

Wall Mounted Hydro Kit



Contents

A modern bathroom vanity with two white washbasins, two round mirrors, and a wooden stool. The vanity is a long, light-colored concrete or stone slab. On the left, there are two white ceramic vases on a white ledge. The floor is made of light-colored tiles. The background wall is a neutral, light color.

01 – Introduction

02 – Benefits for Residential Application

03 – Easy Installation and Maintenance

04 – Convenient Functions

05 – Appendix

01 - Introduction

What is a Hydro Kit?

Key USP

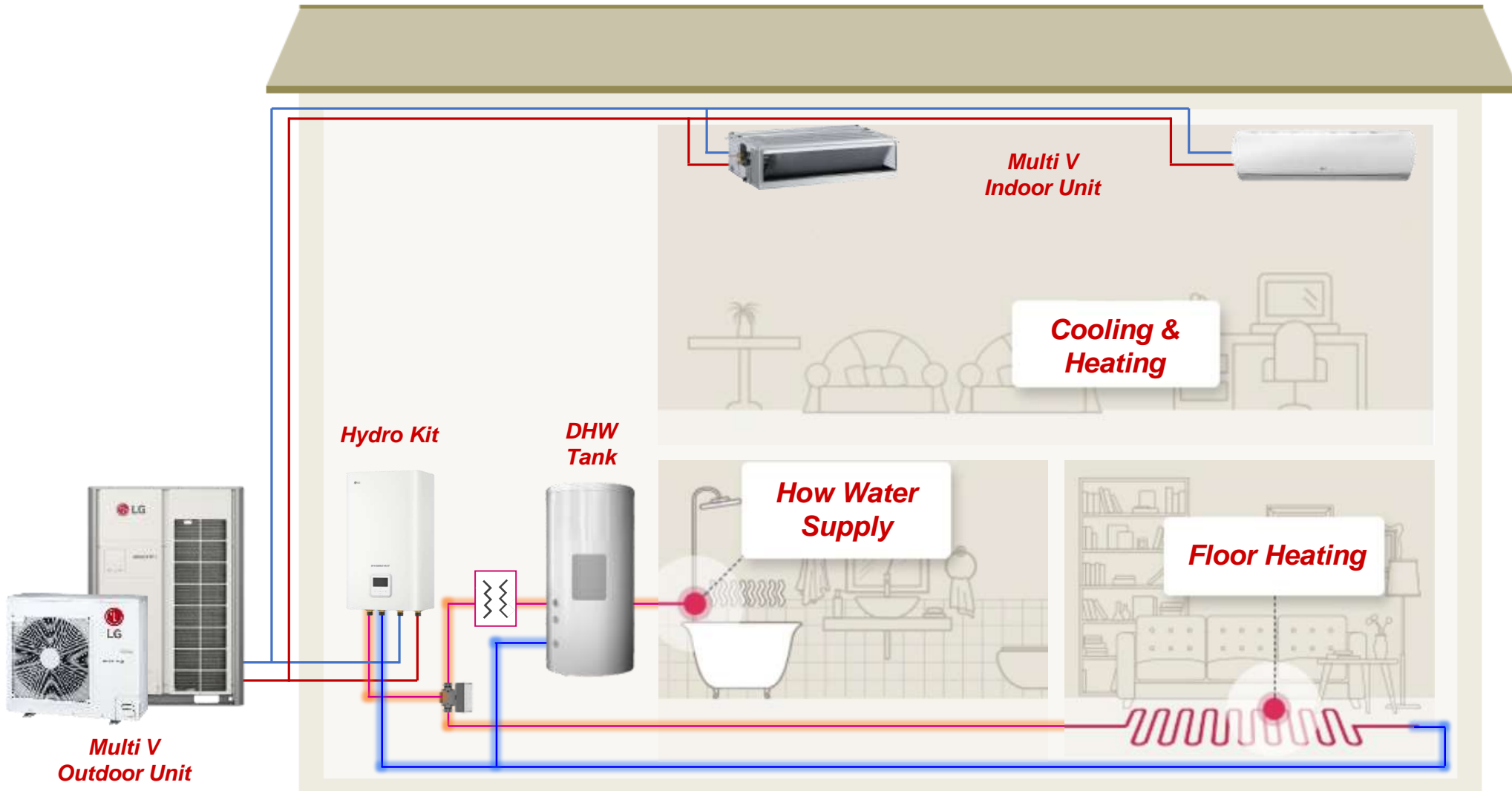
Line-up of Hydro Kit



What is Hydro Kit ?

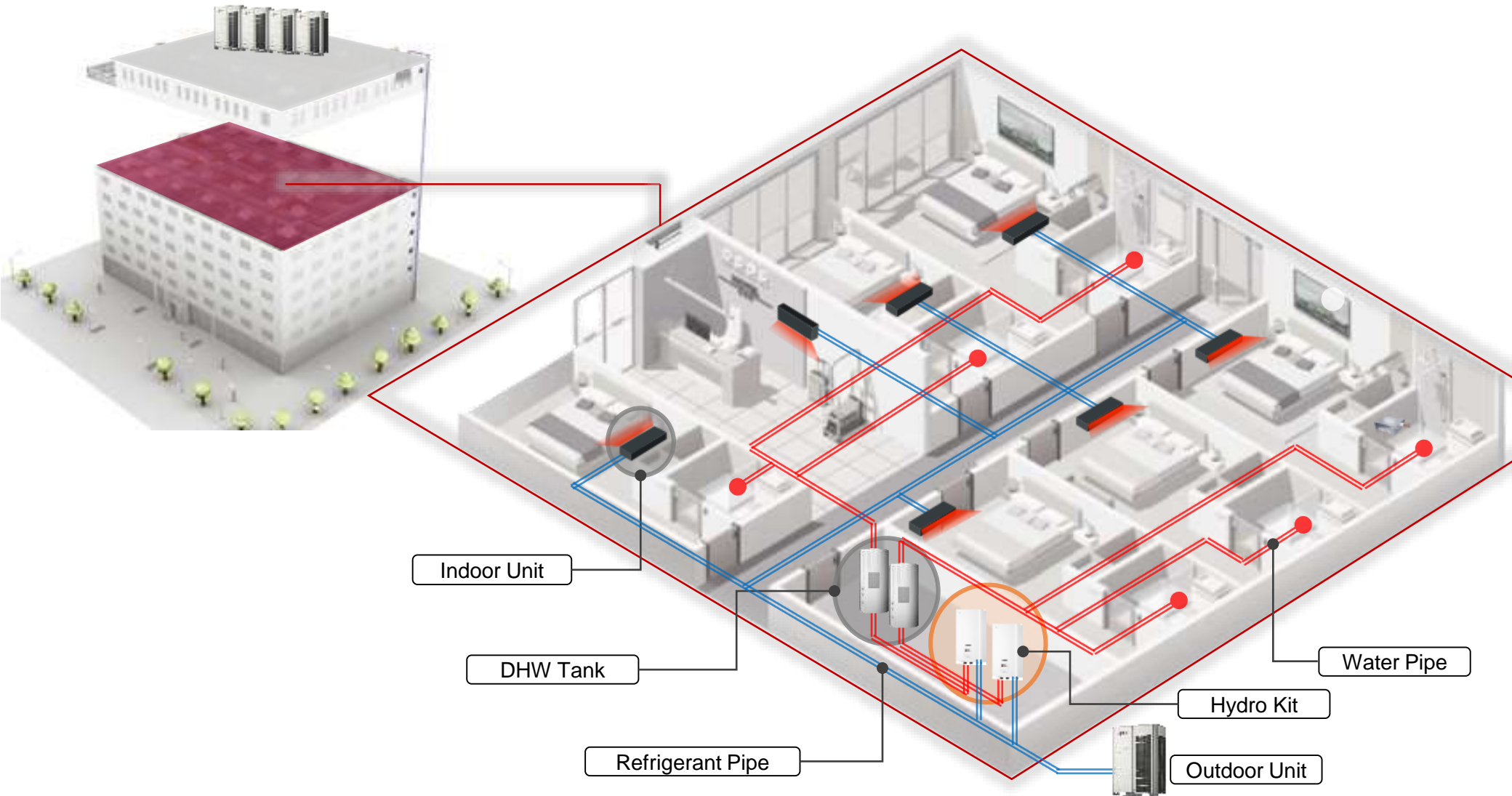
Intro

Hydro Kit is an indoor unit for VRF systems which provides hot or cold water for a comfort indoor environment. Cooling and heating operations, as well as hot water supply are available with the combination of MULTI V and Hydro Kit.



What is Hydro Kit ?

Hydro Kit is an indoor unit for VRF systems which provides hot or cold water for a comfort indoor environment. Cooling and heating operations, as well as hot water supply are available with the combination of MULTI V and Hydro Kit.



Wall mounted hydro kit is suitable for residential application and retail application requiring hot water.

Compatibility with R32

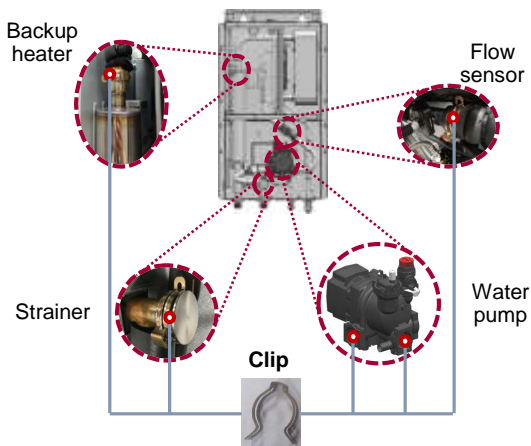


LG reduced refrigerant charge by applying environment-friendly refrigerant R32.

- Low GWP
- Less Refrigerant Charge
- Reduced Equipment Size

Easy Maintenance

Clip solution provide easy maintenance and SVC works.



Wall Mounted Hydro Kit



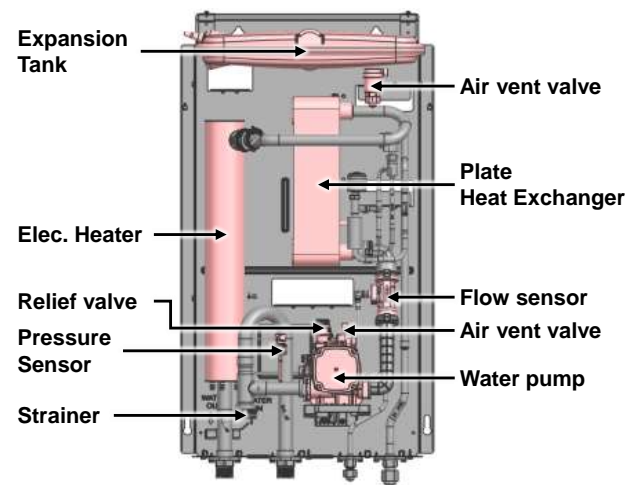
Space Saving

Wall mounted design saves installation space with compact size.

- No floor space needed
- Volume 10% ↓ (vs D company)
- Weight 5% ↓ (vs D company)

Integrated Water Side Components

Various water side components are integrated into IDU, it reduces installation cost and time.



Wider Range / Smaller Capacity

Suitable for Residential Application or DHW Solution for small office.

• Medium Temperature Line-up

[Unit : kW]












	Type	5.6	7.1	9.0	13.8	31.5
	Floor Standing				○	○
LG	IWT	○	○	○		
	Wall Mounted	○	○	○		

Line-up for Hydro Kit

Intro

Floor Standing Hydro Kit has large capacity and is suitable for medium to large commercial segments.



		5.6	7.1	9.0	13.8	31.5	52.0
Heating Capacity(kW)		5.6	7.1	9.0	13.8	31.5	52.0
Cooling Capacity(kW)		5.6	7.1	9.0	12.3	28.0	46.4
Medium Temp.	Wall Mounted	 ARNH18GK1B4	 ARNH24GK1B4	 ARNH30GK1B4			
	IWT (Integrated Water Tank)	 ARNH18GK5A4	 ARNH24GK5A4	 ARNH30GK5A4			
	Floor Standing				 ARNH04GK2B4	 ARNH10GK2B4	 ARNH16GK2B4
Heating Capacity(kW)					13.8	25.2	
High Temp.	Floor Standing				 ARNH04GK3B4 ARNH04LK3B4	 ARNH08GK3B4 ARNH08LK3B4	

