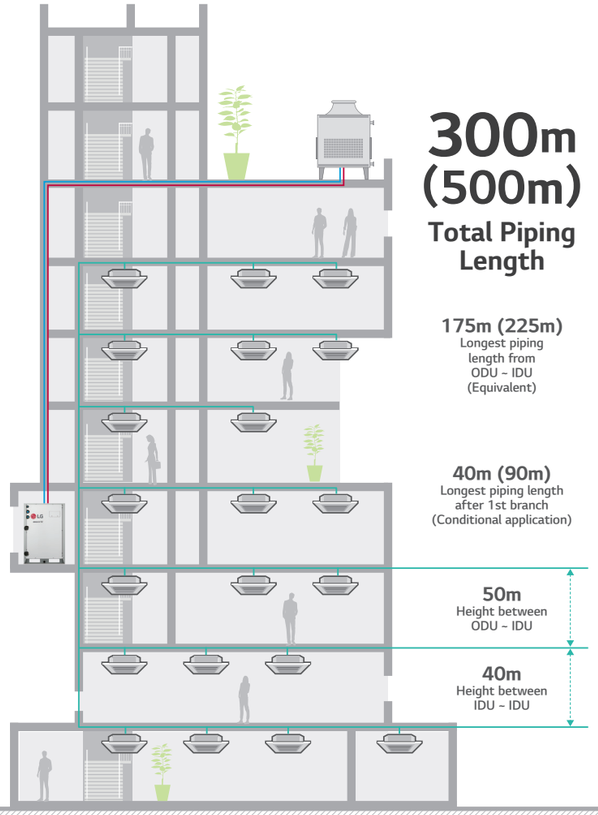
MULTI V™ WATER 5



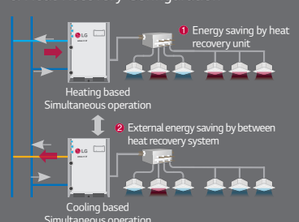
Highlight

Energy savings | Reliability | Convenience

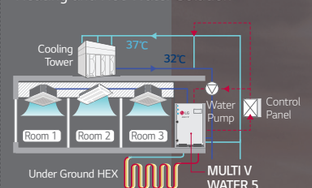
- Water Cooled VRF Heat Pump & Heat Recovery
- 22.4 ~ 168kW (Cooling capacity based)
- 3Ø, 380 ~ 415V, 50Hz
- Outdoor unit installed indoor

How does it work?

Available in Heat Pump & Heat Recovery Configuration



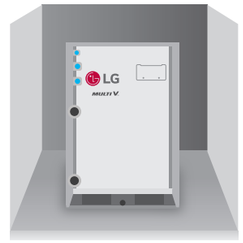
Combination of Cooling, Heating and Hot Water Solution



Operation independent of weather conditions

High Efficiency System Regardless of External Conditions

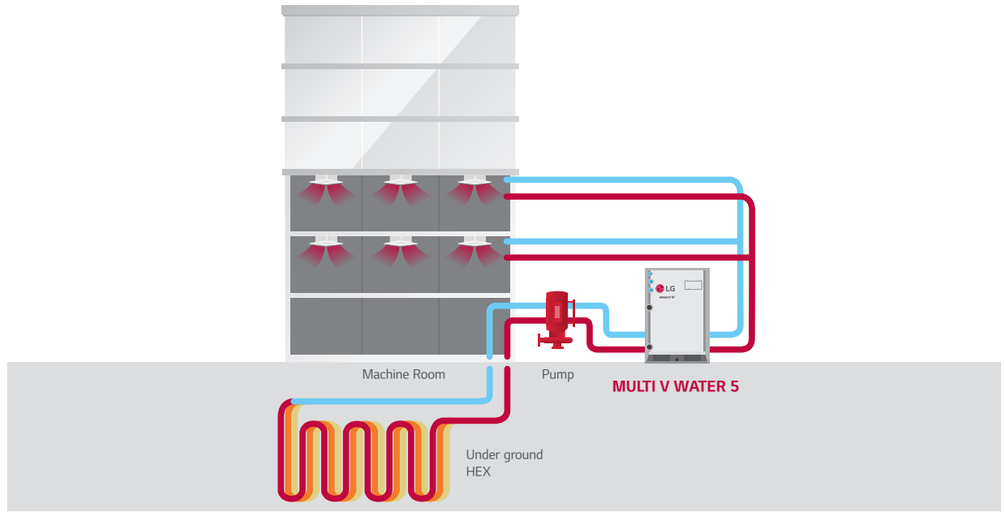
Regardless of outdoor temperature and other environmental conditions, MULTI V WATER 5 is the optimal solution.

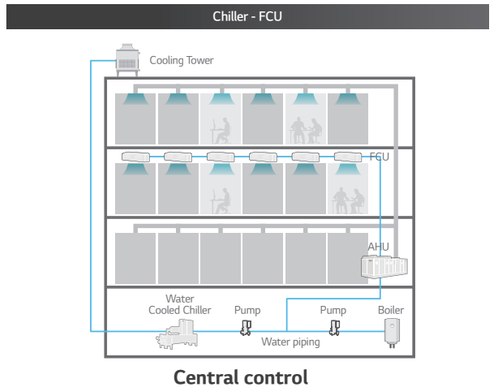


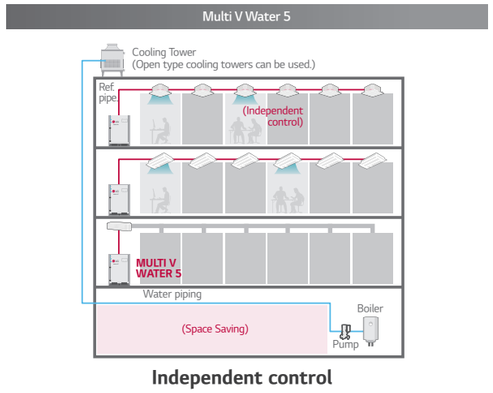
MULTI V WATER 5 System for Geothermal Applications

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







Economical, Highly Efficient System

LG's key technologies are integrated to inverter compressor

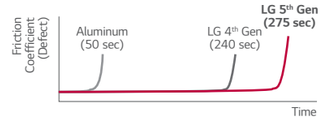
With 5th generation inverter compressor, the Multi V Water 5 boasts top-class energy efficiency.

