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# HOT WATER SOLUTION

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HYDRO KIT





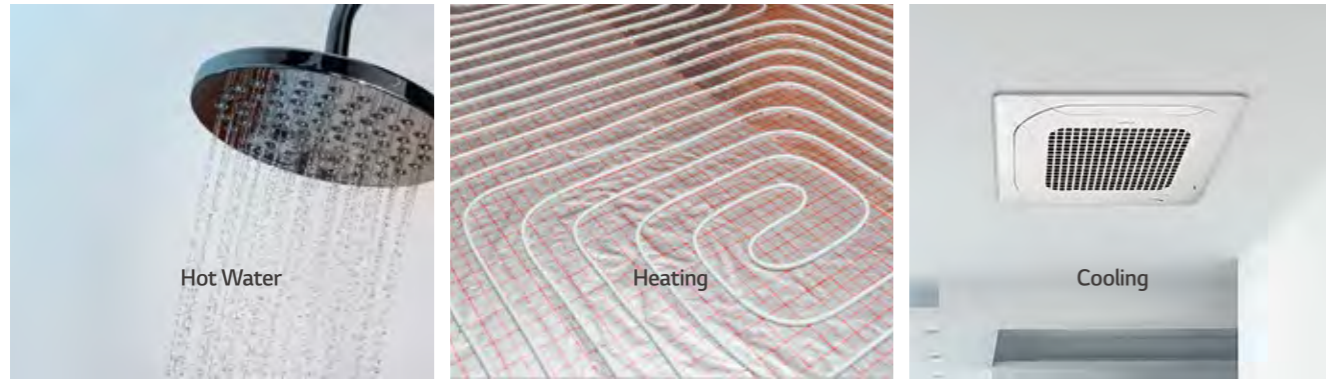
# HYDRO KIT

## Features & Benefits

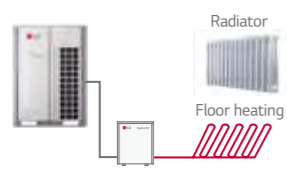
- Lower operation cost compared to fossil fuel-based systems such as boilers.
- More energy saving through MULTI V heat recovery system.

## Key Applications

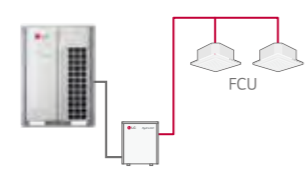
- Where Hot Water is needed such as domestic Hot Water, In-floor or radiant heat. Where cold water is needed such as Fan coil unit and chilled beam.



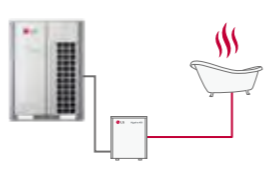
Radiant Heating / Cooling



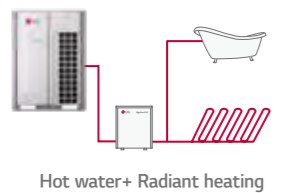
Fan Coil Unit Heating / Cooling



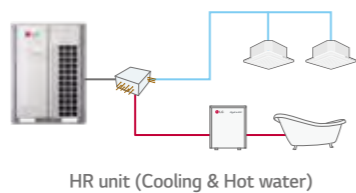
Hot water / Cold Water



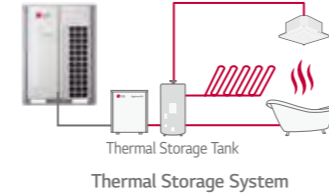
Hot water+ Radiant heating



Combination



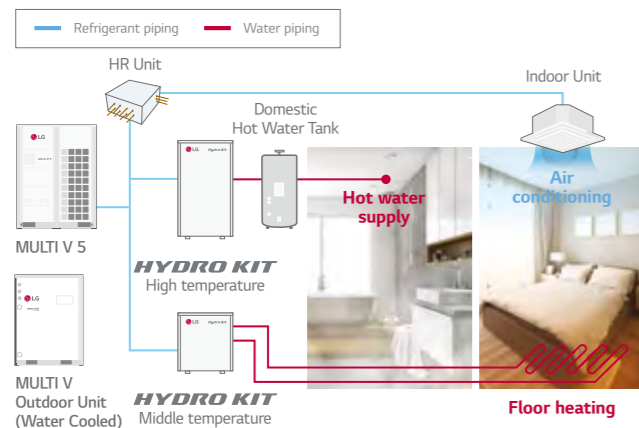
Thermal Storage Tank  
Thermal Storage System



