	Optional	Not provided
3	Magnetite filter	Recommended	Not provided
4	Buffer tank with a capacity of 30 to 50 L depending on heat pump power	Compulsory	PAW-BTANK50L

No.	Description	Type of recommendation	Panasonic Reference
5	Smooth bypass	Compulsory	Not provided
6	Secondary circulation pump	Compulsory	Not provided
7	Filling valve with check valve	Compulsory	Not provided
8	Room controller* or pilot wire	Optional	Control (integrated in the module) that can be made remote

\* Refer to the accessories at the end of the guide

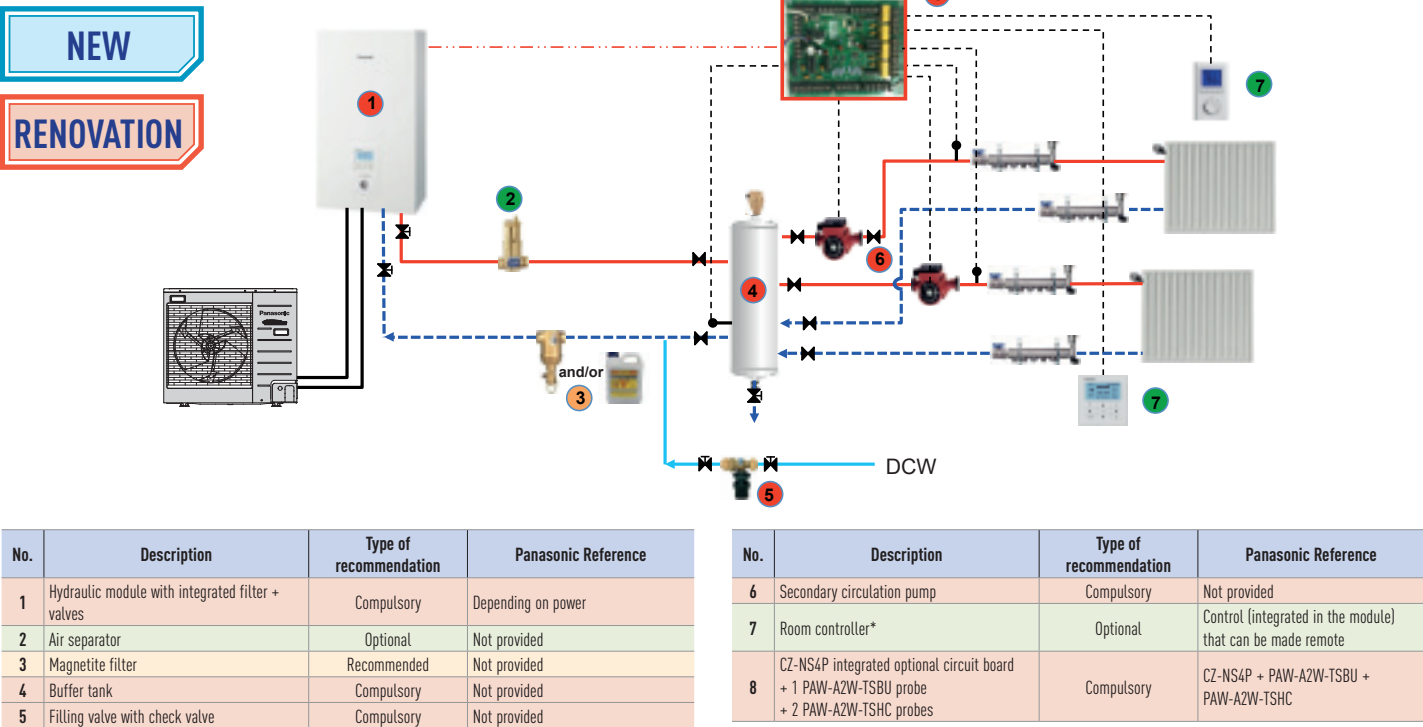
\* Refer to the accessories at the end of the guide



