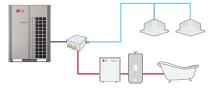
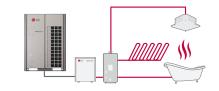


Hot Water\* Heating Cooling\*

Get all-climate comfort with a heat pump and a domestic hot water supply. Cooling\* can be provided via refrigerant and cold water, heating by means of warm refrigerant air, and domestic hot water supply—perfect temperature regulation all year round.







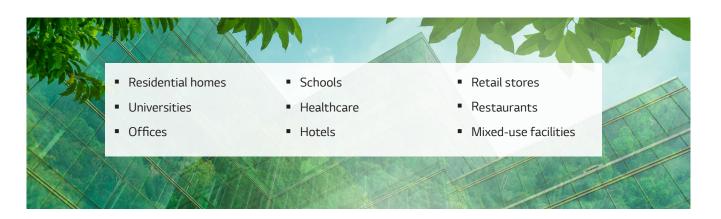
HR unit (Cooling & Hot water)

Hydronic space, radiant and hot water heating

The images above are for illustration purpose only

\*Cooling hydronic capabilities is only available with the Medium Temperature Hydro Kit. Cooling capability is not available with the High Temperature Hydro Kit.

## **Applications**











AHRI Certified, Variable Refrigerant Flow (VRF) Multi-Split AC and HP AHRI Standard 1230

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#### www.lghvac.com

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Document Number: PB\_Hydro\_Kit\_06\_23



# **HOW HYDRO KITS WORK**

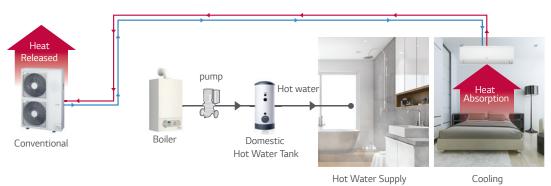
The LG Hydro Kit transfers energy that would typically be rejected to the atmosphere by the outdoor heat pumps into the building water system for heating or cooling\* hydronic solutions. The major benefits of the Hydro Kit include the following:

- Provides hot water with less energy consumption than a conventional boiler. This hot water can be used in kitchens, bathrooms, radiators, floor heating, pools, etc.
- Eliminates the need for gas connections or oil tanks, which are required when using boilers
- When compared to a traditional gas boiler, the Hydro Kit is more compact and easier to install since it does not require exhaust piping
- Cools or heats water for two-pipe hydronic fan coil units for space heating/cooling\*
- Used in a variety of applications, from schools to hotels and hospitals
- Provides energy saving opportunities by reusing the heat/cool energy from Multi V<sup>™</sup> systems
- Multiple Hydro Kits can be connected in series or parallel for large applications
- Compatible with LG Central controller and building management system interface
- Ability to control temperature of the leaving water, hot water tank temperature, or the temperature of the conditioned space
- Compact size offers flexible design options
- Is ideal for new construction and renovation
- Used in commercial and residential applications

\*Cooling hydronic capabilities is only available with the Medium Temperature Hydro Kit. Cooling capability is not available with the High Temperature Hydro Kit.

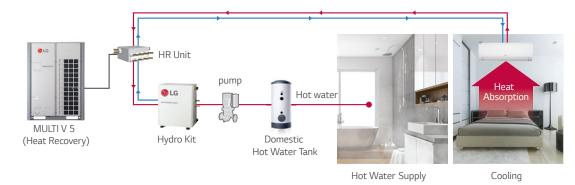
#### Conventional Application

Absorbed heat is released to outside air.



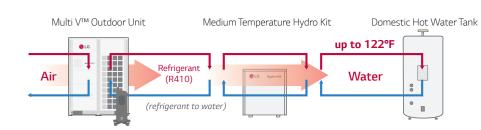
#### Hydro Kit Application

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



# **HYDRO KIT - MEDIUM TEMPERATURE**

The LG Medium Temperature Hydro Kit uses a single-stage refrigerant to water heat exchanger to transfer waste energy from the Multi V<sup>™</sup> outdoor units to a building's heating or cooling hydronic applications.





ARNH423K2A4 ARNH963K2A4

	Specifications	Unit	ARNH423K2A4	ARNH963K2A4
Cooling Mode	Rated Capacity <sup>1</sup>	Btu/h	42,100	95,900
	Entering Water Temp Range	°F	50~95	50~95
Performance	Leaving Water Temp Range	°F	41~77	41~77
	Indoor Air Temp Setpoint Range	°F	64-86	64~86
	Rated Capacity <sup>1</sup>	Btu/h	47,200	107,500
Heating Mode Performance	Entering Water Temp Range	°F	59 ~ 113	59 ~ 113
	Leaving Water Temp Range	°F	68 ~122	68~122
	Indoor Air Temp Setpoint Range	°F	64 ~ 86	64 ~ 86
	Hot Water Tank Setpoint Range	°F	86~122	86~122
	Refrigerant Type		R410A	R410A
	Refrigerant Control		EEV	EEV
	Sound Pressure <sup>2</sup>	dB(A)	26	26
	Net Unit Weight	lbs	67	77
Unit Data	Shipping Weight	lbs	79	89
	Dimensions (W × H × D)		20-1/2 x 24-13/16 x 15-7/8	20-1/2 x 24-13/16 x 15-7/8
	Heat Rejected to Equipment Room	Btu/h	Negligible	Negligible
	Oil Type		-	-
	Material/Type		316 Stainless/Brazed Plate	316 Stainless/Brazed Plate
	Rated Water Flow	GPM	10.4	24.3
Hart E. dans	Rated Pressure Drop <sup>3</sup>	ft-wg	13.7	23.1
Heat Exchanger	Range of Flow	GPM	5.3 -10.4	8 - 24.3
	Waterside Volume	US Gallons	0.31	0.58
	Waterside Design Pressure	psig	640	640
Piping	Liquid Line (OD)	inches	3/8 Braze	3/8 Braze
	Vapor Line (OD)	inches	5/8 Braze	7/8 Braze
	Condensate Line (ID)	inches	1-MPT	1-MPT
	Water Inlet/Outlet (ID)	utlet (ID) inches 1-MPT	1-MPT	
Electrical Data	MCA	A	0.1	0.1
	MOP	Α	15	15
	Rated Amps	Α	0.08	0.08
	Power Supply	V / Hz / Ø	208-230/60/1	208-230/60/1
	Power Input (Cooling/Heating)	Watts	0.01/0.01	0.01/0.01