02 - Benefits for Residential Application

Cooling/Heating/DHW Total Solution

Space Saving

Smaller Capacity

Wide Operation Range

Heating Priority Function

Heat Recovery System

Solar Thermal System

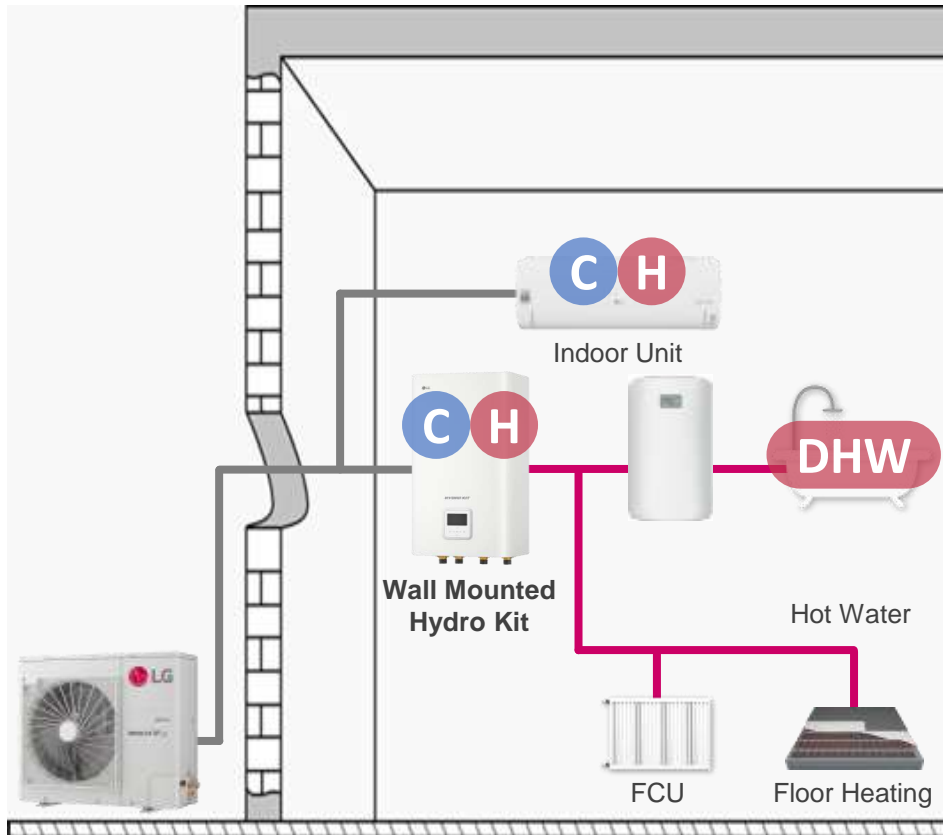


Cooling/Heating/DHW Total Solution

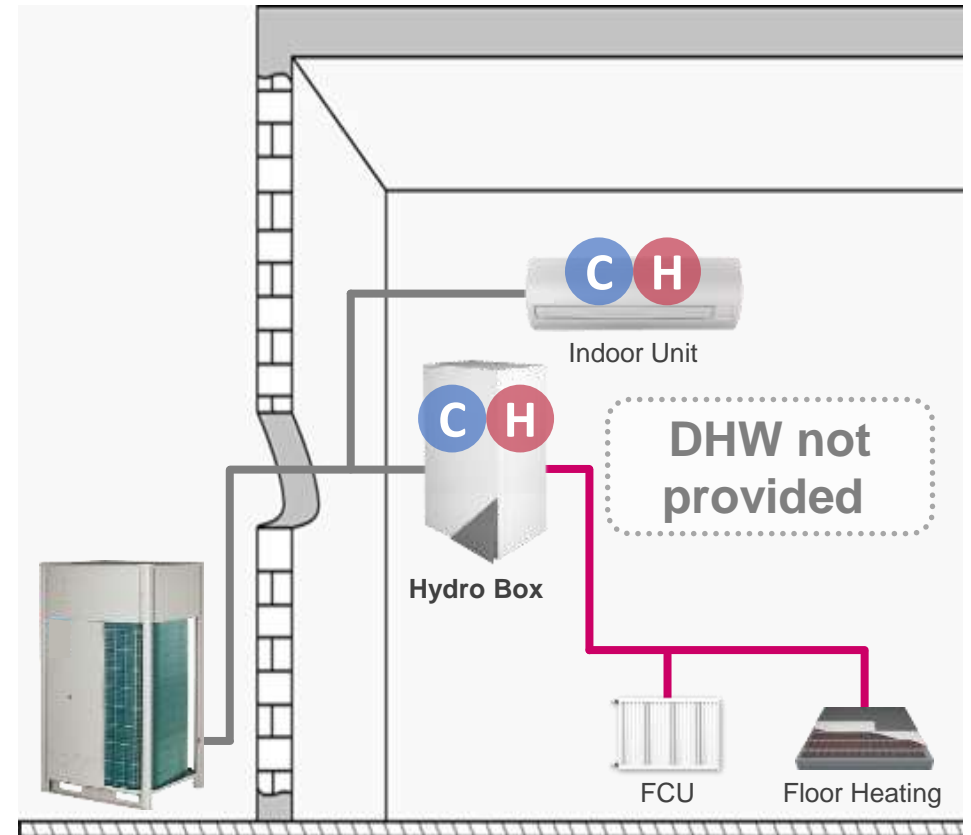
Benefits for Residential Application

LG Multi V system with Wall Mounted Hydro Kit not only supplies hot water as well as cooling/heating by indoor unit and floor heating.

LG Hydro Kit System



Competitor Hydro Box System



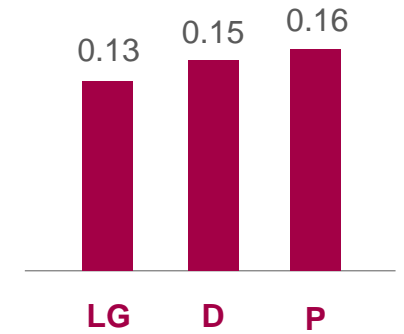
Space Saving

Benefits for Residential Application

Wall mounted hydro kit with Multi V S outdoor is suitable for residential application with its compact size and design.

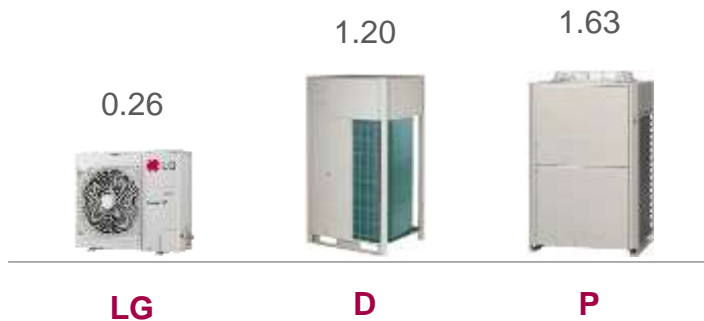


Hydro Kit
Product Volume (m³)



Compatible with Side Discharge Compact ODU

Product Volume (m³)



Smaller Capacity

Benefits for Residential Application

The smaller capacity is more suitable because it is responding exactly to the load demand of single or family residents.

■ Hot-Water Demand Simulation (Building Type : Apartment)

Number of Rooms	1	2	3	4	Demand per Fixture (L)
Number of Baths	1	1	2	2	
Number of Residents	1	2	4	5 - 6	
Fixtures	Number of Fixtures				
Basin, private lavatory	1 EA	1 EA	2 EA	2 EA	7.6
Bathtub	-	1 EA	1 EA	1 EA	76
Dishwasher	-	-	1 EA	1 EA	57
Kitchen sink	1 EA	1 EA	1 EA	1 EA	38
Laundry, stationary tub	1 EA	1 EA	1 EA	1 EA	76
Shower	1 EA	1 EA	1 EA	2 EA	114
Total Possible Maximum demand (L/h)	324	428	517	674	
Probable Maximum demand (L/h) (simultaneous operation ratio)	97	129	155	202	
Required storage tank capacity (L/h)	121	161	194	253	
Required heat load (kW)	4.5	6.0	7.2	9.4	
Safety factor (heating loss 10~20%)	15	15	15	15	
Recommended device capacity(kW)	5.2	6.9	8.3	10.8	
Recommended Product	ARNH18GK1B4 x 1	ARNH24GK1B4 x 1	ARNH30GK1B4 x 1	ARNH18GK1B4 x 2	

- Notes) 1. Reference (Demand per Fixture) : ASHRAE Handbook
 2. This result is only for reference. So, Should be discussed with consultant of the project.
 3. Supply water temperature to fixtures : 45°C
 4. Inlet water temperature : 5°C

Smaller Capacity

Benefits for Residential Application

With smaller capacity hydro kit, more indoor units can be connected to Multi V S ODU. It is suitable for residential application providing air conditioning and hot water supply as one system.

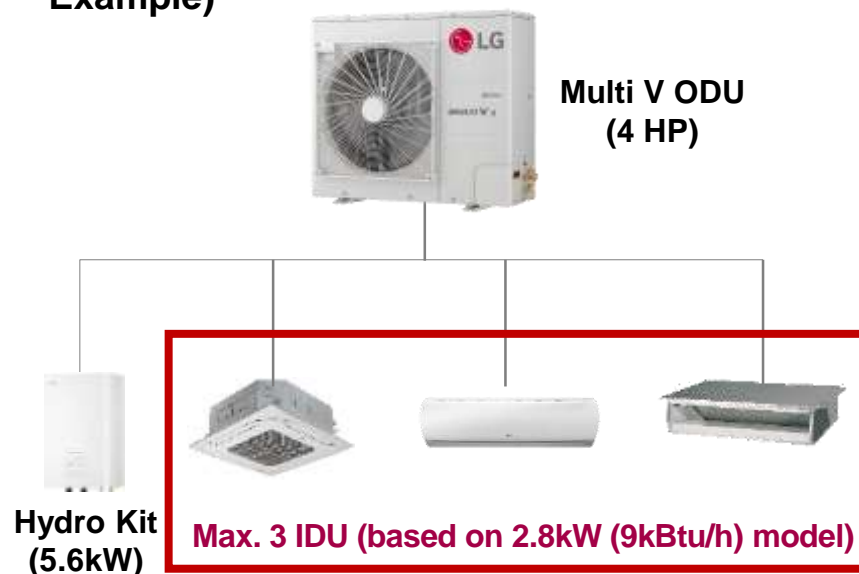
Combination of Indoor Units for Multi V S

- Indoor units combination range : 50 ~ 130%
- Max. Connectable IDU Q'ty except for Hydro Kit

ODU Capacity	Maximum Total IDU Capacity	Connectable IDU Q'ty (Capacity) except for Hydro Kit		
		5.5kW Hydro Kit	7.1kW Hydro Kit	9.0kW Hydro Kit
4 HP	15.7 kW	1 ~ 3	1 ~ 3	1 ~ 2
5 HP	18.2 kW	1 ~ 4	1 ~ 4	1 ~ 3
6 HP	20.2 kW	1 ~ 5	1 ~ 4	1 ~ 4

※ IDU Q'ty is calculated based on 2.8kW (9kBtu/h) model.

Example)

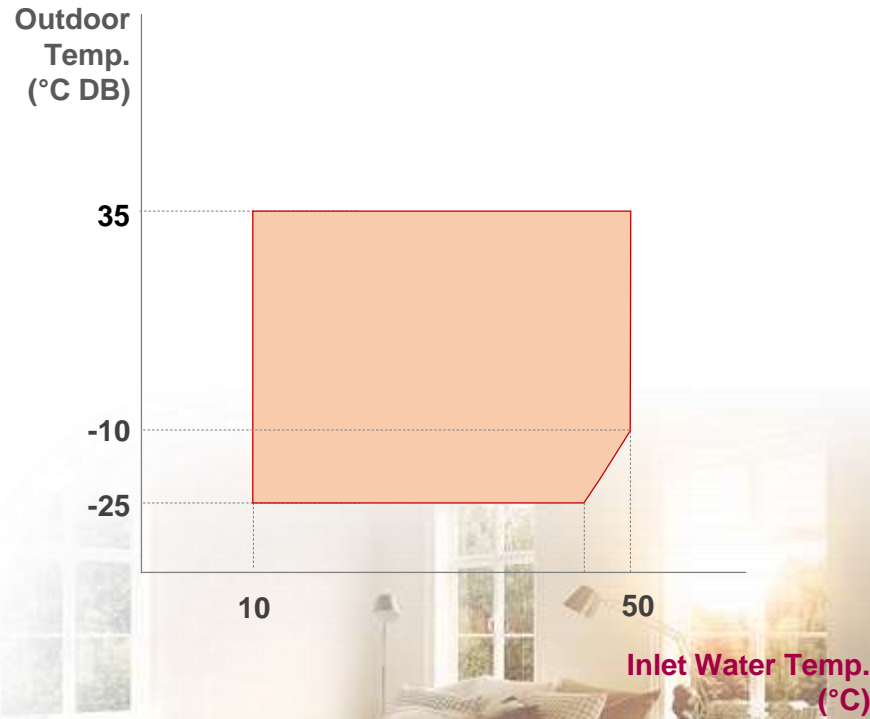


Wide Operation Range

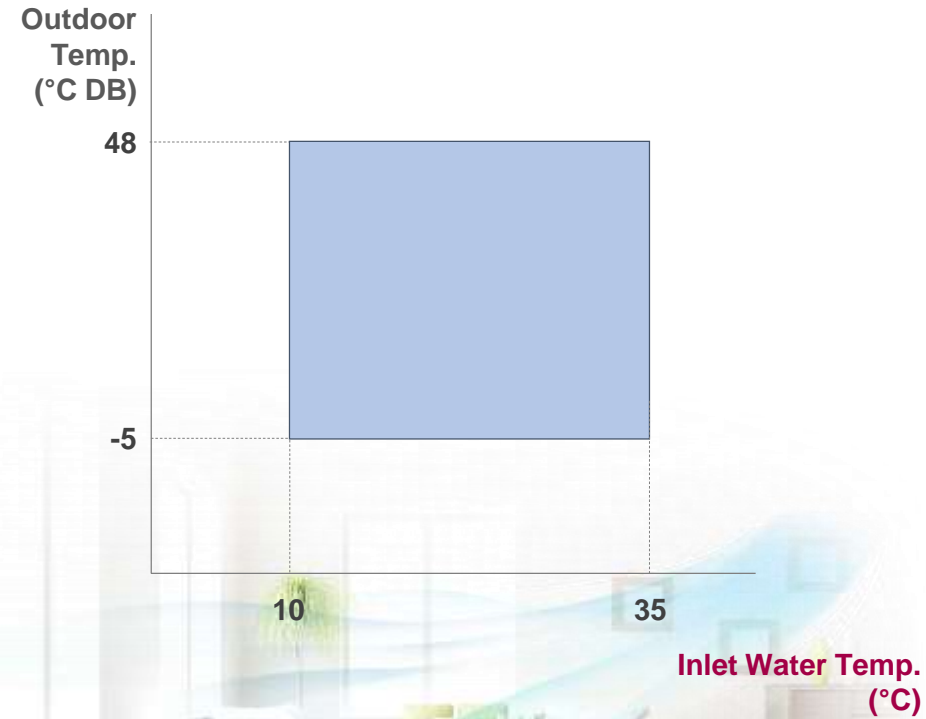
Benefits for Residential Application

Thanks to the Inlet Water Temperature up to 50°C, floor heating, fan coil unit and mid temperature radiator range can be covered. As a result, wall mounted hydro kit has high competitiveness for replacement case as well as new case.

