

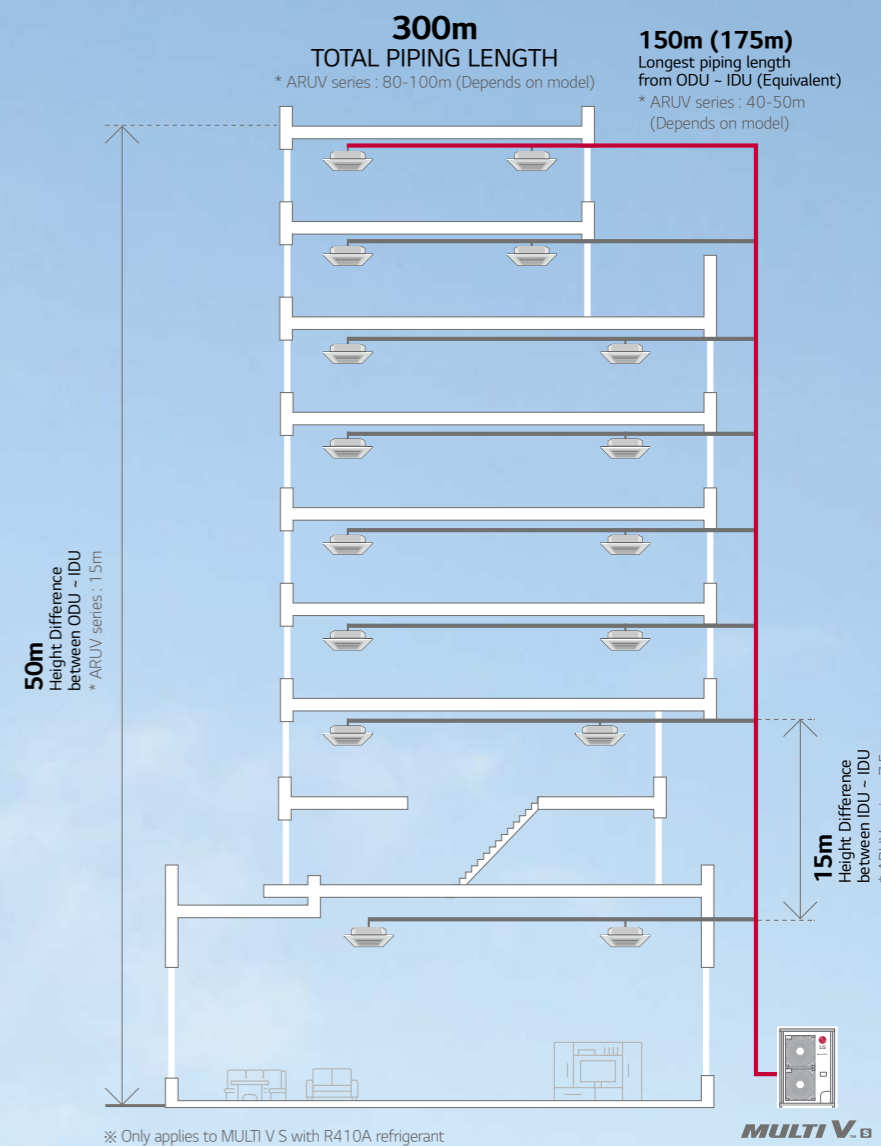
# MULTI V<sup>TM</sup> S

- Air cooled VRF Heat pump & Heat Recovery
- 9.2 ~ 33.6kW (Cooling capacity based)
- Both 1Ø, 220 ~ 240V, 50Hz and 3Ø, 380 ~ 415V, 50Hz
- Side discharge outdoor unit
- Includes the industry's first single phase Heat Recovery system

300M  
TOTAL PIPING LENGTH

Compact yet powerful VRF  
For premium residences and small offices

OUTDOOR UNITS  
MULTI V S



Energy savings



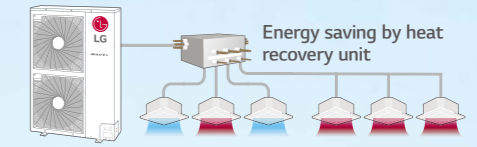
Reliability



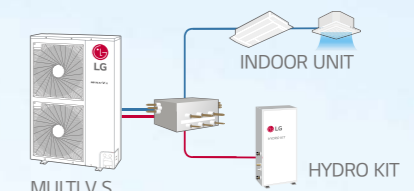
Convenience

## How does it work?

Available in Heat Pump and Heat Recovery Configurations



Combination of Cooling, Heating and Hot Water Solution



※ Heat Pump and Recovery are separated models.

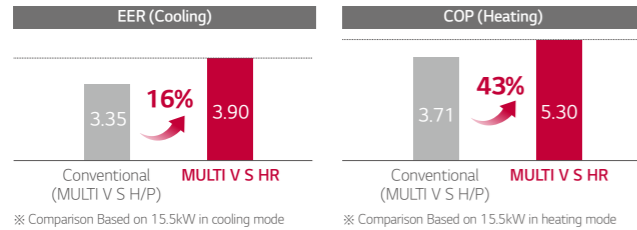


# ENERGY SAVINGS

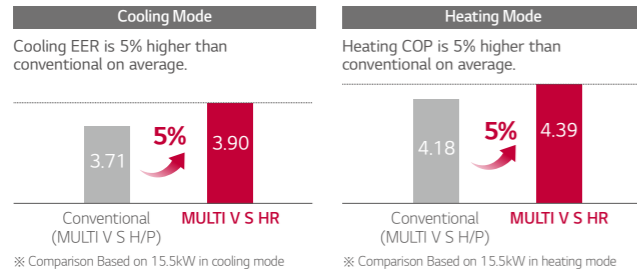
## EER / COP / Part Load

Cost savings with energy efficiency

### Heat Pump



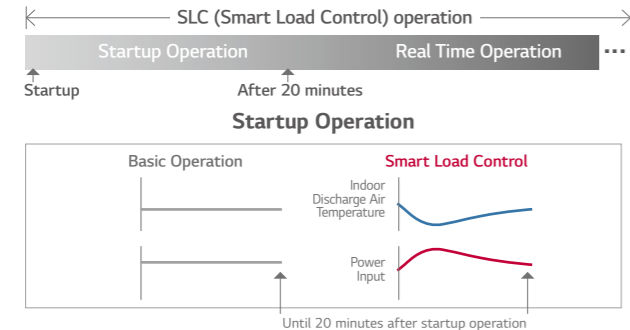
### Heat Recovery



## Smart Load Control Applied

Enhanced comfort and up to 23% energy savings with MULTI V load control

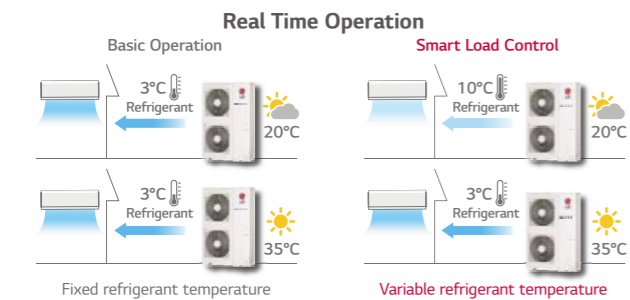
MULTI V S changes indoor discharge air temperature continuously according to load, to save energy.



※ Indoor air discharge temperature

- Energy efficiency increased by 3-step Smart Load Control during startup phase
- Discharge air temperature adjusted according to outdoor and indoor temperature
- Comfort level in cooling / heating operations ensured

**Max. 10% Energy saving**



**Max. 13% Energy saving**

※ How to set up : By dip switch in outdoor unit (Referred to Product Data Book) Factory default setting is Off

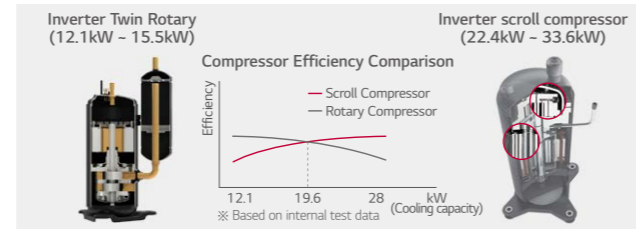
※ ESEER (European seasonal energy efficiency Ratio) conditions based on 15.5kW unit

- Outdoor temperature condition : EER 100% / 75% / 50% / 25% = 35°C (DB) / 30°C (DB) / 25°C (DB) / 20°C (DB)
- Indoor temperature condition : 27°C (DB) / 19°C (WB)

※ Dual sensing (Temperature & humidity) Smart Load Control is possible with Remote controller PTEMTB100 (White) /PREMTBB10 (Black)

## Inverter Twin Rotary & Inverter Scroll Compressor

Adapted High Efficient Compressor according to Capacity



### Inverter Twin Rotary

#### Concentrated Winding Motor

Oil path area is improved by over 50% by increasing the extra stator cavity. Due to this, caloric value of motor is reduced, improving the cooling function of stator coil.

#### Twin Rotary Rotor

Upper and lower part rotor offset imbalance in shaft rotor rotation. Vibration and noise is reduced. Max torque load decreased by 45% compared to single rotor.

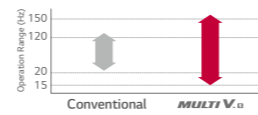
#### Surface Coating

Surface coating of outstanding abrasion resistance property on vane and crank shaft.

### Inverter scroll compressor

#### Best-in-class Compressor Speed

- Rapid response capability
- Compact core design (Concentrated motor)
- Down to 15Hz : Part load efficiency improvement



#### 6 Bypass Valve

Compressor reliability is maximized with 6 Bypass Valve

- Prevent compressor damage due to excessively compressed refrigerant more efficiently than 4 Bypass valve

#### Direct Oil Injection

- Eliminate suction refrigerant gas heat loss through direct oil injection into compression chamber (Efficiency increases)
- Increased reliability with regulated oil supply

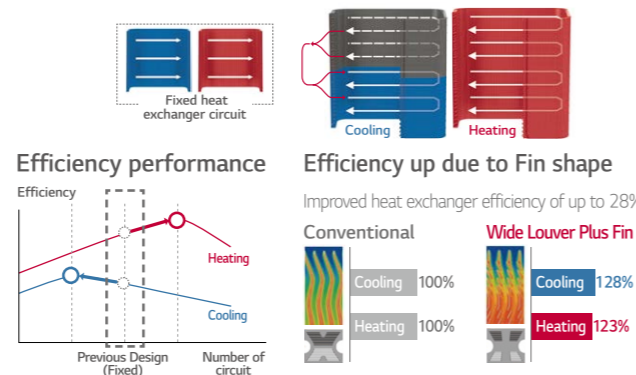
#### Scroll Profile

- The enhanced reliability by increased reliability with regulated oil supply
- Efficiency increases by expanding 96% Bypass area and 17% improved volume ratio by non-uniform scroll thickness

## Optimal Heat Exchanger

Maximize Efficiency according to different Heat Exchanger path by cooling and heating

Variable Heat Exchanger Circuit intelligently selects the optimal path for both heating and cooling operations. With this smart path selection technology, an average of 6% increase in the efficiency of both operations has been achieved. The paths number and circuit velocity are adjusted to match temperatures and operation modes in order to maximize efficiency instead of compromising efficiency for each operation when the number and direction of paths are fixed independently of temperature operation mode.



# RELIABILITY

## Reliable Refrigerant Components

LG technology allows for superior performance and component durability

- Cyclonic oil separator**
  - Highly reliable and efficient oil separation by centrifuge using cyclonic methods
  - High collection efficiency as well as outstanding resistance to high temperature and pressure
- Large Volume Accumulator**
  - Improved reliability by adopting the large volume accumulator (38% volume up compared to conventional)
  - Prevents the liquid refrigerant entering the compressor suction
  - Maximize efficiency by optimal amount of refrigerant
  - Protects compressor breakdown to increase product lifetime
- BLDC Fan Motor**
  - The BLDC Fan motor is more efficient than a conventional AC motor, offering an additional 40% energy savings at low speeds and 20% at high speeds
- Double Sub-cool Interchanger**
  - Reliability is enhanced by minimizing pressure drop due to high efficiency spiral structure and 2 times larger size
  - Long pipe is possible (up to\* 175m) and high elevation (up to\* 50m)
  - Reduction of indoor refrigerant noise level

MULTI V S improved reliability with advanced technology :

- Oil separator
- Accumulator
- Sub-cooling

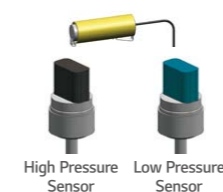
\* Based on equivalent pipe length

## Smart Control

Pressure control applied for smart, quick and precise response to user's temperature request

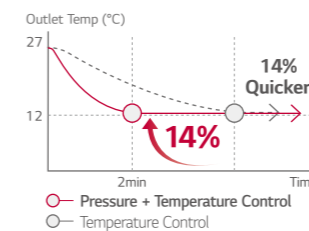
### Temperature + Pressure Control

Senses and controls pressure directly using pressure sensor for faster and more exact response to load variation.



### Quick Operating Response

Desired temperature can be reached up to 14% faster in cooling mode with pressure control, allowing more accurate control of indoor environment for maximized comfort.

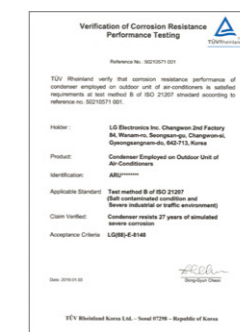


※ Specifications may vary for each model.

## Corrosion Resistance Proven by Certified Tests

LG Corrosion Resistance solution passed ISO 21207 accelerated corrosion test conducted by an independent test organization and the result has been certified by prestigious global certification organization, TUV.

### Certified protection

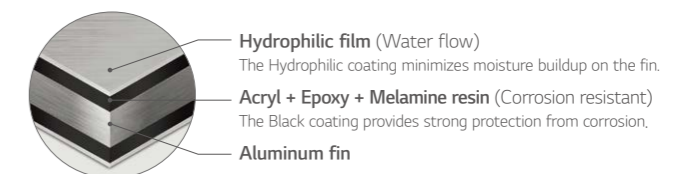


※ Verification of corrosion resistance performance

- Declared by TUV Rheinland
- Test Method B of ISO 21207
- Test condition : Salt contaminated condition + severe industrial / traffic environment (NO<sub>2</sub> / SO<sub>2</sub>)

## Enhanced Coating Layers

The black coating with enhanced epoxy resin is applied for strong protection from various corrosive external conditions such as salt contamination and air pollution. Moreover, the hydrophilic film keeps water from accumulating on the heat exchanger's fin, minimizing moisture buildup and eventually making it even more corrosion resistant.



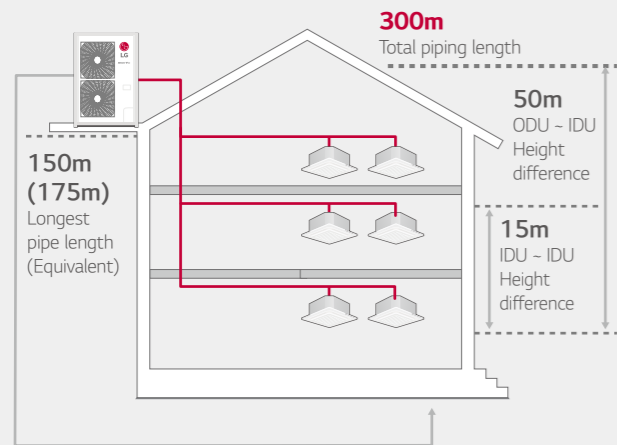
# IMPROVED USER CONVENIENCE

## Sufficient Piping Length

Increased piping length allows for flexible design and installation

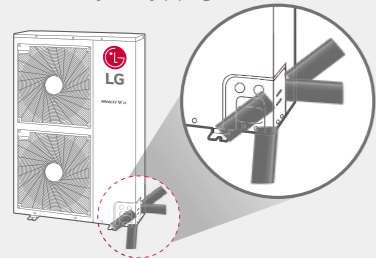
MULTI V S inverter technology and sub cooling control circuit technology allows greater piping length and outstanding elevation differences. A cooling system can be implemented more flexibly in a shop, office and even high-rise building, reducing the designer's work time and providing more efficient design.

### Piping Capabilities (ARUN series)



### 4 Way Piping

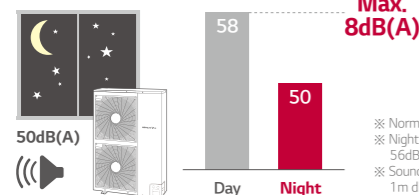
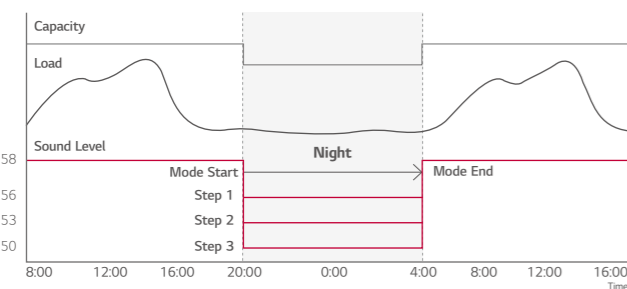
- Free design and installation by 4 way piping.



## Low Noise Operation

Decreased noise during operation with low noise functionality

At night mode, noise reduced maximum 14% compared to normal mode.



**Max. 8dB(A)**

※ Normal mode noise level (28kW) : 58dB(A)  
 ※ Night 3 step noise level (28kW) : 56dB(A), 53dB(A), 50dB(A)  
 ※ Sound pressure tested by following conditions : 1m distance / 1.5m height

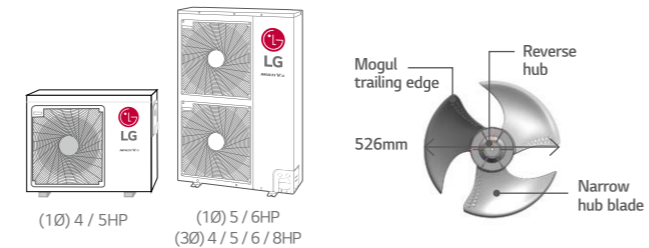
## Fan Technology and RPM Control

External static pressure control for outdoor unit fan to adapt more flexibly to various installation conditions of outdoor unit

For enhanced efficiency, new axial fan boasts higher air volume, increased static pressure and decreased noise.

### Fan Technology

The new axial fan has a mogul trailing edge, narrow hub blade and reverse hub, this provides a high efficiency, low noise, wide fan, as well as improving the air flow rate.

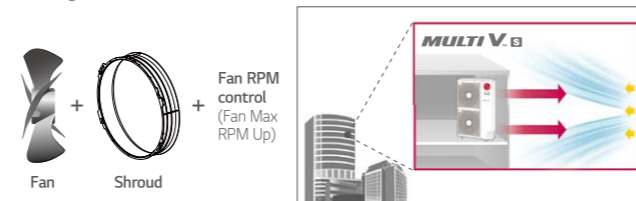


Super canon fan increases the air volume in 50 CMM and the noise level is decreased by 4dB(A).



### Fan RPM control

Flow of air is straight due to fan shroud and Fan RPM control even in high-rise building.



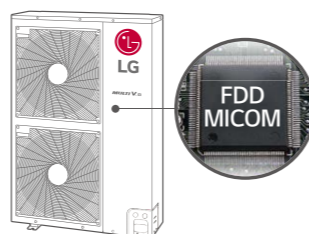
- Straight air flow
- New shroud adopted
- Performs high static pressure

## Upgraded Fault Detection and Diagnosis

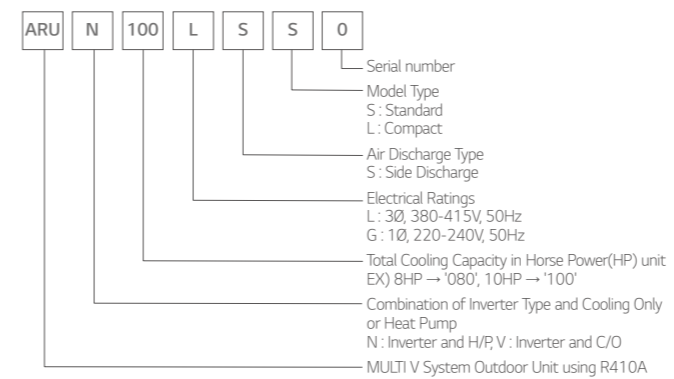
Easy and convenient maintenance with self-diagnosis

The inclusion of FDD elements - Auto start-up, auto refrigerant check, black box functionality, simultaneous evaluation, and auto refrigerant collection, provides the optimal solution for user reliability and ease of maintenance.

