

## **LG Electronics**

http://www.lg.com http://partner.lge.com

Distributed by

2019 | LG HVAC SOLUTION



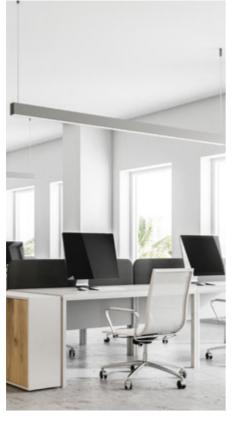


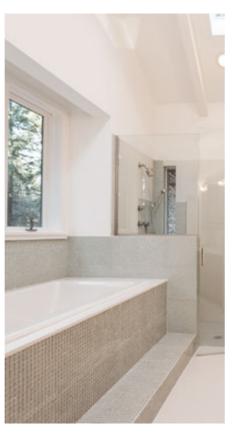




# **INDEX**







# OUTDOOR UNITS

020 - 091

MULTI V 5	022
MULTI V S	048
MULTI V M	060
MULTI V WATER IV (HEAT PUMP / HEAT RECOVERY)	066
MULTI V WATER S	088

# INDOOR UNITS

092 - 145

WALL MOUNTED UNIT	094
CEILING MOUNTED CASSETTE	104
CEILING CONCEALED DUCT	118
FRESH AIR INTAKE UNIT	130
CEILING & FLOOR CONVERTIBLE UNIT CEILING SUSPENDED UNIT	132
CONSOLE & FLOOR STANDING UNIT	136
COMPATIBILITY	142
FEATURE FUNCTIONS	145

# HOT WATER SOLUTION

146 - 151

HYDRO KIT 148







# VENTILATION SOLUTIONS

152 - 161

ERV 154
ERV WITH DX COIL 160

# CONTROL SOLUTIONS

162 - 213

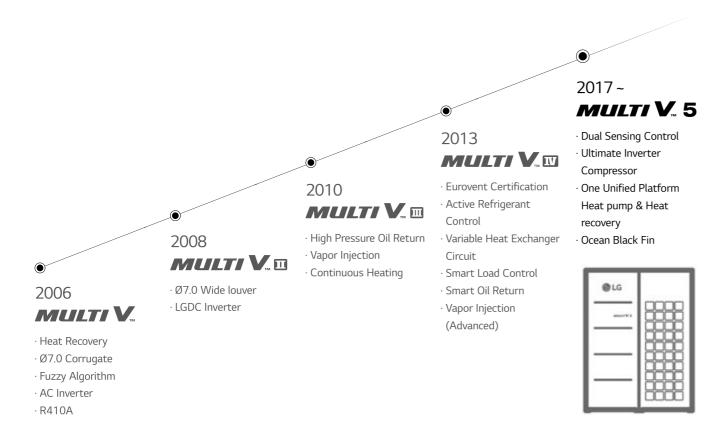
INDIVIDUAL CONTROL 166
CENTRALIZED CONTROL 174
INTEGRATION DEVICE 186

## **ACCESSORIES**

214 - 235

MECHANICAL ACCESSORIES 216
PIPING ACCESSORIES 224

## **MULTI V BRAND HISTORY**



From the moment when LG introduced Korea's first residential air conditioner in 1968, the company has continuously enhanced its technological innovation and credibility. As a result of sustained improvement, LG VRF launched the first generation of MULTI V in 2006 and achieved significant development. With world's top class compressor and innovative technology competency applied on every part, cycle and controlling solutions, it has evolved to be one of the world's most efficient and reliable VRF solutions.

Following the first and second generations with Inverter technology and non-ozone depleting refrigerant, MULTI V III has advanced its efficiency with diverse cutting-edge technologies such as HiPOR™ that directly returns oil to compressor and Vapor Injection that allows double compression by adding mid-pressure refrigerant. The innovative technologies of 4th generation Multi V secured MULTI V brand with product leadership based on efficient system. For example, Smart Load Control that controls operational load according to external temperature. The other technology is optimized to manage refrigerant and heat exchange for cooling or heating.

Moreover, Multi V's wide range of VRF line-up satisfies various types and sizes of buildings; MULTI V S is the VRF with side discharge, designed for small to mid-sized building and MULTI V WATER is the water-cooled VRF solution with variable water flow controlling technology.

In 2017, the time has arrived for the ultimate VRF system, MULTI V 5. This generation has fully improved its technological potential with ever powerful and reliable yet economical LG's Ultimate Inverter Compressor, Ocean Black Fin with the most effective corrosion resistance performance and biomimetics technology-applied, enlarged fans. At the same time, the Dual Sensing Control offers users the most pleasant environment while minimizing the unnecessary energy loss with system that senses both the temperature and humidity to efficiently manage cooling, heating and part load operations.

With MULTI V 5 that has been solely designed for the ultimate efficiency, performance, flexibility, comfort and control, we are highly confident to bring the ultimate pleasant air experience.

## INFRASTRUCTURE IN EUROPE



LG Air Conditioning Academy

LG has set up 20 official air conditioning academies in Europe, teaching much needed skills to thousands of current industry professionals including installers, consultants, designers, sales staff and service technicians. The academy program is being used to share expertise and educate these HVAC experts by providing a cutting-edge technical experience with the newest and most advanced technologies and equipments. Moreover, as LG's entire product range is installed on site, professionals can be trained in a realistic way that offers them the chance to experience the latest products first-hand.