<sup>1</sup>All capacities are net, with a combination ratio between 95 and 100%.

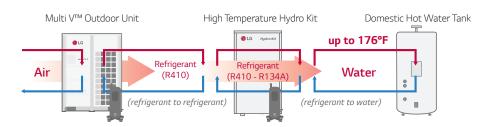
<sup>2</sup>Sound Pressure levels are tested in an anechoic chamber under ISO Standard 3745.

<sup>3</sup>Water only (no antifreeze).

The combination ratio range for dedicated use (all Hydro Kit units) is 50% - 100%. The combination ratio range for mixed use (Hydro Kit mixed with indoor units) is 50% - 130%. Cooling hydronic capabilities is only available with the Medium Temperature Hydro Kit. Cooling capability is not available with the High Temperature Hydro Kit. Due to our commitment to continued innovation, some specifications may be changed without notification.

## HYDRO KIT - HIGH TEMPERATURE

The High Temperature Hydro Kit uses 2-stage cascade 'refrigerant to refrigerant' and 'refrigerant to water' heat exchanger(s) to provide hot water (only) for different residential and commercial hydronic applications.





ARNH423K3A4 ARNH763K3A4

	Specifications	Unit	ARNH423K3A4	ARNH763K3A4
	Rated Capacity <sup>1</sup>	Btu/h	47,000	86,000
Heating Mode Performance	Entering Water Temp Range	°F	50 ~ 176	50 ~ 176
	Leaving Water Temp Range	°F	86 ~176	86 ~176
	Indoor Air Temp Setpoint Range	°F	60 ~ 86	60 ~ 86
	Hot Water Tank Setpoint Range	°F	86 ~176	86 ~176
Unit Data	Refrigerant Type		R410A	R410A
	Refrigerant Control		EEV	EEV
	Sound Pressure <sup>2</sup>	dB(A)	44	46
	Net Unit Weight	lbs	189.6	198.4
	Shipping Weight	lbs	207.2	216.1
	Dimensions (W × H × D)		20-1/2 x 42-5/16 x 15-3/8	20-1/2 x 42-5/16 x 15-3/8
	Heat Rejected to Equipment Room	Btu/h	Negligible	Negligible
	Oil Type		FVC68D (PVE)	FVC68D (PVE)
Refrigerant to	Material Type x Qty		Brazed Plate x 1	Brazed Plate x 1
	No. of Plates		50	60
Refrigerant Heat Exchanger	Refrigerant Type (Primary)		R410A	R410A
ricae Exeriarige.	Refrigerant Control		EEV	EEV
	Material Type x Qty		Brazed Plate x 1	Brazed Plate x 1
	No. of Plates		26	48
	Refrigerant Type (Secondary)		R134A	R134A
	Refrigerant Control		EEV	EEV
Refrigerant to	Precharged Amount	lbs	5.1	6.6
Water Heat Exchanger	Rated Water Flow	GPM	5.2	9.5
ricut Exchanger	Rated Pressure Drop <sup>3</sup>	ft-wg	1.7	6.7
	Range of Flow	GPM	5.2 -10.6	5.3 - 19
	Waterside Volume	US Gallons	0.58	0.58
	Waterside Design Pressure	psig	640	640
Compressor	Inverter x Qty		Twin Rotary x 1	Twin Rotary x 1
Piping	Liquid Line (OD)	inches	3/8 Braze	3/8 Braze
	Vapor Line (OD)	inches	5/8 Braze	3/4 Braze
	Condensate Line (ID)	inches	1-MPT	1-MPT
	Water Inlet/Outlet (ID)	inches	1-MPT	1-MPT
Electrical Data	MCA	Α	18.2	26.2
	MOP	Α	25	30
	Rated Amps	Α	12	27
	Power Supply	V / Hz / Ø	208-230/60/1	208-230/60/1
	Power Input (Heating)	Watts	2.3	5

<sup>1</sup>All capacities are net, with a combination ratio between 95 and 100%.
<sup>2</sup>Sound Pressure levels are tested in an anechoic chamber under ISO Standard 3745
<sup>3</sup>Water only (no antifreeze).

Cooling hydronic capabilities is only available with the Medium Temperature Hydro Kit. Cooling capability is not available with the High Temperature Hydro Kit.

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LG Air Conditioning Technologies