- Auto commissioning Mode
- Auto Refrigerant Collection
- Auto evaluation of refrigerant amount and charging
- Able to access LGMV (LG Monitoring View) by smartphone
- Black box function
- Piping & wiring error check-up



## Nomenclature

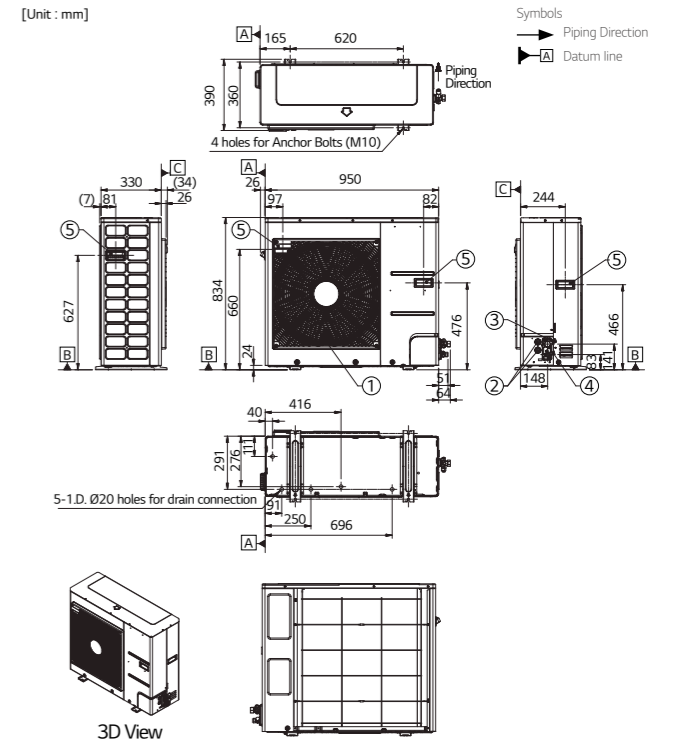


## Outdoor Units Function

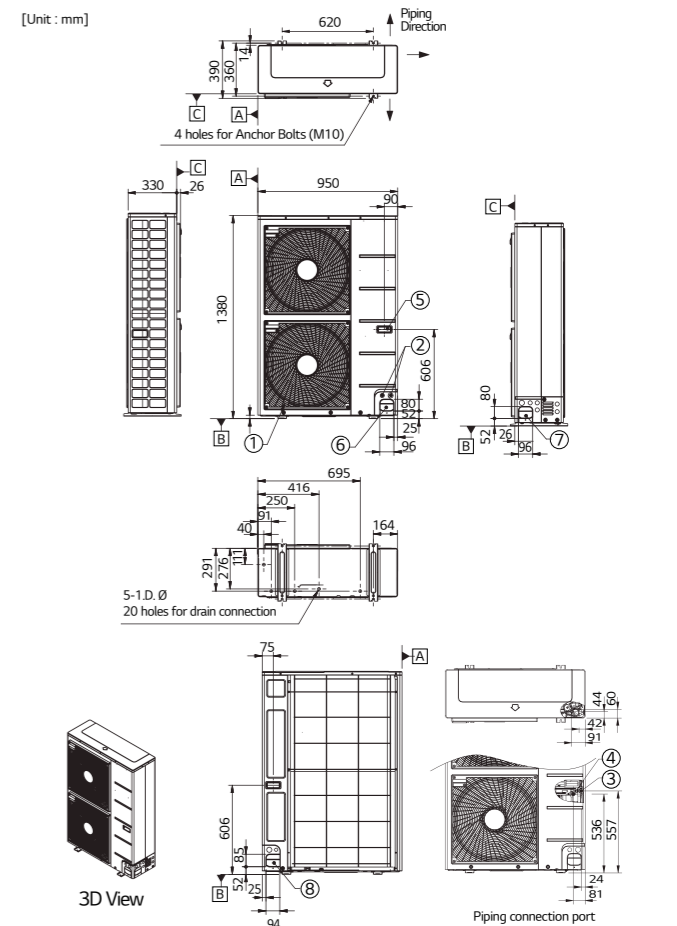
Category	Functions	MULTI V S
Key Refrigerant Components	Variable Path of Outdoor Unit HEX	-
	HiPOR™ (High Pressure Oil Return)	-
	Humidity Sensor	ARUB060GSS4 only
	Corrosion Resistance Black Fin	○
	Oil Sensor	-
Special Function	Dual Sensing	ARUB060GSS4 only
	Low Noise Operation	○
	High Static Mode of Outdoor Unit Fan	○
	Partial Defrosting	-
	Auto Dust Removal of Outdoor Unit (Fan reverse rotation)	-
Basic Function	Indoor Cooling Comfort Mode Based Outdoor Temperature	○
	Smart Load Control (SLC) (Changing indoor discharge air temperature according to load)	○
	Outdoor Unit Control Refer to Humidity	ARUB060GSS4 only
	Defrost / Deicing	○
	High Pressure Switch	○
	Phase Protection	○
	Restart Delay (3-minutes)	○
	Self Diagnosis	○
	Soft Start	○
	Test Run Function	-
Central Controller	AC Ez (Simple Controller)	PQCSZ250S0
	AC Ez Touch	PACEZA000
	AC Smart IV	PACS4B000
	AC Smart 5	PACS5A000
	ACP (Advanced Control Platform) IV	PACP4B000
BNU (Building Network Unit)	ACP Lonworks	PLNWKB000
	ACP BACnet	PQNF17C0
IO Module (ODU Dry Contact)	Standard	PVDSMN000
	Premium	PQNUD1S40
Cool / Heat Selector	Standard	PRDSBM
	Mobile LGMV	PLGMVW100
Additional kit	Refrigerant Charging Kit	○ (Logical operation) Not applied to ARUB060GSS4
	Low Ambient Kit	-
	Variable Water Flow Valve Control Kit	-

※ ○ : Applied, - : Not Applied

[Unit : mm]



[Unit : mm]



Note

- Unit should be installed in compliance with the installation manual in the product box
- Unit should be grounded in accordance with the local regulation or applicable national codes.
- All electrical components and materials to be supplied from the site must comply with the local regulations or international codes.
- Electrical characteristics chapter should be considered for electrical work and design. Especially the power cable and circuit breaker should be selected in accordance with that.

No.	Part Name	Description
1	Air Outlet	-
2	Power and communication cable Hole	-
3	Gas Pipe Connection	Welding joint
4	Liquid Pipe Connection	Welding joint
5	Handle	-
6	Pipe routing hole (front)	-
7	Pipe routing hole (side)	-
8	Pipe routing hole (back)	-



# MULTI V S COOLING ONLY

ARUV030GSD0 / ARUV040GSD0  
ARUV050GSD5 / ARUV060GSD5



HP			3	4	5	6
<b>Model Name</b>	Combination Unit		ARUV030GSD0	ARUV040GSD0	ARUV050GSD5	ARUV060GSD5
<b>Capacity (Rated)</b>	Cooling	kW	9.2	11.0	14.5	16.0
		kcal/h	7,911	9,458	12,470	13,800
	Heating	Btu/h	31,400	37,600	49,500	54,600
		kW	-	-	-	-
<b>Input (Rated)</b>	Cooling	kcal/h	-	-	-	-
		Btu/h	-	-	-	-
	Heating	kW	2.10	2.75	3.45	4.50
<b>Power Factor</b>	Rated	-	1	1	1	1
<b>Casing Color</b>			Warm Gray	Warm Gray	Warm Gray	Warm Gray
<b>Heat Exchanger</b>			Wide Louver Plus	Wide Louver Plus	Wide Louver Plus	Wide Louver Plus
<b>Compressor</b>	Type		Wide Louver Plus	Wide Louver Plus	Wide Louver Plus	Wide Louver Plus
	Piston Displacement	cm <sup>3</sup> /rev	24	24	31.6	31.6
	Number of Revolution	rev/min	6,600	6,600		
	Motor Output x Number	W x No.	2,137 x 1	2,137 x 1	3,198 x 1	3,198 x 1
	Starting Method		DC Inverter Starting	DC Inverter Starting	DC Inverter Starting	DC Inverter Starting
	Oil Type		FVC68D (PVE)	FVC68D (PVE)	FW68D	FW68D
	Oil Charge	cc	900	900	1,100	1,100
<b>Fan</b>	Type		Axial Flow Fan	Axial Flow Fan	Axial Flow Fan	Axial Flow Fan
	Motor Output x Number	W	124.0 x 1	124.0 x 1	198 x 1	198 x 1
	Air Flow Rate (High)	m <sup>3</sup> /min	60	60	80	80
		ft <sup>3</sup> /min	2,118	2,118	2,824	2,824
	Drive		DC INVERTER	DC INVERTER	DC INVERTER	DC INVERTER
<b>Pipe Connections</b>	Liquid	mm (inch)	9.52 (3/8)	9.52 (3/8)	9.52 (3/8)	9.52 (3/8)
	Gas	mm (inch)	15.88 (5/8)	15.88 (5/8)	15.88 (5/8)	19.05 (3/4)
<b>Dimensions (W x H x D)</b>		mm	950 x 834 x 330	950 x 834 x 330	950 x 834 x 330	950 x 834 x 330
		inch	37-13/32 x 32-27/32 x 13	37-13/32 x 32-27/32 x 13	37-13/32 x 32-27/32 x 13	37-13/32 x 32-27/32 x 13
<b>Net Weight</b>		kg	59	59	66	67
		lbs	130	130	146	148
<b>Sound Pressure Level</b>	Cooling	dB(A)	50	50	51	56
	Heating	dB(A)	-	-	-	-
<b>Sound Power Level</b>		dB(A)	-	-	-	-
<b>Protection Devices</b>	High pressure protection	-	High pressure sensor / High pressure switch	High pressure sensor / High pressure switch	Low pressure sensor	Low pressure sensor
	Compressor / Fan	-	Over-heat protection / Fan driver overload protector	Over-heat protection / Fan driver overload protector	Over-heat protection / Fan driver overload protector	Over-heat protection / Fan driver overload protector
	Inverter	-	Over-heat protection / Over-current protection	Over-heat protection / Over-current protection	Over-heat protection / Over-current protection	Over-heat protection / Over-current protection
<b>Communication Cable</b>		mm <sup>2</sup> x No. (VCTF-SB)	1.0 - 1.5 x 2C	1.0 - 1.5 x 2C	1.0 - 1.5 x 2C	1.0 - 1.5 x 2C
	Refrigerant name		R410A	R410A	R410A	R410A
<b>Refrigerant</b>	Precharged Amount	kg	1.4	1.4	2.0	2.0
		lbs	3.1	3.1	4.4	4.4
<b>Power Supply</b>		∅, V, Hz	Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve
<b>Number of maximum connectable indoor units</b>			1, 220-240, 50	1, 220-240, 50	1, 220-240, 50	1, 220-240, 50
			5	6	8	9

Note  
1. Eurovent Test Condition : Type of indoor unit connected is only Ceiling Concealed Duct.  
- Refer to EUROVENT certification regulation for more detail test conditions.  
2. Performances are based on the following conditions : - Cooling Temperature : 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  
- Heating Temperature : Indoor 20°C (68°F) DB / 15°C (59°F) WB / Outdoor 7°C (44.6°F) DB / 6°C (42.8°F) WB  
3. The maximum combination ratio is 160%. (the maximum combination ratio of ARUN050GSL0 is 130%).  
4. Wiring cable size must comply with the applicable local and national codes.  
5. Due to our policy of innovation some specifications may be changed without notification.  
6. Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard. Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard. Therefore, these values can be increased owing to ambient conditions during operation.  
7. Power factor could vary less than ±1% according to the operating conditions.  
8. This product contains Fluorinated greenhouse gases. (R410A, GWP(Global warming potential) = 2087.5)

# MULTI V S HEAT PUMP

ARUN040GSS5 / ARUN050GSS5 / ARUN060GSS5



HP			4	5	6
<b>Model Name</b>	Combination Unit		ARUN040GSS5	ARUN050GSS5	ARUN060GSS5
<b>Capacity (Rated)</b>	Cooling	kW	12.1	14.0	15.5
		kcal/h	10,400	12,000	13,300
	Heating	Btu/h	41,300	47,800	52,900
		kW	12.5	16.0	18.0
<b>Input (Rated)</b>	Cooling	kcal/h	10,800	13,800	15,500
		Btu/h	42,700	54,600	61,400
	Heating	kW	3.43	3.33	3.97
<b>Power Factor</b>	Rated	-	0.93	0.93	0.93
<b>Casing Color</b>			Warm Gray	Warm Gray	Warm Gray
<b>Heat Exchanger</b>			Wide Louver Plus	Wide Louver Plus	Wide Louver Plus
<b>Compressor</b>	Type		Wide Louver Plus	Wide Louver Plus	Wide Louver Plus
	Piston Displacement	cm <sup>3</sup> /rev	31.6	31.6	31.6
	Motor Output x Number	W x No.	3,198 x 1	3,198 x 1	3,198 x 1
	Starting Method		DC Inverter Starting	DC Inverter Starting	DC Inverter Starting
	Oil Type		FW68D	FW68D	FW68D
	Oil Charge	cc	1,100	1,100	1,100
	<b>Fan</b>	Type		Axial Flow Fan	Axial Flow Fan
Motor Output x Number		W	124 x 1	198 x 1	198 x 1
Air Flow Rate (High)		m <sup>3</sup> /min	60	80	80
		ft <sup>3</sup> /min	2,118	2,824	2,824
Drive			DC INVERTER	DC INVERTER	DC INVERTER
<b>Pipe Connections</b>	Liquid	mm (inch)	9.52 (3/8)	9.52 (3/8)	9.52 (3/8)
	Gas	mm (inch)	15.88 (5/8)	15.88 (5/8)	19.05 (3/4)
<b>Dimensions (W x H x D)</b>		mm	950 x 834 x 330	950 x 834 x 330	950 x 834 x 330
		inch	37-13/32 x 32-27/32 x 13	37-13/32 x 32-27/32 x 13	37-13/32 x 32-27/32 x 13
<b>Net Weight</b>		kg	65	72	72
		lbs	143.3	158.7	158.7
<b>Sound Pressure Level</b>	Cooling	dB(A)	51	57	57
	Heating	dB(A)	55	60	63
<b>Sound Power Level</b>		dB(A)	-	-	-
<b>Protection Devices</b>	High pressure protection	-	High pressure sensor / High pressure switch	High pressure sensor / High pressure switch	High pressure sensor / High pressure switch
	Compressor/Fan	-	Over-heat protection / Fan driver overload protector	Over-heat protection / Fan driver overload protector	Over-heat protection / Fan driver overload protector
	Inverter	-	Over-heat protection / Over-current protection	Over-heat protection / Over-current protection	Over-heat protection / Over-current protection
<b>Communication Cable</b>		mm <sup>2</sup> x No. (VCTF-SB)	1.0 - 1.5 x 2C	1.0 - 1.5 x 2C	1.0 - 1.5 x 2C
	Refrigerant name		R410A	R410A	R410A
<b>Refrigerant</b>	Precharged Amount	kg	1.8	2.4	2.4
		lbs	4.0	5.3	5.3
<b>Power Supply</b>		∅, V, Hz	Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve
<b>Number of maximum connectable indoor units</b>			1, 220-240, 50	1, 220-240, 50	1, 220-240, 50
			6	8	9

Note  
1. Eurovent Test Condition : Type of indoor unit connected is only Ceiling Concealed Duct.  
- Refer to EUROVENT certification regulation for more detail test conditions.  
- Refer to EUROVENT website for test values connected Ceiling Cassette type indoors.  
2. Performances are based on the following conditions :  
- Cooling Temperature : 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  
- Heating Temperature : Indoor 20°C (68°F) DB / 15°C (59°F) WB / Outdoor 7°C (44.6°F) DB / 6°C (42.8°F) WB  
3. The maximum combination ratio is 160%. (the maximum combination ratio of ARUN050GSL0 is 130%).  
4. Wiring cable size must comply with the applicable local and national codes.  
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8. This product contains Fluorinated greenhouse gases. (R410A, GWP(Global warming potential) = 2087.5)

# MULTI V S HEAT PUMP

ARUN040LSS5 / ARUN050LSS5 / ARUN060LSS5



HP			4	5	6
<b>Model Name</b>	Combination Unit		ARUN040LSS5	ARUN050LSS5	ARUN060LSS5
<b>Capacity (Rated)</b>	Cooling	kW	12.1	14.0	15.5
		kcal/h	10,400	12,000	13,300
		Btu/h	41,300	47,800	52,900
	Heating	kW	12.5	16.0	18.0
		kcal/h	10,800	13,800	15,500
		Btu/h	42,700	54,600	61,400
<b>Input (Rated)</b>	Cooling	kW	3.43	3.33	3.33
	Heating	kW	2.45	3.48	4.29
<b>Power Factor</b>	Rated	-	0.93	0.93	0.93
<b>Casing Color</b>			Warm Gray	Warm Gray	Warm Gray
<b>Heat Exchanger</b>			Wide Louver Plus	Wide Louver Plus	Wide Louver Plus
<b>Compressor</b>	Type		LG Inverter Scroll	LG Inverter Scroll	LG Inverter Scroll
	Piston Displacement	cm <sup>3</sup> /rev	31.6	31.6	31.6
	Motor Output x Number	W x No.	3,198 x 1	3,198 x 1	3,198 x 1
	Starting Method		DC Inverter Starting	DC Inverter Starting	DC Inverter Starting
	Oil Type		FW68D	FW68D	FW68D
	Oil Charge	cc	1,100	1,100	1,100
<b>Fan</b>	Type		Axial Flow Fan	Axial Flow Fan	Axial Flow Fan
	Motor Output x Number	W	124 x 1	198 x 1	198 x 1
	Air Flow Rate (High)	m <sup>3</sup> /min	60	80	80
		ft <sup>3</sup> /min	2,118	2,824	2,824
	Drive		DC INVERTER	DC INVERTER	DC INVERTER
	Discharge	Side / Top	Side	Side	Side
<b>Pipe Connections</b>	Liquid	mm (inch)	9.52 (3/8)	9.52 (3/8)	9.52 (3/8)
	Gas	mm (inch)	15.88 (5/8)	15.88 (5/8)	19.05 (3/4)
<b>Dimensions (W x H x D)</b>		mm	950 x 834 x 330	950 x 834 x 330	950 x 834 x 330
		inch	37-13/32 x 32-27/32 x 13	37-13/32 x 32-27/32 x 13	37-13/32 x 32-27/32 x 13
<b>Net Weight</b>		kg	65	72	72
		lbs	143.3	158.7	158.7
<b>Sound Pressure Level</b>	Cooling	dB(A)	51	57	57
	Heating	dB(A)	55	60	63
<b>Sound Power Level</b>		dB(A)	-	-	-
<b>Protection Devices</b>	High pressure protection	-	High pressure sensor / High pressure switch	High pressure sensor / High pressure switch	High pressure sensor / High pressure switch
	Compressor/Fan	-	Over-heat protection / Fan driver overload protector	Over-heat protection / Fan driver overload protector	Over-heat protection / Fan driver overload protector
	Inverter	-	Over-heat protection / Over-current protection	Over-heat protection / Over-current protection	Over-heat protection / Over-current protection
<b>Communication Cable</b>		mm <sup>2</sup> x No. (VCTF-SB)	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C
<b>Refrigerant</b>	Refrigerant name		R410A	R410A	R410A
	Precharged Amount	kg	1.8	2.4	2.4
		lbs	4.0	5.3	5.3
	Control		Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve
<b>Power Supply</b>		Ø, V, Hz	3, 380-415, 50	3, 380-415, 50	3, 380-415, 50
<b>Number of maximum connectable indoor units</b>			6	8	9

Note  
 1. Eurovent Test Condition : Type of indoor unit connected is only Ceiling Concealed Duct.  
 - Refer to EUROVENT certification regulation for more detail test conditions.  
 - Refer to EUROVENT website for test values connected Ceiling Cassette type indoors.  
 2. Performances are based on the following conditions :  
 - Cooling Temperature : 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  
 - Heating Temperature : Indoor 20°C (68°F) DB / 15°C (59°F) WB / Outdoor 7°C (44.6°F) DB / 6°C (42.8°F) WB  
 3. The maximum combination ratio is 160%. (the maximum combination ratio of ARUN050GSL0 is 130%).  
 4. Wiring cable size must comply with the applicable local and national codes.  
 5. Due to our policy of innovation some specifications may be changed without notification.  
 6. Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard. Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard. Therefore, these values can be increased owing to ambient conditions during operation.  
 7. Power factor could vary less than ±1% according to the operating conditions.  
 8. This product contains Fluorinated greenhouse gases. (R410A, GWP(Global warming potential) = 2087.5)