2-ZONE CONFIGURATIONS

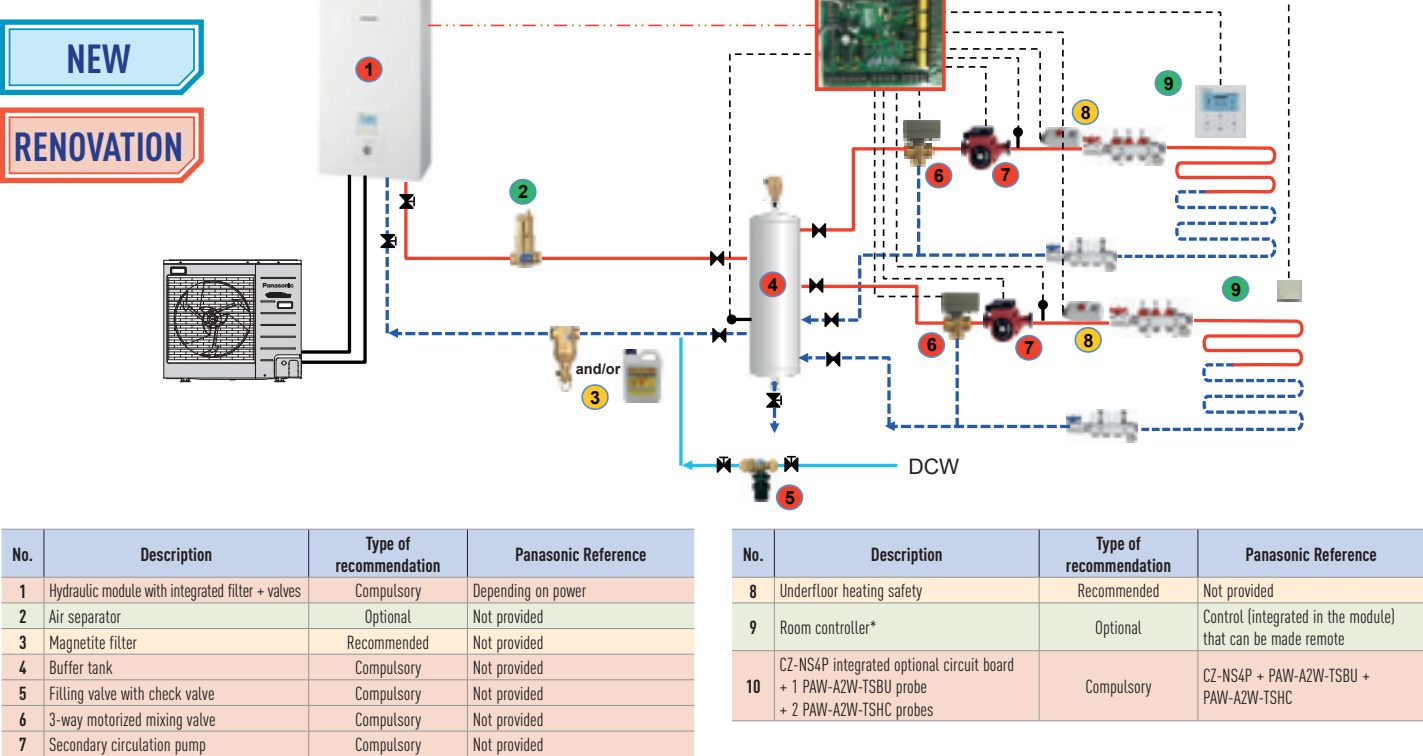
2 radiator heating zones with buffer tank

SCHEMATIC DIAGRAM:



2 floor heating zones with buffer tank

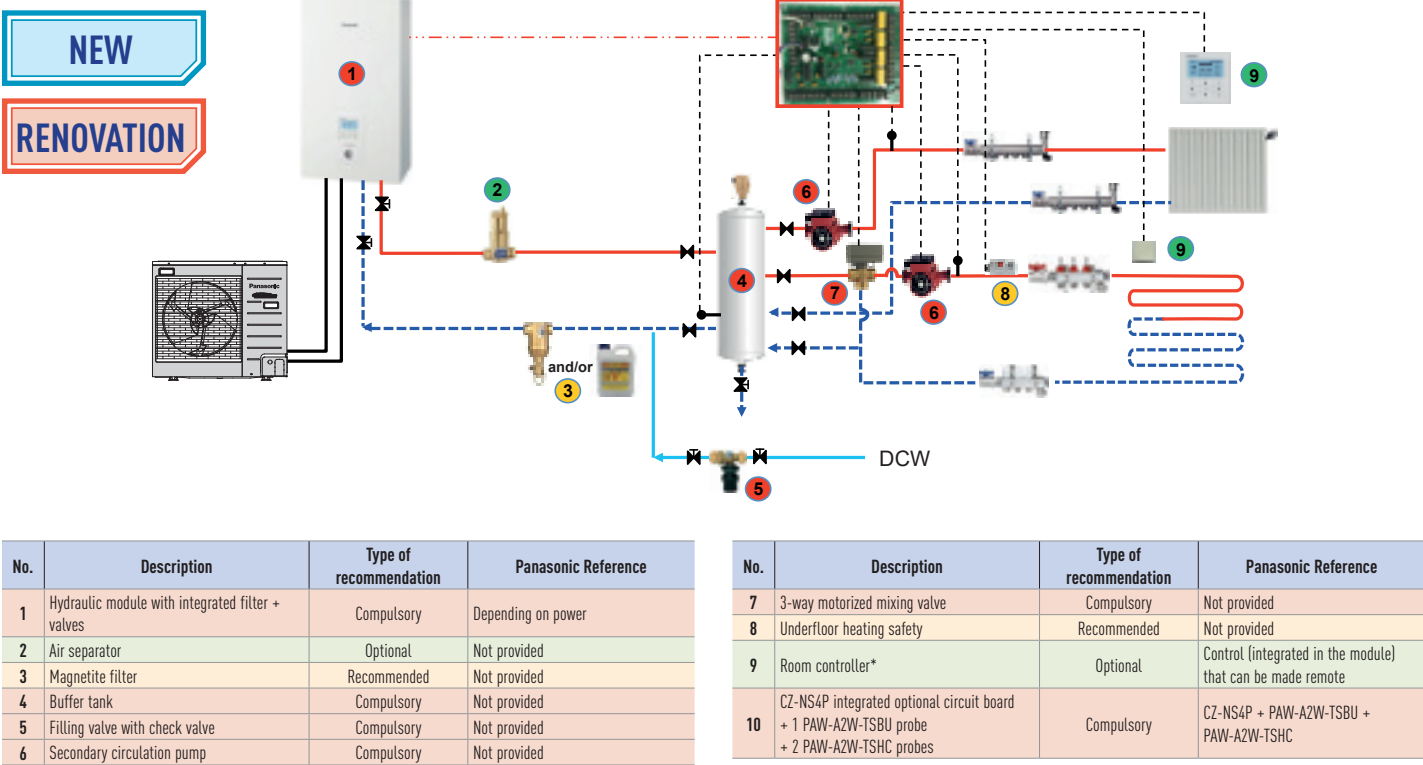
SCHEMATIC DIAGRAM



\* Refer to the accessories at the end of the guide

2 radiator heating zones with buffer tank + underfloor heating

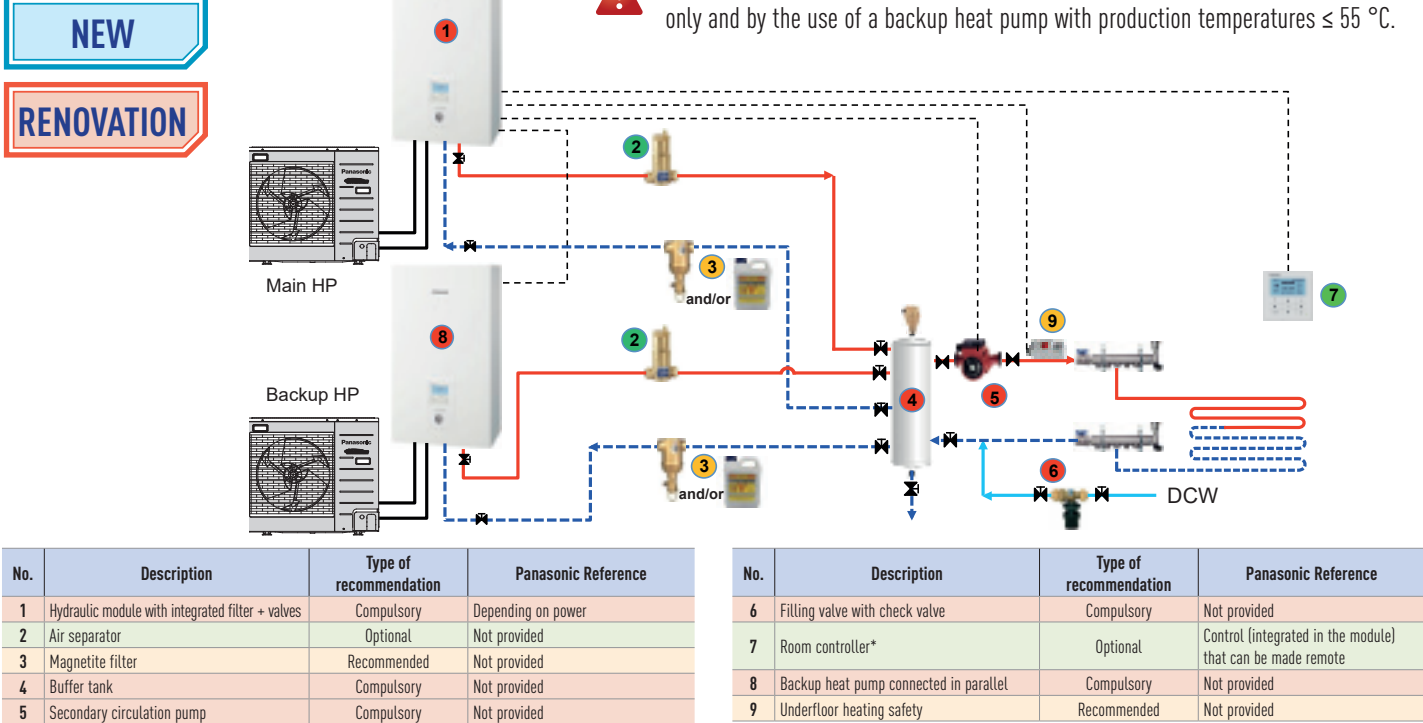
SCHEMATIC DIAGRAM



CONFIGURATIONS WITH BACKUP HEAT PUMP

1 zone with buffer tank, underfloor heating + backup heat pump

SCHEMATIC DIAGRAM

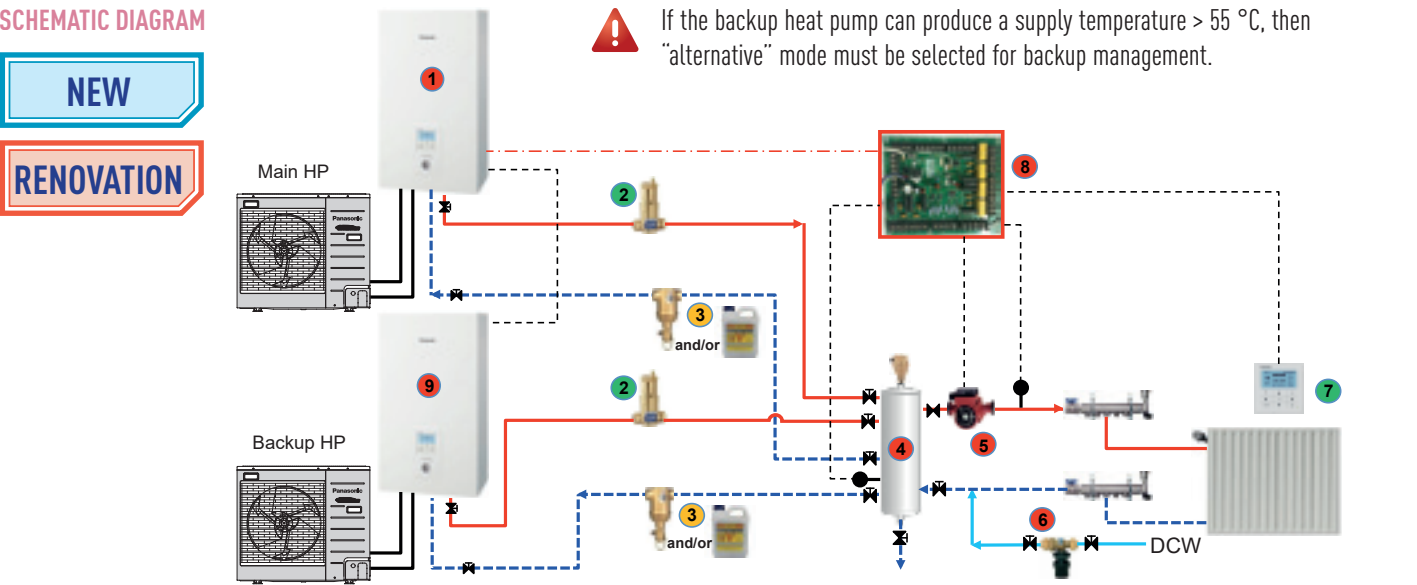


\* Refer to the accessories at the end of the guide

1 radiator heating zone with buffer tank + backup heat pump

SCHEMATIC DIAGRAM

NEW  
RENOVATION



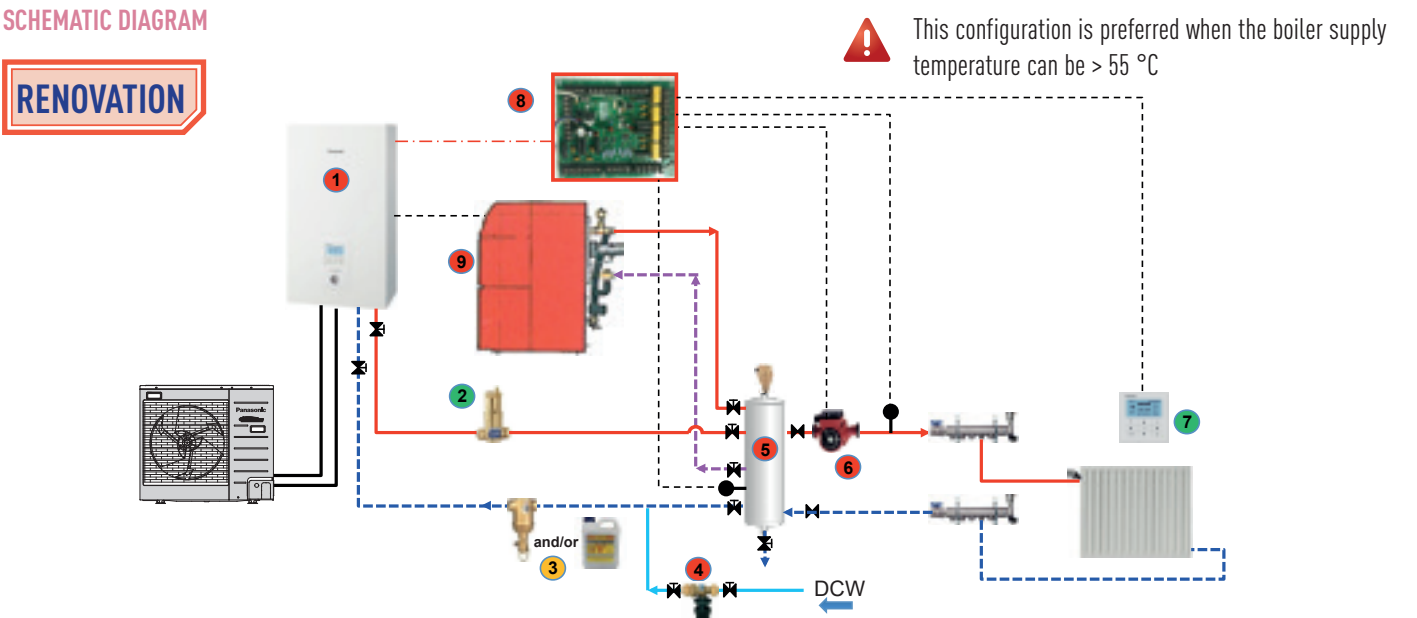
No.	Description	Type of recommendation	Panasonic Reference
1	Hydraulic module with integrated filter + valves	Compulsory	Depending on power
2	Air separator	Optional	Not provided
3	Magnetite filter	Recommended	Not provided
4	Buffer tank	Compulsory	Not provided
5	Secondary circulation pump	Compulsory	Not provided
6	Filling valve with check valve	Compulsory	Not provided

No.	Description	Type of recommendation	Panasonic Reference
7	Room controller*	Optional	Control (integrated in the module) that can be made remote
8	CZ-NS4P integrated optional circuit board + 1 PAW-AZW-TSBU probe + 1 PAW-AZW-TSHC probe	Compulsory	CZ-NS4P + PAW-AZW-TSBU + PAW-AZW-TSHC
9	Backup heat pump connected in parallel	Compulsory	Depending on power

1 radiator heating zone with buffer tank + backup boiler (alternative mode)

SCHEMATIC DIAGRAM

RENOVATION



No.	Description	Type of recommendation	Panasonic Reference
1	Hydraulic module with integrated filter + valves	Compulsory	Depending on power
2	Air separator	Optional	Not provided
3	Magnetite filter	Recommended	Not provided
4	Filling valve with check valve	Compulsory	Not provided
5	50-100 L buffer tank	Compulsory	Not provided
6	Secondary circulation pump	Compulsory	Not provided