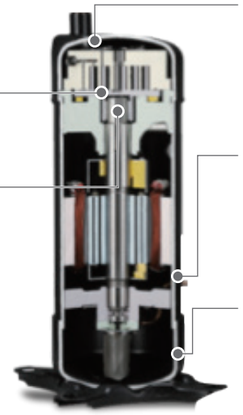
6 By-pass Valve

- Maximize part load efficiency through 6 By-pass Valve
  → High pressure loss reduction in part load operation

Enhanced Bearing Technology

- High lubricity PEEK (Polyether ether keHPe) bearing
  → Outer bearing
  - Compact, less vibration and bearing loading
- Increased bearing performance in oil-less operation





Extended Compressor Speed 20Hz ~ 150Hz

- Rapid operation response
- Capable of reaching required temperature quickly
- Increase part load efficiency

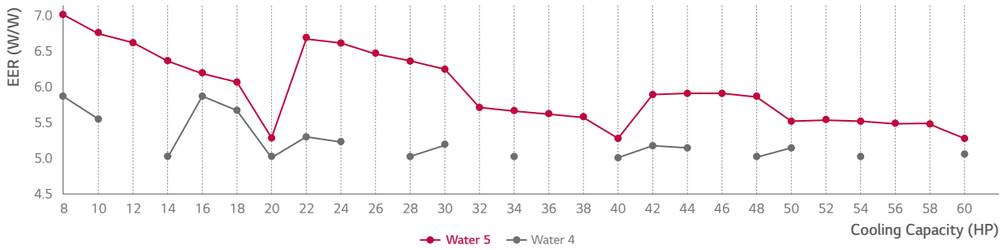
HiPOR™ (High Pressure Oil Return)

- Eliminating loss in suction gas by returning oil directly to compressor
- Resolve compressor efficiency loss caused by oil return

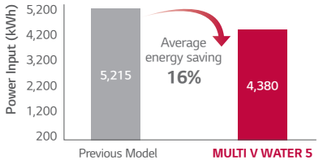
Active Oil Control (Oil Level Sensor)

- Oil recovery operation occurs only when required
- Enhanced compressor reliability & continuous heating
- Oil distribution between compressors

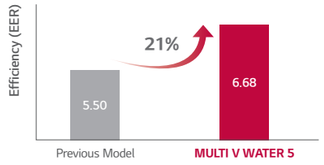
EER Comparison



Economical, Highly Efficient System

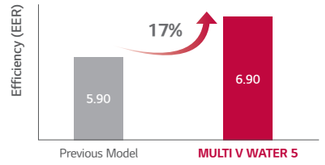


Energy Efficiency Raito (Cooling)



10% HEX Optimization
5% Cycle Composition Improvement
2% Inverter Control
2% Active Oil Control
2% HiPOR™

Coefficient of Perfomance (Heating)



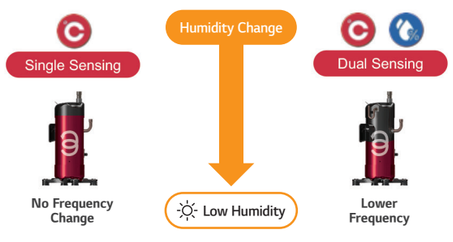
10% HEX Optimization
4% Cycle Composition Improvement
1% Inverter Control
1% Active Oil Control
1% HiPOR™

※ Comparison between 10HP (28kW)

Dual Sensing Control

MULTI V WATER 5 can operate more appropriately in low humidity conditions by referring to the indoor temperature and humidity.

Conventional | Multi V Water 5

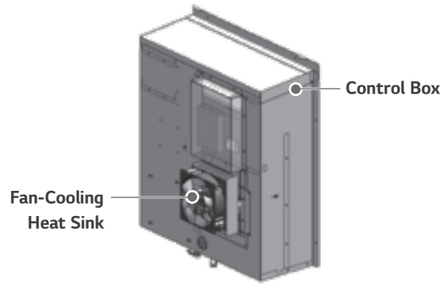


※ This function requires the indoor unit to be equipped with a humidity sensor, the CRC1 remote controller or the Standard III remote controller.

Refrigerant Liquid-cooled Inverter Drive

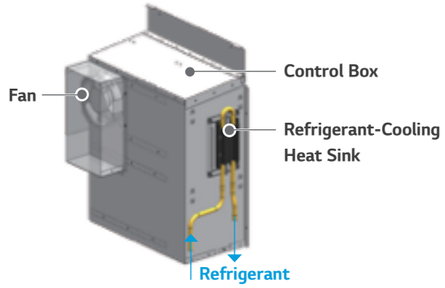
MULTI V WATER 5 can remove heat from inverter PCB through Refrigerant-Cooling Heat Sink

Conventional



Multi V Water 5

Refrigerant-Cooling Heat Sink
- It removes more heat from inverter PCB.



Largest Capacity

Sufficient pipe length limitation provides flexible design and installation

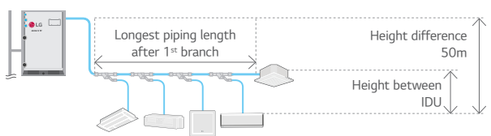
Providing 8 ~ 20HP (22.4 ~ 56kW) with single unit, and up to the world's largest capacity 60HP (168kW) by combination.

v	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	50	52	54	56	58	60
kW	22.4	28	33.6	39.2	44.8	50.4	56	61.6	67.2	72.8	78.4	84	89.6	95.2	100.8	106.4	112	117.6	123.2	128.8	134.4	140	145.6	151.2	156.8	162.4	168
LG	1 Unit							2 Units										3 Units									

Longest Piping Length

Sufficient pipes length limitation in design and Installation for various buildings

Provide flexible installation up to 300m (500m) of total piping length. As water pipes are not connected to indoor units, users are free from water leakage problems.



Total Piping Length	300m (500m)
Actual longest piping length (Equivalent)	175m (225m)
Longest piping length after 1st 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.

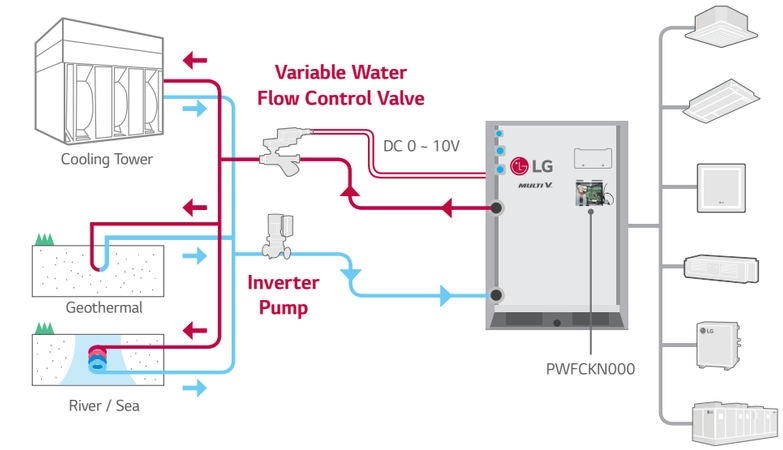
The optimal design of the compact, lightweight outdoor unit enables double stacking, which results in 50% savings in installation space.

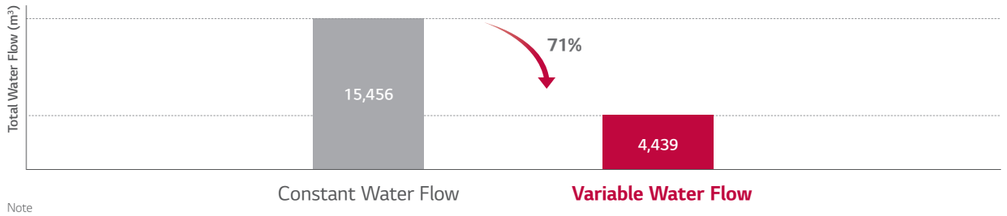
56kW x 2EA
Per each
772 * 547 mm

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.