# MULTI V S HEAT PUMP

ARUN080LSS0 / ARUN100LSS0 / ARUN120LSS0



HP			8	10	12
<b>Model Name</b>	Combination Unit		ARUN080LSS0	ARUN100LSS0	ARUN120LSS0
<b>Capacity</b>	Cooling (Rated)	kW	22.4	28.0	33.6
	Heating (Rated)	kW	24.5	30.6	36.7
<b>Input</b>	Cooling (Rated)	kW	8.30	8.75	14.00
	Heating (Rated)	kW	6.62	8.12	7.46
<b>EER</b>			2.70	3.20	2.40
<b>SEER</b>			6.03	6.59	5.72
<b>COP</b>	Rated Capacity		3.70	3.77	4.92
<b>SCOP</b>			4.33	4.17	3.86
<b>Exterior</b>	Color (General)		Warm Gray	Warm Gray	Warm Gray
	RAL Code (Classic), General		RAL 7044	RAL 7044	RAL 7044
<b>Heat Exchanger</b>	Type		Wide Louver Plus / Black Fin	Wide Louver Plus / Black Fin	Wide Louver Plus / Black Fin
	Type		Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll
<b>Compressor</b>	Combination x No.		(Inverter) x 1	(Inverter) x 1	(Inverter) x 1
	Motor Output x Number	W x No.	4,200 x 1	5,300 x 1	5,300 x 1
	Oil Type		FVC68D (PVE)	FVC68D (PVE)	FVC68D (PVE)
	Oil Charge	cc	2,400	2,600	3,400
	Type		Propeller fan	Propeller fan	Propeller fan
<b>Fan</b>	Motor Output x Number	W x No.	124 x 2	250 x 2	250 x 2
	Air Flow Rate (High)	m <sup>3</sup> /min x No.	140 x 1	190 x 1	190 x 1
	Drive		DC INVERTER	DC INVERTER	DC INVERTER
	Discharge	Side / Top	Side	Side	Side
<b>Pipe Connection</b>	Liquid Pipe	mm (inch)	Ø9.52 (3/8)	Ø9.52 (3/8)	Ø12.7 (1/2)
	Gas Pipe	mm (inch)	Ø19.05 (3/4)	Ø22.2 (7/8)	Ø28.58 (1-1/8)
<b>Dimensions (W x H x D)</b>		mm x No.	(950 x 1,380 x 330) x 1	(1,090 x 1,625 x 380) x 1	(1,090 x 1,625 x 380) x 1
<b>Dimensions (W x H x D) - Shipping</b>		mm x No.	(1,140 x 1,462 x 461) x 1	(1,215 x 1,795 x 500) x 1	(1,215 x 1,795 x 500) x 1
<b>Net Weight</b>		kg x No.	115 x 1	144 x 1	157 x 1
<b>Shipping Weight</b>		kg x No.	127 x 1	160 x 1	173 x 1
<b>Sound Pressure Level</b>	Cooling	dB(A)	57.0	58.0	60.0
	Heating	dB(A)	57.0	58.0	60.0
<b>Sound Power Level</b>	Cooling	dB(A)	81.0	80.0	81.0
	Heating	dB(A)	84.0	84.0	85.0
<b>Communication Cable</b>		mm <sup>2</sup> x No. (VCTF-SB)	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C
<b>Refrigerant</b>	Refrigerant Name		R410A	R410A	R410A
	Precharged Amount in factory	kg	3.5	4.5	6.0
	t-CO <sub>2</sub> eq		7.3	9.4	12.5
	Control		Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve
<b>Power Supply</b>		Ø, V, Hz	3, 380-415, 50	3, 380-415, 50	3, 380-415, 50
<b>Number of Maximum Connectable Indoor Units</b>			13	16	20

Note  
 1. Eurovent Test Condition : Type of indoor unit connected is only Ceiling Concealed Duct.  
 - Refer to EUROVENT certification regulation for more detail test conditions.  
 - Refer to EUROVENT website for test values connected Ceiling Cassette type indoors.  
 2. Performances are based on the following conditions :  
 - Cooling Temperature : 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  
 - Heating Temperature : Indoor 20°C (68°F) DB / 15°C (59°F) WB / Outdoor 7°C (44.6°F) DB / 6°C (42.8°F) WB  
 3. The maximum combination ratio is 160%. (the maximum combination ratio of ARUN050GSL0 is 130%).  
 4. Wiring cable size must comply with the applicable local and national codes.  
 5. Due to our policy of innovation some specifications may be changed without notification.  
 6. Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard. Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard. Therefore, these values can be increased owing to ambient conditions during operation.  
 7. Power factor could vary less than ±1% according to the operating conditions.  
 8. This product contains Fluorinated greenhouse gases. (R410A, GWP(Global warming potential) = 2087.5)

# MULTI V S HEAT RECOVERY

ARUB060GSS4



HP		6	
<b>Model Name</b>	Combination Unit	ARUB060GSS4	
<b>Capacity</b>	Cooling (Rated)	kW	
	Heating (Rated)	kW	
<b>Input</b>	Cooling (Rated)	kW	
	Heating (Rated)	kW	
<b>EER</b>		3.90	
<b>SEER</b>		6.84	
<b>COP</b>	Rated Capacity	4.39	
<b>SCOP</b>		4.38	
<b>Exterior</b>	Color	Warm Gray	
	RAL Code (Classic)	RAL 7044	
<b>Heat Exchanger</b>	Type	Wide Louver Plus	
	Type	Hermetically Sealed Scroll	
<b>Compressor</b>	Combination x No.	(Inverter) x 1	
	Motor Output x Number	W x No.	
	Oil Type	FVC68D (PVE)	
	Oil Charge	cc	
<b>Fan</b>	Type	Axial Flow Fan	
	Motor Output x Number	W x No.	
	Air Flow Rate (High)	m <sup>3</sup> /min x No.	
	Drive	DC INVERTER	
<b>Pipe Connection #1</b>	Low Pressure Gas Pipe	mm (inch)	
	High Pressure Gas Pipe	mm (inch)	
<b>Dimensions (W x H x D)</b>	mm x No.	(950 x 1,380 x 330) x 1	
<b>Dimensions (W x H x D) - shipping</b>	mm x No.	(1,140 x 1,549 x 466) x 1	
<b>Net Weight</b>	kg x No.	118 x 1	
<b>Shipping Weight</b>	kg x No.	132 x 1	
<b>Sound Pressure Level</b>	Cooling	dB(A)	
	Heating	dB(A)	
<b>Sound Power Level</b>	Cooling	dB(A)	
	Heating	dB(A)	
<b>Communication Cable</b>	mm <sup>2</sup> x No. (VCTF-SB)	1.0 - 1.5 x 2C	
<b>Refrigerant</b>	Refrigerant Name	R410A	
	Precharged Amount in factory	kg	
	t-CO <sub>2</sub> eq	7.3	
	Control	Electronic Expansion Valve	
<b>Power Supply</b>	Ø, V, Hz	1, 220-240, 50	
<b>Number of Maximum Connectable Indoor Units</b>		13	

**Note**

- Eurovent Test Condition : Type of indoor unit connected is only Ceiling Concealed Duct.
  - Refer to EUROVENT certification regulation for more detail test conditions.
  - Refer to EUROVENT website for test values connected Ceiling Cassette type indoors.
- Performances are based on the following conditions :
  - Cooling Temperature : 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
  - Heating Temperature : Indoor 20°C (68°F) DB / 15°C (59°F) WB / Outdoor 7°C (44.6°F) DB / 6°C (42.8°F) WB
- The maximum combination ratio is 160%. (the maximum combination ratio of ARUN050GSL0 is 130%).
- Wiring cable size must comply with the applicable local and national codes.
- Due to our policy of innovation some specifications may be changed without notification.
- Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard. Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard. Therefore, these values can be increased owing to ambient conditions during operation.
- Power factor could vary less than ±1% according to the operating conditions.
- This product contains Fluorinated greenhouse gases. (R410A, GWP(Global warming potential) = 2087.5)

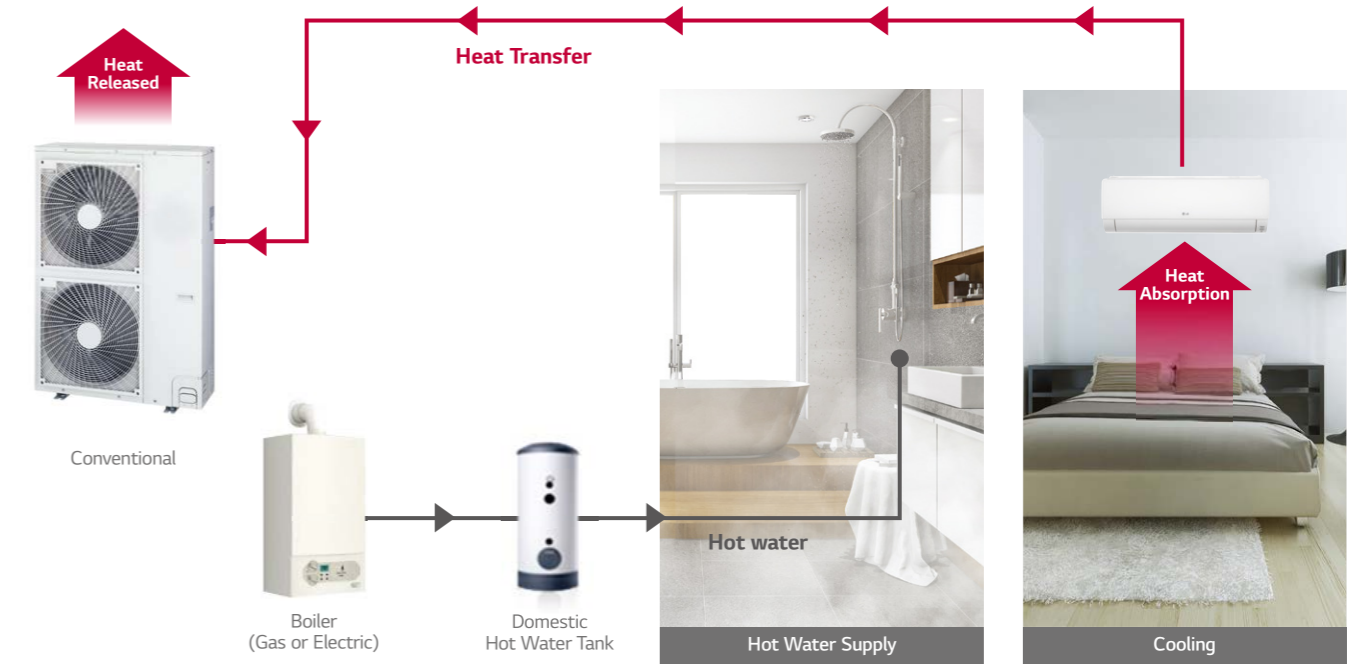
# MULTI V S

## Energy Savings

Energy consumption can be reduced as indoor heat is absorbed and transferred to hot water supply.

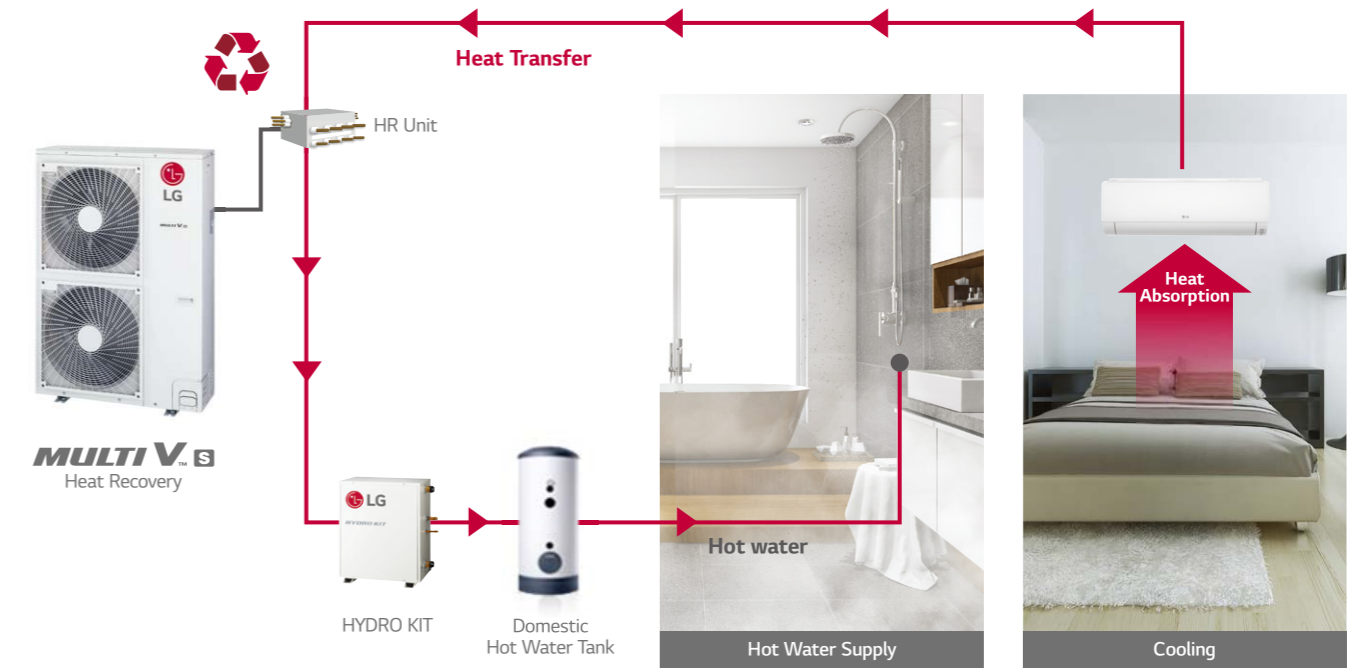
### Conventional

Absorbed heat is released to outdoor air.



### MULTI V S Heat Recovery with HYDRO KIT

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





# MULTI V™ WATER IV

- Water Cooled VRF Heat Pump & Heat Recovery
- 22.4 ~ 201.6kW (Cooling capacity based)
- 3Ø, 380 ~ 415V, 50Hz
- Outdoor unit installed indoor

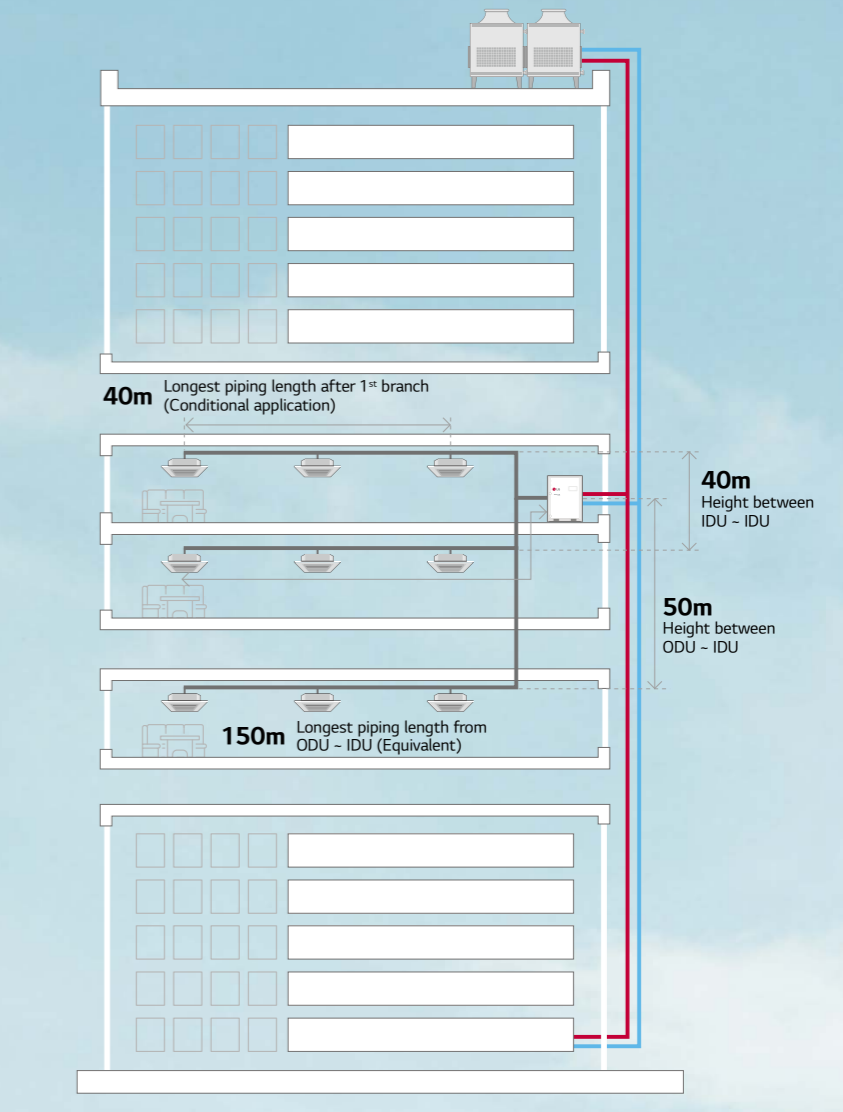
# 300M

TOTAL PIPING LENGTH



**Economical,  
efficient system**

OUTDOOR  
UNITS  
MULTI V WATER IV



Energy savings



Space savings



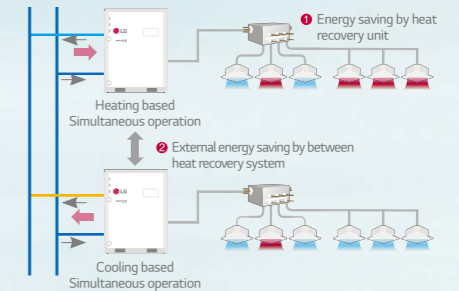
Convenient installation

## How does it work?

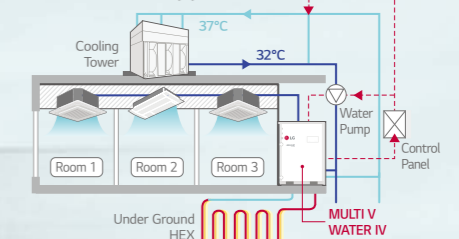
Operation independent of weather conditions



Available in Heat Pump & Heat Recovery Configuration



Geothermal Application

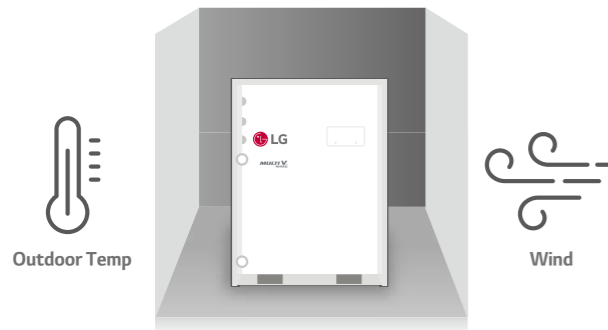




# INNOVATIVE TECHNOLOGIES

## High Efficiency System Regardless of External Conditions

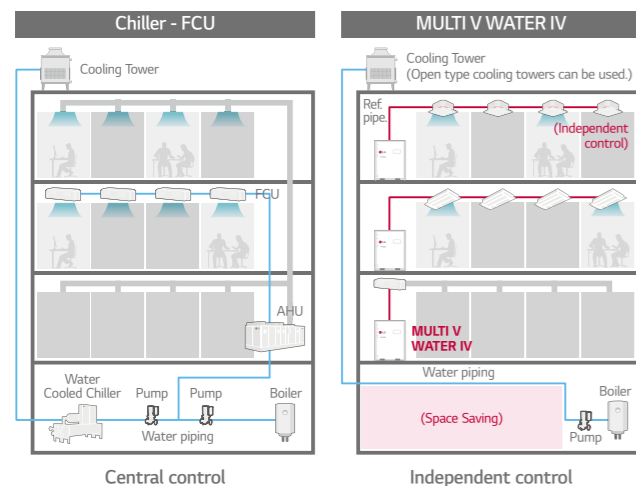
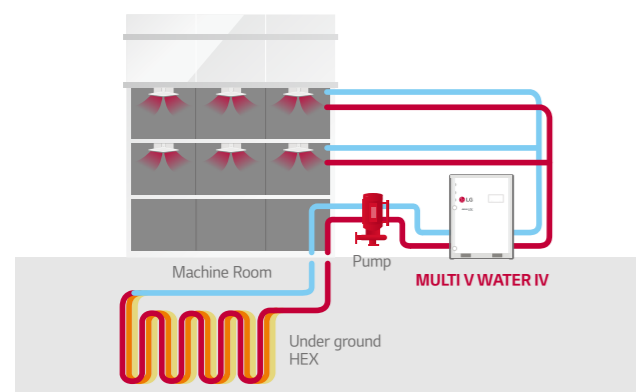
Regardless of outdoor temperature and other environmental conditions, MULTI V WATER IV is the optimal solution.