Heating Mode



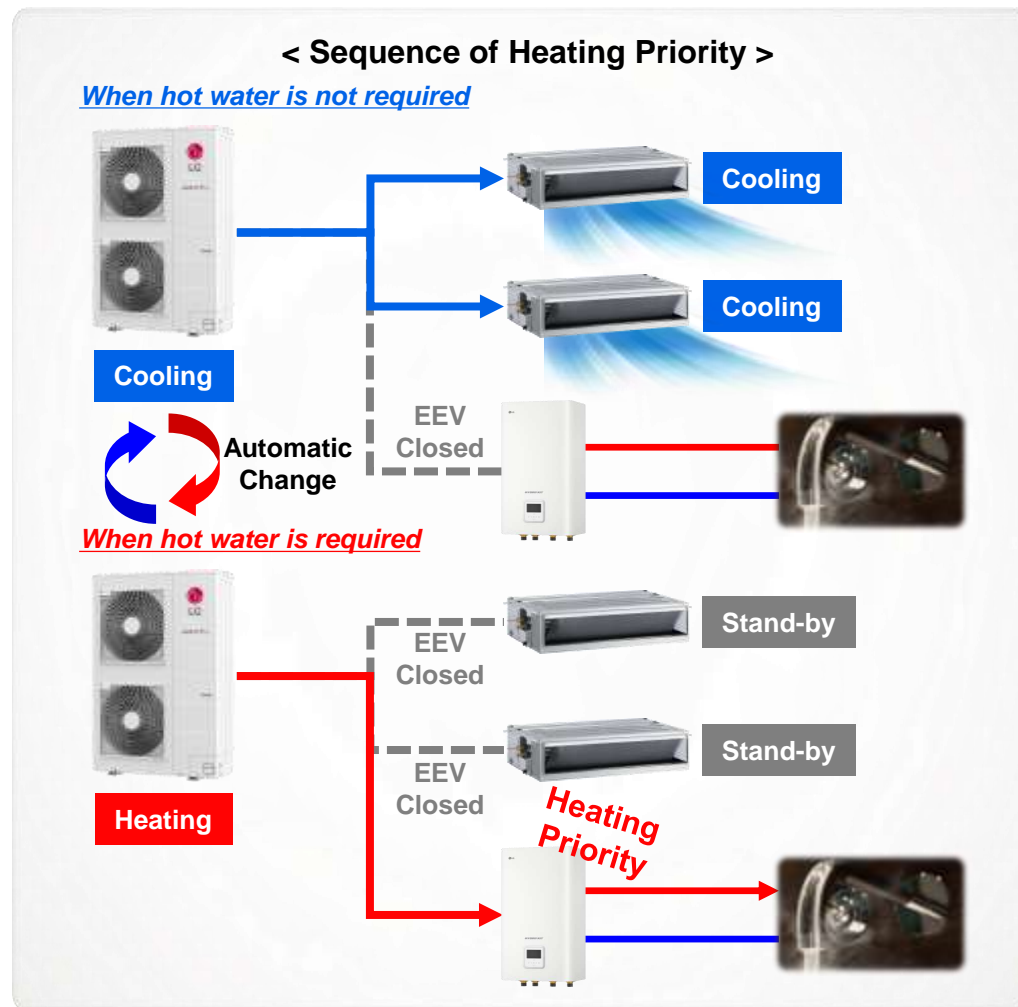
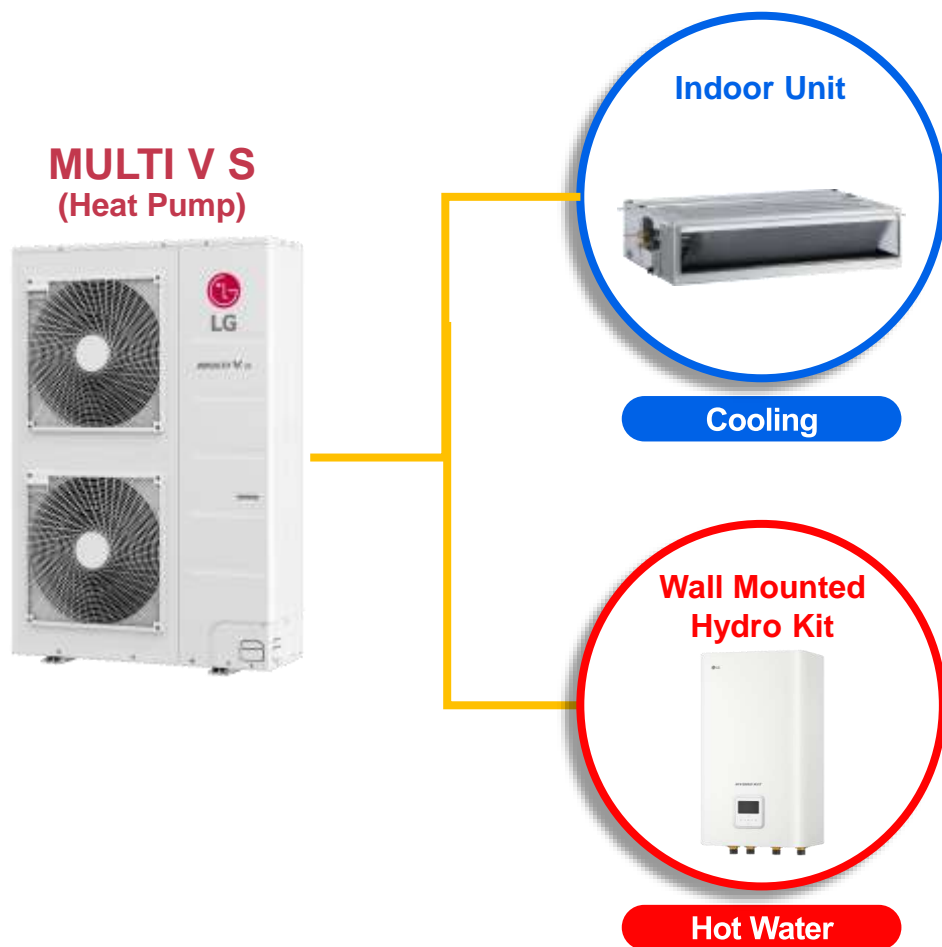
Cooling Mode



Heating Priority Function

Benefits for Residential Application

When Wall Mounted Hydro Kit is connected to the MULTI V S Heat Pump, it can provide hot water during the cooling season by the Heating Priority function.



※ The images above are to help customers understand, and may differ from the actual ones.

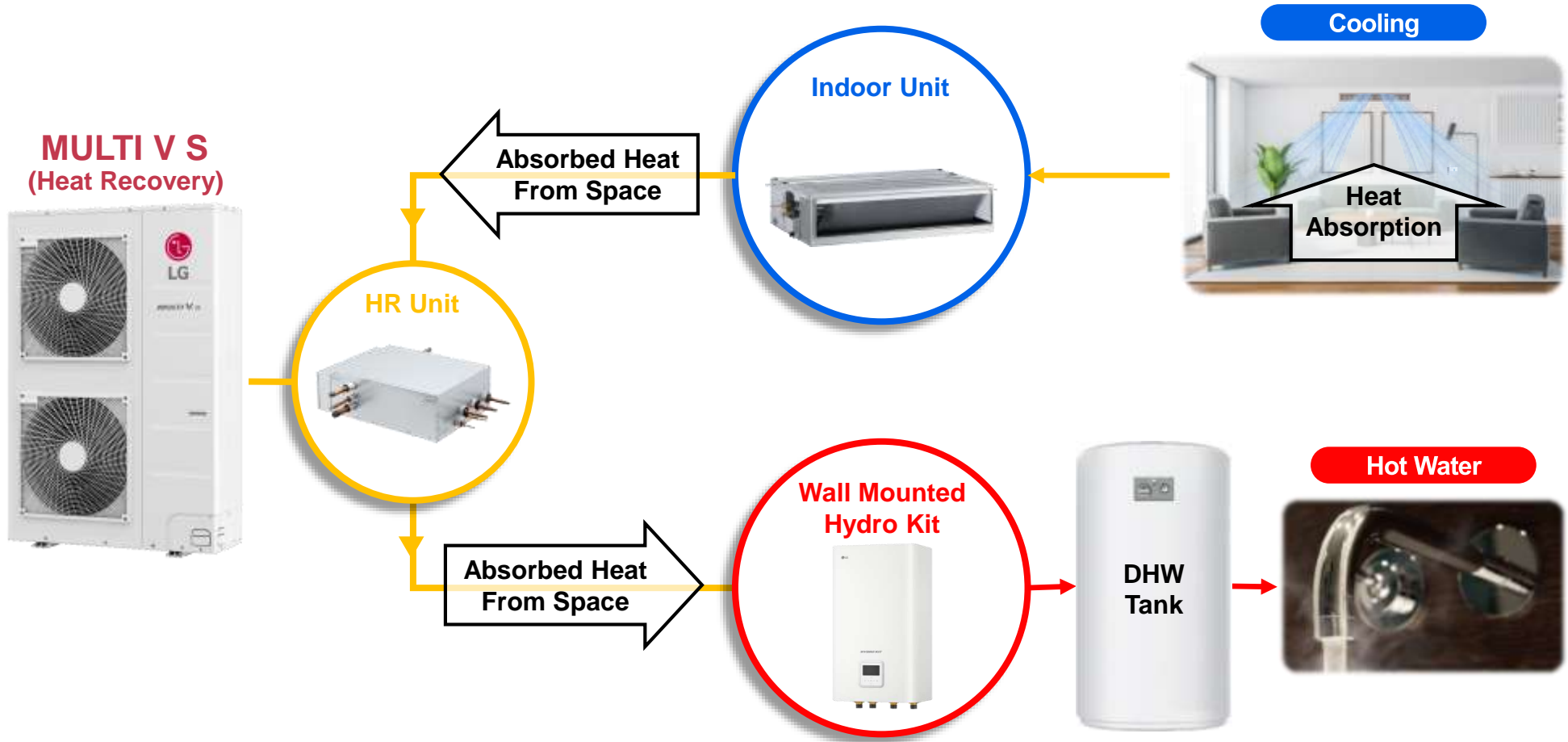
※ This function is available only when the dip switch of the outdoor unit and wired remote controller of the indoor unit & hydro kit are set.

(ODU : Dip Switch No.5 On → Fn25 → Heat → On) // (IDU : Installer Setting → ODU Cycle Priority → Stand-by) // (Hydro Kit : Installer Setting → ODU Cycle Priority → Heat)

Heat Recovery System

Benefits for Residential Application

Energy consumption can be reduced since absorbed heat from indoor space is used for supplying hot water in case of heat recovery type outdoor unit



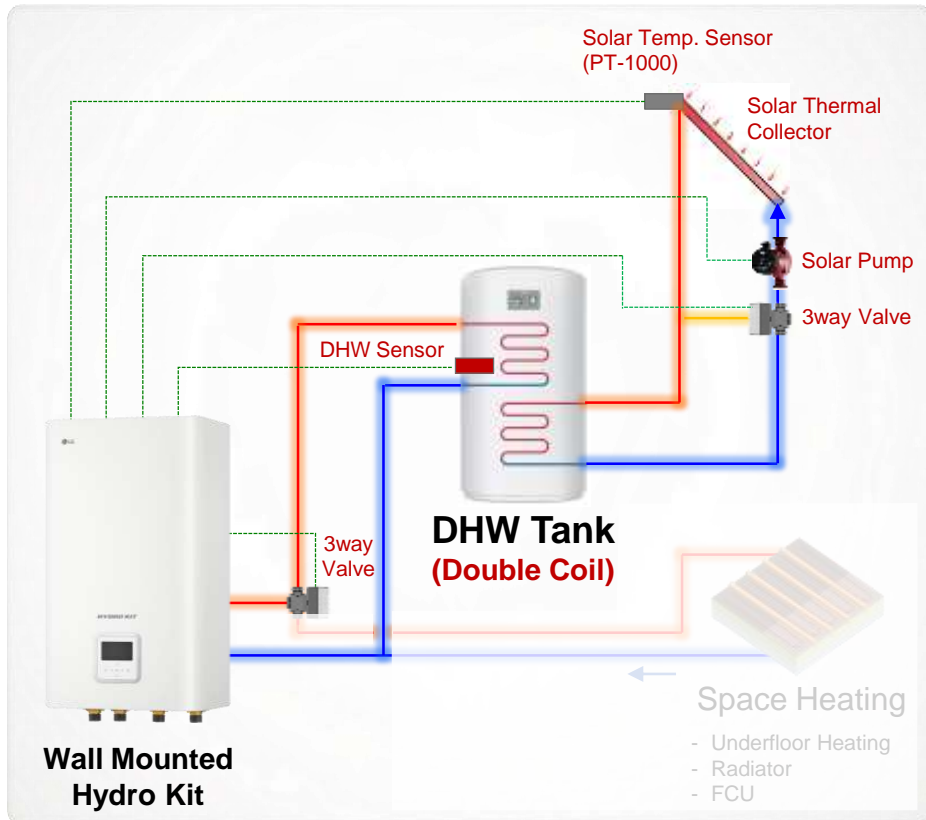
※ To configure the above heat recovery system, an outdoor unit for heat recovery must be installed.

Solar Thermal System

Benefits for Residential Application

By heating water with solar thermal system, a renewable energy source, you can save energy and reduce CO₂ emissions.

System Schematic Diagram



Required Accessory

Model Name	Model Number	Figure	Feature
Domestic Hot Water Tank (Double Coil)	OSHW-300FD or Field Scope		<ul style="list-style-type: none"> Storage volume : 300L Type : Internal double coil Material : Stainless steel Capacity of booster heater : 2.4 kW
3 Way Valve	OSHA-3V or Field Scope		<ul style="list-style-type: none"> 1Φ, 230V AC
Solar Pump	Field Scope		<ul style="list-style-type: none"> 1Φ, 230V AC (Max. 1.05A)
Solar Temp. Sensor	Field Scope		<ul style="list-style-type: none"> PT-1000
Domestic Hot Water Sensor	PHRSTA0		<ul style="list-style-type: none"> 5kΩ thermistor Length : 12m
Solar Thermal Kit	PHLLA		<ul style="list-style-type: none"> Parts included : T Pipe, Sensor Holder, Dual Thermistors
Solar Thermal Collector ¹⁾	Field Scope		

※ DHW : Domestic Hot Water

※ The images above are to help customers understand, and may differ from the actual ones.

※ When operating the DHW tank in conjunction with the solar thermal system, it is mandatorily required to change dip SW setting for "DHW Tank" to "Heat Pump + DHW Tank + Solar Thermal System".

※ Regarding the Solar Thermal System, not only the Solar Collector, Solar Pump, and 3-way valve, but also the expansion tank, pressure relief valve, Air vent, check valve, drain valve, and anti-freeze system should be considered (Purchased separately). The above CO₂ Emission comparison simply considered only the heat source to help customers understand.

1) Thermal Collector is different from Solar Photovoltaic (PV) panel. Solar Thermal collector absorbs sunlight and heats water using that energy. On the other hand, a solar PV panel is one where the light hits a solar panel and is turned into electricity.