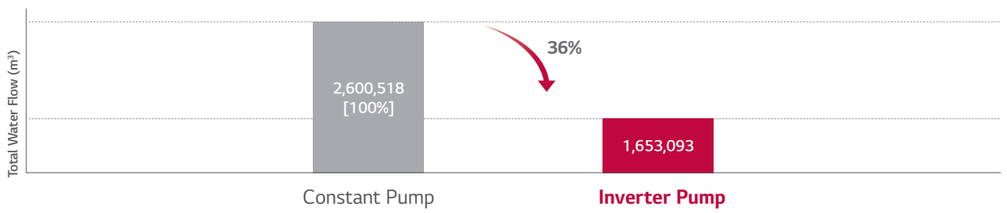


Note
1. Location : Paris, France
2. Office, 68,000m²
3. Operation time : 1,344 hours (Cooling period)

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

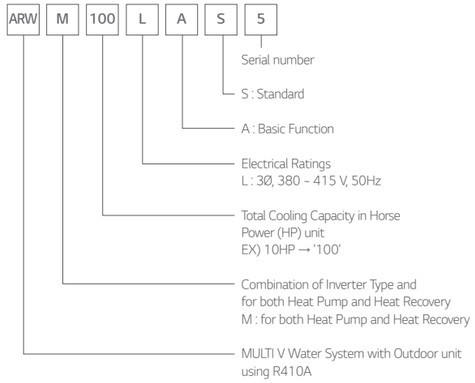
10 years energy cost ($)



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%

Nomenclature



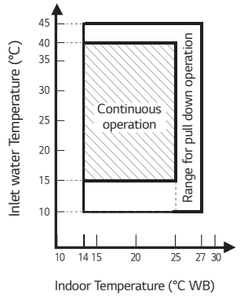
Outdoor Units Function

Category	Functions	Multi V Water 5
Key Refrigerant Components	HiPOR™ (High Pressure Oil Return)	○
	Oil Sensor	○
Reliability	High Pressure Switch	○
	Phase Protection	○
	Restart Delay (3-minutes)	○
	Self Diagnosis	○
	Soft Start	○
Central Controller	AC Ez	PQCSZ250S0
	AC Ez Touch	PACEZA000
	AC Smart IV	PACS4B000
	AC Smart 5	PACS5A000
	ACP IV	PACP4B000
	ACP 5	PACP5A000
	AC Manager IV	PACM4B000
	AC Manager 5	PACM5A000
Gateway	ACP BACnet	PQNFB17C0
	ACP5 (w U60FT)	○
	Cloud Gateway	PWFMDB200
	Modbus RTU	PMBUSB00A
Intergration Device	IO Module	PVDSMN000
	Variable Water Flow Control Kit	PWFCKN000
	Cool / Heat Selector	PRDSMB
	AHU comm. Kit	PAHCMR000
		PAHCMS000
	AHU Controller Module	PAHCMC000
		PAHCMM000
	AHU Control Kit	PAHCNM000
	EEV Kit	PRLK048A0
		PRLK096A0
		PRLK396A0
		PRLK594A0
	Water comm. Module	-
	PDI Standard	PPWRDB000
	PDI Premium	PQNUD1S40
ETC	DS (Data Saving) Module	PVADTN000

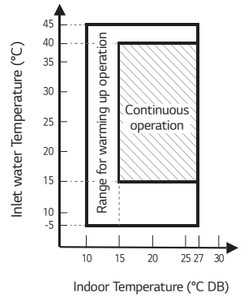
※ ○ : Applied, - : Not Applied

Operation Limits

Cooling

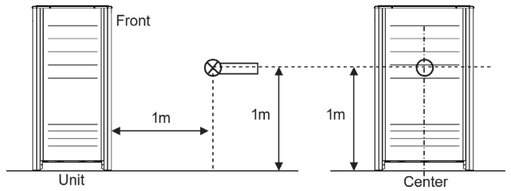


Heating



Note
1. These figures assume the following operating conditions
 : Equivalent piping length is standard condition, and level difference is 0m.
2. Range of pull down operation
 : If the relative humidity is too high, cooling capacity can be decreased by the sensible heat reduction.
3. Warming up operation means that the outdoor (outside) unit operates to reach the range of continuous operating, however it may not operate continuously due to safety or protection logic.

Position of Sound Pressure Level Measuring



※ External Appearance of unit could be different by each model.

Note
1. Data is valid at diffuse field condition.
2. Data is valid at nominal operating condition.
3. Reference accoustic pressure 0 dB = 20μPa.
4. Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard. Refer to the model specifications for nominal conditions. (Power source and Ambient temperature, etc)
5. Sound levels can be increased in accordance with installation and operating conditions. (Operating conditions include some functional condition like Static pressure mode, air guide use, Room target temperature setting, etc and these functions are different in accordance with each model.)
6. Sound level will vary depending on a range of factors such as the construction (acoustic absorption coefficient) of particular room in which the equipment in installed.

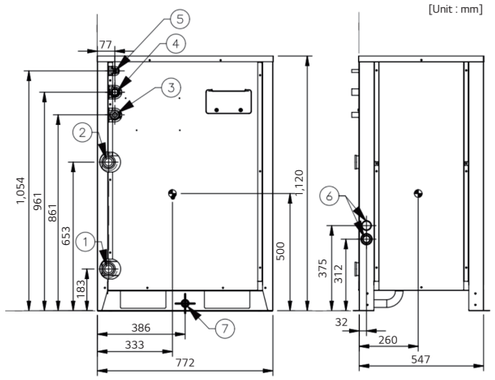
Optional Accessories

No.	Name		Model
1	Y branch pipe	for Heat Recovery	ARBLB01621
			ARBLB03321
			ARBLB07121
			ARBLB14521
		for Heat Pump	ARBLN01621
			ARBLN03321
			ARBLN07121
			ARBLN14521
2	Header	4 branch	ARBL054
		7 branch	ARBL057
		4 branch	ARBL104
		7 branch	ARBL107
		10 branch	ARBL1010
		10 branch	ARBL2010
3	Connection pipe of Outdoor Units		ARCNN21
			ARCNN31

Dimensions

ARWM080LAS5 / ARWM100LAS5 / ARWM120LAS5 / ARWM140LAS5 / ARWM160LAS5 / ARWM180LAS5 / ARWM200LAS5

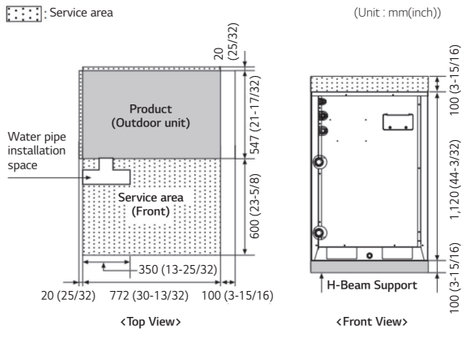
[Unit : mm]