## MULTI V WATER IV System for Geothermal Applications

Uses underground heat sources like soil, ground water, lakes, rivers and more as renewable energy for cooling and heating. Water or antifreeze solution is circulated through the closed loop HDPE (High Density Poly-Ethylene) pipes buried beneath the earth's surface.

- The Circulating water temperature range is between -5°C ~ 45°C
- Antifreeze should be applied depending on the application.



# ENERGY SAVING

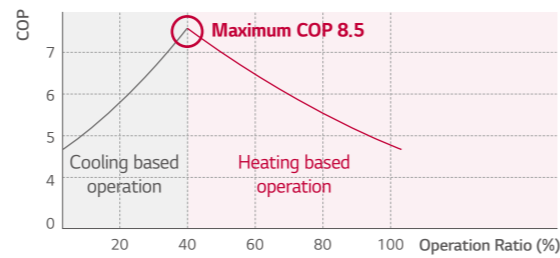
## Economical, Highly Efficient System

LG's key technologies are integrated to inverter compressor

With 4<sup>th</sup> generation inverter compressor, the MULTI V WATER IV boasts top-class energy efficiency.

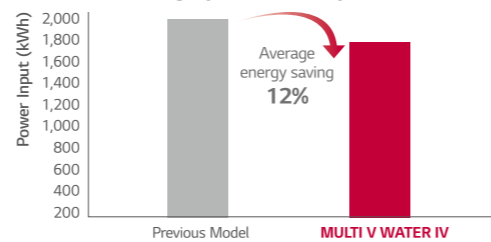


### Maximum COP

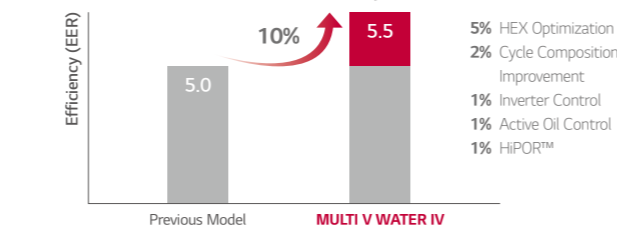


※ Outdoor unit water inlet temperature : 7°C  
 ※ Indoor temperature : 20°C DB / 15°C WB  
 ※ Maximum COP Condition : Cooling 40% + Heating 60% operation

## Economical, Highly Efficient System

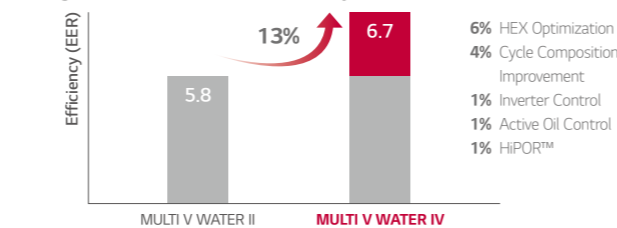


## LG's 4<sup>th</sup> Generation Inverter Compressor



※ Comparison between 10HP (28kW) in cooling mode

## Integrated Part Load Efficiency

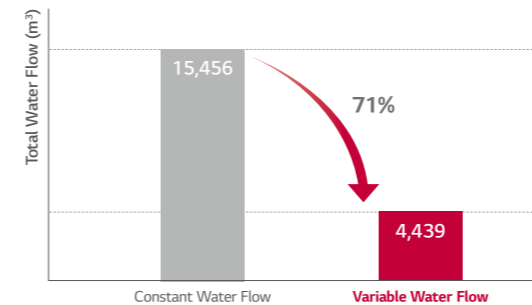
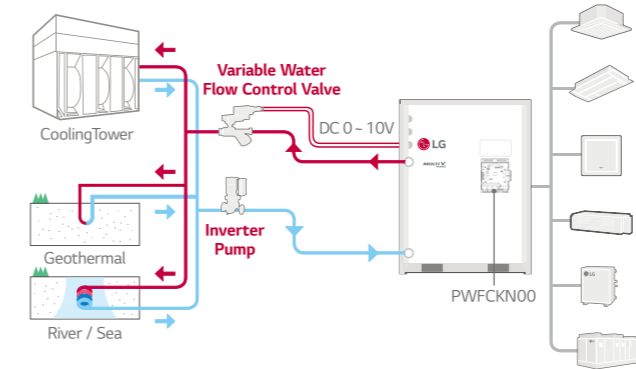


# WATER SAVINGS

## Variable Water Flow Control (Option)

In support of green building initiatives

The world's first variable water flow control system for water cooled VRF system. LG applied Variable Water Flow Control to optimize water flow control regarding partial cooling or heating load conditions. Because of this it's also possible to reduce circulation pump energy consumption.

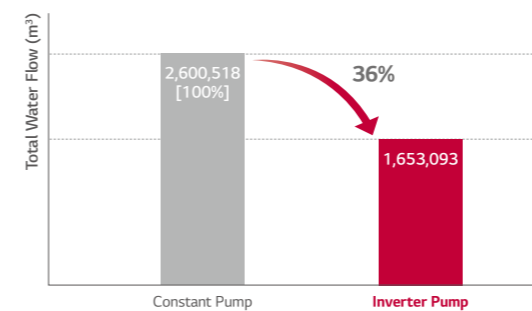


Note  
 1. Location : Paris, France  
 2. Office, 68,000m²  
 3. Operation time : 1,344 hours (Cooling period)

## Project Example : 63F (Pump : 20,064 LPM, 42.4mAq x 4ea)

- 1) Inverter pump with MULTI V WATER and variable water flow control kit
- 2) Constant pump (Step control) with Water cooled VRF

### 10 years energy cost (\$)



Unit	5 years		10 years	
	Energy Use (kWh)	Pump Running Cost (\$)	Energy Use (kWh)	Pump Running Cost (\$)
Constant pump	7,952,040	1,142,441	15,904,080	2,600,518
Inverter pump	5,054,940	726,225	10,109,880	1,653,093

- Power consumption rate : 0.13\$/kWh
- Annual power consumption rate expected to increase by 5%

# FLEXIBLE DESIGN & SPACE SAVINGS

## Largest Capacity

Sufficient pipe length limitation provides flexible design and installation

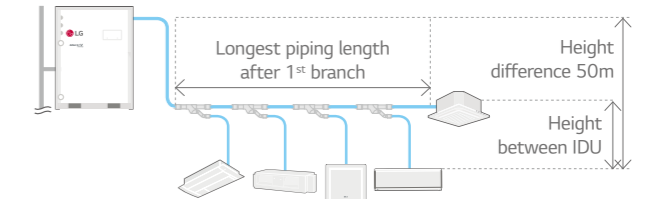
Providing 8 ~ 20HP (22.4 ~ 56kW) with single unit, and up to the world's largest capacity 80HP (224kW) by combination.

	HP	8	10	14	20	22	24	28	30	34	40	42 ~ 60	62 ~ 80
	kW	22.4	28	39.2	56	61.6	67.2	78.4	84	95.2	112	117.6 ~ 168	173.6 ~ 224
LG		1 Unit		2 Units		3 Units		4 Units					

## Longest Piping Length

Sufficient pipes length limitation in design and installation of immense variety of building

Provide flexible installation up to 300m of total piping length. As water pipes are not connected to indoor units, users are free from water leakage problems.



Total Piping Length	300m
Actual longest piping length (Equivalent)	150m (175m)
Longest piping length after 1 <sup>st</sup> branch (Conditional application)	40m (90m)
Height difference between ODU - IDU	50m
Height difference between IDU - IDU	40m

## Compact Size

Thanks to compact size of product, it provides more space for commercial or public use as much as possible.

The optimal design of the compact, lightweight outdoor unit enables double stacking, which results in 50% savings in installation space.

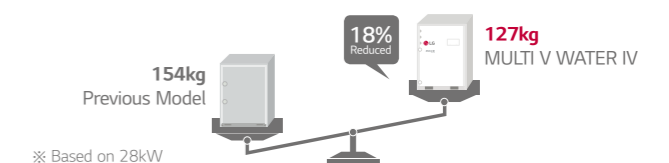


※ 112kW, Floor area based

## Lightweight

Nothing or Decrease additional load reinforcement work at building

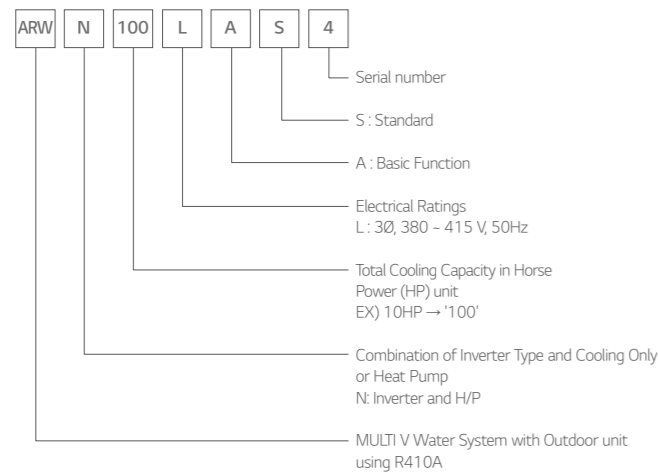
Easier to transport and install thanks to 18% reduction in overall weight.



※ Based on 28kW



Nomenclature

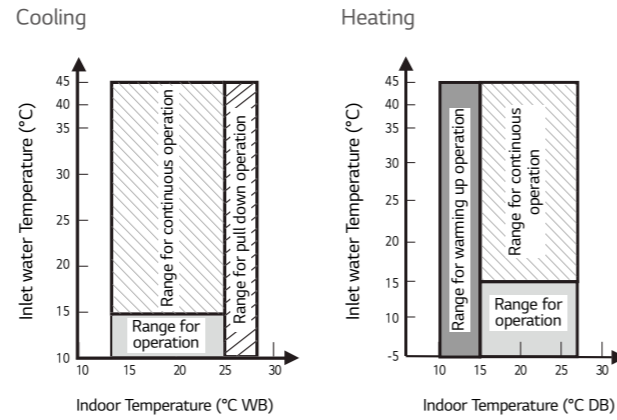


Outdoor Units Function

Category	Functions	MULTI V WATER IV
Key Refrigerant Components	Variable Path of Outdoor unit HEX	-
	HiPOR™ (High Pressure Oil Return)	○
	Humidity Sensor	-
	Corrosion Resistance Black Fin	-
	Oil Sensor	○
Useful Function	Dual Sensing	-
	Low Noise Operation	-
	High Static Mode of Outdoor Unit Fan	-
	Partial Defrosting	-
	Auto Dust Cleaning of Outdoor Unit (Fan reverse rotation)	-
Reliability	Indoor Cooling Comfort Mode Based Outdoor Temperature	-
	Smart Load Control (SLC) (Changing indoor discharge air temperature according to load)	-
	Outdoor Unit Control Refer to Humidity	-
	Defrost / Deicing	-
	High Pressure Switch	○
Central Controller	Phase Protection	○
	Restart Delay (3-minutes)	○
	Self Diagnosis	○
	Soft Start	○
	Test Run Function	○
BNU (Building Network Unit)	AC Ez (Simple Controller)	PQCSZ250S0
	AC Ez Touch	PACEZA000
	AC Smart IV	PACS4B000
	AC Smart 5	PAC55A000
	ACP (Advanced Control Platform) IV	PQPC22A0
Installation	ACP (Advanced Control Platform) 5	PACP5A000
	AC Manager 5	PACM5A000
	ACP Lonworks	PLNWKB000
	ACP BACnet	PQNF17C0
	Refrigerant Charging Kit	-
PDI (Power Distribution Indicator)	Variable Water Flow Valve Control Kit	PWFCKN000
	Standard	PPWRDB000
Cool / Heat Selector	Premium	PQNUD1S40
	PRDSBM	-
IO Module (ODU Dry Contact)	Low Ambient Kit	-
	PVDSMN000	-
Cycle Monitoring Device	LGMV	PRCTI00
	Mobile LGMV	PLGMVW100

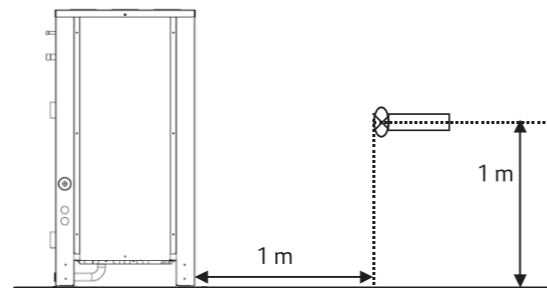
※ ○ : Applied, - : Not Applied

Operation Limits



Note  
 1. These figures assume the following operating conditions:  
 2. Equivalent piping length : 7.5m  
 3. Level difference : 0m

Position of Sound Pressure Level Measuring



Note  
 1. Data is valid at free field condition  
 2. Data is valid at nominal operating condition  
 3. Sound level will vary depending on a range of factors such as the construction (Acoustic absorption coefficient) of particular room in which the equipment is installed  
 4. Sound level can be increased in static pressure mode or air guide application.

Optional Accessories

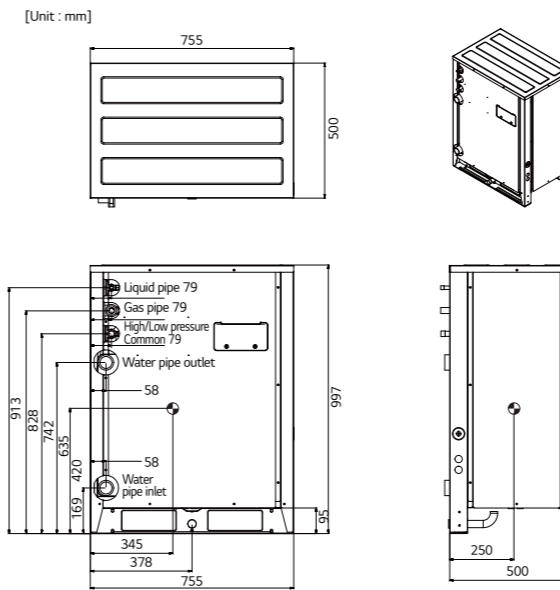
No.	Name	Model
1	Y branch pipe	ARBLN01621
		ARBLN03321
		ARBLN07121
		ARBLN14521
		ARBLN23220
2	Header	ARBL054
		ARBL057
		ARBL104
		ARBL107
		ARBL1010
3	Connection pipe of Outdoor Units	ARCNN21
		ARCNN31
		ARCNN41

MULTI V WATER IV Heating Dissipation Value by Model

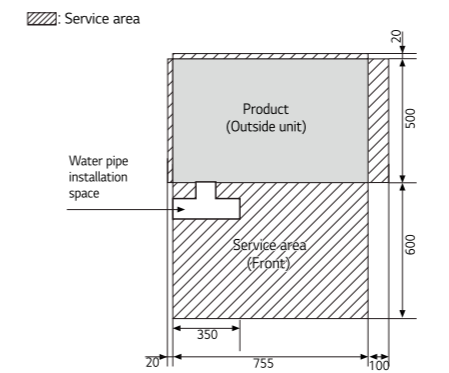
Model	HP	Heating Dissipation Value	
ARWN080LAS4	8	600 W	515.9 kcal/h 0.143 kcal/s
ARWN100LAS4	10	630 W	541.7 kcal/h 0.150 kcal/s
ARWN120LAS4	12	660 W	567.5 kcal/h 0.158 kcal/s
ARWN140LAS4	14	690 W	593.3 kcal/h 0.165 kcal/s
ARWN160LAS4	16	700 W	601.9 kcal/h 0.167 kcal/s
ARWN180LAS4	18	720 W	619.1 kcal/h 0.172 kcal/s
ARWN200LAS4	20	750 W	644.9 kcal/h 0.179 kcal/s

Test condition : Indoor air temperature : DB 40°C, WB : 32°C  
 ※ A design stage should be considered to ventilation system in mechanical room.

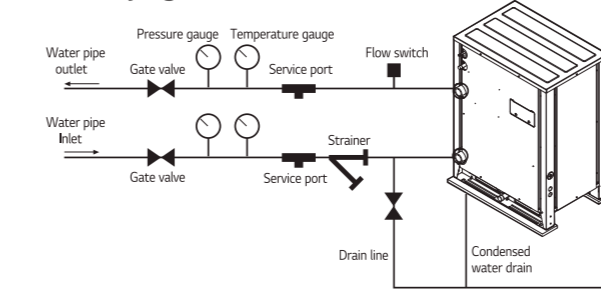
ARWN080LAS4 / ARWN100LAS4 / ARWN140LAS4 / ARWN200LAS4



Individual Installation



Water Piping Installation



Precaution of Installation

- Do not install the unit at the outdoors. (Installation of the unit outdoors could result in fire or electric shock.) Recommended ambient temperature of outdoor unit is between 0 ~ 40°C.
- Keep the water temperature between 10 ~ 45°C. Standard water supply temperature is 30°C for cooling and 20°C for heating.
- Establish an **anti-freeze plan** for the water supply when the product is stopped during the winter.
- Be careful of the **water purity control**. Ensure water purity control to avoid breakdown due to water pipe corrosion. Refer to 'Standard Table for Water Purity Control' in PDB (Product Data Book).
- The water pressure resistance of the water pipe system of this product is **1.98MPa**.
- Always install a **trap** so that the drained water does not back flush.
- Install a **pressure gauge and temperature gauge** at the inlet and outlet of the water pipe.
- Flexible joints** must be installed not to cause any leakage from the vibration of pipes.
- Install a **service port** to clean the heat exchanger at the each end of the water inlet and outlet.
- It is recommended to install the **flow switch** to the water collection pipe system connecting to the outdoor unit. (Flow switch acts as the 1st protection device when the heat water is not supplied.)
- When setting the flow switch, it is recommended to use the product with default set value to satisfy the minimum flow rate of this product. (The minimum flow rate range of this product is **50%**)
- To protect the water cooling type product, you must install a **strainer with 50 mesh** or more on the heat water supply pipe. If not installed, it can result in damage of heat exchanger by the following situation.
  - Heat water supply within the plate type heat exchanger is composed of multiple small paths.
  - If you do not use a strainer with 50 mesh or more, alien particles can partially block the water paths.
  - When running the heater, the plate type heat exchanger plays the role of the evaporator, and at this time, the temperature of the refrigerant side drops to drop the temperature of the heat water supply, which can result in icing point in the water paths.
  - As the heating process progresses, the water paths can be partially frozen to lead to damage in plate type heat exchanger.
  - As a result of the damage of the heat exchanger from the freezing, the refrigerant side and the heat water source side will be mixed to make the product unusable.

# REFERENCE SITE

## Bouygues Challenger

LG MULTI V WATER Solution with Geothermal Application



### Site Information

The industrial group Bouygues was established in France in 1952. It now maintains operations in 80 countries and employs more than 131,000 people. In 1988, after two years of construction, the new headquarters for Bouygues Construction was officially opened for business. Named Challenger, the complex became a technological showcase for late 20<sup>th</sup> century architecture.

### LG Solution

Bouygues decided to convert their headquarters into an eco-friendly building by significantly reducing its energy footprint. The LG MULTI V Water system was chosen as the ideal HVAC solution for this project. The system not only saves energy but also reduces water usage as it recycles water in order to regulate the temperature of the building. With LG's advanced technology, the building's water consumption was reduced by more than 70 percent.