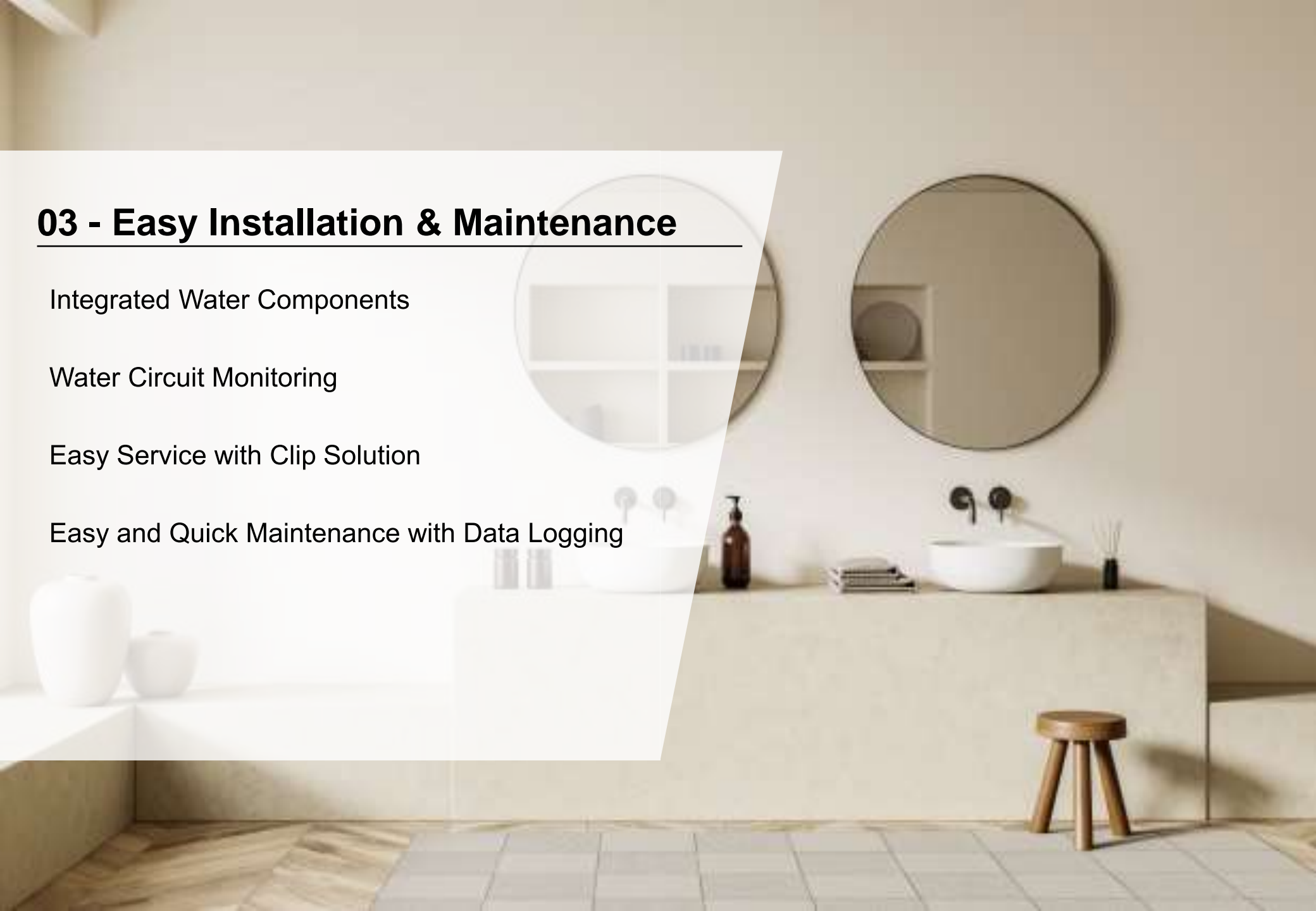
03 - Easy Installation & Maintenance

Integrated Water Components

Water Circuit Monitoring

Easy Service with Clip Solution

Easy and Quick Maintenance with Data Logging



Integrated Water Components

Easy Installation & Maintenance

Wall Mounted Hydro Kit can be easily and flexibly installed in all types of houses. Integrated water components in the indoor unit make installation much easier in shorter time.

Integrated Components



Flow sensor



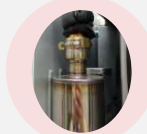
Water pump



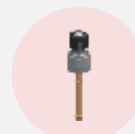
Air vent valve



Expansion tank



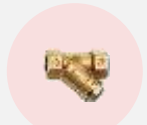
Electric Heater



Controller



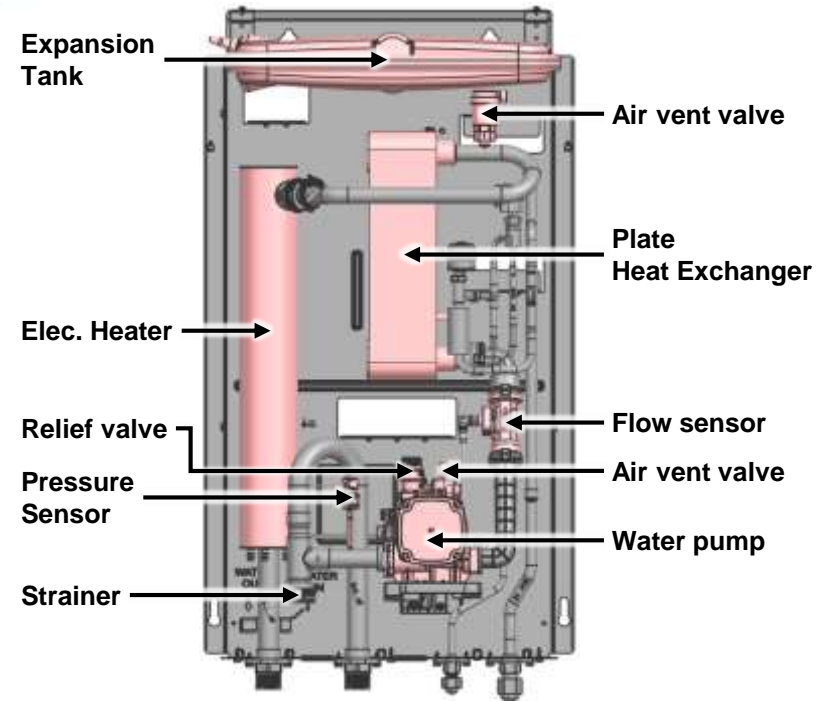
Safety valve



Strainer



Plate heat exchanger



Integrated Water Components - Water Pump

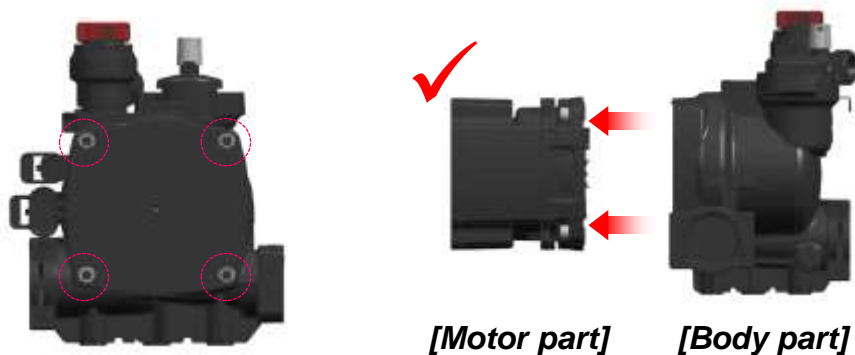
Easy Installation & Maintenance

Grundfos Water Pump that air vent and relief valve are integrated into is applied to reach out better reliability. Furthermore, water flow rate can be adjusted by controlling pump capacity.

Water Pump



Only motor part can be replaced in case of motor failure without removing the water inside product.

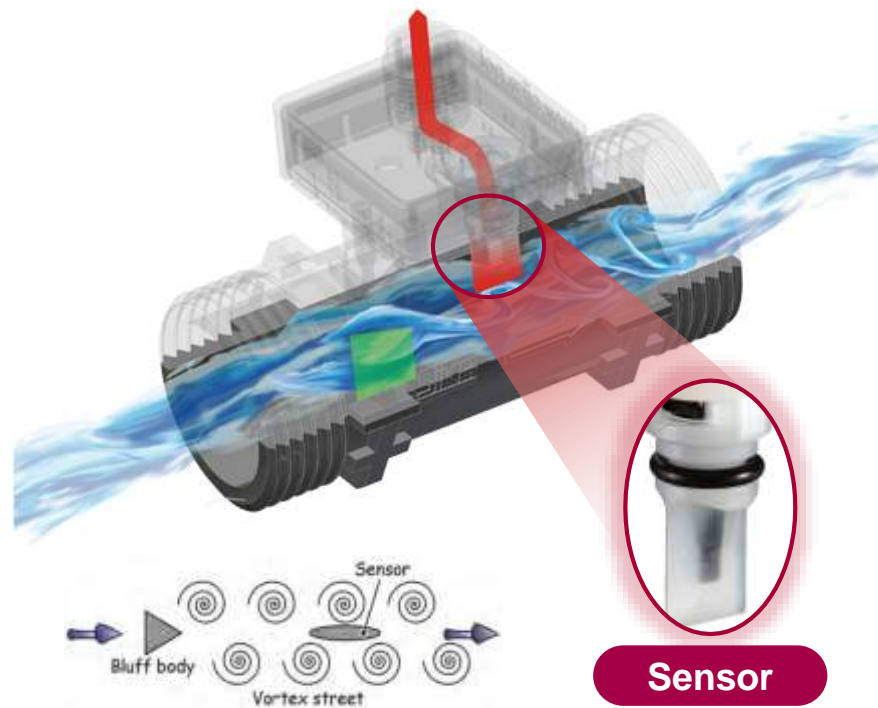
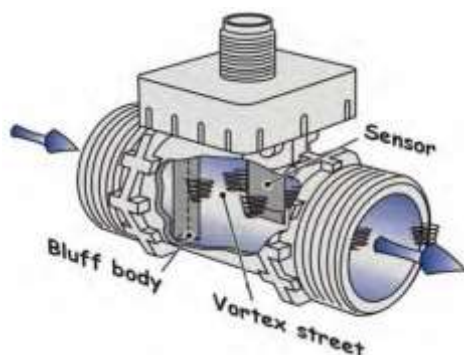


Technical Specifications	5kW / 7kW / 9kW
Pump Maker	Grundfos
Pump Type	Canned type for hot water circulation
Model	UPM3K 20-75 CHBL
Motor Type	AC
Energy Efficiency Index(EEI)	≤ 0.20
Steps of Pumping Performance	Variable speed 10% to 100%
Power input (Min ~ Max)	3 ~ 60 W

Integrated Water Components - Flow Sensor

Easy Installation & Maintenance

Water flow sensors enable real-time flow monitoring, pipe blockage detection and advanced pump control options.



Model		SIKA VVXC9SNBUC00242P	
Measuring range	Min. ~ Max.	LPM	5 ~ 80
Flow (trigger point)	Min.	LPM	7
Measuring duration	Sec		1

- CH14 error occurs under 7 LPM or over 80 LPM for 15 seconds.

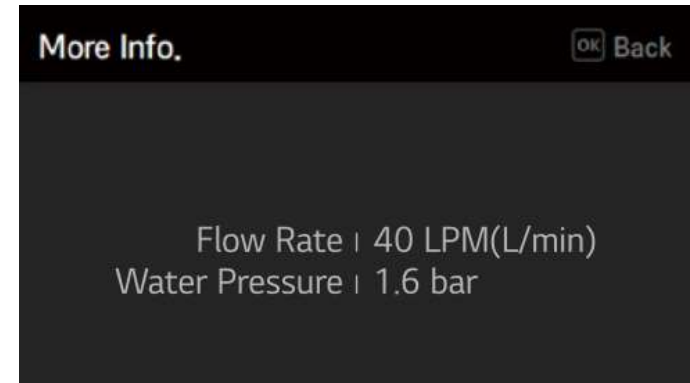
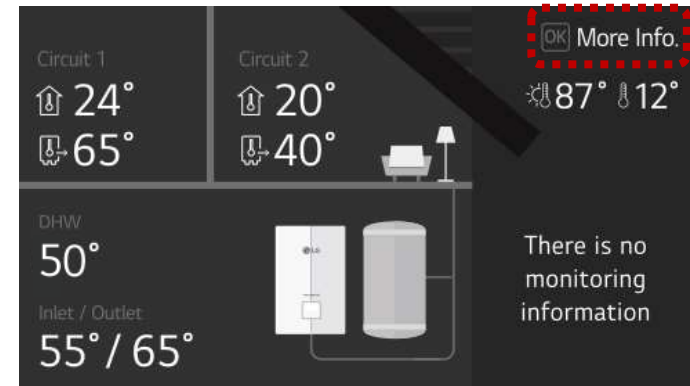
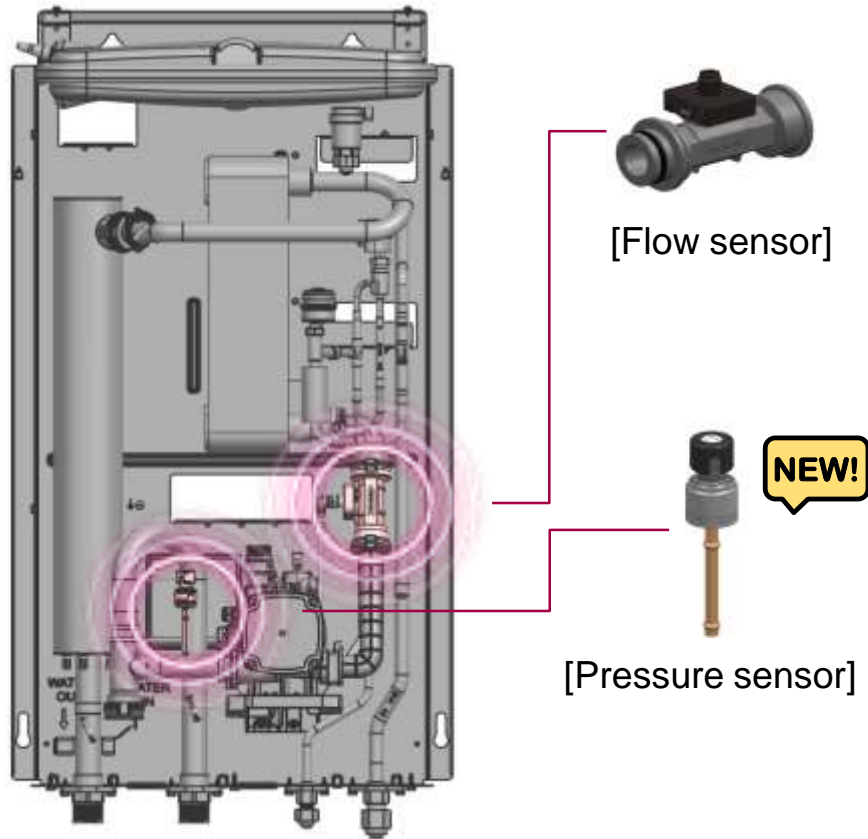
The flow rate is measured by detecting the vortex flow generated as the fluid passes through the bluff body with a sensor.

NEW! Water Circuit Monitoring

Easy Installation & Maintenance

It is possible to monitor via remote controller not only temperature of water circuit but also flow rate and pressure. This information is not only useful to the installer during installation, but also helps to periodically clean the strainer.