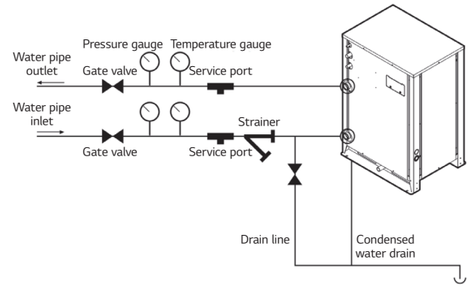
⊕ = Center of Gravity

No.	Part Name	Description
1	Water inlet connection	PT 40 Female
2	Water outlet connection	PT 40 Female
3	High pressure pipe connection	-
4	Low pressure pipe connection	-
5	Liquid pipe connection	-
6	Power and comm. cable hole	-
7	Condensate drain pipe connection	PT 20 Male

Individual Installation



Water Piping Installation

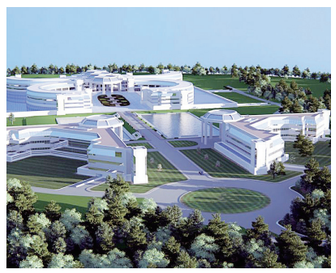


Precaution of Installation

1. Do not install the unit at the outdoors.
 - Otherwise it may cause fire, electric shock and trouble.
2. Keep the water temperature between **10 ~ 45℃** Other it may cause the breakdown.
 - Standard water supply temperature is **30℃** for Cooling and **20℃** for heating.
3. Establish an **anti-freeze plan** for the water supply when the product is stopped during the winter.
4. Be careful of the **Water Purity Control**. Otherwise it may cause the breakdown due to water pipe corrosion. (Refer to 'Standard Table for Water Purity Control' in Installation manual.)
5. The water pressure resistance of the water pipe system of this product is **1.98MPa.**
6. Always install **a trap** so that the drained water does not back flush.
7. Install **a pressure gauge and temperature gauge** at the inlet and outlet of the water pipe.
8. **Flexible joints** must be installed not to cause any leakage from the vibration of pipes.
9. Install a **service port** to clean the heat exchanger at the each end of the water inlet and outlet.
10. You must 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. If a certain level of water does not flow after installing the **flow switch**, an error sign of CH 189 error will be displayed on the product and the product will stop operating.)
11. 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 %. Reference flow rate : 10 HP - 96 LPM, 20 HP - 192 LPM)
12. To protect the water cooling type product, you must install a **strainer with 50 mesh** or more on the heat water supply pipe. (It is recommended to install both a magnetic filter and a strainer.) If not installed, it can result in damage of heat exchanger by the following situation.
 1) Heat water supply within the plate type heat exchanger is composed of multiple small paths.
 2) If you do not use a strainer with 50 mesh or more, alien particles can partially block the water paths.
 3) When running the heater, the plate type heat exchanger plays the role of the evaporator, and at this time, the temperature of coolant side drops to drop the temperature of the heat water supply, which can result in icing point in the water paths.
 4) And as the heating process progresses, the water paths can be partially frozen to lead to damage in plate type heat exchanger.
 5) As a result of the damage of the heat exchanger from the freezing, the coolant side and the heat water source side will be mixed to make the product unusable.

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 20th century architecture.

LG Solution

Bouygues decided to convert their headquarters into an eco-conscious 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.

ARWM080LAS5 / ARWM100LAS5
ARWM120LAS5

HP			8	10	12
Model Name	Combination Unit		ARWM080LAS5	ARWM100LAS5	ARWM120LAS5
	Independent Unit (1)		ARWM080LAS5	ARWM100LAS5	ARWM120LAS5
	Independent Unit (2)		-	-	-
	Independent Unit (3)		-	-	-
	Independent Unit (4)		-	-	-
Capacity	Cooling (Rated)	kW	22.4	28.0	33.6
	Heating (Rated)	kW	25.2	31.5	37.8
Input	Cooling (Rated)	kW	3.25	4.19	5.14
	Heating (Rated)	kW	3.50	4.57	5.56
EER	Rated		6.90	6.68	6.54
COP	Rated		7.20	6.90	6.80
Exterior	Color		Morning Gray / Dawn Gray	Morning Gray / Dawn Gray	Morning Gray / Dawn Gray
	RAL (Classic)		RAL 7038 / RAL 7037	RAL 7038 / RAL 7037	RAL 7038 / RAL 7037
Heat Exchanger	Type		Stainless Steel Plate	Stainless Steel Plate	Stainless Steel Plate
	Maximum Pressure Resistance	kgf/cm^2	45	45	45
	Head Loss	kPa	10.6	15.9	22.1
	Rated Water Flow	LPM	77	96	115
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.	5,300 x 1	5,300 x 1	5,300 x 1
	Oil Type		FVC68D (PVE)	FW68D (PVE)	FW68D (PVE)
	Oil Charge	cc	3,400	3,400	3,400
Refrigerant Connecting Pipes	Liquid Pipe	mm (inch)	Ø9.52 (3/8)	Ø9.52 (3/8)	Ø12.7 (1/2)
	Gas Pipe	mm (inch)	Ø19.05 (3/4)	Ø22.22 (7/8)	Ø28.58 (1-1/8)
Water Connecting Pipes	Inlet	mm	PT 40 (Internal Thread)	PT 40 (Internal Thread)	PT 40 (Internal Thread)
	Outlet	mm	PT 40 (Internal Thread)	PT 40 (Internal Thread)	PT 40 (Internal Thread)
	Drain Outlet	mm	PT 20 (External Thread)	PT 20 (External Thread)	PT 20 (External Thread)
Dimensions (W x H x D) - Net		mm	772 x 1,120 x 547	772 x 1,120 x 547	772 x 1,120 x 547
Dimensions (W x H x D) - Shipping		mm	820 x 1,245 x 645	820 x 1,245 x 645	820 x 1,245 x 645
Net Weight		kg	149 x 1	149 x 1	149 x 1
Shipping Weight		kg	157 x 1	157 x 1	157 x 1
Sound Pressure Level	Cooling / Heating	dB(A)	45.0 / 48.0	48.0 / 48.0	48.0 / 51.0
Sound Power Level	Cooling / Heating	dB(A)	57.0 / 60.0	60.0 / 60.0	60.0 / 63.0
Communication Cable		mm^2 x No. (VCTF-SB)	1.0 ~ 1.5 × 2C	1.0 ~ 1.5 × 2C	1.0 ~ 1.5 × 2C
Refrigerant	Refrigerant Name	-	R410A	R410A	R410A
	Precharged Amount in Factory	kg	3.5	3.5	3.5
	t-CO_2 eq	-	7.306	7.306	7.306
	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			13 (20)	16 (25)	20 (30)

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 conditons 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.)