# MULTI V WATER IV HEAT PUMP

ARWN080LAS4 / ARWN100LAS4  
ARWN140LAS4



HP		8	10	14
<b>Model Name</b>	Combination Unit	ARWN080LAS4	ARWN100LAS4	ARWN140LAS4
	Independent Unit	ARWN080LAS4	ARWN100LAS4	ARWN140LAS4
<b>Capacity</b>	Cooling (Rated) kW	22.4	28.0	39.2
	Heating (Rated) kW	25.2	31.5	44.1
<b>Input</b>	Cooling (Rated) kW	3.86	5.09	7.84
	Heating (Rated) kW	4.2	5.34	8.17
<b>EER</b>		5.80	5.50	5.00
<b>COP</b>	Rated Capacity	6.00	5.90	5.40
<b>Exterior</b>	Color	Warm Gray / Morning Gray	Warm Gray / Morning Gray	Warm Gray / Morning Gray
	RAL Code (Classic)	RAL 7044 / RAL 7030	RAL 7044 / RAL 7030	RAL 7044 / RAL 7030
<b>Heat Exchanger</b>	Type	Stainless Steel Plate	Stainless Steel Plate	Stainless Steel Plate
	Maximum Pressure Resistance	kgf/cm <sup>2</sup>	45	45
	Head Loss	kPa	10.7	15.8
	Rated Water Flow	LPM	77	96
<b>Compressor</b>	Type	Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll
	Combination x No.	(Inverter) x 1	(Inverter) x 1	(Inverter) x 1
	Motor Output x Number	W x No.	4,200 x 1	4,200 x 1
	Oil Type	FVC68D (PVE)	FVC68D (PVE)	FVC68D (PVE)
<b>Refrigerant</b>	Liquid Pipe	mm (inch)	Ø9.52 (3/8)	Ø12.7 (1/2)
	Gas Pipe	mm (inch)	Ø22.2 (7/8)	Ø25.4 (1)
<b>Connecting Pipes</b>	Inlet	A (inch)	40A(PT 1-1/2) (Internal Thread)	40A(PT 1-1/2) (Internal Thread)
	Outlet	A (inch)	40A(PT 1-1/2) (Internal Thread)	40A(PT 1-1/2) (Internal Thread)
	Drain Outlet	A (inch)	20A(PT 3/4) (External Thread)	20A(PT 3/4) (External Thread)
<b>Dimensions (W x H x D)</b>	mm x No.	(755 x 997 x 500) x 1	(755 x 997 x 500) x 1	(755 x 997 x 500) x 1
<b>Dimensions (W x H x D) - Shipping</b>	mm x No.	(804 x 1,143 x 630) x 1	(804 x 1,143 x 630) x 1	(804 x 1,143 x 630) x 1
<b>Net Weight</b>	kg x No.	127 x 1	127 x 1	127 x 1
<b>Shipping Weight</b>	kg x No.	137 x 1	137 x 1	137 x 1
<b>Sound Pressure Level</b>	Cooling	dB(A)	47.0	50.0
	Heating	dB(A)	51.0	53.0
<b>Sound Power Level</b>	Cooling	dB(A)	59.0	62.0
	Heating	dB(A)	63.0	65.0
<b>Communication Cable</b>	mm <sup>2</sup> x No. (VCTF-SB)	1.0 - 1.5 x 2C	1.0 - 1.5 x 2C	1.0 - 1.5 x 2C
<b>Refrigerant</b>	Refrigerant Name		R410A	R410A
	Precharged Amount in Factory	kg	5.8	5.8
	t-CO <sub>2</sub> eq		12.1	12.1
	Control		Electronic Expansion Valve	Electronic Expansion Valve
<b>Power Supply</b>	Ø, V, Hz	3, 380-415, 50	3, 380-415, 50	3, 380-415, 50
<b>Number of Maximum Connectable Indoor Units</b>		13 (20)	16 (25)	23 (35)

Note

1. Maximum numbers are prepared based on assumption that all 2.2kW indoor units are connected. The numbers in parentheses means maximum connectable indoor units in accordance with outdoor units combination (160% - 200%). The recommended ratio is 130%.
2. Due to our policy of innovation some specifications may be changed without notification
3. Performances are based on the following conditions
  - Cooling : Indoor temp 27°C (80.6°F) DB / 19°C (66.2°F) WB, Water inlet temp 30°C (86°F)
  - Heating : Indoor temp 20°C (68°F) DB, Water inlet temp 20°C (68°F)
  - Interconnected Pipe Length is 7.5m and difference of Elevation (Outdoor - Indoor Unit) is 0m.
4. Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard. Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard. Therefore, these values can be increased owing to ambient conditions during operation.
5. This product contains Fluorinated Greenhouse Gases. (R410A, GWP (Global warming potential) = 2,087.5)
6. Add an anti freeze to circulation water when outdoor unit is operating under 10°C (50°F), and change the DIP switch on main PCB. (For more information on installation section.)



# MULTI V WATER IV HEAT PUMP

ARWN200LAS4 / ARWN160LAS4  
ARWN180LAS4



HP		20	16	18	
Model Name	Combination Unit	ARWN200LAS4	ARWN160LAS4	ARWN180LAS4	
	Independent Unit	ARWN200LAS4	ARWN080LAS4 ARWN080LAS4	ARWN100LAS4 ARWN080LAS4	
Capacity	Cooling (Rated) kW	56.0	44.8	50.4	
	Heating (Rated) kW	63.0	50.4	56.7	
Input	Cooling (Rated) kW	11.20	7.72	8.95	
	Heating (Rated) kW	11.67	8.40	9.54	
EER		5.00	5.80	5.63	
COP	Rated Capacity	5.40	6.00	5.94	
Exterior	Color	Warm Gray / Morning Gray	Warm Gray / Morning Gray	Warm Gray / Morning Gray	
	RAL Code (Classic)	RAL 7044 / RAL 7030	RAL 7044 / RAL 7030	RAL 7044 / RAL 7030	
Heat Exchanger	Type	Stainless Steel Plate	Stainless Steel Plate	Stainless Steel Plate	
	Maximum Pressure Resistance	kgf/cm <sup>2</sup>	45	45	
	Head Loss	kPa	30.1	10.7 + 10.7	15.8 + 10.7
	Rated Water Flow	LPM	192	77 + 77	96 + 77
	Type		Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll
Compressor	Combination x No.	(Inverter) x 1	(Inverter) x 2	(Inverter) x 2	
	Motor Output x Number	W x No.	5,300 x 1	4,200 x 2	4,200 x 2
	Oil Type		FVC68D (PVE)	FVC68D (PVE)	FVC68D (PVE)
	Oil Charge	cc	3,000	5,600	5,600
Refrigerant Connecting Pipes	Liquid Pipe	mm (inch)	Ø12.7 (1/2)	Ø12.7 (1/2)	Ø12.7 (1/2)
	Gas Pipe	mm (inch)	Ø28.58 (1-1/8)	Ø28.58 (1-1/8)	Ø28.58 (1-1/8)
Water Connecting Pipes	Inlet	A (inch)	40A (PT 1-1/2) (Internal Thread)	40A (PT 1-1/2) + 40A (PT 1-1/2) (Internal Thread)	40A (PT 1-1/2) + 40A (PT 1-1/2) (Internal Thread)
	Outlet	A (inch)	40A (PT 1-1/2) (Internal Thread)	40A (PT 1-1/2) + 40A (PT 1-1/2) (Internal Thread)	40A (PT 1-1/2) + 40A (PT 1-1/2) (Internal Thread)
	Drain Outlet	A (inch)	20A (PT 3/4) (External Thread)	20A (PT 3/4) (External Thread)	20A (PT 3/4) (External Thread)
Dimensions (W x H x D)	mm x No.	(755 x 997 x 500) x 1	(755 x 997 x 500) x 2	(755 x 997 x 500) x 2	
Dimensions (W x H x D) - Shipping	mm x No.	(804 x 1,143 x 630) x 1	(804 x 1,143 x 630) x 2	(804 x 1,143 x 630) x 2	
Net Weight	kg x No.	140 x 1	127 x 2	127 x 2	
Shipping Weight	kg x No.	150 x 1	137 x 2	137 x 2	
Sound Pressure Level	Cooling	dB(A)	54.0	50.0	51.8
	Heating	dB(A)	60.0	54.0	55.1
Sound Power Level	Cooling	dB(A)	66.0	62.0	63.8
	Heating	dB(A)	72.0	66.0	67.1
Communication Cable	mm <sup>2</sup> x No. (VCTF-SB)	1.0 - 1.5 x 2C	1.0 - 1.5 x 2C	1.0 - 1.5 x 2C	
Refrigerant	Refrigerant Name		R410A	R410A	R410A
	Precharged Amount in Factory	kg	3.0	11.6	11.6
	t-CO <sub>2</sub> eq		6.3	24.2	24.2
	Control		Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve
Power Supply	Ø, V, Hz	3, 380-415, 50	3, 380-415, 50	3, 380-415, 50	
Number of Maximum Connectable Indoor Units		32 (50)	26 (40)	29 (45)	

- Note
- Maximum numbers are prepared based on assumption that all 2.2kW indoor units are connected. The numbers in parentheses means maximum connectable indoor units in accordance with outdoor units combination (160% - 200%). The recommended ratio is 130%.
  - Due to our policy of innovation some specifications may be changed without notification
  - Performances are based on the following conditions
    - Cooling : Indoor temp 27°C (80.6°F) DB / 19°C (66.2°F) WB, Water inlet temp 30°C (86°F)
    - Heating : Indoor temp 20°C (68°F) DB, Water inlet temp 20°C (68°F)
    - Interconnected Pipe Length is 7.5m and difference of Elevation (Outdoor - Indoor Unit) is 0m.
  - Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard. Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard. Therefore, these values can be increased owing to ambient conditions during operation.
  - This product contains Fluorinated Greenhouse Gases. (R410A, GWP (Global warming potential) = 2,087.5)
  - Add an anti freeze to circulation water when outdoor unit is operating under 10°C (50°F), and change the DIP switch on main PCB. (For more information on installation section.)

# MULTI V WATER IV HEAT PUMP

ARWN220LAS4 / ARWN240LAS4  
ARWN280LAS4



HP		22	24	28	
Model Name	Combination Unit	ARWN220LAS4	ARWN240LAS4	ARWN280LAS4	
	Independent Unit	ARWN140LAS4 ARWN080LAS4	ARWN140LAS4 ARWN100LAS4	ARWN140LAS4 ARWN140LAS4	
Capacity	Cooling (Rated) kW	61.6	67.2	78.4	
	Heating (Rated) kW	69.3	75.6	88.2	
Input	Cooling (Rated) kW	11.70	12.93	15.68	
	Heating (Rated) kW	12.37	13.51	16.34	
EER		5.26	5.20	5.00	
COP	Rated Capacity	5.60	5.60	5.40	
Exterior	Color	Warm Gray / Morning Gray	Warm Gray / Morning Gray	Warm Gray / Morning Gray	
	RAL Code (Classic)	RAL 7044 / RAL 7030	RAL 7044 / RAL 7030	RAL 7044 / RAL 7030	
Heat Exchanger	Type	Stainless Steel Plate	Stainless Steel Plate	Stainless Steel Plate	
	Maximum Pressure Resistance	kgf/cm <sup>2</sup>	45	45	
	Head Loss	kPa	28.6 + 10.7	28.6 + 15.8	28.6 + 28.6
	Rated Water Flow	LPM	135 + 77	135 + 96	135 + 135
	Type		Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll
Compressor	Combination x No.	(Inverter) x 2	(Inverter) x 2	(Inverter) x 2	
	Motor Output x Number	W x No.	4,200 x 2	4,200 x 2	4,200 x 2
	Oil Type		FVC68D (PVE)	FVC68D (PVE)	FVC68D (PVE)
	Oil Charge	cc	5,600	5,600	5,600
Refrigerant Connecting Pipes	Liquid Pipe	mm (inch)	Ø19.05 (3/4)	Ø19.05 (3/4)	Ø19.05 (3/4)
	Gas Pipe	mm (inch)	Ø34.9 (1-3/8)	Ø34.9 (1-3/8)	Ø34.9 (1-3/8)
Water Connecting Pipes	Inlet	A (inch)	40A (PT 1-1/2) + 40A (PT 1-1/2) (Internal Thread)	40A (PT 1-1/2) + 40A (PT 1-1/2) (Internal Thread)	40A (PT 1-1/2) + 40A (PT 1-1/2) (Internal Thread)
	Outlet	A (inch)	40A (PT 1-1/2) + 40A (PT 1-1/2) (Internal Thread)	40A (PT 1-1/2) + 40A (PT 1-1/2) (Internal Thread)	40A (PT 1-1/2) + 40A (PT 1-1/2) (Internal Thread)
	Drain Outlet	A (inch)	20A (PT 3/4) (External Thread)	20A (PT 3/4) (External Thread)	20A (PT 3/4) (External Thread)
Dimensions (W x H x D)	mm x No.	(755 x 997 x 500) x 2	(755 x 997 x 500) x 2	(755 x 997 x 500) x 2	
Dimensions (W x H x D) - Shipping	mm x No.	(804 x 1,143 x 630) x 2	(804 x 1,143 x 630) x 2	(804 x 1,143 x 630) x 2	
Net Weight	kg x No.	127 x 2	127 x 2	127 x 2	
Shipping Weight	kg x No.	137 x 2	137 x 2	137 x 2	
Sound Pressure Level	Cooling	dB(A)	58.3	58.6	59.0
	Heating	dB(A)	58.0	58.5	58.0
Sound Power Level	Cooling	dB(A)	70.3	70.6	72.0
	Heating	dB(A)	70.0	70.5	71.0
Communication Cable	mm <sup>2</sup> x No. (VCTF-SB)	1.0 - 1.5 x 2C	1.0 - 1.5 x 2C	1.0 - 1.5 x 2C	
Refrigerant	Refrigerant Name		R410A	R410A	R410A
	Precharged Amount in Factory	kg	11.6	11.6	11.6
	t-CO <sub>2</sub> eq		24.2	24.2	24.2
	Control		Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve
Power Supply	Ø, V, Hz	3, 380-415, 50	3, 380-415, 50	3, 380-415, 50	
Number of Maximum Connectable Indoor Units		35 (44)	39 (48)	45 (56)	

- Note
- Maximum numbers are prepared based on assumption that all 2.2kW indoor units are connected. The numbers in parentheses means maximum connectable indoor units in accordance with outdoor units combination (160% - 200%). The recommended ratio is 130%.
  - Due to our policy of innovation some specifications may be changed without notification
  - Performances are based on the following conditions
    - Cooling : Indoor temp 27°C (80.6°F) DB / 19°C (66.2°F) WB, Water inlet temp 30°C (86°F)
    - Heating : Indoor temp 20°C (68°F) DB, Water inlet temp 20°C (68°F)
    - Interconnected Pipe Length is 7.5m and difference of Elevation (Outdoor - Indoor Unit) is 0m.
  - Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard. Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard. Therefore, these values can be increased owing to ambient conditions during operation.
  - This product contains Fluorinated Greenhouse Gases. (R410A, GWP (Global warming potential) = 2,087.5)
  - Add an anti freeze to circulation water when outdoor unit is operating under 10°C (50°F), and change the DIP switch on main PCB. (For more information on installation section.)

# MULTI V WATER IV HEAT PUMP

ARWN300LAS4 / ARWN340LAS4  
ARWN400LAS4



HP		30	34	40	
Model Name	Combination Unit	ARWN300LAS4	ARWN340LAS4	ARWN400LAS4	
	Independent Unit	ARWN200LAS4 ARWN100LAS4	ARWN200LAS4 ARWN140LAS4	ARWN200LAS4 ARWN200LAS4	
Capacity	Cooling (Rated) kW	84.0	95.2	112.0	
	Heating (Rated) kW	94.5	107.1	126.0	
Input	Cooling (Rated) kW	16.29	19.04	22.40	
	Heating (Rated) kW	17.01	19.84	23.34	
EER		5.16	5.00	5.00	
COP	Rated Capacity	5.56	5.40	5.40	
Exterior	Color	Warm Gray / Morning Gray	Warm Gray / Morning Gray	Warm Gray / Morning Gray	
	RAL Code (Classic)	RAL 7044 / RAL 7030	RAL 7044 / RAL 7030	RAL 7044 / RAL 7030	
Heat Exchanger	Type	Stainless Steel Plate	Stainless Steel Plate	Stainless Steel Plate	
	Maximum Pressure Resistance	kgf/cm <sup>2</sup>	45	45	
	Head Loss	kPa	30.1 + 15.8	30.1 + 28.6	30.1 + 30.1
	Rated Water Flow	LPM	192 + 96	192 + 135	192 + 192
	Type		Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll
Compressor	Combination x No.	(Inverter) x 2	(Inverter) x 2	(Inverter) x 2	
	Motor Output x Number	W x No.	5,300 x 1 + 4,200 x 1	5,300 x 1 + 4,200 x 1	5,300 x 2
	Oil Type		FVC68D (PVE)	FVC68D (PVE)	FVC68D (PVE)
	Oil Charge	cc	5,800	5,800	6,000
Refrigerant Connecting Pipes	Liquid Pipe	mm (inch)	Ø19.05 (3/4)	Ø19.05 (3/4)	Ø19.05 (3/4)
	Gas Pipe	mm (inch)	Ø34.9 (1-3/8)	Ø34.9 (1-3/8)	Ø41.3 (1-5/8)
Water Connecting Pipes	Inlet	A (inch)	40A (PT 1-1/2) + 40A (PT 1-1/2) (Internal Thread)	40A (PT 1-1/2) + 40A (PT 1-1/2) (Internal Thread)	40A (PT 1-1/2) + 40A (PT 1-1/2) (Internal Thread)
	Outlet	A (inch)	40A (PT 1-1/2) + 40A (PT 1-1/2) (Internal Thread)	40A (PT 1-1/2) + 40A (PT 1-1/2) (Internal Thread)	40A (PT 1-1/2) + 40A (PT 1-1/2) (Internal Thread)
	Drain Outlet	A (inch)	20A (PT 3/4) (External Thread)	20A (PT 3/4) (External Thread)	20A (PT 3/4) (External Thread)
Dimensions (W x H x D)	mm x No.	(755 x 997 x 500) x 2	(755 x 997 x 500) x 2	(755 x 997 x 500) x 2	
Dimensions (W x H x D) - Shipping	mm x No.	(804 x 1,143 x 630) x 2	(804 x 1,143 x 630) x 2	(804 x 1,143 x 630) x 2	
Net Weight	kg x No.	(140 x 1) + (127 x 1)	(140 x 1) + (127 x 1)	140 x 2	
Shipping Weight	kg x No.	(150 x 1) + (137 x 1)	(150 x 1) + (137 x 1)	150 x 2	
Sound Pressure Level	Cooling	dB(A)	55.5	59.0	55.0
	Heating	dB(A)	60.8	61.0	61.0
Sound Power Level	Cooling	dB(A)	67.5	72.0	68.0
	Heating	dB(A)	72.8	74.0	74.0
Communication Cable	mm <sup>2</sup> x No. (VCTF-SB)	1.0 - 1.5 x 2C	1.0 - 1.5 x 2C	1.0 - 1.5 x 2C	
Refrigerant	Refrigerant Name		R410A	R410A	R410A
	Precharged Amount in Factory	kg	8.8	8.8	6.0
	t-CO <sub>2</sub> eq		18.4	18.4	12.5
	Control		Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve
Power Supply	Ø, V, Hz	3, 380-415, 50	3, 380-415, 50	3, 380-415, 50	
Number of Maximum Connectable Indoor Units		49 (60)	55 (64)	64	

- Note
- Maximum numbers are prepared based on assumption that all 2.2kW indoor units are connected. The numbers in parentheses means maximum connectable indoor units in accordance with outdoor units combination (160% - 200%). The recommended ratio is 130%.
  - Due to our policy of innovation some specifications may be changed without notification
  - Performances are based on the following conditions
    - Cooling : Indoor temp 27°C (80.6°F) DB / 19°C (66.2°F) WB, Water inlet temp 30°C (86°F)
    - Heating : Indoor temp 20°C (68°F) DB, Water inlet temp 20°C (68°F)
    - Interconnected Pipe Length is 7.5m and difference of Elevation (Outdoor - Indoor Unit) is 0m.
  - Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard. Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard. Therefore, these values can be increased owing to ambient conditions during operation.
  - This product contains Fluorinated Greenhouse Gases. (R410A, GWP (Global warming potential) = 2,087.5)
  - Add an anti freeze to circulation water when outdoor unit is operating under 10°C (50°F), and change the DIP switch on main PCB. (For more information on installation section.)