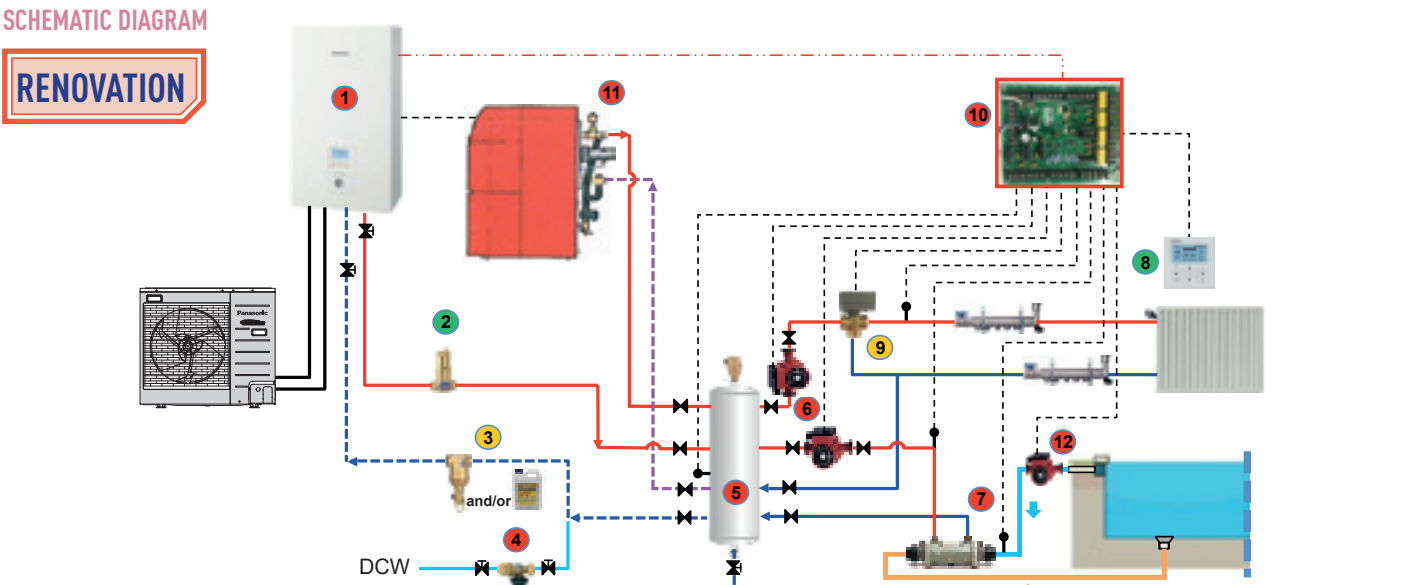
No.	Description	Type of recommendation	Panasonic Reference
7	Room controller*	Optional	Control (integrated in the module) that can be made remote
8	CZ-NS4P integrated optional circuit board + 1 PAW-AZW-TSBU probe + 1 PAW-AZW-TSHC probe	Compulsory	CZ-NS4P + PAW-AZW-TSBU + PAW-AZW-TSHC
9	Boiler connected in parallel	Recommended	Not provided

\* Refer to the accessories at the end of the guide

1 radiator heating zone with buffer tank + swimming pool + backup boiler

SCHEMATIC DIAGRAM

RENOVATION



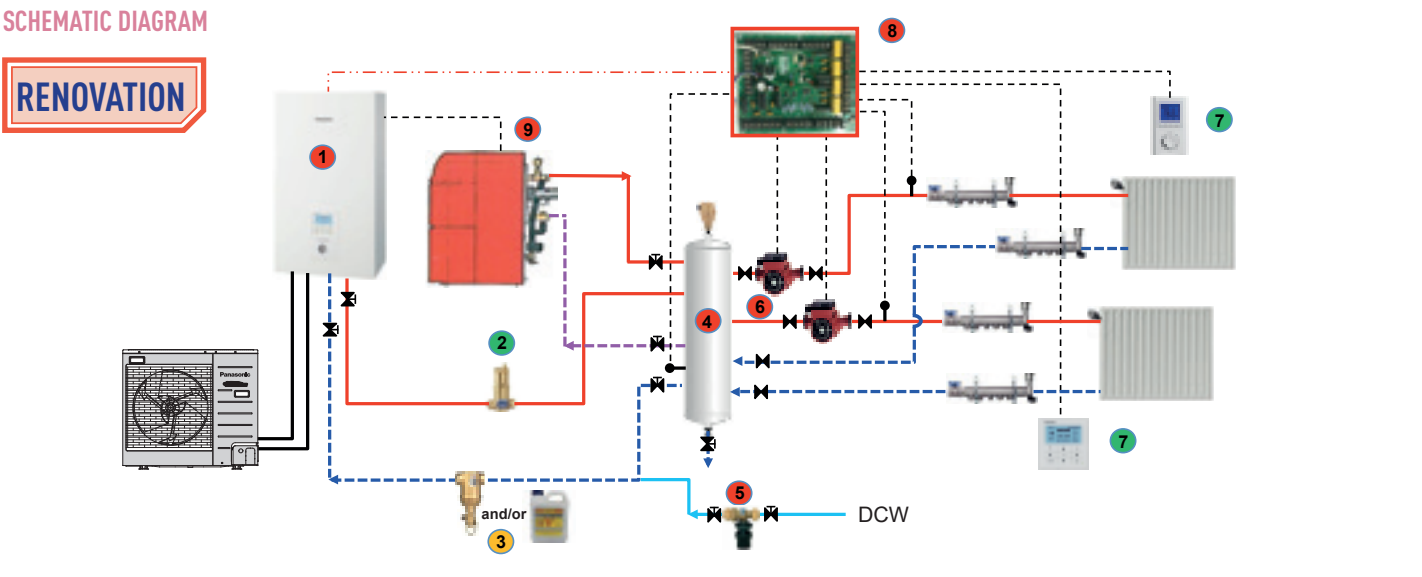
No.	Description	Type of recommendation	Panasonic Reference
1	Hydraulic module with integrated filter + valves	Compulsory	Depending on power
2	Air separator	Optional	Not provided
3	Magnetite filter	Recommended	Not provided
4	Filling valve with check valve	Compulsory	Not provided
5	50-100 L buffer tank	Compulsory	Not provided
6	Secondary circulation pump	Compulsory	Not provided
7	Pool heat exchanger	Compulsory	Not provided