ARWM140LAS5 / ARWM160LAS5
ARWM180LAS5

HP			14	16	18
Model Name	Combination Unit		ARWM140LAS5	ARWM160LAS5	ARWM180LAS5
	Independent Unit (1)		ARWM140LAS5	ARWM160LAS5	ARWM180LAS5
	Independent Unit (2)		-	-	-
	Independent Unit (3)		-	-	-
	Independent Unit (4)		-	-	-
Capacity	Cooling (Rated)	kW	39.2	44.8	50.4
	Heating (Rated)	kW	44.1	50.4	56.7
Input	Cooling (Rated)	kW	6.22	7.32	8.40
	Heating (Rated)	kW	6.78	8.06	8.72
EER	Rated		6.30	6.12	6.00
COP	Rated		6.50	6.25	6.50
Exterior	Color		Morning Gray / Dawn Gray	Morning Gray / Dawn Gray	Morning Gray / Dawn Gray
	RAL (Classic)		RAL 7038 / RAL 7037	RAL 7038 / RAL 7037	RAL 7038 / RAL 7037
Heat Exchanger	Type		Stainless Steel Plate	Stainless Steel Plate	Stainless Steel Plate
	Maximum Pressure Resistance	kgf/cm^2	45	45	45
	Head Loss	kPa	29.6	37.7	24.6
	Rated Water Flow	LPM	135	154	173
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.	5,300 x 1	5,300 x 1	5,300 x 1
	Oil Type		FW68D (PVE)	FW68D (PVE)	FW68D (PVE)
	Oil Charge	cc	3,400	3,400	3,400
Refrigerant Connecting Pipes	Liquid Pipe	mm (inch)	Ø12.7 (1/2)	Ø12.7 (1/2)	Ø15.88 (5/8)
	Gas Pipe	mm (inch)	Ø28.58 (1-1/8)	Ø28.58 (1-1/8)	Ø28.58 (1-1/8)
Water Connecting Pipes	Inlet	mm	PT 40 (Internal Thread)	PT 40 (Internal Thread)	PT 40 (Internal Thread)
	Outlet	mm	PT 40 (Internal Thread)	PT 40 (Internal Thread)	PT 40 (Internal Thread)
	Drain Outlet	mm	PT 20 (External Thread)	PT 20 (External Thread)	PT 20 (External Thread)
Dimensions (W x H x D) - Net		mm	772 x 1,120 x 547	772 x 1,120 x 547	772 x 1,120 x 547
Dimensions (W x H x D) - Shipping		mm	820 x 1,245 x 645	820 x 1,245 x 645	820 x 1,245 x 645
Net Weight		kg	149 x 1	149 x 1	158 x 1
Shipping Weight		kg	157 x 1	157 x 1	166 x 1
Sound Pressure Level	Cooling / Heating	dB(A)	52.0 / 53.0	52.0 / 56.0	54.0 / 57.0
Sound Power Level	Cooling / Heating	dB(A)	64.0 / 65.0	64.0 / 68.0	66.0 / 69.0
Communication Cable		mm^2 x No. (VCTF-SB)	1.0 ~ 1.5 × 2C	1.0 ~ 1.5 × 2C	1.0 ~ 1.5 × 2C
Refrigerant	Refrigerant Name	-	R410A	R410A	R410A
	Precharged Amount in Factory	kg	3.5	3.5	4.5
	t-CO_2 eq	-	7.306	7.306	9.394
	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			23 (35)	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 conditons 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.)

ARWM200LAS5

ARWM220LAS5
ARWM240LAS5

HP			20	22	24
Model Name	Combination Unit		ARWM200LAS5	ARWM220LAS5	ARWM240LAS5
	Independent Unit (1)		ARWM200LAS5	ARWM120LAS5	ARWM120LAS5
	Independent Unit (2)		-	ARWM100LAS5	ARWM120LAS5
	Independent Unit (3)		-	-	-
	Independent Unit (4)		-	-	-
Capacity	Cooling (Rated)	kW	56.0	61.6	67.2
	Heating (Rated)	kW	63.0	69.3	75.6
Input	Cooling (Rated)	kW	10.69	9.33	10.28
	Heating (Rated)	kW	11.05	10.13	11.12
EER	Rated		5.24	6.60	6.54
COP	Rated		5.70	6.84	6.80
Exterior	Color		Morning Gray / Dawn Gray	Morning Gray / Dawn Gray	Morning Gray / Dawn Gray
	RAL (Classic)		RAL 7038 / RAL 7037	RAL 7038 / RAL 7037	RAL 7038 / RAL 7037
Heat Exchanger	Type		Stainless Steel Plate	Stainless Steel Plate	Stainless Steel Plate
	Maximum Pressure Resistance	kgf/cm^2	45	45	45
	Head Loss	kPa	29.9	22.1 + 15.9	22.1 + 22.1
	Rated Water Flow	LPM	192	115 + 96	115 + 115
Compressor	Type		Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll
	Combination x No.		(Inverter) x 1	(Inverter) x 2	(Inverter) x 2
	Motor Output x Number	W x No.	5,300 x 1	5,300 x 2	5,300 x 2
	Oil Type		FW68D (PVE)	FW68D (PVE)	FW68D (PVE)
	Oil Charge	cc	3,400	6,800	6,800
Refrigerant Connecting Pipes	Liquid Pipe	mm (inch)	Ø15.88 (5/8)	Ø15.88 (5/8)	Ø15.88 (5/8)
	Gas Pipe	mm (inch)	Ø28.58 (1-1/8)	Ø28.58 (1-1/8)	Ø34.9 (1-3/8)
Water Connecting Pipes	Inlet	mm	PT 40 (Internal Thread)	PT 40 + PT 40 (Internal Thread)	PT 40 + PT 40 (Internal Thread)
	Outlet	mm	PT 40 (Internal Thread)	PT 40 + PT 40 (Internal Thread)	PT 40 + PT 40 (Internal Thread)
	Drain Outlet	mm	PT 20 (External Thread)	PT 20 (External Thread)	PT 20 (External Thread)
Dimensions (W x H x D) - Net		mm	772 x 1,120 x 547	(772 x 1,120 x 547) x 2	(772 x 1,120 x 547) x 2
Dimensions (W x H x D) - Shipping		mm	820 x 1,245 x 645	(820 x 1,245 x 645) x 2	(820 x 1,245 x 645) x 2
Net Weight		kg	158 x 1	149 x 2	149 x 2
Shipping Weight		kg	166 x 1	157 x 2	157 x 2
Sound Pressure Level	Cooling / Heating	dB(A)	55.0 / 56.0	51.0 / 53.0	51.0 / 54.0
Sound Power Level	Cooling / Heating	dB(A)	67.0 / 68.0	64.0 / 66.0	64.0 / 67.0
Communication Cable		mm^2 x No. (VCTF-SB)	1.0 ~ 1.5 × 2C	1.0 ~ 1.5 × 2C	1.0 ~ 1.5 × 2C
Refrigerant	Refrigerant Name	-	R410A	R410A	R410A
	Precharged Amount in Factory	kg	4.5	3.5 + 3.5	3.5 + 3.5
	t-CO_2 eq	-	9.394	14.613	14.613
	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)	35 (44)	39 (48)

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 conditons 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.)