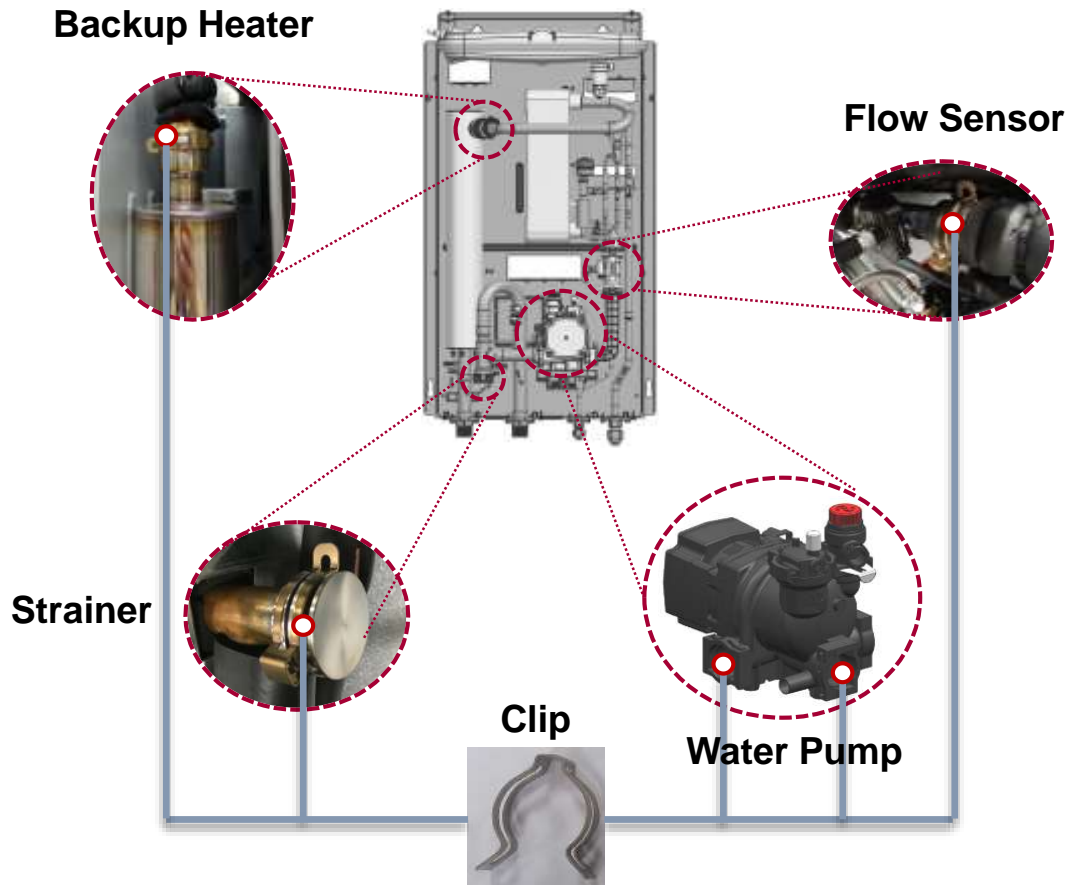
Flow Sensor & Pressure Sensor



Easy Service with Clip Solution

Easy Installation & Maintenance

Clip solution provide easy maintenance and SVC works, it is possible to remove the clip by hands without tools.



**No
needs**

[Example] Strainer



Mesh



Clip

Easy and Quick Maintenance with Data Logging Easy Installation & Maintenance

The remote controller can store up to 50 history items, enabling easy identification of the cause of malfunctioning or fault and facilitating quick finding of solutions.



❑ Data logging in the installer setting menu

Installer	Back	OK	OK
Heating only mode			Not use
Pump frequency setting(PWM)			>
Smart Grid(SG)			>
Seasonal auto temp			>
Data logging			>

- **History lookup range : 50 events**
- **History information**
 - Date, Time, Mode (including Off), Set temperature, Inlet temperature, Outlet temperature, Room temperature, Hot water operation / stop, Hot water set temperature, Hot water temperature, Outdoor unit On / Off, Error code
- **Save criteria**
 - Error occurred / released
 - Outdoor Unit ON / OFF

04 - Convenient Functions

Seasonal Auto Mode

2nd Circuit

RS3 Remote Controller

Emergency Operation

DHW Recirculation Pump

Energy Monitoring

Energy State

Convenient Scheduling

ThinQ™

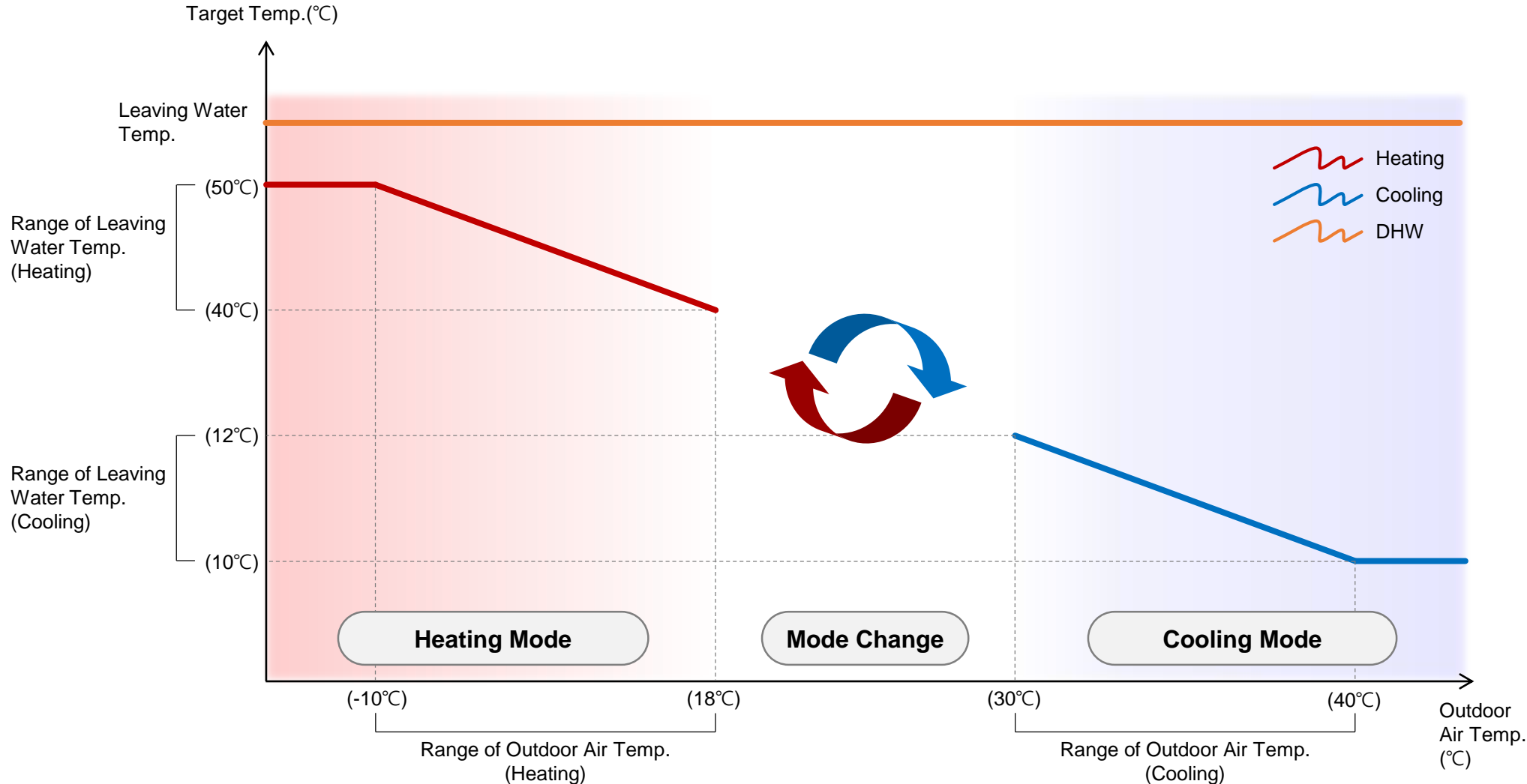
Interlocking with 3rd Party Controller



NEW! Seasonal Auto Mode

Convenient Functions

With Seasonal Auto Mode, the target temperature and operation mode will be changed automatically depending on the outdoor temperature. This function is not only convenient, but also saves energy.



※ This function does not apply to DHW.

※ User should set the range of the outdoor temperature and the target temperature.

※ The temperature range shown in the graph above is the default value. For more information regarding setting, please refer to the installation manual.

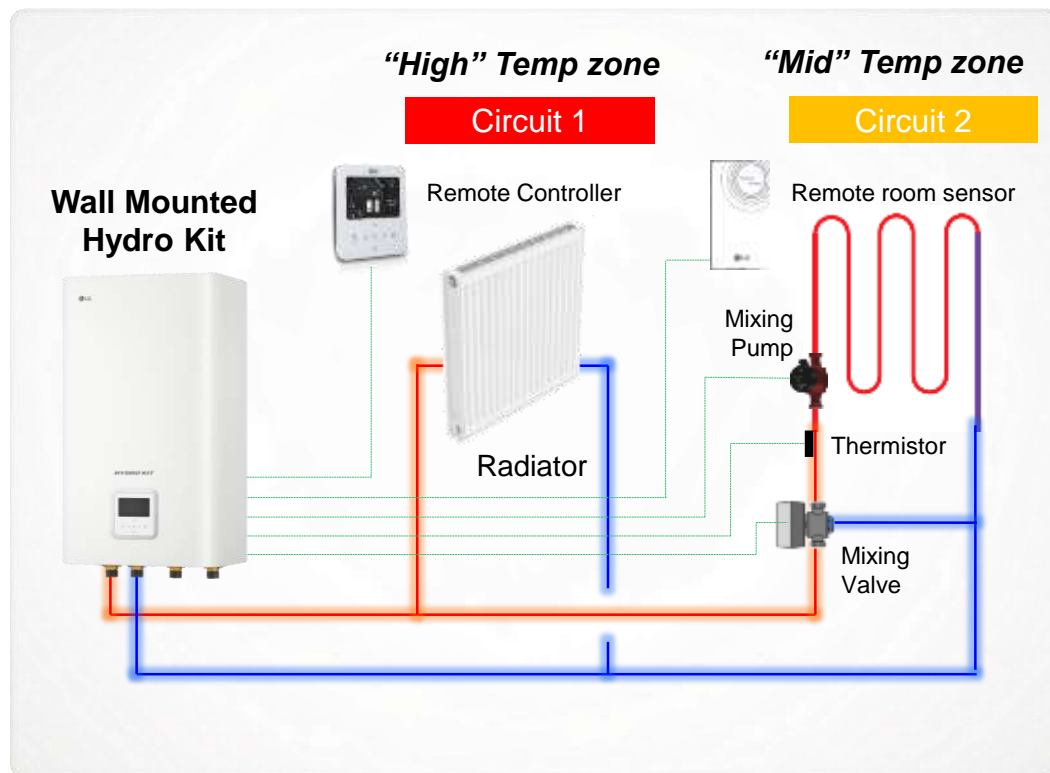
※ The target leaving water temperature can also be set as the target indoor air temperature.

2nd Circuit

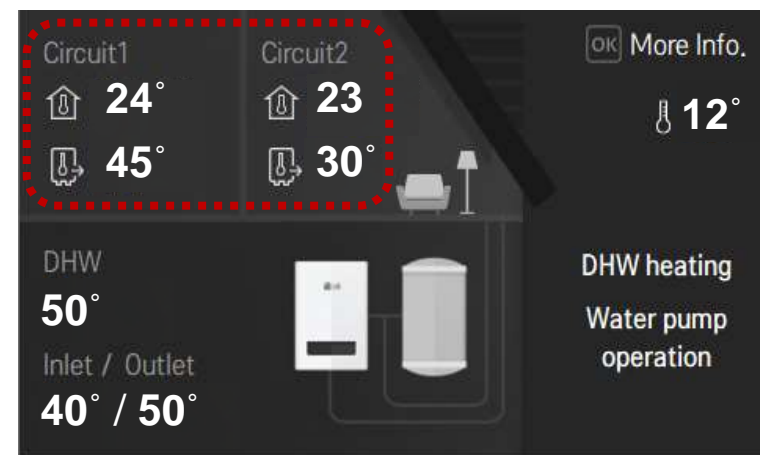
Convenient Functions

Wall Mounted Hydro Kit can provide a solution to control two different set temperatures for two circuits. Just one Hydro Kit can meet the different needs of each room.°

2nd Circuit Diagram



Remote Controller UI



Set Temperature of Circuit 1

Set Temperature of Circuit 2

※ The images above are to help customers understand, and may differ from the actual ones.

※ In heating mode, circuit 1 is for the high temp. zone and circuit 2 is for the mid temp. zone. In cooling mode, circuit 1 is for the low temp. zone and circuit 2 is for the mid temp. zone. The images above are based on heating.

※ For more information regarding setting, please refer to the installation manual.

RS3 Remote Controller

Convenient Functions

The intuitive UI allows easy and quick use with a simple touch and users can set schedules based on their lifestyles. Moreover, daily or monthly monitoring of power consumption allows efficient energy management.