No.	Description	Type of recommendation	Panasonic Reference
8	Room controller*	Optional	Control (integrated in the module) that can be made remote
9	3-way motorized mixing valve	Recommended	Not provided
10	CZ-NS4P integrated optional circuit board + 1 PAW-AZW-TSBU probe + 3 PAW-AZW-TSHC probes	Compulsory	CZ-NS4P + PAW-AZW-TSBU + PAW-AZW-TSHC
11	Boiler connected in parallel	Compulsory	Depending on power
12	Pool pump	Depending on system	Not provided

2 radiator heating zones with buffer tank + backup boiler

SCHEMATIC DIAGRAM

RENOVATION



No.	Description	Type of recommendation	Panasonic Reference
1	Hydraulic module with integrated filter + valves	Compulsory	Depending on power
2	Air separator	Optional	Not provided
3	Magnetite filter	Recommended	Not provided
4	Filling valve with check valve	Compulsory	Not provided
5	50-100 L buffer tank	Compulsory	Not provided
6	Secondary circulation pump	Compulsory	Not provided

No.	Description	Type of recommendation	Panasonic Reference
7	Room controller*	Optional	Control (integrated in the module) that can be made remote
8	CZ-NS4P integrated optional circuit board + 1 PAW-AZW-TSBU probe + 2 PAW-AZW-TSHC probes	Compulsory	CZ-NS4P + PAW-AZW-TSBU + PAW-AZW-TSHC
9	Boiler connected in parallel	Compulsory	Not provided

\* Refer to the accessories at the end of the guide



2 zones with buffer tank, fan coil + underfloor heating + backup heat pump

SCHEMATIC DIAGRAM

NEW

RENOVATION

No.	Description	Type of recommendation	Panasonic Reference
1	Hydraulic module with integrated filter + valves	Compulsory	Depending on power
2	Air separator	Optional	Not provided
3	Magnetite filter	Recommended	Not provided
4	Buffer tank	Compulsory	Not provided
5	Filling valve with check valve	Compulsory	Not provided
6	Secondary circulation pump	Compulsory	Not provided

No.	Description	Type of recommendation	Panasonic Reference
7	3-way motorized mixing valve	Compulsory	Not provided
8	Underfloor heating safety	Recommended	Not provided
9	Room controller*	Optional	Control (integrated in the module) that can be made remote
10	CZ-NS4P integrated optional circuit board + 1 PAW-AZW-TSBU probe + 2 PAW-AZW-TSHC probes	Compulsory	CZ-NS4P + PAW-AZW-TSBU + PAW-AZW-TSHC
11	Backup heat pump connected in parallel	Compulsory	Not provided

2 radiator heating zones with buffer tank + underfloor heating + solar heating

SCHEMATIC DIAGRAM

NEW

RENOVATION

No.	Description	Type of recommendation	Panasonic Reference
1	Hydraulic module with integrated filter + valves	Compulsory	Depending on power
2	Air separator	Optional	Not provided
3	Magnetite filter	Recommended	Not provided
4	Magnetic valve	Recommended	Not provided
5	Extra expansion vessel + safety valve	Recommended	Not provided
6	Buffer tank with integrated solar heat exchanger	Compulsory	Not provided
7	Solar transfer group	Compulsory	Not provided
8	Heating circuit 3-point motorized mixing valve	Recommended	Not provided

No.	Description	Type of recommendation	Panasonic Reference
9	3-way motorized mixing valve	Compulsory	Not provided
10	Secondary circulation pump	Compulsory	Not provided
11	Underfloor heating safety	Recommended	Not provided
12	Room controller*	Optional	Control (integrated in the module) that can be made remote
13	CZ-NS4P integrated optional circuit board + 1 PAW-AZW-TSBU probe + 2 PAW-AZW-TSHC probes	Compulsory	CZ-NS4P + PAW-AZW-TSBU + PAW-AZW-TSHC
14	Filling valve with check valve	Compulsory	Not provided
15	Solar sensor	Compulsory	PAW-AZW-TSSO

2 radiator heating zones with buffer tank + underfloor heating + backup boiler

SCHEMATIC DIAGRAM

RENOVATION

No.	Description	Type of recommendation	Panasonic Reference
1	Hydraulic module with integrated filter + valves	Compulsory	Depending on power
2	Air separator	Optional	Not provided
3	Magnetite filter	Recommended	Not provided
4	Filling valve with check valve	Compulsory	Not provided
5	50-100 L buffer tank	Compulsory	Not provided
6	Secondary circulation pump	Compulsory	Not provided

No.	Description	Type of recommendation	Panasonic Reference
7	3-way motorized mixing valve	Compulsory	Not provided
8	Underfloor heating safety	Recommended	Not provided
9	Room controller*	Optional	Control (integrated in the module) that can be made remote
10	CZ-NS4P integrated optional circuit board + 1 PAW-AZW-TSBU probe + 2 PAW-AZW-TSHC probes	Compulsory	CZ-NS4P + PAW-AZW-TSBU + PAW-AZW-TSHC
11	Boiler connected in parallel	Compulsory	Not provided