ARWM260LAS5 / ARWM280LAS5
ARWM300LAS5

HP			26	28	30
Model Name	Combination Unit		ARWM260LAS5	ARWM280LAS5	ARWM300LAS5
	Independent Unit (1)		ARWM140LAS5	ARWM160LAS5	ARWM180LAS5
	Independent Unit (2)		ARWM120LAS5	ARWM120LAS5	ARWM120LAS5
	Independent Unit (3)		-	-	-
	Independent Unit (4)		-	-	-
Capacity	Cooling (Rated)	kW	72.8	78.4	84.0
	Heating (Rated)	kW	81.9	88.2	94.5
Input	Cooling (Rated)	kW	11.36	12.46	13.54
	Heating (Rated)	kW	12.34	13.62	14.28
EER	Rated		6.41	6.29	6.20
COP	Rated		6.64	6.48	6.62
Exterior	Color		Morning Gray / Dawn Gray	Morning Gray / Dawn Gray	Morning Gray / Dawn Gray
	RAL (Classic)		RAL 7038 / RAL 7037	RAL 7038 / RAL 7037	RAL 7038 / RAL 7037
Heat Exchanger	Type		Stainless Steel Plate	Stainless Steel Plate	Stainless Steel Plate
	Maximum Pressure Resistance	kgf/cm^2	45	45	45
	Head Loss	kPa	29.6 + 22.1	37.7 + 22.1	24.6 + 22.1
	Rated Water Flow	LPM	135 + 115	154 + 115	173 + 115
Compressor	Type		Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll
	Combination x No.		(Inverter) x 2	(Inverter) x 2	(Inverter) x 2
	Motor Output x Number	W x No.	5.300 x 2	5.300 x 2	5.300 x 2
	Oil Type		FW68D (PVE)	FW68D (PVE)	FW68D (PVE)
	Oil Charge	cc	6,800	6,800	6,800
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	mm	PT 40 + PT 40 (Internal Thread)	PT 40 + PT 40 (Internal Thread)	PT 40 + PT 40 (Internal Thread)
	Outlet	mm	PT 40 + PT 40 (Internal Thread)	PT 40 + PT 40 (Internal Thread)	PT 40 + PT 40 (Internal Thread)
	Drain Outlet	mm	PT 20 (External Thread)	PT 20 (External Thread)	PT 20 (External Thread)
Dimensions (W x H x D) - Net		mm	(772 x 1,120 x 547) x 2	(772 x 1,120 x 547) x 2	(772 x 1,120 x 547) x 2
Dimensions (W x H x D) - Shipping		mm	(820 x 1,245 x 645) x 2	(820 x 1,245 x 645) x 2	(820 x 1,245 x 645) x 2
Net Weight		kg	149 x 2	149 x 2	(158 x 1) + (149 x 1)
Shipping Weight		kg	157 x 2	157 x 2	(166 x 1) + (157 x 1)
Sound Pressure Level	Cooling / Heating	dB(A)	53.0 / 55.0	53.0 / 57.0	55.0 / 58.0
Sound Power Level	Cooling / Heating	dB(A)	66.0 / 68.0	66.0 / 70.0	68.0 / 71.0
Communication Cable		mm^2 x No. (VCTF-SB)	1.0 ~ 1.5 × 2C	1.0 ~ 1.5 × 2C	1.0 ~ 1.5 × 2C
Refrigerant	Refrigerant Name	-	R410A	R410A	R410A
	Precharged Amount in Factory	kg	3.5 + 3.5	3.5 + 3.5	4.5 + 3.5
	t-CO_2 eq	-	14.613	14.613	16.700
	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			42 (52)	45 (56)	49 (60)

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 conditons 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.)

ARWM320LAS5 / ARWM340LAS5
ARWM360LAS5

HP			32	34	36
Model Name	Combination Unit		ARWM320LAS5	ARWM340LAS5	ARWM360LAS5
	Independent Unit (1)		ARWM200LAS5	ARWM200LAS5	ARWM200LAS5
	Independent Unit (2)		ARWM120LAS5	ARWM140LAS5	ARWM160LAS5
	Independent Unit (3)		-	-	-
	Independent Unit (4)		-	-	-
Capacity	Cooling (Rated)	kW	89.6	95.2	100.8
	Heating (Rated)	kW	100.8	107.1	113.4
Input	Cooling (Rated)	kW	15.83	16.91	18.01
	Heating (Rated)	kW	16.61	17.83	19.11
EER	Rated		5.66	5.63	5.60
COP	Rated		6.07	6.01	5.93
Exterior	Color		Morning Gray / Dawn Gray	Morning Gray / Dawn Gray	Morning Gray / Dawn Gray
	RAL (Classic)		RAL 7038 / RAL 7037	RAL 7038 / RAL 7037	RAL 7038 / RAL 7037
Heat Exchanger	Type		Stainless Steel Plate	Stainless Steel Plate	Stainless Steel Plate
	Maximum Pressure Resistance	kgf/cm^2	45	45	45
	Head Loss	kPa	29.9 + 22.1	29.9 + 29.6	29.9 + 37.7
	Rated Water Flow	LPM	192 + 115	192 + 135	192 + 154
Compressor	Type		Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll
	Combination x No.		(Inverter) x 2	(Inverter) x 2	(Inverter) x 2
	Motor Output x Number	W x No.	5,300 x 2	5,300 x 2	5,300 x 2
	Oil Type		FW68D (PVE)	FW68D (PVE)	FW68D (PVE)
	Oil Charge	cc	6,800	6,800	6,800
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	mm	PT 40 + PT 40 (Internal Thread)	PT 40 + PT 40 (Internal Thread)	PT 40 + PT 40 (Internal Thread)
	Outlet	mm	PT 40 + PT 40 (Internal Thread)	PT 40 + PT 40 (Internal Thread)	PT 40 + PT 40 (Internal Thread)
	Drain Outlet	mm	PT 20 (External Thread)	PT 20 (External Thread)	PT 20 (External Thread)
Dimensions (W x H x D) - Net		mm	(772 x 1,120 x 547) x 2	(772 x 1,120 x 547) x 2	(772 x 1,120 x 547) x 2
Dimensions (W x H x D) - Shipping		mm	(820 x 1,245 x 645) x 2	(820 x 1,245 x 645) x 2	(820 x 1,245 x 645) x 2
Net Weight		kg	(158 x 1) + (149 x 1)	(158 x 1) + (149 x 1)	(158 x 1) + (149 x 1)
Shipping Weight		kg	(166 x 1) + (157 x 1)	(166 x 1) + (157 x 1)	(166 x 1) + (157 x 1)
Sound Pressure Level	Cooling / Heating	dB(A)	56.0 / 57.0	57.0 / 58.0	57.0 / 59.0
Sound Power Level	Cooling / Heating	dB(A)	69.0 / 70.0	70.0 / 71.0	70.0 / 72.0
Communication Cable		mm^2 x No. (VCTF-SB)	1.0 ~ 1.5 × 2C	1.0 ~ 1.5 × 2C	1.0 ~ 1.5 × 2C
Refrigerant	Refrigerant Name	-	R410A	R410A	R410A
	Precharged Amount in Factory	kg	4.5 + 3.5	4.5 + 3.5	4.5 + 3.5
	t-CO_2 eq	-	16.700	16.700	16.700
	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			52 (64)	55 (64)	58 (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 conditons 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.)