# MULTI V WATER IV HEAT PUMP

ARWN420LAS4 / ARWN440LAS4  
ARWN480LAS4



HP		42	44	48	
Model Name	Combination Unit	ARWN420LAS4	ARWN440LAS4	ARWN480LAS4	
	Independent Unit	ARWN200LAS4 ARWN140LAS4 ARWN080LAS4	ARWN200LAS4 ARWN140LAS4 ARWN100LAS4	ARWN200LAS4 ARWN140LAS4 ARWN140LAS4	
Capacity	Cooling (Rated) kW	117.6	123.2	134.4	
	Heating (Rated) kW	132.3	138.6	151.2	
Input	Cooling (Rated) kW	22.9	24.13	26.88	
	Heating (Rated) kW	24.04	25.18	28.01	
EER		5.14	5.11	5.00	
COP	Rated Capacity	5.50	5.50	5.40	
Exterior	Color	Warm Gray / Morning Gray	Warm Gray / Morning Gray	Warm Gray / Morning Gray	
	RAL Code (Classic)	RAL 7044 / RAL 7030	RAL 7044 / RAL 7030	RAL 7044 / RAL 7030	
Heat Exchanger	Type	Stainless Steel Plate	Stainless Steel Plate	Stainless Steel Plate	
	Maximum Pressure Resistance	kgf/cm <sup>2</sup>	45	45	
	Head Loss	kPa	30.1 + 28.6 + 10.7	30.1 + 28.6 + 15.8	30.1 + 28.6 + 28.6
	Rated Water Flow	LPM	192 + 135 + 77	192 + 135 + 96	192 + 135 + 135
	Type		Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll
Compressor	Combination x No.	(Inverter) x 3	(Inverter) x 3	(Inverter) x 3	
	Motor Output x Number	W x No.	5,300 x 1 + 4,200 x 2	5,300 x 1 + 4,200 x 2	5,300 x 1 + 4,200 x 2
	Oil Type		FVC68D (PVE)	FVC68D (PVE)	FVC68D (PVE)
	Oil Charge	cc	8,600	8,600	8,600
Refrigerant Connecting Pipes	Liquid Pipe	mm (inch)	Ø19.05 (3/4)	Ø19.05 (3/4)	Ø19.05 (3/4)
	Gas Pipe	mm (inch)	Ø41.3 (1-5/8)	Ø41.3 (1-5/8)	Ø41.3 (1-5/8)
Water Connecting Pipes	Inlet	A (inch)	40A (PT 1-1/2) + 40A (PT 1-1/2) + 40A (PT 1-1/2) (Internal Thread)	40A (PT 1-1/2) + 40A (PT 1-1/2) + 40A (PT 1-1/2) (Internal Thread)	40A (PT 1-1/2) + 40A (PT 1-1/2) + 40A (PT 1-1/2) (Internal Thread)
	Outlet	A (inch)	40A (PT 1-1/2) + 40A (PT 1-1/2) + 40A (PT 1-1/2) (Internal Thread)	40A (PT 1-1/2) + 40A (PT 1-1/2) + 40A (PT 1-1/2) (Internal Thread)	40A (PT 1-1/2) + 40A (PT 1-1/2) + 40A (PT 1-1/2) (Internal Thread)
	Drain Outlet	A (inch)	20A (PT 3/4) (External Thread)	20A (PT 3/4) (External Thread)	20A (PT 3/4) (External Thread)
Dimensions (W x H x D)	mm x No.	(755 x 997 x 500) x 3	(755 x 997 x 500) x 3	(755 x 997 x 500) x 3	
Dimensions (W x H x D) - Shipping	mm x No.	(804 x 1,143 x 630) x 3	(804 x 1,143 x 630) x 3	(804 x 1,143 x 630) x 3	
Net Weight	kg x No.	(140 x 1) + (127 x 2)	(140 x 1) + (127 x 2)	(140 x 1) + (127 x 2)	
Shipping Weight	kg x No.	(150 x 1) + (137 x 2)	(150 x 1) + (137 x 2)	(150 x 1) + (137 x 2)	
Sound Pressure Level	Cooling	dB(A)	59.7	59.9	60.0
	Heating	dB(A)	62.1	62.3	62.0
Sound Power Level	Cooling	dB(A)	71.7	71.9	74.0
	Heating	dB(A)	74.1	74.3	76.0
Communication Cable	mm <sup>2</sup> x No. (VCTF-SB)	1.0 - 1.5 x 2C	1.0 - 1.5 x 2C	1.0 - 1.5 x 2C	
Refrigerant	Refrigerant Name		R410A	R410A	R410A
	Precharged Amount in Factory	kg	14.6	14.6	14.6
	t-CO <sub>2</sub> eq		30.5	30.5	30.5
	Control		Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve
Power Supply	Ø, V, Hz	3, 380-415, 50	3, 380-415, 50	3, 380-415, 50	
Number of Maximum Connectable Indoor Units		64	64	64	

- Note
- Maximum numbers are prepared based on assumption that all 2.2kW indoor units are connected. The numbers in parentheses means maximum connectable indoor units in accordance with outdoor units combination (160% - 200%). The recommended ratio is 130%.
  - Due to our policy of innovation some specifications may be changed without notification
  - Performances are based on the following conditions
    - Cooling : Indoor temp 27°C (80.6°F) DB / 19°C (66.2°F) WB, Water inlet temp 30°C (86°F)
    - Heating : Indoor temp 20°C (68°F) DB, Water inlet temp 20°C (68°F)
    - Interconnected Pipe Length is 7.5m and difference of Elevation (Outdoor - Indoor Unit) is 0m.
  - Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard. Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard. Therefore, these values can be increased owing to ambient conditions during operation.
  - This product contains Fluorinated Greenhouse Gases. (R410A, GWP (Global warming potential) = 2,087.5)
  - Add an anti freeze to circulation water when outdoor unit is operating under 10°C (50°F), and change the DIP switch on main PCB. (For more information on installation section.)



# MULTI V WATER IV HEAT PUMP

ARWN500LAS4 / ARWN540LAS4  
ARWN600LAS4



HP		50	54	60	
<b>Model Name</b>	Combination Unit	ARWN500LAS4	ARWN540LAS4	ARWN600LAS4	
	Independent Unit	ARWN200LAS4 ARWN200LAS4 ARWN100LAS4	ARWN200LAS4 ARWN200LAS4 ARWN140LAS4	ARWN200LAS4 ARWN200LAS4 ARWN200LAS4	
<b>Capacity</b>	Cooling (Rated) kW	140.0	151.2	168.0	
	Heating (Rated) kW	157.5	170.1	189.0	
<b>Input</b>	Cooling (Rated) kW	27.49	30.24	33.60	
	Heating (Rated) kW	28.68	31.51	35.01	
<b>EER</b>		5.09	5.00	5.00	
<b>COP</b>	Rated Capacity	5.49	5.40	5.40	
<b>Exterior</b>	Color	Warm Gray / Morning Gray	Warm Gray / Morning Gray	Warm Gray / Morning Gray	
	RAL Code (Classic)	RAL 7044 / RAL 7030	RAL 7044 / RAL 7030	RAL 7044 / RAL 7030	
<b>Heat Exchanger</b>	Type	Stainless Steel Plate	Stainless Steel Plate	Stainless Steel Plate	
	Maximum Pressure Resistance	kgf/cm <sup>2</sup>	45	45	
	Head Loss	kPa	30.1 + 30.1 + 15.8	30.1 + 28.6 + 28.6	30.1 + 30.1 + 30.1
	Rated Water Flow	LPM	192 + 192 + 96	192 + 192 + 135	192 + 192 + 192
<b>Compressor</b>	Type	Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll	
	Combination x No.	(Inverter) x 3	(Inverter) x 3	(Inverter) x 3	
	Motor Output x Number	W x No.	5,300 x 2 + 4,200 x 1	5,300 x 2 + 4,200 x 1	5,300 x 3
	Oil Type	FVC68D (PVE)	FVC68D (PVE)	FVC68D (PVE)	
<b>Refrigerant Connecting Pipes</b>	Liquid Pipe	mm (inch)	Ø19.05 (3/4)	Ø19.05 (3/4)	
	Gas Pipe	mm (inch)	Ø41.3 (1-5/8)	Ø41.3 (1-5/8)	
<b>Water Connecting Pipes</b>	Inlet	A (inch)	40A (PT 1-1/2) + 40A (PT 1-1/2) + 40A (PT 1-1/2) (Internal Thread)	40A (PT 1-1/2) + 40A (PT 1-1/2) + 40A (PT 1-1/2) (Internal Thread)	
	Outlet	A (inch)	40A (PT 1-1/2) + 40A (PT 1-1/2) + 40A (PT 1-1/2) (Internal Thread)	40A (PT 1-1/2) + 40A (PT 1-1/2) + 40A (PT 1-1/2) (Internal Thread)	
	Drain Outlet	A (inch)	20A (PT 3/4) (External Thread)	20A (PT 3/4) (External Thread)	
<b>Dimensions (W x H x D)</b>	mm x No.	(755 x 997 x 500) x 3	(755 x 997 x 500) x 3	(755 x 997 x 500) x 3	
<b>Dimensions (W x H x D) - Shipping</b>	mm x No.	(804 x 1,143 x 630) x 3	(804 x 1,143 x 630) x 3	(804 x 1,143 x 630) x 3	
<b>Net Weight</b>	kg x No.	(140 x 2) + (127 x 1)	(140 x 2) + (127 x 1)	140 x 3	
<b>Shipping Weight</b>	kg x No.	(150 x 2) + (137 x 1)	(150 x 2) + (137 x 1)	150 x 3	
<b>Sound Pressure Level</b>	Cooling	dB(A)	57.8	60.0	
	Heating	dB(A)	63.4	62.0	
<b>Sound Power Level</b>	Cooling	dB(A)	69.8	74.0	
	Heating	dB(A)	75.4	76.0	
<b>Communication Cable</b>	mm <sup>2</sup> x No. (VCTF-SB)	1.0 - 1.5 x 2C	1.0 - 1.5 x 2C	1.0 - 1.5 x 2C	
<b>Refrigerant</b>	Refrigerant Name		R410A	R410A	
	Precharged Amount in Factory	kg	11.8	11.8	
	t-CO <sub>2</sub> eq		24.6	24.6	
	Control		Electronic Expansion Valve	Electronic Expansion Valve	
<b>Power Supply</b>	Ø, V, Hz	3, 380-415, 50	3, 380-415, 50	3, 380-415, 50	
<b>Number of Maximum Connectable Indoor Units</b>		64	64	64	

Note  
 1. Maximum numbers are prepared based on assumption that all 2.2kW indoor units are connected. The numbers in parentheses means maximum connectable indoor units in accordance with outdoor units combination (160% - 200%). The recommended ratio is 130%.  
 2. Due to our policy of innovation some specifications may be changed without notification  
 3. Performances are based on the following conditions  
 - Cooling : Indoor temp 27°C (80.6°F) DB / 19°C (66.2°F) WB, Water inlet temp 30°C (86°F)  
 - Heating : Indoor temp 20°C (68°F) DB, Water inlet temp 20°C (68°F)  
 - Interconnected Pipe Length is 7.5m and difference of Elevation (Outdoor - Indoor Unit) is 0m.  
 4. Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard. Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard. Therefore, these values can be increased owing to ambient conditions during operation.  
 5. This product contains Fluorinated Greenhouse Gases. (R410A, GWP (Global warming potential) = 2,087.5)  
 6. Add an anti freeze to circulation water when outdoor unit is operating under 10°C (50°F), and change the DIP switch on main PCB. (For more information on installation section.)

# MULTI V WATER IV HEAT PUMP

ARWN620LAS4 / ARWN640LAS4  
ARWN680LAS4



HP		62	64	68	
<b>Model Name</b>	Combination Unit	ARWN620LAS4	ARWN640LAS4	ARWN680LAS4	
	Independent Unit	ARWN200LAS4 ARWN200LAS4 ARWN140LAS4 ARWN080LAS4	ARWN200LAS4 ARWN200LAS4 ARWN140LAS4 ARWN100LAS4	ARWN200LAS4 ARWN200LAS4 ARWN140LAS4 ARWN140LAS4	
<b>Capacity</b>	Cooling (Rated) kW	173.6	179.2	190.4	
	Heating (Rated) kW	195.3	201.6	214.2	
<b>Input</b>	Cooling (Rated) kW	34.10	35.33	38.08	
	Heating (Rated) kW	35.71	36.85	39.68	
<b>EER</b>		5.09	5.07	5.00	
<b>COP</b>	Rated Capacity	5.47	5.47	5.40	
<b>Exterior</b>	Color	Warm Gray / Morning Gray	Warm Gray / Morning Gray	Warm Gray / Morning Gray	
	RAL Code (Classic)	RAL 7044 / RAL 7030	RAL 7044 / RAL 7030	RAL 7044 / RAL 7030	
<b>Heat Exchanger</b>	Type	Stainless Steel Plate	Stainless Steel Plate	Stainless Steel Plate	
	Maximum Pressure Resistance	kgf/cm <sup>2</sup>	45	45	
	Head Loss	kPa	30.1 + 30.1 + 28.6 + 10.7	30.1 + 30.1 + 28.6 + 15.8	30.1 + 30.1 + 28.6 + 28.6
	Rated Water Flow	LPM	192 + 192 + 135 + 77	192 + 192 + 135 + 96	192 + 192 + 135 + 135
<b>Compressor</b>	Type	Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll	
	Combination x No.	(Inverter) x 4	(Inverter) x 4	(Inverter) x 4	
	Motor Output x Number	W x No.	5,300 x 2 + 4,200 x 2	5,300 x 2 + 4,200 x 2	5,300 x 2 + 4,200 x 2
	Oil Type	FVC68D (PVE)	FVC68D (PVE)	FVC68D (PVE)	
<b>Refrigerant Connecting Pipes</b>	Liquid Pipe	mm (inch)	Ø22.2 (7/8)	Ø22.2 (7/8)	
	Gas Pipe	mm (inch)	Ø44.5 (1-3/4)	Ø44.5 (1-3/4)	
<b>Water Connecting Pipes</b>	Inlet	A (inch)	40A (PT 1-1/2) + 40A (PT 1-1/2) + 40A (PT 1-1/2) + PT40 (Internal Thread)	40A (PT 1-1/2) + 40A (PT 1-1/2) + 40A (PT 1-1/2) + PT40 (Internal Thread)	
	Outlet	A (inch)	40A (PT 1-1/2) + 40A (PT 1-1/2) + 40A (PT 1-1/2) + PT40 (Internal Thread)	40A (PT 1-1/2) + 40A (PT 1-1/2) + 40A (PT 1-1/2) + PT40 (Internal Thread)	
	Drain Outlet	A (inch)	20A (PT 3/4) (External Thread)	20A (PT 3/4) (External Thread)	
<b>Dimensions (W x H x D)</b>	mm x No.	(755 x 997 x 500) x 4	(755 x 997 x 500) x 4	(755 x 997 x 500) x 4	
<b>Dimensions (W x H x D) - Shipping</b>	mm x No.	(804 x 1,143 x 630) x 4	(804 x 1,143 x 630) x 4	(804 x 1,143 x 630) x 4	
<b>Net Weight</b>	kg x No.	(140 x 2) + (127 x 2)	(140 x 2) + (127 x 2)	(140 x 2) + (127 x 2)	
<b>Shipping Weight</b>	kg x No.	(150 x 2) + (137 x 2)	(150 x 2) + (137 x 2)	(150 x 2) + (137 x 2)	
<b>Sound Pressure Level</b>	Cooling	dB(A)	60.7	60.9	
	Heating	dB(A)	64.2	64.3	
<b>Sound Power Level</b>	Cooling	dB(A)	72.7	72.9	
	Heating	dB(A)	76.2	76.3	
<b>Communication Cable</b>	mm <sup>2</sup> x No. (VCTF-SB)	1.0 - 1.5 x 2C	1.0 - 1.5 x 2C	1.0 - 1.5 x 2C	
<b>Refrigerant</b>	Refrigerant Name		R410A	R410A	
	Precharged Amount in Factory	kg	17.6	17.6	
	t-CO <sub>2</sub> eq		36.7	36.7	
	Control		Electronic Expansion Valve	Electronic Expansion Valve	
<b>Power Supply</b>	Ø, V, Hz	3, 380-415, 50	3, 380-415, 50	3, 380-415, 50	
<b>Number of Maximum Connectable Indoor Units</b>		64	64	64	

Note  
 1. Maximum numbers are prepared based on assumption that all 2.2kW indoor units are connected. The numbers in parentheses means maximum connectable indoor units in accordance with outdoor units combination (160% - 200%). The recommended ratio is 130%.  
 2. Due to our policy of innovation some specifications may be changed without notification  
 3. Performances are based on the following conditions  
 - Cooling : Indoor temp 27°C (80.6°F) DB / 19°C (66.2°F) WB, Water inlet temp 30°C (86°F)  
 - Heating : Indoor temp 20°C (68°F) DB, Water inlet temp 20°C (68°F)  
 - Interconnected Pipe Length is 7.5m and difference of Elevation (Outdoor - Indoor Unit) is 0m.  
 4. Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard. Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard. Therefore, these values can be increased owing to ambient conditions during operation.  
 5. This product contains Fluorinated Greenhouse Gases. (R410A, GWP (Global warming potential) = 2,087.5)  
 6. Add an anti freeze to circulation water when outdoor unit is operating under 10°C (50°F), and change the DIP switch on main PCB. (For more information on installation section.)

# MULTI V WATER IV HEAT PUMP

ARWN700LAS4 / ARWN740LAS4  
ARWN800LAS4



HP		70	74	80	
Model Name	Combination Unit	ARWN700LAS4	ARWN740LAS4	ARWN800LAS4	
	Independent Unit	ARWN200LAS4 ARWN200LAS4 ARWN200LAS4 ARWN100LAS4	ARWN200LAS4 ARWN200LAS4 ARWN200LAS4 ARWN140LAS4	ARWN200LAS4 ARWN200LAS4 ARWN200LAS4 ARWN200LAS4	
Capacity	Cooling (Rated) kW	196.0	207.2	224.0	
	Heating (Rated) kW	220.5	233.1	252.0	
Input	Cooling (Rated) kW	38.69	41.44	44.80	
	Heating (Rated) kW	40.35	43.18	46.68	
EER		5.07	5.00	5.00	
COP	Rated Capacity	5.46	5.40	5.40	
Exterior	Color	Warm Gray / Morning Gray	Warm Gray / Morning Gray	Warm Gray / Morning Gray	
	RAL Code (Classic)	RAL 7044 / RAL 7030	RAL 7044 / RAL 7030	RAL 7044 / RAL 7030	
Heat Exchanger	Type	Stainless Steel Plate	Stainless Steel Plate	Stainless Steel Plate	
	Maximum Pressure Resistance	kgf/cm <sup>2</sup>	45	45	
	Head Loss	kPa	30.1 + 30.1 + 30.1 + 15.8	30.1 + 30.1 + 30.1 + 28.6	30.1 + 30.1 + 30.1 + 30.1
	Rated Water Flow	LPM	192 + 192 + 192 + 96	192 + 192 + 192 + 135	192 + 192 + 192 + 192
Compressor	Type	Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll	
	Combination x No.	(Inverter) x 4	(Inverter) x 4	(Inverter) x 4	
	Motor Output x Number	W x No.	5,300 x 3 + 4,200 x 1	5,300 x 3 + 4,200 x 1	5,300 x 4
	Oil Type	FVC68D (PVE)	FVC68D (PVE)	FVC68D (PVE)	
Refrigerant Connecting Pipes	Liquid Pipe	mm (inch)	Ø22.2 (7/8)	Ø22.2 (7/8)	
	Gas Pipe	mm (inch)	Ø53.98 (2-1/8)	Ø53.98 (2-1/8)	
Water Connecting Pipes	Inlet	A (inch)	40A (PT 1-1/2) + 40A (PT 1-1/2) + 40A (PT 1-1/2) + PT40 (Internal Thread)	40A (PT 1-1/2) + 40A (PT 1-1/2) + 40A (PT 1-1/2) + PT40 (Internal Thread)	
	Outlet	A (inch)	40A (PT 1-1/2) + 40A (PT 1-1/2) + 40A (PT 1-1/2) + PT40 (Internal Thread)	40A (PT 1-1/2) + 40A (PT 1-1/2) + 40A (PT 1-1/2) + PT40 (Internal Thread)	
	Drain Outlet	A (inch)	20A (PT 3/4) (External Thread)	20A (PT 3/4) (External Thread)	
Dimensions (W x H x D)	mm x No.	(755 x 997 x 500) x 4	(755 x 997 x 500) x 4	(755 x 997 x 500) x 4	
Dimensions (W x H x D) - Shipping	mm x No.	(804 x 1,143 x 630) x 4	(804 x 1,143 x 630) x 4	(804 x 1,143 x 630) x 4	
Net Weight	kg x No.	(140 x 3) + (127 x 1)	(140 x 3) + (127 x 1)	140 x 4	
Shipping Weight	kg x No.	(150 x 3) + (137 x 1)	(150 x 3) + (137 x 1)	150 x 4	
Sound Pressure Level	Cooling	dB(A)	59.3	61.0	
	Heating	dB(A)	65.1	63.0	
Sound Power Level	Cooling	dB(A)	71.3	75.0	
	Heating	dB(A)	77.1	77.0	
Communication Cable	mm <sup>2</sup> x No. (VCTF-SB)	1.0 - 1.5 x 2C	1.0 - 1.5 x 2C	1.0 - 1.5 x 2C	
Refrigerant	Refrigerant Name		R410A	R410A	
	Precharged Amount in Factory	kg	14.8	14.8	
	t-CO <sub>2</sub> eq		30.9	25.1	
	Control		Electronic Expansion Valve	Electronic Expansion Valve	
Power Supply	Ø, V, Hz	3, 380-415, 50	3, 380-415, 50	3, 380-415, 50	
Number of Maximum Connectable Indoor Units <sup>1)</sup>		64	64	64	

Note  
 1. Maximum numbers are prepared based on assumption that all 2.2kW indoor units are connected. The numbers in parentheses means maximum connectable indoor units in accordance with outdoor units combination (160% - 200%). The recommended ratio is 130%.  
 2. Due to our policy of innovation some specifications may be changed without notification  
 3. Performances are based on the following conditions  
 - Cooling : Indoor temp 27°C (80.6°F) DB / 19°C (66.2°F) WB, Water inlet temp 30°C (86°F)  
 - Heating : Indoor temp 20°C (68°F) DB, Water inlet temp 20°C (68°F)  
 - Interconnected Pipe Length is 7.5m and difference of Elevation (Outdoor - Indoor Unit) is 0m.  
 4. Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard. Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard. Therefore, these values can be increased owing to ambient conditions during operation.  
 5. This product contains Fluorinated Greenhouse Gases. (R410A, GWP (Global warming potential) = 2,087.5)  
 6. Add an anti freeze to circulation water when outdoor unit is operating under 10°C (50°F), and change the DIP switch on main PCB. (For more information on installation section.)