2 radiator heating zones with buffer tank + underfloor heating + solar domestic hot water

SCHEMATIC DIAGRAM

NEW

RENOVATION

No.	Description	Type of recommendation	Panasonic Reference
1	Hydraulic module with integrated filter + valves + domestic hot water CZ-NV1 kit	Compulsory	Depending on power
2	Air separator	Optional	Not provided
3	Magnetite filter	Recommended	Not provided
4	Buffer tank	Compulsory	Not provided
5	Secondary circulation pump	Compulsory	Not provided
6	3-way motorized mixing valve	Compulsory	Not provided
7	Underfloor heating safety	Recommended	Not provided
8	Room controller*	Optional	Control (integrated in the module) that can be made remote

No.	Description	Type of recommendation	Panasonic Reference
9	CZ-NS4P integrated optional circuit board + 1 PAW-AZW-TSBU probe + 2 PAW-AZW-TSHC probes	Compulsory	CZ-NS4P + PAW-AZW-TSBU + PAW-AZW-TSHC
10	Filling valve with check valve	Compulsory	Not provided
11	Bivalent solar domestic hot water tank	Recommended	PAW-TG30C2E3STD -1
12	PAW-TS1 or TS2 sanitary sensor**	Compulsory	PAW-TS1 or TS2
13	Safety valve and closing valve	Compulsory	Not provided
14	Thermostatic mixing valve	Compulsory	Not provided
15	Solar transfer group	Compulsory	Not provided
16	Sanitary expansion vessel + safety valve	Recommended	Not provided
17	Sensor + PAW-AZW-TSSO solar sensor	Compulsory	PAW-AZW-TSSO

\* Refer to the accessories at the end of the guide

\* Refer to the accessories at the end of the guide

\*\* Must be selected if solar tank is not a TG30

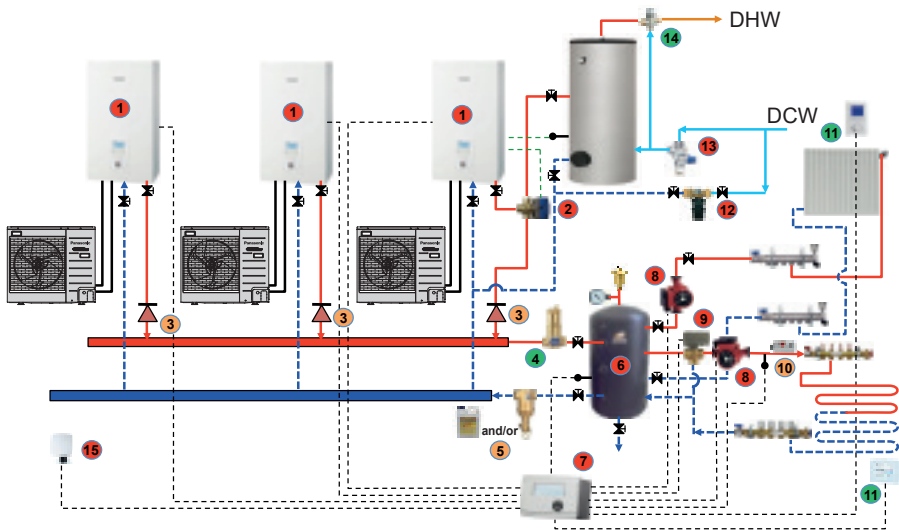


CASCADED CONFIGURATIONS

3 cascaded heat pumps with 2 radiator heating zones with buffer tank + underfloor heating + domestic hot water via HPM

SCHEMATIC DIAGRAM

RENOVATION



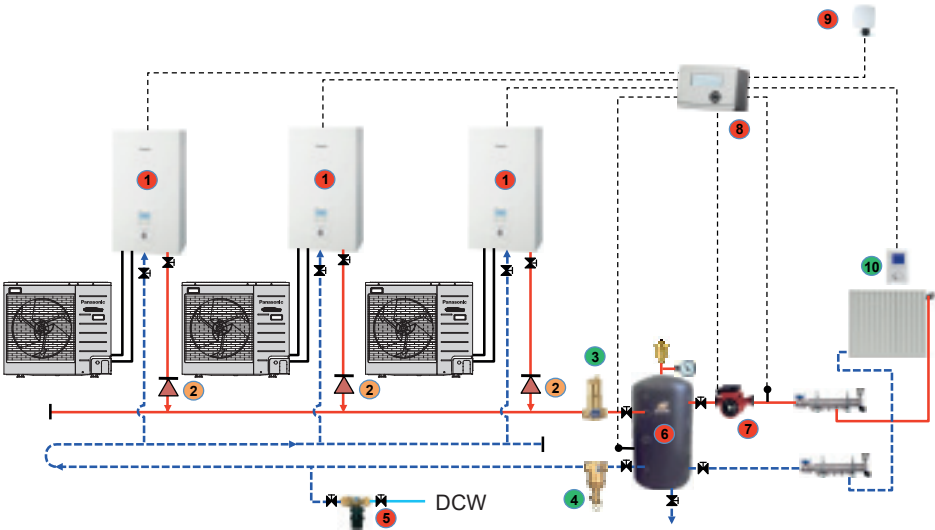
No.	Description	Type of recommendation	Panasonic Reference
1	Inner hydraulic module x 3	Compulsory	Depending on power (delivered with Panasonic tanks + domestic hot water probe)
2	Directional 3-way domestic hot water valve	Compulsory	Not provided
3	Check valve	Recommended	Not provided
4	Air separator	Optional	Not provided
5	Magnetite filter	Recommended	Not provided
6	50 L buffer tank	Compulsory	Not provided
7	HPM1 regulator + 1 HPMB1 sensor + 1 HPMAH1 sensor	Compulsory	PAW-HPM1 + PAW-HPMB1 + PAW-HPMAH1