Premium Design

New Modern design 4.3 inch color LCD display
Capacitive touch button (especially on/off button turn on LED)

Intuitive Interface

Information displayed with simple graphic, icon & text
Navigation button, easy to use



Integrated Air temp. sensor

Embedded air temperature sensor in remote controller

More energy contents

Auto controlled by weather and time

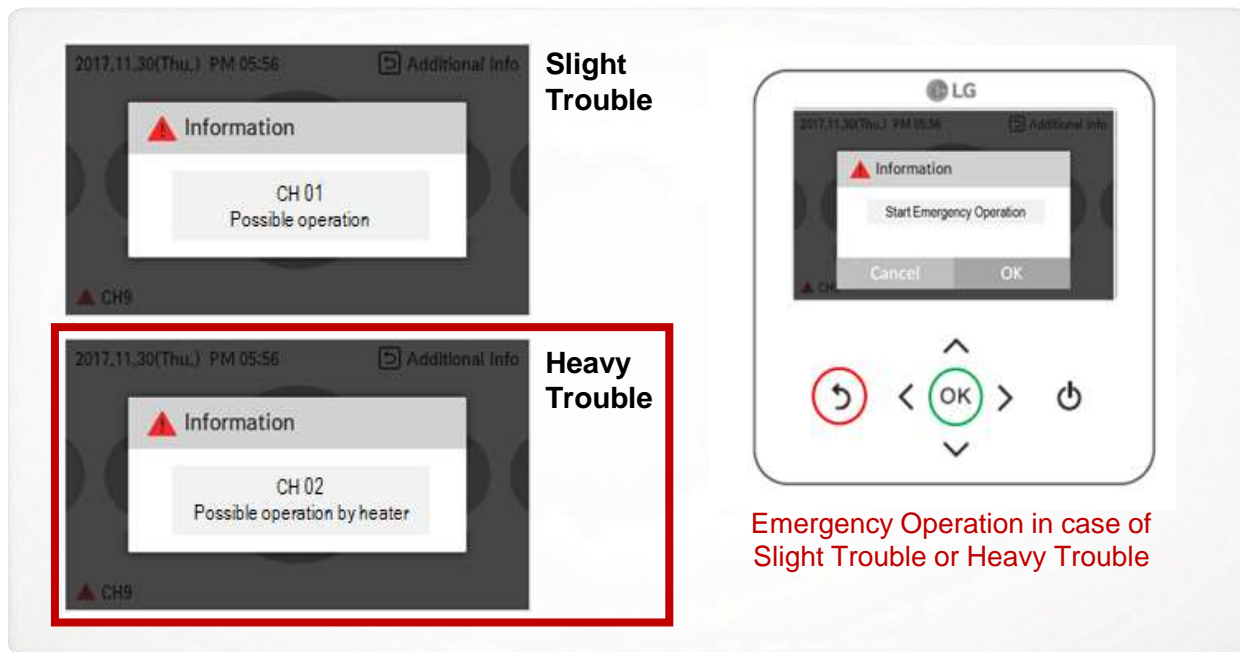
Convenient Functions

Optimize schedule setting logic
- Set the period, date, on/off time, operation mode, target temp.
Easy installation setting (as-is : numeric code , to-be : word)

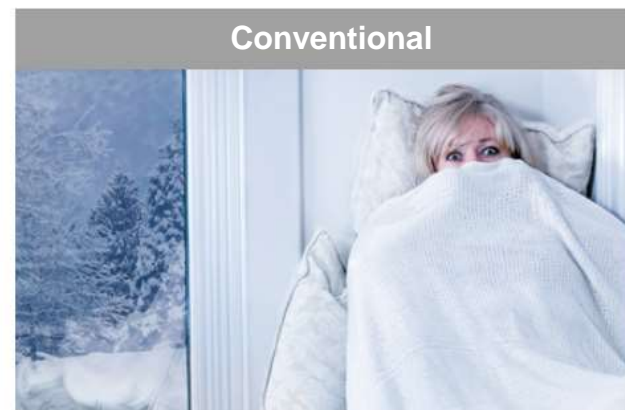
Emergency Operation

Convenient Functions

Even in case of sudden product trouble, the wall mounted hydro kit ensures stable heating operation by applying Emergency Operation Mode. Compared to previous floor mounted model, Emergency Operation Function is enhanced by applying Electric Heater.



Emergency Operation in case of Slight Trouble or Heavy Trouble



Conventional



Wall Mounted Hydro Kit

Different trouble type in detail

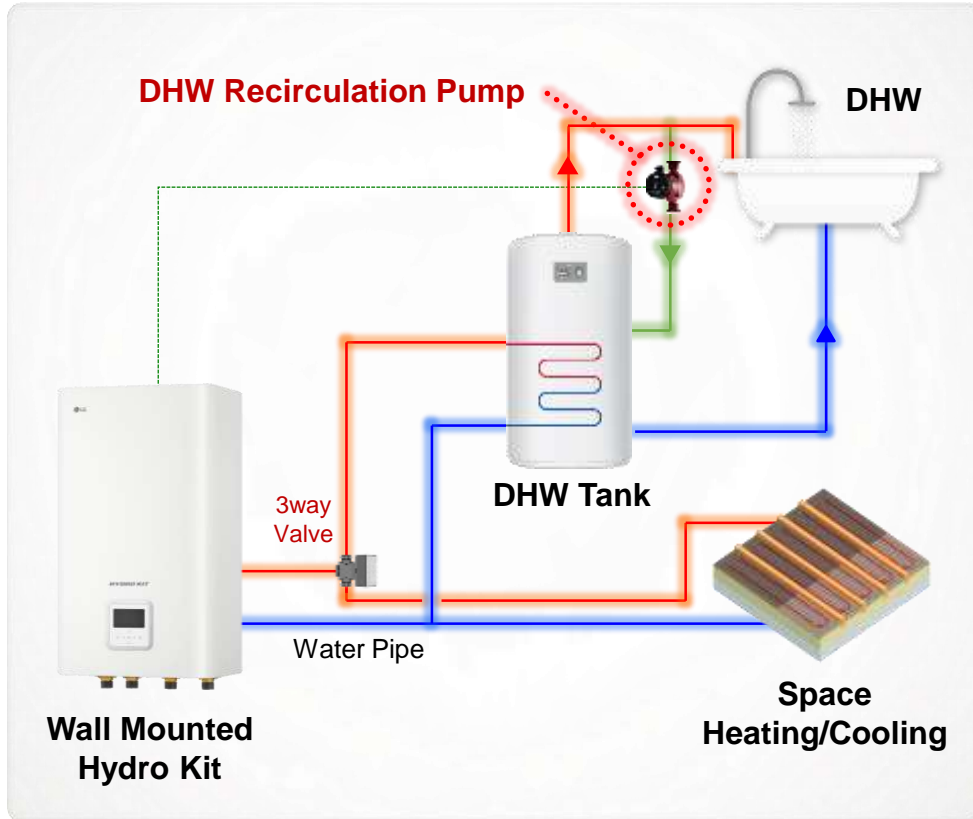


NEW! DHW Recirculation Pump

Convenient Functions

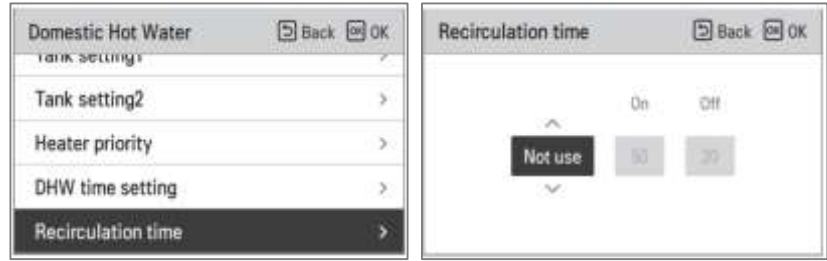
Wall Mounted Hydro Kit can be connected to the DHW recirculation pump and the pump operates for a set period of time, so when the user turns on the tap, hot water comes out immediately.

Installation Scene



How to Set

Installer Setting Activate, On/Off Time Setting



Setting	Setting Option	Default
DHW Recirculation	Use/Not Use	Not Use
On Time	5 ~ 60 min	10 min
OFF Time	5 ~ 60 min	20 min

User Setting Scheduling



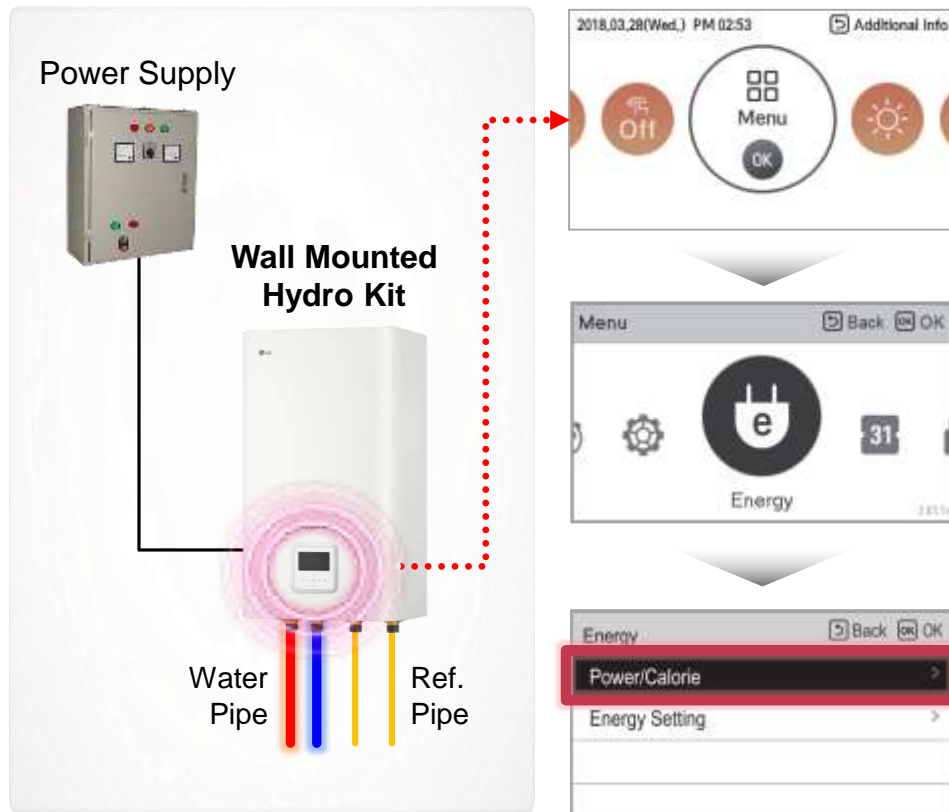
- ※ DHW recirculation pump is a separately purchased component that is installed on field.
- ※ Both installer setup and user setup are required.
- ※ DHW recirculation schedule can be set up to 4 times.

NEW! Energy Monitoring

Convenient Functions

Estimated power consumption and thermal energy can be monitored on the remote controller without connecting meter interface.

How to install & check

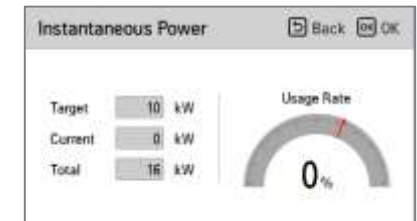


Monitoring Result at Controller

- Instant power consumption
- Power consumption by period (daily, weekly, monthly, yearly)
: Categorized as heat, cool, and DHW
- Produced heat output by period (daily, weekly, monthly, yearly) ¹⁾

Power/Calorie

- Year-on-year Usage >
- Weekly Trend >**
- Monthly Trend >
- Yearly Trend >
- Summary >



Summary

	Power		Heat Output		
	Heat	Cool	DHW	Total	
Today	0	0	0	0	
Monthly	0	0	0	0	
Yearly	683	0	1149.2	1832.2	

Summary

	Power	Heat Output
		Heat Output
Today		0
Monthly		0
Yearly		0

1) When using antifreeze, it will not be available.

※ The calculated produced heat output and power are an estimation, the accuracy cannot be guaranteed. The energy data should NOT be used for being invoiced or requested to government incentive and subsidy. For more accurate power output, please install PDI to check.

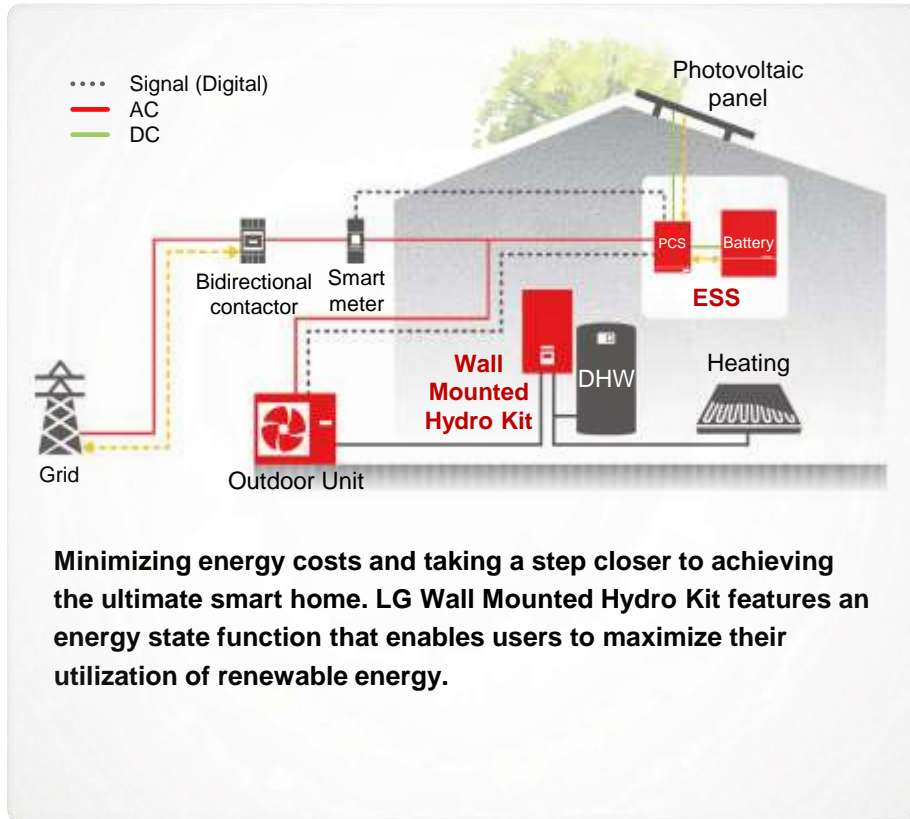
NEW! Energy State

Convenient Functions

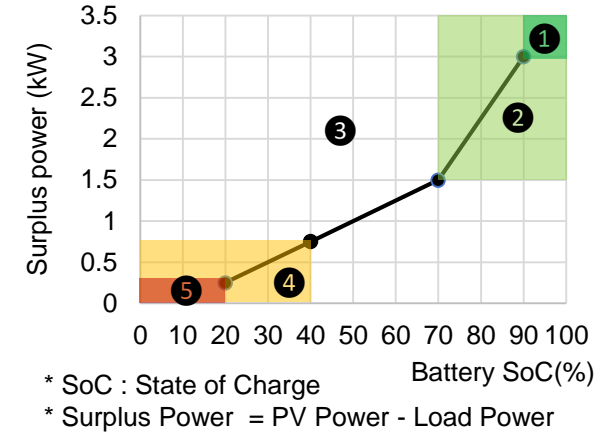
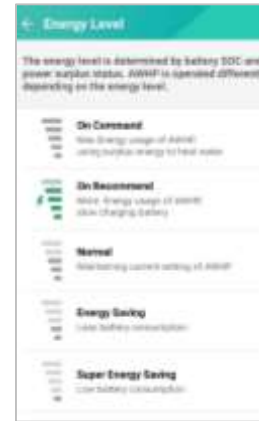
Wall Mounted Hydro Kit provides energy states enabling customers to use their own renewable energy as much as possible.

System diagram with ESS

Power the home the smart way and save the energy bill



Energy Level (Set by ESS)



Energy Level	Energy State ²⁾	Set Temperature Adjustment (°C) ¹⁾		
		Heating	Cooling	DHW
① On Command(++)	ES5	+5	-5	+30
② On Recommend(+)	ES6	+2	-2	+10
③ Normal	ES2	0	0	0
④ Energy Saving(-)	ES7	-2	+2	0
⑤ Super Energy Saving(--)	ES8	-5	+5	0

1) Above indicated Energy State condition and adjusting temp. of Hydro Kit can be changed.