# MULTI V WATER IV HEAT RECOVERY

ARWB080LAS4 / ARWB100LAS4  
ARWB140LAS4



HP		8	10	14
Model Name	Combination Unit	ARWB080LAS4	ARWB100LAS4	ARWB140LAS4
	Independent Unit	ARWB080LAS4	ARWB100LAS4	ARWB140LAS4
Capacity	Cooling (Rated) kW	22.4	28.0	39.2
	Heating (Rated) kW	25.2	31.5	44.1
Input	Cooling (Rated) kW	3.86	5.09	7.84
	Heating (Rated) kW	4.20	5.34	8.17
EER		5.80	5.50	5.00
COP	Rated Capacity	6.00	5.90	5.40
Exterior	Color	Warm Gray / Morning Gray	Warm Gray / Morning Gray	Warm Gray / Morning Gray
	RAL Code (Classic)	RAL 7044 / RAL 7030	RAL 7044 / RAL 7030	RAL 7044 / RAL 7030
Heat Exchanger	Type	Stainless Steel Plate	Stainless Steel Plate	Stainless Steel Plate
	Maximum Pressure Resistance	kgf/cm <sup>2</sup>	45	45
	Head Loss	kPa	10.7	15.8
	Rated Water Flow	LPM	77	96
Compressor	Type	Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll
	Combination x No.	(Inverter) x 1	(Inverter) x 1	(Inverter) x 1
	Motor Output x Number	W x No.	4,200 x 1	4,200 x 1
	Oil Type	FVC68D (PVE)	FVC68D (PVE)	FVC68D (PVE)
Refrigerant Connecting Pipes	Liquid Pipe	mm (inch)	Ø9.52 (3/8)	Ø12.7 (1/2)
	Low Pressure Gas Pipe	mm (inch)	Ø22.2 (7/8)	Ø25.4 (1)
	High Pressure Gas Pipe	mm (inch)	Ø19.05 (3/4)	Ø19.05 (3/4)
Water Connecting Pipes	Inlet	A (inch)	40A (PT 1-1/2) (Internal Thread)	40A (PT 1-1/2) (Internal Thread)
	Outlet	A (inch)	40A (PT 1-1/2) (Internal Thread)	40A (PT 1-1/2) (Internal Thread)
	Drain Outlet	A (inch)	20A (PT 3/4) (External Thread)	20A (PT 3/4) (External Thread)
Dimensions (W x H x D)	mm x No.	(755 x 997 x 500) x 1	(755 x 997 x 500) x 1	(755 x 997 x 500) x 1
Dimensions (W x H x D) - Shipping	mm x No.	(804 x 1,143 x 630) x 1	(804 x 1,143 x 630) x 1	(804 x 1,143 x 630) x 1
Net Weight	kg x No.	127 x 1	127 x 1	127 x 1
Shipping Weight	kg x No.	137 x 1	137 x 1	137 x 1
Sound Pressure Level	Cooling	dB(A)	47.0	50.0
	Heating	dB(A)	51.0	53.0
Sound Power Level	Cooling	dB(A)	59.0	62.0
	Heating	dB(A)	63.0	65.0
Communication Cable	mm <sup>2</sup> x No. (VCTF-SB)	1.0 - 1.5 x 2C	1.0 - 1.5 x 2C	1.0 - 1.5 x 2C
Refrigerant	Refrigerant Name		R410A	R410A
	Precharged Amount in Factory	kg	5.8	5.8
	t-CO <sub>2</sub> eq		12.1	12.1
	Control		Electronic Expansion Valve	Electronic Expansion Valve
Power Supply	Ø, V, Hz	3, 380-415, 50	3, 380-415, 50	3, 380-415, 50
Number of Maximum Connectable Indoor Units <sup>1)</sup>		13 (20)	16 (25)	23 (35)

Note  
 1. Maximum numbers are prepared based on assumption that all 2.2kW indoor units are connected. The numbers in parentheses means maximum connectable indoor units in accordance with outdoor units combination (160% - 200%). The recommended ratio is 130%.  
 2. Due to our policy of innovation some specifications may be changed without notification  
 3. Performances are based on the following conditions  
 - Cooling : Indoor temp 27°C (80.6°F) DB / 19°C (66.2°F) WB, Water inlet temp 30°C (86°F)  
 - Heating : Indoor temp 20°C (68°F) DB, Water inlet temp 20°C (68°F)  
 - Interconnected Pipe Length is 7.5m and difference of Elevation (Outdoor - Indoor Unit) is 0m.  
 4. Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard. Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard. Therefore, these values can be increased owing to ambient conditions during operation.  
 5. This product contains Fluorinated Greenhouse Gases. (R410A, GWP (Global warming potential) = 2,087.5)  
 6. Add an anti freeze to circulation water when outdoor unit is operating under 10°C (50°F), and change the DIP switch on main PCB. (For more information on installation section.)



# MULTI V WATER IV HEAT RECOVERY

ARWB200LAS4 / ARWB160LAS4  
ARWB180LAS4



HP		20	16	18	
<b>Model Name</b>	Combination Unit	ARWB200LAS4	ARWB160LAS4	ARWB180LAS4	
	Independent Unit	ARWB200LAS4	ARWB080LAS4 ARWB080LAS4	ARWB100LAS4 ARWB080LAS4	
<b>Capacity</b>	Cooling (Rated) kW	56.0	44.8	50.4	
	Heating (Rated) kW	63.0	50.4	56.7	
<b>Input</b>	Cooling (Rated) kW	11.20	7.72	8.95	
	Heating (Rated) kW	11.67	8.40	9.54	
<b>EER</b>		5.00	5.80	5.63	
<b>COP</b>	Rated Capacity	5.40	6.00	5.94	
<b>Exterior</b>	Color	Warm Gray / Morning Gray	Warm Gray / Morning Gray	Warm Gray / Morning Gray	
	RAL Code (Classic)	RAL 7044 / RAL 7030	RAL 7044 / RAL 7030	RAL 7044 / RAL 7030	
<b>Heat Exchanger</b>	Type	Stainless Steel Plate	Stainless Steel Plate	Stainless Steel Plate	
	Maximum Pressure Resistance	kgf/cm <sup>2</sup>	45	45	
	Head Loss	kPa	30.1	10.7 + 10.7	15.8 + 10.7
	Rated Water Flow	LPM	192	77 + 77	96 + 77
	Type		Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll
<b>Compressor</b>	Combination x No.	(Inverter) x 1	(Inverter) x 2	(Inverter) x 2	
	Motor Output x Number	W x No.	5,300 x 1	4,200 x 2	4,200 x 2
	Oil Type		FVC68D(PVE)	FVC68D(PVE)	FVC68D(PVE)
	Oil Charge	cc	3,000	5,600	5,600
<b>Refrigerant Connecting Pipes</b>	Liquid Pipe	mm (inch)	Ø12.7 (1/2)	Ø12.7 (1/2)	Ø12.7 (1/2)
	Low Pressure Gas Pipe	mm (inch)	Ø28.58 (1-1/8)	Ø28.58 (1-1/8)	Ø28.58 (1-1/8)
	High Pressure Gas Pipe	mm (inch)	Ø19.05 (3/4)	Ø19.05 (3/4)	Ø19.05 (3/4)
<b>Water Connecting Pipes</b>	Inlet	A (inch)	40A(PT 1-1/2) (Internal Thread)	40A(PT 1-1/2) + 40A(PT 1-1/2) (Internal Thread)	40A(PT 1-1/2) + 40A(PT 1-1/2) (Internal Thread)
	Outlet	A (inch)	40A(PT 1-1/2) (Internal Thread)	40A(PT 1-1/2) + 40A(PT 1-1/2) (Internal Thread)	40A(PT 1-1/2) + 40A(PT 1-1/2) (Internal Thread)
	Drain Outlet	A (inch)	20A(PT 3/4) (External Thread)	20A(PT 3/4) (External Thread)	20A(PT 3/4) (External Thread)
<b>Dimensions (W x H x D)</b>	mm x No.	(755 x 997 x 500) x 1	(755 x 997 x 500) x 2	(755 x 997 x 500) x 2	
<b>Dimensions (W x H x D) - Shipping</b>	mm x No.	(804 x 1,143 x 630) x 1	(804 x 1,143 x 630) x 2	(804 x 1,143 x 630) x 2	
<b>Net Weight</b>	kg x No.	140 x 1	127 x 2	127 x 2	
<b>Shipping Weight</b>	kg x No.	150 x 1	137 x 2	137 x 2	
<b>Sound Pressure Level</b>	Cooling	dB(A)	54.0	50.0	52.0
	Heating	dB(A)	60.0	54.0	55.0
<b>Sound Power Level</b>	Cooling	dB(A)	66.0	62.0	64.0
	Heating	dB(A)	72.0	66.0	67.0
<b>Communication Cable</b>	mm <sup>2</sup> x No. (VCTF-SB)	1.0 - 1.5 x 2C	1.0 - 1.5 x 2C	1.0 - 1.5 x 2C	
<b>Refrigerant</b>	Refrigerant Name		R410A	R410A	R410A
	Precharged Amount in Factory	kg	3.0	11.6	11.6
	t-CO <sub>2</sub> eq		6.3	24.2	24.2
	Control		Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve
<b>Power Supply</b>	Ø, V, Hz	3, 380-415, 50	3, 380-415, 50	3, 380-415, 50	
<b>Number of Maximum Connectable Indoor Units</b>		32(50)	26(40)	29(45)	

Note  
 1. Maximum numbers are prepared based on assumption that all 2.2kW indoor units are connected. The numbers in parentheses means maximum connectable indoor units in accordance with outdoor units combination (160% - 200%). The recommended ratio is 130%.  
 2. Due to our policy of innovation some specifications may be changed without notification  
 3. Performances are based on the following conditions  
 - Cooling : Indoor temp 27°C (80.6°F) DB / 19°C (66.2°F) WB, Water inlet temp 30°C (86°F)  
 - Heating : Indoor temp 20°C (68°F) DB, Water inlet temp 20°C (68°F)  
 - Interconnected Pipe Length is 7.5m and difference of Elevation (Outdoor - Indoor Unit) is 0m.  
 4. Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard. Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard. Therefore, these values can be increased owing to ambient conditions during operation.  
 5. This product contains Fluorinated Greenhouse Gases. (R410A, GWP (Global warming potential) = 2,087.5)  
 6. Add an anti freeze to circulation water when outdoor unit is operating under 10°C (50°F), and change the DIP switch on main PCB. (For more information on installation section.)

# MULTI V WATER IV HEAT RECOVERY

ARWB220LAS4 / ARWB240LAS4  
ARWB280LAS4



HP		22	24	28	
<b>Model Name</b>	Combination Unit	ARWB220LAS4	ARWB240LAS4	ARWB280LAS4	
	Independent Unit	ARWB140LAS4 ARWB080LAS4	ARWB140LAS4 ARWB100LAS4	ARWB140LAS4 ARWB140LAS4	
<b>Capacity</b>	Cooling (Rated) kW	61.6	67.2	78.4	
	Heating (Rated) kW	69.3	75.6	88.2	
<b>Input</b>	Cooling (Rated) kW	11.70	12.93	15.68	
	Heating (Rated) kW	12.37	13.51	16.34	
<b>EER</b>		5.26	5.20	5.00	
<b>COP</b>	Rated Capacity	5.60	5.60	5.40	
<b>Exterior</b>	Color	Warm Gray / Morning Gray	Warm Gray / Morning Gray	Warm Gray / Morning Gray	
	RAL Code (Classic)	RAL 7044 / RAL 7030	RAL 7044 / RAL 7030	RAL 7044 / RAL 7030	
<b>Heat Exchanger</b>	Type	Stainless Steel Plate	Stainless Steel Plate	Stainless Steel Plate	
	Maximum Pressure Resistance	kgf/cm <sup>2</sup>	45	45	
	Head Loss	kPa	28.6 + 10.7	28.6 + 15.8	28.6 + 28.6
	Rated Water Flow	LPM	135 + 77	135 + 96	135 + 135
	Type		Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll
<b>Compressor</b>	Combination x No.	(Inverter) x 2	(Inverter) x 2	(Inverter) x 2	
	Motor Output x Number	W x No.	4,200 x 2	4,200 x 2	4,200 x 2
	Oil Type		FVC68D (PVE)	FVC68D (PVE)	FVC68D (PVE)
	Oil Charge	cc	5,600	5,600	5,600
<b>Refrigerant Connecting Pipes</b>	Liquid Pipe	mm (inch)	Ø19.05 (3/4)	Ø19.05 (3/4)	Ø19.05 (3/4)
	Low Pressure Gas Pipe	mm (inch)	Ø34.9 (1-3/8)	Ø34.9 (1-3/8)	Ø34.9 (1-3/8)
	High Pressure Gas Pipe	mm (inch)	Ø28.58 (1-1/8)	Ø28.58 (1-1/8)	Ø28.58 (1-1/8)
<b>Water Connecting Pipes</b>	Inlet	A (inch)	40A (PT 1-1/2) + 40A (PT 1-1/2) (Internal Thread)	40A (PT 1-1/2) + 40A (PT 1-1/2) (Internal Thread)	40A (PT 1-1/2) + 40A (PT 1-1/2) (Internal Thread)
	Outlet	A (inch)	40A (PT 1-1/2) + 40A (PT 1-1/2) (Internal Thread)	40A (PT 1-1/2) + 40A (PT 1-1/2) (Internal Thread)	40A (PT 1-1/2) + 40A (PT 1-1/2) (Internal Thread)
	Drain Outlet	A (inch)	20A (PT 3/4) (External Thread)	20A (PT 3/4) (External Thread)	20A (PT 3/4) (External Thread)
<b>Dimensions (W x H x D)</b>	mm x No.	(755 x 997 x 500) x 2	(755 x 997 x 500) x 2	(755 x 997 x 500) x 2	
<b>Dimensions (W x H x D) - Shipping</b>	mm x No.	(804 x 1,143 x 630) x 2	(804 x 1,143 x 630) x 2	(804 x 1,143 x 630) x 2	
<b>Net Weight</b>	kg x No.	127 x 2	127 x 2	127 x 2	
<b>Shipping Weight</b>	kg x No.	137 x 2	137 x 2	137 x 2	
<b>Sound Pressure Level</b>	Cooling	dB(A)	58.0	59.0	59.0
	Heating	dB(A)	58.0	58.0	58.0
<b>Sound Power Level</b>	Cooling	dB(A)	70.0	71.0	72.0
	Heating	dB(A)	70.0	70.0	71.0
<b>Communication Cable</b>	mm <sup>2</sup> x No. (VCTF-SB)	1.0 - 1.5 x 2C	1.0 - 1.5 x 2C	1.0 - 1.5 x 2C	
<b>Refrigerant</b>	Refrigerant Name		R410A	R410A	R410A
	Precharged Amount in Factory	kg	11.6	11.6	11.6
	t-CO <sub>2</sub> eq		24.2	24.2	24.2
	Control		Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve
<b>Power Supply</b>	Ø, V, Hz	3, 380-415, 50	3, 380-415, 50	3, 380-415, 50	
<b>Number of Maximum Connectable Indoor Units</b>		35 (44)	39 (48)	45 (56)	

Note  
 1. Maximum numbers are prepared based on assumption that all 2.2kW indoor units are connected. The numbers in parentheses means maximum connectable indoor units in accordance with outdoor units combination (160% - 200%). The recommended ratio is 130%.  
 2. Due to our policy of innovation some specifications may be changed without notification  
 3. Performances are based on the following conditions  
 - Cooling : Indoor temp 27°C (80.6°F) DB / 19°C (66.2°F) WB, Water inlet temp 30°C (86°F)  
 - Heating : Indoor temp 20°C (68°F) DB, Water inlet temp 20°C (68°F)  
 - Interconnected Pipe Length is 7.5m and difference of Elevation (Outdoor - Indoor Unit) is 0m.  
 4. Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard. Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard. Therefore, these values can be increased owing to ambient conditions during operation.  
 5. This product contains Fluorinated Greenhouse Gases. (R410A, GWP (Global warming potential) = 2,087.5)  
 6. Add an anti freeze to circulation water when outdoor unit is operating under 10°C (50°F), and change the DIP switch on main PCB. (For more information on installation section.)

# MULTI V WATER IV HEAT RECOVERY

ARWB300LAS4 / ARWB340LAS4  
ARWB400LAS4



HP		30	34	40	
<b>Model Name</b>	Combination Unit	ARWB300LAS4	ARWB340LAS4	ARWB400LAS4	
	Independent Unit	ARWB200LAS4 ARWB100LAS4	ARWB200LAS4 ARWB140LAS4	ARWB200LAS4 ARWB140LAS4	
<b>Capacity</b>	Cooling (Rated) kW	84.0	95.2	112.0	
	Heating (Rated) kW	94.5	107.1	126.0	
<b>Input</b>	Cooling (Rated) kW	16.29	19.04	22.40	
	Heating (Rated) kW	17.01	19.84	23.34	
<b>EER</b>		5.16	5.00	5.00	
<b>COP</b>	Rated Capacity	5.56	5.40	5.40	
<b>Exterior</b>	Color	Warm Gray / Morning Gray	Warm Gray / Morning Gray	Warm Gray / Morning Gray	
	RAL Code (Classic)	RAL 7044 / RAL 7030	RAL 7044 / RAL 7030	RAL 7044 / RAL 7030	
<b>Heat Exchanger</b>	Type	Stainless Steel Plate	Stainless Steel Plate	Stainless Steel Plate	
	Maximum Pressure Resistance	kgf/cm <sup>2</sup>	45	45	
	Head Loss	kPa	30.1 + 15.8	30.1 + 28.6	30.1 + 30.1
	Rated Water Flow	LPM	192 + 96	192 + 135	192 + 192
	Type		Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll
<b>Compressor</b>	Combination x No.	(Inverter) x 2	(Inverter) x 2	(Inverter) x 2	
	Motor Output x Number	W x No.	5,300 x 1 + 4,200 x 1	5,300 x 1 + 4,200 x 1	5,300 x 2
	Oil Type		FVC68D (PVE)	FVC68D (PVE)	FVC68D (PVE)
	Oil Charge	cc	5,800	5,800	6,000
<b>Refrigerant Connecting Pipes</b>	Liquid Pipe	mm (inch)	Ø19.05 (3/4)	Ø19.05 (3/4)	Ø19.05 (3/4)
	Low Pressure Gas Pipe	mm (inch)	Ø34.9 (1-3/8)	Ø34.9 (1-3/8)	Ø41.3 (1-5/8)
	High Pressure Gas Pipe	mm (inch)	Ø28.58 (1-1/8)	Ø28.58 (1-1/8)	Ø34.9 (1-3/8)
<b>Water Connecting Pipes</b>	Inlet	A (inch)	40A (PT 1-1/2) + 40A (PT 1-1/2) (Internal Thread)	40A (PT 1-1/2) + 40A (PT 1-1/2) (Internal Thread)	40A (PT 1-1/2) + 40A (PT 1-1/2) (Internal Thread)
	Outlet	A (inch)	40A (PT 1-1/2) + 40A (PT 1-1/2) (Internal Thread)	40A (PT 1-1/2) + 40A (PT 1-1/2) (Internal Thread)	40A (PT 1-1/2) + 40A (PT 1-1/2) (Internal Thread)
	Drain Outlet	A (inch)	20A (PT 3/4) (External Thread)	20A (PT 3/4) (External Thread)	20A (PT 3/4) (External Thread)
<b>Dimensions (W x H x D)</b>	mm x No.	(755 x 997 x 500) x 2	(755 x 997 x 500) x 2	(755 x 997 x 500) x 2	
<b>Dimensions (W x H x D) - Shipping</b>	mm x No.	(804 x 1,143 x 630) x 2	(804 x 1,143 x 630) x 2	(804 x 1,143 x 630) x 2	
<b>Net Weight</b>	kg x No.	(140 x 1) + (127 x 1)	(140 x 1) + (127 x 1)	140 x 2	
<b>Shipping Weight</b>	kg x No.	(150 x 1) + (137 x 1)	(150 x 1) + (137 x 1)	150 x 2	
<b>Sound Pressure Level</b>	Cooling	dB(A)	55.0	59.0	55.0
	Heating	dB(A)	61.0	61.0	61.0
<b>Sound Power Level</b>	Cooling	dB(A)	67.0	72.0	68.0
	Heating	dB(A)	73.0	74.0	74.0
<b>Communication Cable</b>	mm <sup>2</sup> x No. (VCTF-SB)	1.0 - 1.5 x 2C	1.0 - 1.5 x 2C	1.0 - 1.5 x 2C	
<b>Refrigerant</b>	Refrigerant Name		R410A	R410A	R410A
	Precharged Amount in Factory	kg	8.8	8.8	6.0
	t-CO <sub>2</sub> eq		18.4	18.4	12.5
	Control		Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve
<b>Power Supply</b>	Ø, V, Hz	3, 380-415, 50	3, 380-415, 50	3, 380-415, 50	
<b>Number of Maximum Connectable Indoor Units</b>		49 (60)	55 (64)	64	

Note  
 1. Maximum numbers are prepared based on assumption that all 2.2kW indoor units are connected. The numbers in parentheses means maximum connectable indoor units in accordance with outdoor units combination (160% - 200%). The recommended ratio is 130%.  
 2. Due to our policy of innovation some specifications may be changed without notification  
 3. Performances are based on the following conditions  
 - Cooling : Indoor temp 27°C (80.6°F) DB / 19°C (66.2°F) WB, Water inlet temp 30°C (86°F)  
 - Heating : Indoor temp 20°C (68°F) DB, Water inlet temp 20°C (68°F)  
 - Interconnected Pipe Length is 7.5m and difference of Elevation (Outdoor - Indoor Unit) is 0m.  
 4. Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard. Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard. Therefore, these values can be increased owing to ambient conditions during operation.  
 5. This product contains Fluorinated Greenhouse Gases. (R410A, GWP (Global warming potential) = 2,087.5)  
 6. Add an anti freeze to circulation water when outdoor unit is operating under 10°C (50°F), and change the DIP switch on main PCB. (For more information on installation section.)