# CONVENIENCE

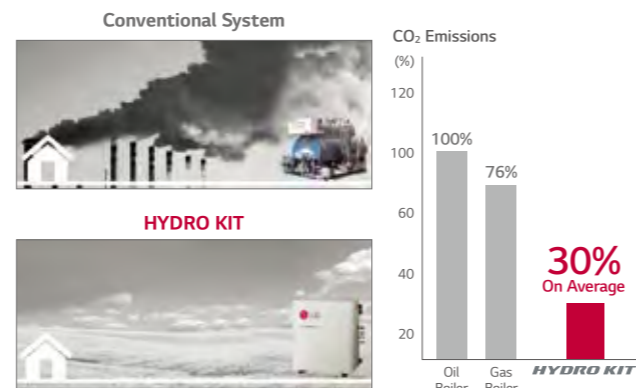
## Total Solution

Total solution provided with heat pump, air conditioning (cooling by refrigerant and cold water/heating by refrigerant hot water) and domestic hot water supply.



## Eco-friendly Solution

Green energy solution through the reduction of CO<sub>2</sub> emissions.



# EFFICIENCY

## Cost Savings with High Efficiency

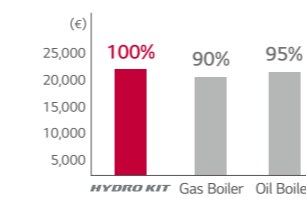
Equivalent installation cost of traditional boiler with reduced operational costs.

- 1<sup>st</sup> Proposal MULTI V 5 HYDRO KIT (Air Conditioning + Hot Water Supply + Floor Heating)
- 2<sup>nd</sup> Proposal MULTI V 5 Air-Conditioning + Gas Boiler (Hot Water Supply + Floor Heating)
- 3<sup>rd</sup> Proposal MULTI V 5 Air-Conditioning + Oil Boiler (Hot Water Supply + Floor Heating)

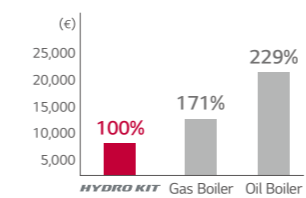
### Analysis Conditions

- Building Type : Dormitory, Flats
- Cooling / Floor Heating / Sanitary Hot Water for 10 years
- Cooling : MULTI V IV Indoor Unit
- Floor Heating : Medium Temp. HYDRO KIT (1ea)
- Sanitary Hot Water : High Temp. HYDRO KIT (2ea), Sanitary Hot Water Tanks
- Electricity Cost : Average Cost in EU
- Gas Cost : Average Cost in EU
- Oil Cost : Average Cost in EU

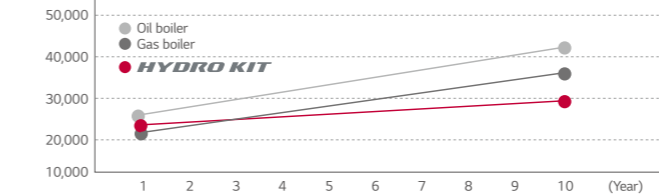
Initial Costs



Annual Operating Costs



LCC

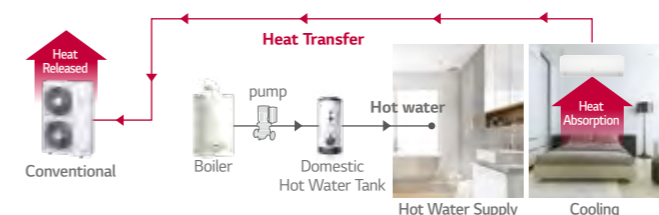


## Energy Savings through Heat Recovery

Energy costs can be minimized by reusing the wasted heat from indoor units.

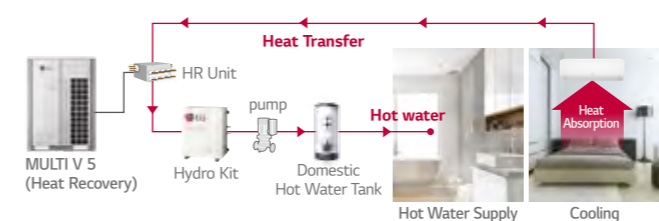
### Conventional

Absorbed heat is released to outdoor air.