2) For more detailed setting, please refer to the installation manual.

※ To utilize this function, purchase of accessories (provided by 3rd party) is required.

NEW! Convenient Scheduling

Convenient Functions

Operation schedule can be customized to the user's taste by the remote control. This function helps save energy and makes users feel convenient.



07:30

DHW : Hot water On



17:30

Heating : Heating On



07:30

Heating : Change the Temp.



07:30

Heating : Change the Temp.

Schedules & Edit Room

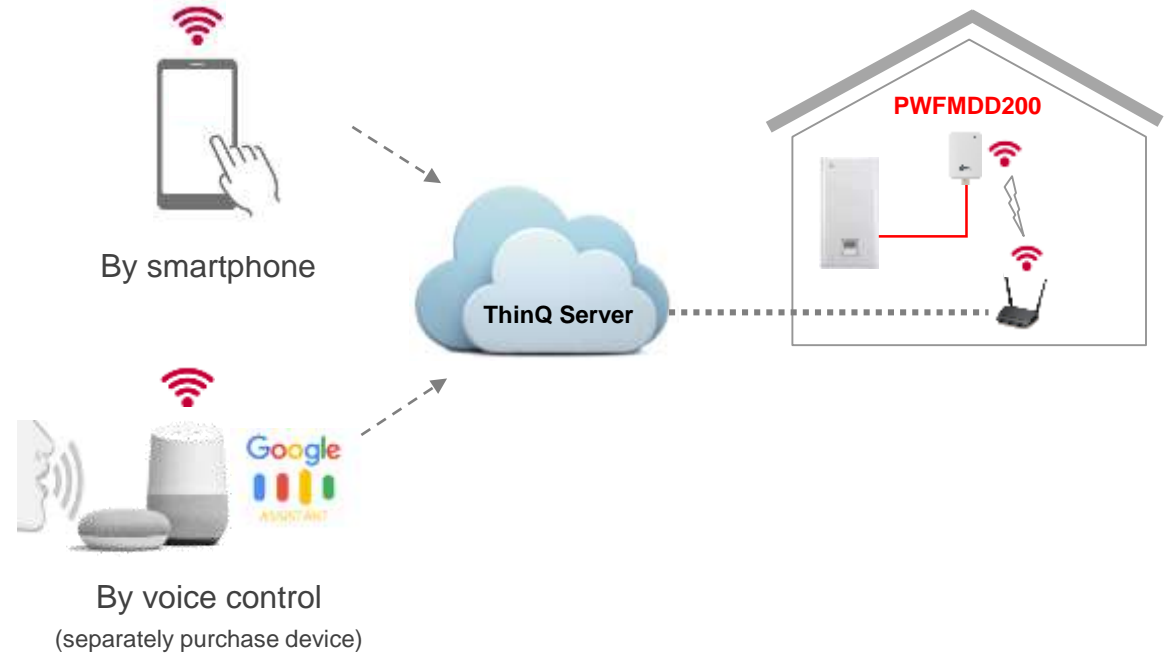
Temperature	Time	Duration
50°	12:00 AM	Everyday 24.03.25 - 24.03.28
Off	12:00 AM	Everyday 24.03.29 - 24.03.29
50°	06:00 AM	Everyday 24.03.29 - 24.03.30

- Energy saving is possible by setting the operating temperature and on/off according to the occupancy pattern.
- Up to 30 events can be set for each of cooling, heating and DHW.

Using LG ThinQ™ app, users can simply control cooling or heating system anytime from anywhere. Remote access to the system allows users the maximized comfort.



• Access your system anytime and from anywhere



• Simple operation for various functions

- On/Off*
- Mode Selection*
- Set temperature*
- Current temperature*

* This functions can be used by google assistant

※ In some countries, the use of the google assistant system may be restricted.

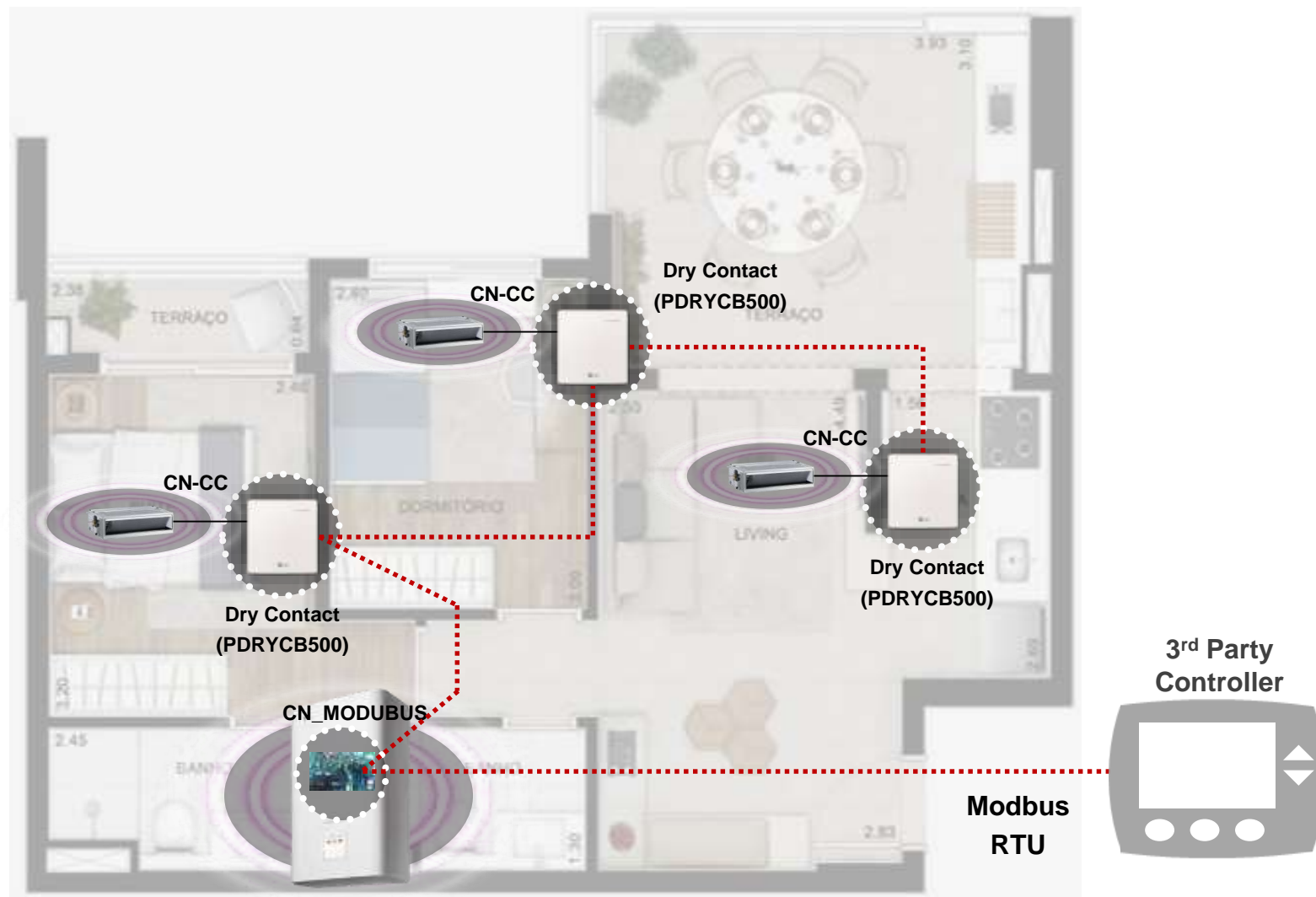
※ Search “LG ThinQ” on Google market or Appstore then download the app.

※ Wi-Fi modem (PWFMD200) is required by option.

Interlocking with 3rd Party Controller

Convenient Functions

With integrated Modbus RTU protocol in the wall mounted hydro kit, user also can control via 3rd party controller.



05 - Appendix

Application

Reference Site

Specification

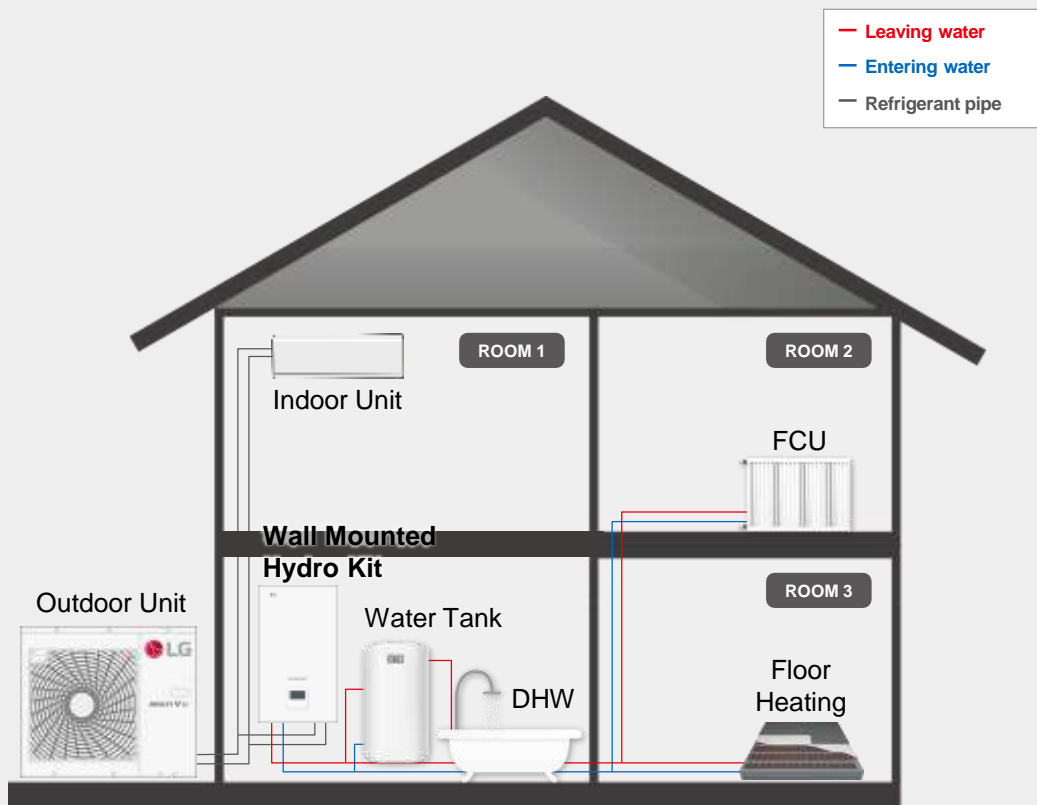
Function List



Application : Single Family House

Cooling, heating and hot water supply is possible with MULTI V S for single family houses.

MULTI V S + Wall Mounted Hydro Kit + N x AC Indoor Units



Applicable Outdoor Units



= 3HP~6HP =
ZRUNXXXGSS0
ZRUNXXXLSS0



= 4HP =
ARUN040GSS0



= 5HP~6HP =
ARUNXXXGSS0
ARUNXXXLSS0
= 8HP =
ARUN080LSS5



= 10HP~12HP =
ARUNXXXLSS5

Applicable Hydro Kits



= 5.6kW~9.0kW =
ARNHXXGK1B4

Features & Benefits

- Cooling, heating and DHW supply with one outdoor unit.
- No needs to install water side components like a DHW tank.
- Use more outdoor space for personal purposes.
- Energy saving with renewable energy and high efficient equipment.
- Free from the potential freezing risk of the exposed water pipes.

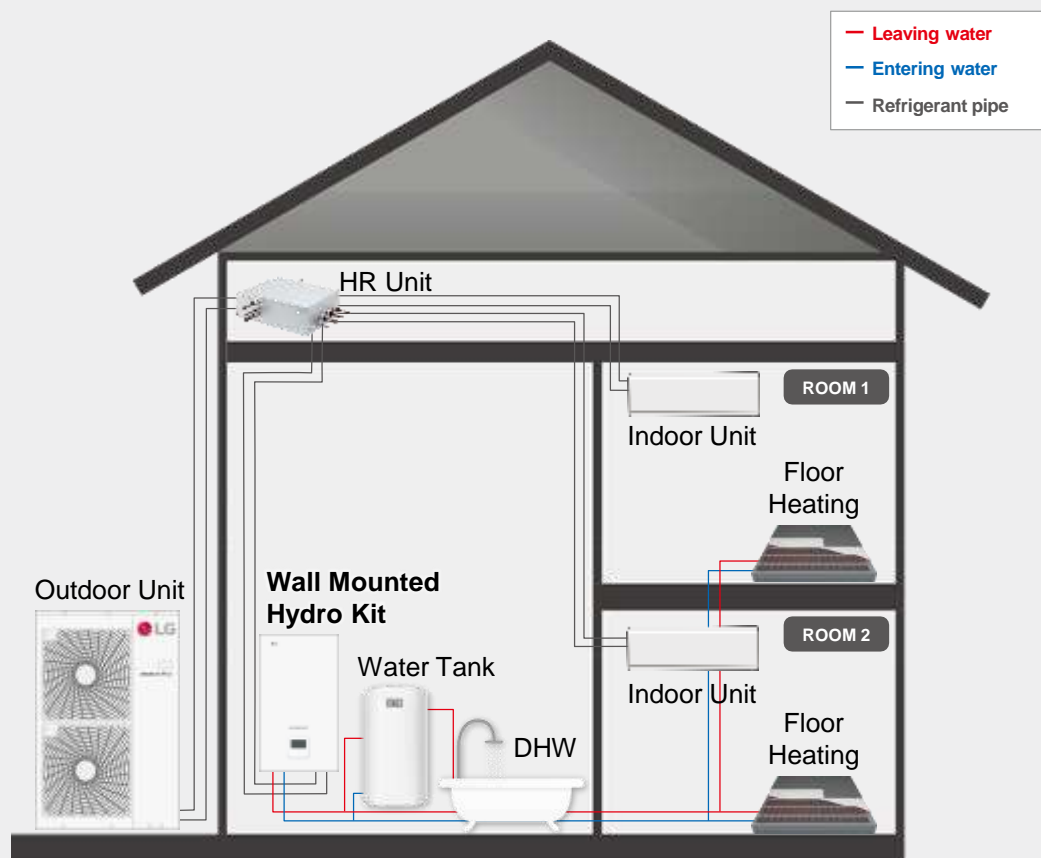
※ The images above are to help customers understand, and may differ from the actual ones.

※ The heating priority function should be set to install an air conditioner indoor unit and a hydro kit indoor unit together.

Application : Single Family House

Wall Mounted Hydro Kit can supply cooling, heating and hot water simultaneously with MULTI V S for single family houses.