# MULTI V WATER IV HEAT RECOVERY

ARWB420LAS4 / ARWB440LAS4  
ARWB480LAS4



HP		42	44	48	
<b>Model Name</b>	Combination Unit	ARWB420LAS4	ARWB440LAS4	ARWB480LAS4	
	Independent Unit	ARWB200LAS4 ARWB140LAS4 ARWB080LAS4	ARWB200LAS4 ARWB140LAS4 ARWB100LAS4	ARWB200LAS4 ARWB140LAS4 ARWB140LAS4	
<b>Capacity</b>	Cooling (Rated) kW	117.6	123.2	134.4	
	Heating (Rated) kW	132.3	138.6	151.2	
<b>Input</b>	Cooling (Rated) kW	22.9	24.13	26.88	
	Heating (Rated) kW	24.04	25.18	28.01	
<b>EER</b>		5.14	5.11	5.00	
<b>COP</b>	Rated Capacity	5.50	5.50	5.40	
<b>Exterior</b>	Color	Warm Gray / Morning Gray	Warm Gray / Morning Gray	Warm Gray / Morning Gray	
	RAL Code (Classic)	RAL 7044 / RAL 7030	RAL 7044 / RAL 7030	RAL 7044 / RAL 7030	
<b>Heat Exchanger</b>	Type	Stainless Steel Plate	Stainless Steel Plate	Stainless Steel Plate	
	Maximum Pressure Resistance	kgf/cm <sup>2</sup>	45	45	
	Head Loss	kPa	30.1 + 28.6 + 10.7	30.1 + 28.6 + 15.8	30.1 + 28.6 + 28.6
	Rated Water Flow	LPM	192 + 135 + 77	192 + 135 + 96	192 + 135 + 135
	Type		Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll
<b>Compressor</b>	Combination x No.	(Inverter) x 3	(Inverter) x 3	(Inverter) x 3	
	Motor Output x Number	W x No.	5,300 x 1 + 4,200 x 2	5,300 x 1 + 4,200 x 2	5,300 x 1 + 4,200 x 2
	Oil Type		FVC68D (PVE)	FVC68D (PVE)	FVC68D (PVE)
	Oil Charge	cc	8,600	8,600	8,600
<b>Refrigerant Connecting Pipes</b>	Liquid Pipe	mm (inch)	Ø19.05 (3/4)	Ø19.05 (3/4)	Ø19.05 (3/4)
	Low Pressure Gas Pipe	mm (inch)	Ø41.3 (1-5/8)	Ø41.3 (1-5/8)	Ø41.3 (1-5/8)
	High Pressure Gas Pipe	mm (inch)	Ø34.9 (1-3/8)	Ø34.9 (1-3/8)	Ø34.9 (1-3/8)
<b>Water Connecting Pipes</b>	Inlet	A (inch)	40A (PT 1-1/2) + 40A (PT 1-1/2) + 40A (PT 1-1/2) (Internal Thread)	40A (PT 1-1/2) + 40A (PT 1-1/2) + 40A (PT 1-1/2) (Internal Thread)	40A (PT 1-1/2) + 40A (PT 1-1/2) + 40A (PT 1-1/2) (Internal Thread)
	Outlet	A (inch)	40A (PT 1-1/2) + 40A (PT 1-1/2) + 40A (PT 1-1/2) (Internal Thread)	40A (PT 1-1/2) + 40A (PT 1-1/2) + 40A (PT 1-1/2) (Internal Thread)	40A (PT 1-1/2) + 40A (PT 1-1/2) + 40A (PT 1-1/2) (Internal Thread)
	Drain Outlet	A (inch)	20A (PT 3/4) (External Thread)	20A (PT 3/4) (External Thread)	20A (PT 3/4) (External Thread)
<b>Dimensions (W x H x D)</b>	mm x No.	(755 x 997 x 500) x 3	(755 x 997 x 500) x 3	(755 x 997 x 500) x 3	
<b>Dimensions (W x H x D) - Shipping</b>	mm x No.	(804 x 1,143 x 630) x 3	(804 x 1,143 x 630) x 3	(804 x 1,143 x 630) x 3	
<b>Net Weight</b>	kg x No.	(140 x 1) + (127 x 2)	(140 x 1) + (127 x 2)	(140 x 1) + (127 x 2)	
<b>Shipping Weight</b>	kg x No.	(150 x 1) + (137 x 2)	(150 x 1) + (137 x 2)	(150 x 1) + (137 x 2)	
<b>Sound Pressure Level</b>	Cooling	dB(A)	60.0	60.0	60.0
	Heating	dB(A)	62.0	62.0	62.0
<b>Sound Power Level</b>	Cooling	dB(A)	72.0	72.0	74.0
	Heating	dB(A)	74.0	74.0	76.0
<b>Communication Cable</b>	mm <sup>2</sup> x No. (VCTF-SB)	1.0 - 1.5 x 2C	1.0 - 1.5 x 2C	1.0 - 1.5 x 2C	
<b>Refrigerant</b>	Refrigerant Name		R410A	R410A	R410A
	Precharged Amount in Factory	kg	14.6	14.6	14.6
	t-CO <sub>2</sub> eq		30.5	30.5	30.5
	Control		Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve
<b>Power Supply</b>	Ø, V, Hz	3, 380-415, 50	3, 380-415, 50	3, 380-415, 50	
<b>Number of Maximum Connectable Indoor Units</b>		64	64	64	

Note  
 1. Maximum numbers are prepared based on assumption that all 2.2kW indoor units are connected. The numbers in parentheses means maximum connectable indoor units in accordance with outdoor units combination (160% - 200%). The recommended ratio is 130%.  
 2. Due to our policy of innovation some specifications may be changed without notification  
 3. Performances are based on the following conditions  
 - Cooling : Indoor temp 27°C (80.6°F) DB / 19°C (66.2°F) WB, Water inlet temp 30°C (86°F)  
 - Heating : Indoor temp 20°C (68°F) DB, Water inlet temp 20°C (68°F)  
 - Interconnected Pipe Length is 7.5m and difference of Elevation (Outdoor - Indoor Unit) is 0m.  
 4. Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard. Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard. Therefore, these values can be increased owing to ambient conditions during operation.  
 5. This product contains Fluorinated Greenhouse Gases. (R410A, GWP (Global warming potential) = 2,087.5)  
 6. Add an anti freeze to circulation water when outdoor unit is operating under 10°C (50°F), and change the DIP switch on main PCB. (For more information on installation section.)



# MULTI V WATER IV HEAT RECOVERY

ARWB500LAS4 / ARWB540LAS4  
ARWB600LAS4



HP		50	54	60	
<b>Model Name</b>	Combination Unit	ARWB500LAS4	ARWB540LAS4	ARWB600LAS4	
	Independent Unit	ARWB200LAS4 ARWB200LAS4 ARWB100LAS4	ARWB200LAS4 ARWB200LAS4 ARWB140LAS4	ARWB200LAS4 ARWB200LAS4 ARWB200LAS4	
<b>Capacity</b>	Cooling (Rated) kW	140.0	151.2	168.0	
	Heating (Rated) kW	157.5	170.1	189.0	
<b>Input</b>	Cooling (Rated) kW	27.49	30.24	33.60	
	Heating (Rated) kW	28.68	31.51	35.01	
<b>EER</b>		5.09	5.00	5.00	
<b>COP</b>	Rated Capacity	5.49	5.40	5.40	
<b>Exterior</b>	Color	Warm Gray / Morning Gray	Warm Gray / Morning Gray	Warm Gray / Morning Gray	
	RAL Code (Classic)	RAL 7044 / RAL 7030	RAL 7044 / RAL 7030	RAL 7044 / RAL 7030	
<b>Heat Exchanger</b>	Type	Stainless Steel Plate	Stainless Steel Plate	Stainless Steel Plate	
	Maximum Pressure Resistance	kgf/cm <sup>2</sup>	45	45	
	Head Loss	kPa	30.1 + 30.1 + 15.8	30.1 + 28.6 + 28.6	30.1 + 30.1 + 30.1
	Rated Water Flow	LPM	192 + 192 + 96	192 + 192 + 135	192 + 192 + 192
<b>Compressor</b>	Type	Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll	
	Combination x No.	(Inverter) x 3	(Inverter) x 3	(Inverter) x 3	
	Motor Output x Number	W x No.	5,300 x 2 + 4,200 x 1	5,300 x 2 + 4,200 x 1	5,300 x 3
	Oil Type	FVC68D (PVE)	FVC68D (PVE)	FVC68D (PVE)	
<b>Refrigerant Connecting Pipes</b>	Liquid Pipe	mm (inch)	Ø19.05 (3/4)	Ø19.05 (3/4)	
	Low Pressure Gas Pipe	mm (inch)	Ø41.3 (1-5/8)	Ø41.3 (1-5/8)	
	High Pressure Gas Pipe	mm (inch)	Ø34.9 (1-3/8)	Ø34.9 (1-3/8)	
<b>Water Connecting Pipes</b>	Inlet	A (inch)	40A (PT 1-1/2) + 40A (PT 1-1/2) + 40A (PT 1-1/2) (Internal Thread)	40A (PT 1-1/2) + 40A (PT 1-1/2) + 40A (PT 1-1/2) (Internal Thread)	
	Outlet	A (inch)	40A (PT 1-1/2) + 40A (PT 1-1/2) + 40A (PT 1-1/2) (Internal Thread)	40A (PT 1-1/2) + 40A (PT 1-1/2) + 40A (PT 1-1/2) (Internal Thread)	
	Drain Outlet	A (inch)	20A (PT 3/4) (External Thread)	20A (PT 3/4) (External Thread)	
<b>Dimensions (W x H x D)</b>	mm x No.	(755 x 997 x 500) x 3	(755 x 997 x 500) x 3	(755 x 997 x 500) x 3	
<b>Dimensions (W x H x D) - Shipping</b>	mm x No.	(804 x 1,143 x 630) x 3	(804 x 1,143 x 630) x 3	(804 x 1,143 x 630) x 3	
<b>Net Weight</b>	kg x No.	(140 x 2) + (127 x 1)	(140 x 2) + (127 x 1)	140 x 3	
<b>Shipping Weight</b>	kg x No.	(150 x 2) + (137 x 1)	(150 x 2) + (137 x 1)	150 x 3	
<b>Sound Pressure Level</b>	Cooling	dB(A)	58.0	60.0	
	Heating	dB(A)	63.0	62.0	
<b>Sound Power Level</b>	Cooling	dB(A)	70.0	74.0	
	Heating	dB(A)	75.0	76.0	
<b>Communication Cable</b>	mm <sup>2</sup> x No. (VCTF-SB)	1.0 - 1.5 x 2C	1.0 - 1.5 x 2C	1.0 - 1.5 x 2C	
<b>Refrigerant</b>	Refrigerant Name		R410A	R410A	
	Precharged Amount in Factory	kg	11.8	11.8	
	t-CO <sub>2</sub> eq		24.6	18.8	
	Control		Electronic Expansion Valve	Electronic Expansion Valve	
<b>Power Supply</b>	Ø, V, Hz	3, 380-415, 50	3, 380-415, 50	3, 380-415, 50	
<b>Number of Maximum Connectable Indoor Units</b>		64	64	64	

- Note
- Maximum numbers are prepared based on assumption that all 2.2kW indoor units are connected. The numbers in parentheses means maximum connectable indoor units in accordance with outdoor units combination (160% - 200%). The recommended ratio is 130%.
  - Due to our policy of innovation some specifications may be changed without notification
  - Performances are based on the following conditions
    - Cooling : Indoor temp 27°C (80.6°F) DB / 19°C (66.2°F) WB, Water inlet temp 30°C (86°F)
    - Heating : Indoor temp 20°C (68°F) DB, Water inlet temp 20°C (68°F)
    - Interconnected Pipe Length is 7.5m and difference of Elevation (Outdoor - Indoor Unit) is 0m.
  - Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard. Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard. Therefore, these values can be increased owing to ambient conditions during operation.
  - This product contains Fluorinated Greenhouse Gases. (R410A, GWP (Global warming potential) = 2,087.5)
  - Add an anti freeze to circulation water when outdoor unit is operating under 10°C (50°F), and change the DIP switch on main PCB. (For more information on installation section.)

# MULTI V WATER IV HEAT RECOVERY

ARWB620LAS4 / ARWB640LAS4  
ARWB680LAS4



HP		62	64	68	
<b>Model Name</b>	Combination Unit	ARWB620LAS4	ARWB640LAS4	ARWB680LAS4	
	Independent Unit	ARWB200LAS4 ARWB200LAS4 ARWB140LAS4 ARWB080LAS4	ARWB200LAS4 ARWB200LAS4 ARWB140LAS4 ARWB100LAS4	ARWB200LAS4 ARWB200LAS4 ARWB140LAS4 ARWB140LAS4	
<b>Capacity</b>	Cooling (Rated) kW	173.6	179.2	190.4	
	Heating (Rated) kW	195.3	201.6	214.2	
<b>Input</b>	Cooling (Rated) kW	34.10	35.33	38.08	
	Heating (Rated) kW	35.71	36.85	39.68	
<b>EER</b>		5.09	5.07	5.00	
<b>COP</b>	Rated Capacity	5.47	5.47	5.40	
<b>Exterior</b>	Color	Warm Gray / Morning Gray	Warm Gray / Morning Gray	Warm Gray / Morning Gray	
	RAL Code (Classic)	RAL 7044 / RAL 7030	RAL 7044 / RAL 7030	RAL 7044 / RAL 7030	
<b>Heat Exchanger</b>	Type	Stainless Steel Plate	Stainless Steel Plate	Stainless Steel Plate	
	Maximum Pressure Resistance	kgf/cm <sup>2</sup>	45	45	
	Head Loss	kPa	30.1 + 30.1 + 28.6 + 10.7	30.1 + 30.1 + 28.6 + 15.8	30.1 + 30.1 + 28.6 + 28.6
	Rated Water Flow	LPM	192 + 192 + 135 + 77	192 + 192 + 135 + 96	192 + 192 + 135 + 135
<b>Compressor</b>	Type	Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll	
	Combination x No.	(Inverter) x 4	(Inverter) x 4	(Inverter) x 4	
	Motor Output x Number	W x No.	5,300 x 2 + 4,200 x 2	5,300 x 2 + 4,200 x 2	5,300 x 2 + 4,200 x 2
	Oil Type	FVC68D (PVE)	FVC68D (PVE)	FVC68D (PVE)	
<b>Refrigerant Connecting Pipes</b>	Liquid Pipe	mm (inch)	Ø22.2 (7/8)	Ø22.2 (7/8)	
	Low Pressure Gas Pipe	mm (inch)	Ø44.5 (1-3/4)	Ø44.5 (1-3/4)	
	High Pressure Gas Pipe	mm (inch)	Ø41.3 (1-5/8)	Ø41.3 (1-5/8)	
<b>Water Connecting Pipes</b>	Inlet	A (inch)	40A (PT 1-1/2) + 40A (PT 1-1/2) + 40A (PT 1-1/2) + PT40 (Internal Thread)	40A (PT 1-1/2) + 40A (PT 1-1/2) + 40A (PT 1-1/2) + PT40 (Internal Thread)	
	Outlet	A (inch)	40A (PT 1-1/2) + 40A (PT 1-1/2) + 40A (PT 1-1/2) + PT40 (Internal Thread)	40A (PT 1-1/2) + 40A (PT 1-1/2) + 40A (PT 1-1/2) + PT40 (Internal Thread)	
	Drain Outlet	A (inch)	20A (PT 3/4) (External Thread)	20A (PT 3/4) (External Thread)	
<b>Dimensions (W x H x D)</b>	mm x No.	(755 x 997 x 500) x 4	(755 x 997 x 500) x 4	(755 x 997 x 500) x 4	
<b>Dimensions (W x H x D) - Shipping</b>	mm x No.	(804 x 1,143 x 630) x 4	(804 x 1,143 x 630) x 4	(804 x 1,143 x 630) x 4	
<b>Net Weight</b>	kg x No.	(140 x 2) + (127 x 2)	(140 x 2) + (127 x 2)	(140 x 2) + (127 x 2)	
<b>Shipping Weight</b>	kg x No.	(150 x 2) + (137 x 2)	(150 x 2) + (137 x 2)	(150 x 2) + (137 x 2)	
<b>Sound Pressure Level</b>	Cooling	dB(A)	61.0	61.0	
	Heating	dB(A)	64.0	63.0	
<b>Sound Power Level</b>	Cooling	dB(A)	73.0	75.0	
	Heating	dB(A)	76.0	77.0	
<b>Communication Cable</b>	mm <sup>2</sup> x No. (VCTF-SB)	1.0 - 1.5 x 2C	1.0 - 1.5 x 2C	1.0 - 1.5 x 2C	
<b>Refrigerant</b>	Refrigerant Name		R410A	R410A	
	Precharged Amount in Factory	kg	17.6	17.6	
	t-CO <sub>2</sub> eq		36.7	36.7	
	Control		Electronic Expansion Valve	Electronic Expansion Valve	
<b>Power Supply</b>	Ø, V, Hz	3, 380-415, 50	3, 380-415, 50	3, 380-415, 50	
<b>Number of Maximum Connectable Indoor Units</b>		64	64	64	

- Note
- Maximum numbers are prepared based on assumption that all 2.2kW indoor units are connected. The numbers in parentheses means maximum connectable indoor units in accordance with outdoor units combination (160% - 200%). The recommended ratio is 130%.
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    - Interconnected Pipe Length is 7.5m and difference of Elevation (Outdoor - Indoor Unit) is 0m.
  - Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard. Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard. Therefore, these values can be increased owing to ambient conditions during operation.
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  - Add an anti freeze to circulation water when outdoor unit is operating under 10°C (50°F), and change the DIP switch on main PCB. (For more information on installation section.)