ARWM380LAS5
ARWM400LAS5

ARWM420LAS5

HP			38	40	42
Model Name	Combination Unit		ARWM380LAS5	ARWM400LAS5	ARWM420LAS5
	Independent Unit (1)		ARWM200LAS5	ARWM200LAS5	ARWM200LAS5
	Independent Unit (2)		ARWM180LAS5	ARWM200LAS5	ARWM140LAS5
	Independent Unit (3)		-	-	ARWM080LAS5
	Independent Unit (4)		-	-	-
Capacity	Cooling (Rated)	kW	106.4	112.0	117.6
	Heating (Rated)	kW	119.7	126.0	132.3
Input	Cooling (Rated)	kW	19.09	21.38	20.16
	Heating (Rated)	kW	19.77	22.10	21.33
EER	Rated		5.57	5.24	5.83
COP	Rated		6.05	5.70	6.20
Exterior	Color		Morning Gray / Dawn Gray	Morning Gray / Dawn Gray	Morning Gray / Dawn Gray
	RAL (Classic)		RAL 7038 / RAL 7037	RAL 7038 / RAL 7037	RAL 7038 / RAL 7037
Heat Exchanger	Type		Stainless Steel Plate	Stainless Steel Plate	Stainless Steel Plate
	Maximum Pressure Resistance	kgf/cm^2	45	45	45
	Head Loss	kPa	29.9 + 24.6	29.9 + 29.9	29.9 + 29.6 + 10.6
	Rated Water Flow	LPM	192 + 173	192 + 192	192 + 135 + 77
Compressor	Type		Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll
	Combination x No.		(Inverter) x 2	(Inverter) x 2	(Inverter) x 3
	Motor Output x Number	W x No.	5,300 x 2	5,300 x 2	5,300 x 3
	Oil Type		FW68D (PVE)	FW68D (PVE)	FW68D (PVE)
	Oil Charge	cc	6,800	6,800	10,200
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	mm	PT 40 + PT 40 (Internal Thread)	PT 40 + PT 40 (Internal Thread)	PT 40 + PT 40 + PT 40 (Internal Thread)
	Outlet	mm	PT 40 + PT 40 (Internal Thread)	PT 40 + PT 40 (Internal Thread)	PT 40 + PT 40 + PT 40 (Internal Thread)
	Drain Outlet	mm	PT 20 (External Thread)	PT 20 (External Thread)	PT 20 (External Thread)
Dimensions (W x H x D) - Net		mm	(772 x 1,120 x 547) x 2	(772 x 1,120 x 547) x 2	(772 x 1,120 x 547) x 3
Dimensions (W x H x D) - Shipping		mm	(820 x 1,245 x 645) x 2	(820 x 1,245 x 645) x 2	(820 x 1,245 x 645) x 3
Net Weight		kg	158 x 2	158 x 2	(158 x 1) + (149 x 2)
Shipping Weight		kg	166 x 2	166 x 2	(166 x 1) + (157 x 2)
Sound Pressure Level	Cooling / Heating	dB(A)	58.0 / 60.0	58.0 / 59.0	57.0 / 58.0
Sound Power Level	Cooling / Heating	dB(A)	71.0 / 73.0	71.0 / 72.0	71.0 / 72.0
Communication Cable		mm^2 x No. (VCTF-SB)	1.0 ~ 1.5 × 2C	1.0 ~ 1.5 × 2C	1.0 ~ 1.5 × 2C
Refrigerant	Refrigerant Name	-	R410A	R410A	R410A
	Precharged Amount in Factory	kg	4.5 + 4.5	4.5 + 4.5	4.5 + 3.5 + 3.5
	t-CO_2 eq	-	18.788	18.788	24.006
	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			61 (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 conditons 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.)

ARWM440LAS5 / ARWM460LAS5
ARWM480LAS5

HP			44	46	48
Model Name	Combination Unit		ARWM440LAS5	ARWM460LAS5	ARWM480LAS5
	Independent Unit (1)		ARWM200LAS5	ARWM200LAS5	ARWM200LAS5
	Independent Unit (2)		ARWM140LAS5	ARWM140LAS5	ARWM140LAS5
	Independent Unit (3)		ARWM100LAS5	ARWM120LAS5	ARWM140LAS5
	Independent Unit (4)		-	-	-
Capacity	Cooling (Rated)	kW	123.2	128.8	134.4
	Heating (Rated)	kW	138.6	144.9	151.2
Input	Cooling (Rated)	kW	21.10	22.05	23.13
	Heating (Rated)	kW	22.40	23.39	24.61
EER	Rated		5.84	5.84	5.81
COP	Rated		6.19	6.19	6.14
Exterior	Color		Morning Gray / Dawn Gray	Morning Gray / Dawn Gray	Morning Gray / Dawn Gray
	RAL (Classic)		RAL 7038 / RAL 7037	RAL 7038 / RAL 7037	RAL 7038 / RAL 7037
Heat Exchanger	Type		Stainless Steel Plate	Stainless Steel Plate	Stainless Steel Plate
	Maximum Pressure Resistance	kgf/cm^2	45	45	45
	Head Loss	kPa	29.9 + 29.6 + 15.9	29.9 + 29.6 + 22.1	29.9 + 29.6 + 29.6
	Rated Water Flow	LPM	192 + 135 + 96	192 + 135 + 115	192 + 135 + 135
Compressor	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 3	5,300 x 3	5,300 x 3
	Oil Type		FW68D (PVE)	FW68D (PVE)	FW68D (PVE)
	Oil Charge	cc	10,200	10,200	10,200
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	mm	PT 40 + PT 40 + PT 40 (Internal Thread)	PT 40 + PT 40 + PT 40 (Internal Thread)	PT 40 + PT 40 + PT 40 (Internal Thread)
	Outlet	mm	PT 40 + PT 40 + PT 40 (Internal Thread)	PT 40 + PT 40 + PT 40 (Internal Thread)	PT 40 + PT 40 + PT 40 (Internal Thread)
	Drain Outlet	mm	PT 20 (External Thread)	PT 20 (External Thread)	PT 20 (External Thread)
Dimensions (W x H x D) - Net		mm	(772 x 1,120 x 547) x 3	(772 x 1,120 x 547) x 3	(772 x 1,120 x 547) x 3
Dimensions (W x H x D) - Shipping		mm	(820 x 1,245 x 645) x 3	(820 x 1,245 x 645) x 3	(820 x 1,245 x 645) x 3
Net Weight		kg	(158 x 1) + (149 x 2)	(158 x 1) + (149 x 2)	(158 x 1) + (149 x 2)
Shipping Weight		kg	(166 x 1) + (157 x 2)	(166 x 1) + (157 x 2)	(166 x 1) + (157 x 2)
Sound Pressure Level	Cooling / Heating	dB(A)	57.0 / 58.0	57.0 / 59.0	58.0 / 59.0
Sound Power Level	Cooling / Heating	dB(A)	71.0 / 72.0	71.0 / 73.0	72.0 / 73.0
Communication Cable		mm^2 x No. (VCTF-SB)	1.0 ~ 1.5 × 2C	1.0 ~ 1.5 × 2C	1.0 ~ 1.5 × 2C
Refrigerant	Refrigerant Name	-	R410A	R410A	R410A
	Precharged Amount in Factory	kg	4.5 + 3.5 + 3.5	4.5 + 3.5 + 3.5	4.5 + 3.5 + 3.5
	t-CO_2 eq	-	24.006	24.006	24.006
	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
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 conditons 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.)