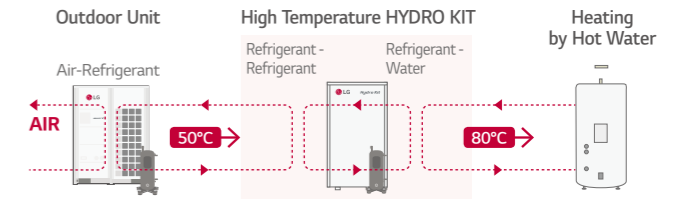


### HYDRO KIT

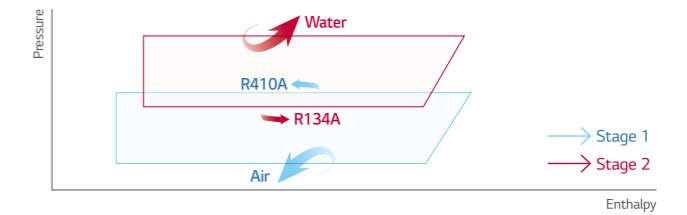
Absorbed heat from indoor space is used for making hot water.



## High Temperature HYDRO KIT Cycle Diagram

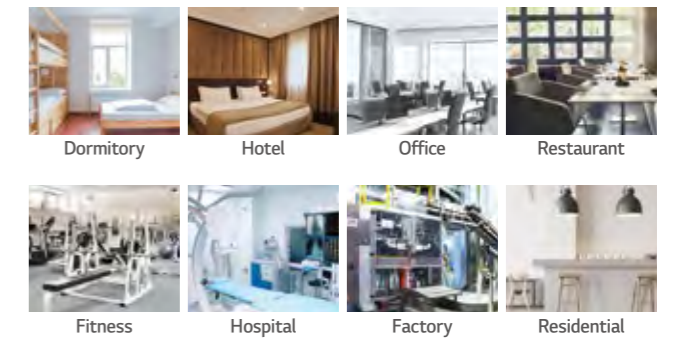


### High Temperature Technology



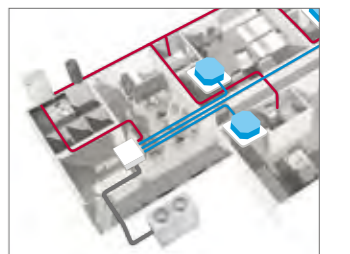
## Various Applications

Applicable to a variety of facilities including hospitals, residences and resorts that need floor heating and domestic hot water supply.



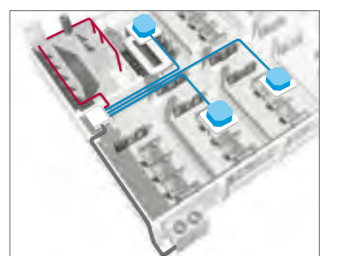
## Hotel Application

Constant simultaneous cooling and heating operation during summer to provide hot water by using wasted heat energy from indoor cooling process.



## Office Application

Hot water can be supplied at all times in the office by cooling the HR unit to warm up the sanitary tank, using waste energy.



# HYDRO KIT

ARNH04GK2A4 / ARNH10GK2A4



Model	Unit	ARNH04GK2A4	ARNH10GK2A4
Cooling Capacity	kW	12.3	28.0
Heating Capacity	kW	13.8	31.5
Power Input	Nominal W	10	10
Exterior Color		Morning Gray	Morning Gray
RAL Code		RAL 7030	RAL 7030
Dimensions (W x H x D)	Body	520 x 631 x 330	520 x 631 x 330
	Shipping	677 x 687 x 418	677 x 687 x 418
Pipe Connections	Liquid Side	Ø9.52 (3/8)	Ø9.52 (3/8)
	Gas Side	Ø15.88 (5/8)	Ø22.2 (7/8)
	Drain Pipe (Internal Dia.)	A (inch)	25A (Male PT 1)
Water Pipe Connections	Inlet	A (inch)	25A (Male PT 1)
	Outlet	A (inch)	25A (Male PT 1)
Weight	Body kg	29.2	33.7
Sound Pressure Levels (H / M / L)	dB(A)	26	26
Power Supply	Ø, V, Hz	1, 220-240, 50	1, 220-240, 50
Communication Cable	mm <sup>2</sup> x No.	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C

1) Nominal : Performance tested under EN14511

Note : 1. Capacities are based on the following conditions :