No.	Description	Type of recommendation	Panasonic Reference
8	Secondary circulation pump	Compulsory	Not provided
9	3-way motorized mixing valve	Compulsory	Not provided
10	Underfloor heating safety	Recommended	Not provided
11	Room controller	Optional	PAW-A2W-RTWIRED (wired) or PAW-A2W-RTWIRELESS (wireless)
12	Filling valve with check valve	Compulsory	Not provided
13	Safety valve and closing valve	Compulsory	Not provided
14	Thermostatic mixing valve	Optional	Not provided
15	Outdoor sensor	Compulsory	HPMUH

3 Tichelmann loop cascaded heat pumps + 1 radiator heating zone with buffer tank via HPM

SCHEMATIC DIAGRAM

RENOVATION



No.	Description	Type of recommendation	Panasonic Reference
1	Inner hydraulic module x 3	Compulsory	Depending on power
2	Check valve	Recommended	Not provided
3	Air separator	Optional	Not provided
4	Magnetite filter	Optional	Not provided
5	Filling valve with check valve	Compulsory	Not provided
6	50 L buffer tank	Compulsory	Not provided

No.	Description	Type of recommendation	Panasonic Reference
7	Secondary circulation pump	Compulsory	Not provided
8	HPM1 regulator + 1 HPMB1 probe + 1 HPMAH1 probe	Compulsory	PAW-HPM1 + PAW-HPMB1 + PAW-HPMAH1
9	HPMUH outdoor sensor	Compulsory	HPMUH
10	Room controller	Optional	PAW-A2W-RTWIRED (wired) or PAW-A2W-RTWIRELESS (wireless)

\* Refer to the accessories at the end of the guide

H GENERATION REGULATION Multizone (from 1 to 2 zones)

Room sensor

Room sensor for supply temperature feedback

Reference: PAW-A2W-TSRT



Solar temperature sensor

Solar sensor probe (only with CZ-NS4P)

Reference: PAW-A2W-TSS0



Outdoor temperature sensor

Outdoor sensor (optional)

Reference: PAW-A2W-TS0D



Temperature sensor

Water flow temperature sensor (only with CZ-NS4P)

Reference: PAW-A2W-TSHC



Water temperature sensor

Buffer tank sensor (only with CZ-NS4P)

Reference: PAW-A2W-TSBU



Circuit board

Additional multifunction circuit board

Reference: CZ-NS4P



Room controller

Wired LCD room thermostat with weekly schedule timer

Reference: PAW-A2W-RTWIRED



Room controller

Wireless LCD room thermostat with weekly schedule timer

Reference: PAW-A2W-RTWIRELESS



# ALL-GENERATION REGULATION

Cascade or multizone  
(from 1 to 6 zones)

Outdoor temperature sensor

Outdoor temperature sensor for connection to the HPM manager

Reference: PAW-HPMUH



Temperature sensor

Temperature sensor with setpoint adjustment for connection to the HPM manager.

Reference: PAW-HPMR4



Water temperature sensor

Water flow sensor for the heating circuit for connection to the HPM manager.

Reference: PAW-HPMAH1



Water sensor

Water sensor for buffer tank for connection to the HPM manager.

Reference: PAW-HPMB1

Bivalent regulator

Regulator for the management of a boiler backup.

Reference: PAW-A2W-BIV



HPM regulator

Regulator for swimming pool, solar domestic hot water or remote domestic hot water management.

Reference: PAW-HPM1



Remote regulator with touch screen

Remote control regulator with integrated room probe. Touch interface.

Reference: PAW-HPMED



Cloud connectivity

Connectivity interface for remote control

Reference: CZ-TAW1

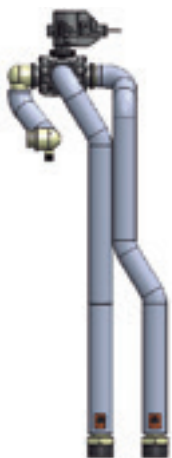


# HYDRAULIC

3-way valve connection kit

Hot water kit with integrated 3-way valve

Reference: CZ-NV1



Buffer tank

50 L buffer tank with polyurethane insulation (4 connections) equipped with an automatic drain and wall mounting

Reference: PAW-BTANK50L



Domestic Hot water Tanks (3-way valve, backup heater and sensor included)



		Stainless steel tanks		Enameled steel tanks			2-coil steel enameled tank for solar installation + heat pump)
Model		DGC200	PAW-TD30C1E5	PAW-TG20C1E3STD-1	PAW-TG30C1E3STD-1	PAW-TG40C1E3STD-1	PAW-TG30C2E3STD-1
Water volume	L	194	280	185	285	396	284
Dimensions Height/Diameter	mm	1,265 / 595	1,745 / 595	1,507 / 580	1,565 / 680	1,888 / 760	1,417 / 760
Electric booster	kW	1.5	1.5	3	3	3	3
Material inside the tank		Stainless steel	Stainless steel	Enameled steel	Enameled steel	Enameled steel	Enameled steel
Heating time		★★★★	★★★★	★★★★	★★★★	★★★★	★★★★
Loss of energy		★★★★	★★★★	★★★★	★★★★	★★★★	★★★★
Guarantee		10 years	10 years	2 years	2 years	2 years	2 years

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