ARWM500LAS5 / ARWM520LAS5
ARWM540LAS5

HP			50	52	54
Model Name	Combination Unit		ARWM500LAS5	ARWM520LAS5	ARWM540LAS5
	Independent Unit (1)		ARWM200LAS5	ARWM200LAS5	ARWM200LAS5
	Independent Unit (2)		ARWM200LAS5	ARWM200LAS5	ARWM200LAS5
	Independent Unit (3)		ARWM100LAS5	ARWM120LAS5	ARWM140LAS5
	Independent Unit (4)		-	-	-
Capacity	Cooling (Rated)	kW	140.0	145.6	151.2
	Heating (Rated)	kW	157.5	164	170.1
Input	Cooling (Rated)	kW	25.57	27	27.60
	Heating (Rated)	kW	26.67	27.66	28.88
EER	Rated		5.48	5.49	5.48
COP	Rated		5.91	5.92	5.89
Exterior	Color		Morning Gray / Dawn Gray	Morning Gray / Dawn Gray	Morning Gray / Dawn Gray
	RAL (Classic)		RAL 7038 / RAL 7037	RAL 7038 / RAL 7037	RAL 7038 / RAL 7037
Heat Exchanger	Type		Stainless Steel Plate	Stainless Steel Plate	Stainless Steel Plate
	Maximum Pressure Resistance	kgf/cm^2	45	45	45
	Head Loss	kPa	29.9 + 29.9 + 15.9	29.9 + 29.9 + 22.1	29.9 + 29.9 + 29.6
	Rated Water Flow	LPM	192 + 192 + 96	192 + 192 + 115	192 + 192 + 135
Compressor	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 3	5,300 x 3	5,300 x 3
	Oil Type		FW68D (PVE)	FW68D (PVE)	FW68D (PVE)
	Oil Charge	cc	10,200	10,200	10,200
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	mm	PT 40 + PT 40 + PT 40 (Internal Thread)	PT 40 + PT 40 + PT 40 (Internal Thread)	PT 40 + PT 40 + PT 40 (Internal Thread)
	Outlet	mm	PT 40 + PT 40 + PT 40 (Internal Thread)	PT 40 + PT 40 + PT 40 (Internal Thread)	PT 40 + PT 40 + PT 40 (Internal Thread)
	Drain Outlet	mm	PT 20 (External Thread)	PT 20 (External Thread)	PT 20 (External Thread)
Dimensions (W x H x D) - Net		mm	(772 x 1,120 x 547) x 3	(772 x 1,120 x 547) x 3	(772 x 1,120 x 547) x 3
Dimensions (W x H x D) - Shipping		mm	(820 x 1,245 x 645) x 3	(820 x 1,245 x 645) x 3	(820 x 1,245 x 645) x 3
Net Weight		kg	(158 x 2) + (149 x 1)	(158 x 2) + (149 x 1)	(158 x 2) + (149 x 1)
Shipping Weight		kg	(166 x 2) + (157 x 1)	(166 x 2) + (157 x 1)	(166 x 2) + (157 x 1)
Sound Pressure Level	Cooling / Heating	dB(A)	59.0 / 59.0	59.0 / 60.0	59.0 / 60.0
Sound Power Level	Cooling / Heating	dB(A)	73.0 / 73.0	73.0 / 74.0	73.0 / 74.0
Communication Cable		mm^2 x No. (VCTF-SB)	1.0 ~ 1.5 × 2C	1.0 ~ 1.5 × 2C	1.0 ~ 1.5 × 2C
Refrigerant	Refrigerant Name	-	R410A	R410A	R410A
	Precharged Amount in Factory	kg	4.5 + 4.5 + 3.5	4.5 + 4.5 + 3.5	4.5 + 4.5 + 3.5
	t-CO_2 eq	-	26.094	26.094	26.094
	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
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 conditons 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.)

ARWM560LAS5 / ARWM580LAS5
ARWM600LAS5

HP			56	58	60
Model Name	Combination Unit		ARWM560LAS5	ARWM580LAS5	ARWM600LAS5
	Independent Unit (1)		ARWM200LAS5	ARWM200LAS5	ARWM200LAS5
	Independent Unit (2)		ARWM200LAS5	ARWM200LAS5	ARWM200LAS5
	Independent Unit (3)		ARWM160LAS5	ARWM180LAS5	ARWM200LAS5
	Independent Unit (4)		-	-	-
Capacity	Cooling (Rated)	kW	156.8	162.4	168.0
	Heating (Rated)	kW	176.4	182.7	189.0
Input	Cooling (Rated)	kW	28.70	29.78	32.07
	Heating (Rated)	kW	30.16	30.82	33.15
EER	Rated		5.46	5.45	5.24
COP	Rated		5.85	5.93	5.70
Exterior	Color		Morning Gray / Dawn Gray	Morning Gray / Dawn Gray	Morning Gray / Dawn Gray
	RAL (Classic)		RAL 7038 / RAL 7037	RAL 7038 / RAL 7037	RAL 7038 / RAL 7037
Heat Exchanger	Type		Stainless Steel Plate	Stainless Steel Plate	Stainless Steel Plate
	Maximum Pressure Resistance	kgf/cm^2	45	45	45
	Head Loss	kPa	29.9 + 29.9 + 37.7	29.9 + 29.9 + 24.6	29.9 + 29.9 + 29.9
	Rated Water Flow	LPM	192 + 192 + 154	192 + 192 + 173	192 + 192+ 192
Compressor	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 3	5,300 x 3	5,300 x 3
	Oil Type		FW68D (PVE)	FW68D (PVE)	FW68D (PVE)
	Oil Charge	cc	10,200	10,200	10,200
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	mm	PT 40 + PT 40 + PT 40 (Internal Thread)	PT 40 + PT 40 + PT 40 (Internal Thread)	PT 40 + PT 40 + PT 40 (Internal Thread)
	Outlet	mm	PT 40 + PT 40 + PT 40 (Internal Thread)	PT 40 + PT 40 + PT 40 (Internal Thread)	PT 40 + PT 40 + PT 40 (Internal Thread)
	Drain Outlet	mm	PT 20 (External Thread)	PT 20 (External Thread)	PT 20 (External Thread)
Dimensions (W x H x D) - Net		mm	(772 x 1,120 x 547) x 3	(772 x 1,120 x 547) x 3	(772 x 1,120 x 547) x 3
Dimensions (W x H x D) - Shipping		mm	(820 x 1,245 x 645) x 3	(820 x 1,245 x 645) x 3	(820 x 1,245 x 645) x 3
Net Weight		kg	(158 x 2) + (149 x 1)	158 x 3	158 x 3
Shipping Weight		kg	(166 x 2) + (157 x 1)	166 x 3	166 x 3
Sound Pressure Level	Cooling / Heating	dB(A)	59.0 / 61.0	60.0 / 61.0	60.0 / 61.0
Sound Power Level	Cooling / Heating	dB(A)	73.0 / 75.0	74.0 / 75.0	74.0 / 75.0
Communication Cable		mm^2 x No. (VCTF-SB)	1.0 ~ 1.5 × 2C	1.0 ~ 1.5 × 2C	1.0 ~ 1.5 × 2C
Refrigerant	Refrigerant Name	-	R410A	R410A	R410A
	Precharged Amount in Factory	kg	4.5 + 4.5 + 3.5	4.5 + 4.5 + 4.5	4.5 + 4.5 + 4.5
	t-CO_2 eq	-	26.094	28.181	28.181
	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
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 conditons 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.)