- Cooling : Indoor 27°C (80.6°F) DB / 19°C (66.2°F) WB, Outdoor 35°C (95°F) DB / 24°C (75.2°F) WB, Water Inlet 23°C (73.4°F) / Outlet 18°C (64.4°F)
- Heating : Indoor 20°C (68°F) DB / 15°C (59°F) WB, Outdoor 7°C (44.6°F) DB / 6°C (42.8°F) WB, Water Inlet 30°C (86°F) / Outlet 35°C (95°F)
- 2. Piping Length : Interconnected Pipe Length = 7.5m
- 3. Difference Limit of Elevation (Outdoor - Indoor Unit) is Zero.
- 4. MULTI V S 4HP (ARUN040GSS0, ARUN040LSS0) cannot be connected to Hydro Kit.
- 5. MULTI V Water S cannot be connected to Hydro Kit.
- 6. Anti freezing liquid should be added under 10°C (outdoor temp.) during cooling mode.

## Accessories

Chassis	ARNH04GK2A4	ARNH10GK2A4
Drain Pump	-	-
Cassette Cover	-	-
Refrigerant Leakage Detector		PRLDNVSO
EEV Kit	-	-
Independent Power Module		○
Robot Cleaner	-	-
Pre Filter (washable)	-	-
Ion Generator	-	-
CO <sub>2</sub> Sensor	-	-
Ventilation Kit	-	-
IR Receiver	-	-
Zone Controller	-	-
Dry Contact (with additional accessory)		PDRYCB000 (1 point contact), PDRYCB300 (8 points for thermostat compatible) PDRYCB320 (Universal input <sup>1)</sup> )
External Input (1 point)		○
Wi-Fi		PWFMD200

※ ○ : Applied, - : Not applied  
Option : Refer to model name in table  
1) Available from April 2020

# HYDRO KIT

ARNH04GK3A4 / ARNH08GK3A4



Model	Unit	ARNH04GK3A4	ARNH08GK3A4
Heating Capacity	kW	13.8	25.2
Power Input	Nominal W	2,300	5,000
Exterior Color		Morning Gray	Morning Gray
RAL Code		RAL 7030	RAL 7030
Dimensions (W x H x D)	Body	520 x 1,080 x 330	520 x 1,080 x 330
	Shipping	682 x 1,168 x 423	682 x 1,168 x 423
Pipe Connections	Liquid Side	Ø9.52 (3/8)	Ø9.52 (3/8)
	Gas Side	Ø15.88 (5/8)	Ø19.05 (3/4)
	Drain Pipe (Internal Dia.)	A (inch)	25A (Male PT 1)
Water Pipe Connections	Inlet	A (inch)	25A (Male PT 1)
	Outlet	A (inch)	25A (Male PT 1)
Weight	Body kg	87.0	91.0
Sound Pressure Levels (H / M / L)	dB(A)	43	46
Power Supply	Ø, V, Hz	1, 220-240, 50	1, 220-240, 50
Communication Cable	mm <sup>2</sup> x No.	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C

1) Nominal : Performance tested under EN14511

Note : 1. Capacities are based on the following conditions :

- Heating : Indoor 20°C (68°F) DB / 15°C (59°F) WB, Outdoor 7°C (44.6°F) DB / 6°C (42.8°F) WB, Water Inlet 55°C (131°F) / Outlet 65°C (149°F)
- 2. Piping Length : Interconnected Pipe Length = 7.5m
- 3. Difference Limit of Elevation (Outdoor - Indoor Unit) is Zero.
- 4. MULTI V S 4HP (ARUN040GSS0, ARUN040LSS0) cannot be connected to Hydro Kit.
- 5. MULTI V Water S cannot be connected to Hydro Kit.

## Accessories

Chassis	ARNH04GK3A4	ARNH08GK3A4
Drain Pump	-	-
Cassette Cover	-	-
Refrigerant Leakage Detector		PRLDNVSO
EEV Kit	-	-
Independent Power Module		○
Robot Cleaner	-	-
Pre Filter (washable)	-	-
Ion Generator	-	-
CO <sub>2</sub> Sensor	-	-
Ventilation Kit	-	-
IR Receiver	-	-
Zone Controller	-	-
Dry Contact (with additional accessory)		PDRYCB000 (1 point contact), PDRYCB300 (8 points for thermostat compatible) PDRYCB320 (Universal input <sup>1)</sup> )
External Input (1 point)		○
Wi-Fi		PWFMD200

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