MULTI V S + Wall Mounted Hydro Kit + HR Unit+ N x AC Indoor Units



Applicable Outdoor Units



Applicable Hydro Kits



Features & Benefits

- Cooling, heating and DHW supply with one outdoor unit.
- No needs to install water side components like a DHW tank.
- Use more outdoor space for personal purposes.
- Energy saving with renewable energy and high efficient equipment.
- Free from the potential freezing risk of the exposed water pipes.

※ The images above are to help customers understand, and may differ from the actual ones.

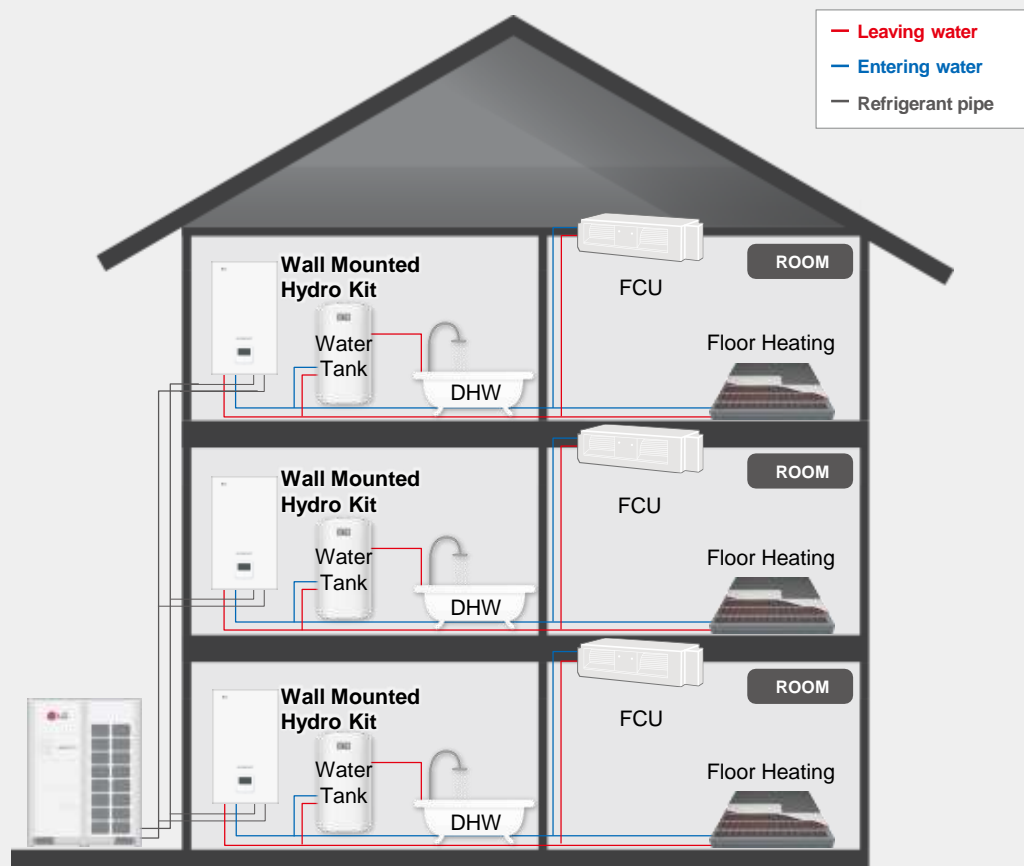
※ HR Unit should be installed to supply cooling, heating and hot water simultaneously.

Multi Family House

Application (Residential)

Heating and hot water supply is possible with MULTI V *i* for multi family houses.

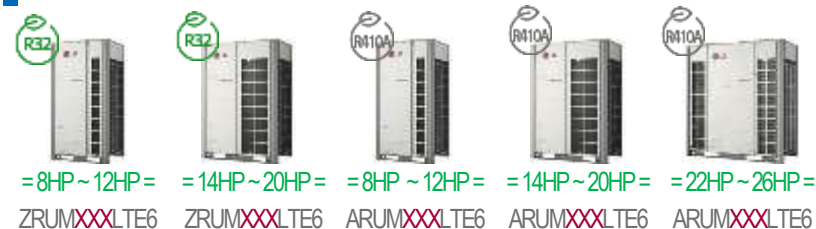
MULTI V *i* + N x Wall Mounted Hydro Kit + N x AC Indoor Units



New Build ●

Renovation ●

Applicable Outdoor Units



Applicable Hydro Kits



Features & Benefits

- Cooling, Heating and DHW supply with one outdoor unit.
- Use more indoor space and balcony for personal purposes.
- Legionella sterilization function without electric heater.
- Energy saving with renewable energy and high efficient equipment.
- Free from the potential freezing risk of the exposed water pipes.

Reference Site : SPAIN Marina Residential Project

Project Status



<Project Information>

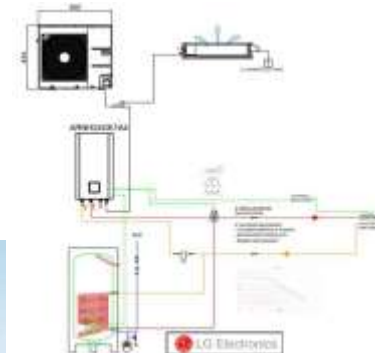
Project	Marina Project
Location (City)	Barcelona, Spain
Amount	Total 1.8M\$(1st phase 0.4M\$)
Awarded Date	June, 2020
Remark	MULTI V S R32 (1-Fan) + Hydrokit

1. Project

- Customer : PGI Engineering (Consultant)
- Building : Residential flat
- Total : 1.8M\$
(1st phase **0.4M\$ AWARD**, 2nd phase 0.6M\$, 3rd/4th 0.8M\$ 2021)
- Product : MULTI V S R32 (Single fan) + Wall Mounted Hydro Kit + Duct IU

2. Main Issue

- Due to the installation limit, the height of outdoor units should be reduced.
→ Multi V S R32 (Single fan)
- The water heating is required for each house
→ Wall mount Hydro Kit
- **Heating (DHW) Priority**



Specification (1 of 2)

Model			Unit	ARNH18GK1B4	ARNH24GK1B4	ARNH30GK1B4
Power Supply			V, Ø, Hz	220-240 ,1 ,50	220-240 ,1 ,50	220-240 ,1 ,50
				220 ,1 ,60	220 ,1 ,60	220 ,1 ,60
Capacity (Rated)	Cooling		kW	5.6	7.1	9.0
			kcal/h	4,800	6,100	7,700
			Btu/h	19,100	24,200	30,700
	Heating		kW	5.6	7.1	9.0
			kcal/h	4,800	6,100	7,700
			Btu/h	19,100	24,200	30,700
Operation Range (Leaving Water Temperature)	Cooling	Min. ~ Max.	°C	5 ~ 25	5 ~ 25	5 ~ 25
	Heating	Min. ~ Max.	°C	20 ~ 50	20 ~ 50	20 ~ 50
Water Pump	Type		-	Canned type for hot water circulation	Canned type for hot water circulation	Canned type for hot water circulation
	Model		-	GRUNDFOS UPM3K 20-75 CHBL	GRUNDFOS UPM3K 20-75 CHBL	GRUNDFOS UPM3K 20-75 CHBL
	Motor Type		-	AC	AC	AC
	Steps of Pump Performance		-	Variable capacity 10% to 100%	Variable capacity 10% to 100%	Variable capacity 10% to 100%
	Power input	Min. ~ Max.	W	3 ~ 60	3 ~ 60	3 ~ 60
Heat Exchanger	Type		-	Brazed Plate HEX	Brazed Plate HEX	Brazed Plate HEX
	Quantity		EA	1	1	1
	Number of Plate		EA	54	54	54
	Water Volume		ℓ	0.7	0.7	0.7
Flow Sensor	Type		-	Vortex	Vortex	Vortex
	Model		-	SIKA VVX20	SIKA VVX20	SIKA VVX20
	Measuring Range	Min. ~ Max.	ℓ/min	5 ~ 80	5 ~ 80	5 ~ 80
	Flow (Trigger point)	Min.	ℓ/min	7	7	7










Specification (2 of 2)

Model			Unit	ARNH18GK1B4	ARNH24GK1B4	ARNH30GK1B4
Expansion Vessel	Volume	Max.	ℓ	8	8	8
	Water pressure	Max.	Bar	3	3	3
	Water pressure	Pre-charged	Bar	1	1	1
Strainer	Mesh size		-	28 mesh	28 mesh	28 mesh
	Material		-	Stainless Steel	Stainless Steel	Stainless Steel
Relief valve	Pressure Limit	Upper Limit	Bar	3.0	3.0	3.0
Piping Connections	Water Side	Inlet	mm(inch)	Male PT 25(1)	Male PT 25(1)	Male PT 25(1)
		Outlet	mm(inch)	Male PT 25(1)	Male PT 25(1)	Male PT 25(1)
	Refrigerant Side	Liquid	mm(inch)	Ø 9.52(3/8)	Ø 9.52(3/8)	Ø 9.52(3/8)
		Gas	mm(inch)	Ø 15.88(5/8)	Ø 15.88(5/8)	Ø 15.88(5/8)
Communication Cable(VCTF-SB)			mm ² × cores	1.0~1.5 × 2C	1.0~1.5 × 2C	1.0~1.5 × 2C
Sound Pressure Level	Cooling/Heating	Rated	dB(A)	35	35	35
Sound Power Level	Cooling/Heating	Rated	dB(A)	44	44	44
Dimensions	Unit	W × H × D	Mm	490 × 850 × 315	490 × 850 × 315	490 × 850 × 315
	Packed Unit	W × H × D	Mm	563 × 1082 × 375	563 × 1082 × 375	563 × 1082 × 375
Weight	Unit		Kg	42.0	42.0	42.0
	Packed Unit		Kg	47.0	47.0	47.0
Temperature Control			-	Microprocessor, Thermostat for cooling and heating		
Sound Absorbing Thermal Insulation Material			-	Foamed polystyrene	Foamed polystyrene	Foamed polystyrene
Safety Device			-	Fuse	Fuse	Fuse
Refrigerant	Refrigerant to Water	Refrigerant name	-	R410A / R32	R410A / R32	R410A / R32
		Pre-charged Amount	Kg	-	-	-
		Additional Refrigerant Charge Amount	Kg	0.43	0.43	0.43
		GWP	-	2,087.5 / 675	2,087.5 / 675	2,087.5 / 675
		Control	-	Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve

Function List

Appendix

Category	Functions	ARNH18GK1B4 ARNH24GK1B4 ARNH30GK1B4	
Installation	Drain pump	X	
	E.S.P. control	X	
	Electric heater (operation)	O	
	High ceiling operation	X	
	Domestic Hot Water Tank heater	Accessory	
Reliability	Hot start	X	
	Self diagnosis	O	
	Soft dry operation	X	
Convenience	Auto changeover	X	
	Auto cleaning	X	
	Auto operation (artificial intelligence)	X	
	Auto restart operation	O	
	Child lock	O	
	Forced operation	X	
	Group control	O	
	Sleep Timer	O	
	Turn On/Off Reservation	O	
	Schedule	O	
	Low Noise Operation	O	
	Two thermistot control	X	
	Individual control	Standard wired remote controller	O
		Premium wired remote controller	X
		Simple wired remote controller	X
Simple Wired remote controller(for hotel use)		X	
Wireless remote controller(simple)		X	
Network function	General central controller (Non LGAP)	X	
	Network Solution (LGAP)	O	

Category	Functions	ARNH18GK1B4 ARNH24GK1B4 ARNH30GK1B4
Hydro Kit Functions	Anti-Condensation on floor (cooling)	O
	Water Pump ON / OFF Control	O
	Water Flow Control	O
	Water Pressure Monitoring 	O
	Communication with LG ESS by Modbus	O
	Solar Thermal function	Accessory
	Water Flow detection	O
	Thermostat Interface (230V AC)	O
	Thermostat Interface (24V AC)	X
	DHW(Domestic Hot Water) tank kit	Accessory
	PHEX Anti-Freezing Control	O
	Water Pump Forced Operation	O
	Autosetting according to Ambient Temperature	X
	Anti-overheating of Water Pipe	O
	Emergency Operation	O
	Seasonal auto mode (heating and cooling) 	O
	Scheduler (Domestic Hot Water Tank Heater) 	O
	Timer (Domestic Hot Water Tank Heater) 	O
	Quick Domestic Hot Water Tank Heating	O
	Electric Backup Heater Capacity Control	O
	Screed Drying Mode 	O
	Sump Heater	X
	One Point Dry Contact Input (CN-EXT)	O
	Energy Monitoring 	O
	DHW Recirculation 	O
	Tank Disinfection 	O
	Pump Capacity Control	O
SG Ready 	O	
ODU Cycle Priority (Heating Priority)	O	
Special Functions	Wi-Fi Control	Accessory
	Modbus Connectivity (without gateway)	O
	Remote Room temperature Sensing	Accessory
	2nd Circuit/Mixer Control	Accessory

※ O : Applied / X : Not applied / Accessory : Ordered and purchased separately the accessory package referring to the model name provided and install at field.

※ Accessory line-ups varies by region, so check your local catalogue or local sales material.

Function List

Product Type	Medium Temp.			High Temp.
	Wall Mounted	IWT (Integrated Water Tank)	Floor Standing	
Model Name	ARNH18GK1B4 ARNH24GK1B4 ARNH30GK1B4	ARNH18GK5A4 ARNH24GK5A4 ARNH30GK5A4	ARNH04GK2B4 ARNH10GK2B4 ARNH16GK2B4	ARNH04(G/L)K3B4 ARNH08(G/L)K3B4
Backup heater control (for space heating)	○	○	×	×
Booster heater control (for DHW)	○ (3rd Party Accessory)	○	○ (3rd Party Accessory)	○ (3rd Party Accessory)
Tank disinfection (Anti-legionella)	○ (3rd Party Accessory)	○	○ (3rd Party Accessory)	○
Energy State	○	○	○	○
Remote controller	○	○	○	○
Solar thermal support	○	×	○	○
Seasonal auto mode	○	○	○	○
DHW re-circulation	○	○	○	○
BECON Cloud Service	○	○	○	○
Energy Monitoring	○	○	○	○
Water pressure monitoring	○	○	○	○
Flow rate monitoring	○	○	○	○
Modbus connectivity	○	○	○	○
2nd circuit	○ (3rd Party Accessory)	○ (3rd Party Accessory)	○ (3rd Party Accessory)	○ (3rd Party Accessory)
External water pump	○ (3rd Party Accessory)	○ (3rd Party Accessory)	○ (3rd Party Accessory)	○ (3rd Party Accessory)

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2. The image in this proposal may differ from the actual product.
3. The functions and specifications expressed in this proposal are subject to change without prior notice to improve product performance, so be sure to check with the person in charge.