LG Energy Lab in Europe

Committed to meet all requirements regarding energy efficiency and environmental demands, LG has invested in its own testing facility named the LG Energy Lab. LG Energy Lab is an innovative site dedicated to commercial and residential products for heating, ventilation and the latest energy efficient air conditioning solutions. Also as a showcase, LG Energy Lab is equipped with complete monitoring and control systems. The performance of all products will be tracked and analyzed by a team of Research and Development engineers based in France and Korea, ensuring efficiency and reliability during the whole product lifecycle.



European Air Conditioning Distribution Center

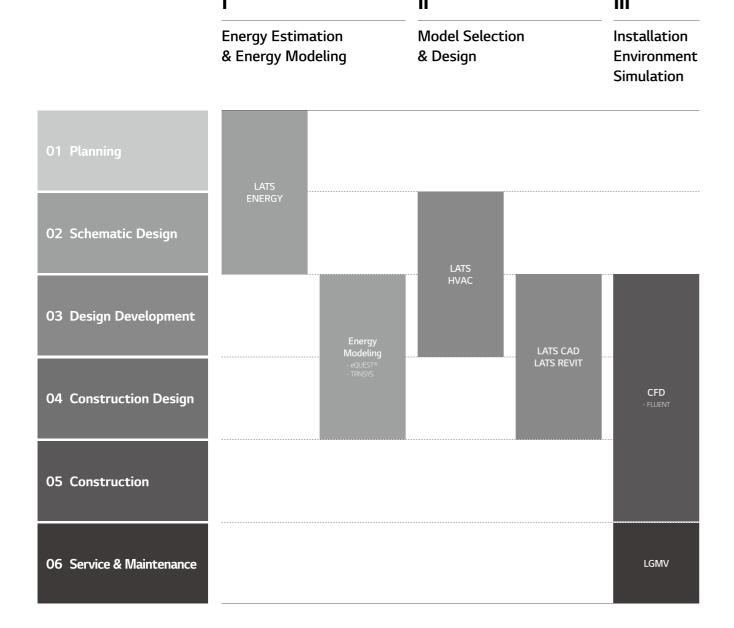
LG's European Air Conditioning Distribution Center is located in Oosterhout, the Netherlands. Supplying and delivering products all over Europe, this distribution hub has contributed to smooth and rapid delivery, direct shipping for smaller orders and delivery tailored to air conditioners. The hub tries to manage inventory efficiency by taking advantage of LG EU's established inventory pool.



## **ENGINEERING TOOLS & SUPPORT**

From planning to service & maintenance and then to de-construction, an architectural project goes through many stages from the beginning to the end of its lifecycle. Along those stages, various engineering tools are applied to solve the diverse issues happening in each stage, with the most optimal solution possible. Given the usage of such tools, buildings are effectively designed, built, supervised, and maintained throughout their lifecycle.

Dedicated to provide the best HVAC engineering support, LG Electronics Air-Solution Business Unit offers several engineering tools and solutions focused on HVAC, during the overall lifecycle of a building, related to the three categories: I. Draft Energy Estimation & Energy Modeling, II. Model Selection & Design, and III. Installation Environment Simulation. Among them, the LATS\* Program series has been developed to offer the best tool for LG HVAC systems, providing our customers a faster, easier, and a more accurate way in everyday duties of Model-selection, Draft Energy Estimation & Designing, and many more.



## 01 Draft Energy Estimation

## LATS Energy

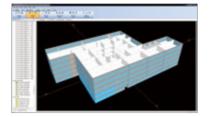
LATS Energy program is a draft energy estimation program, self-developed by LG. This program helps estimate the draft energy usage and analyzes the life cycle cost of LG VRF models during the early stage of a project.



## 02 Building Energy Modeling

## eQuest, EnergyPro, Trace700 and More

These are certified commercial programs which assess the HVAC system efficiency and building's annual energy saving for building standard or certification like LEED. LG HQ supports these programs for the project stages of Design Development and Construction Design wherein the overall designing is finished.



## 03 Model Selection

#### LATS HVAC

LATS HVAC is an integrated model selection program of LG HVAC products, enabling an accurate and quick selection on the best model suitable to each sites. In addition to model selection, faster estimation on refrigerant piping diameter and additional refrigerant is possible, along with auto printing of reports.



## 04 Design

#### LATS CAD

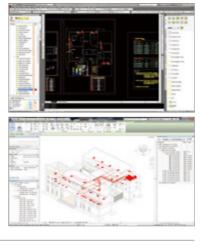
LATS CAD enables faster and more accurate 2D design of LG HVAC products. It also enables modules for quotation and installation review that minimize inherent problems appearing during installation.

\* AutoCAD program is required.

#### LATS Revit

LATS REVIT is developed to make 3D design of LG HVAC products.

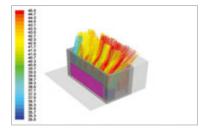
\* AutoCAD Revit program is required.



## 05 Environment Simulation

#### **CFD Analysis**

CFD Analysis is applied in areas of estimating: indoor airflow and temperature distribution while operating VRF products, outdoor airflow distribution, and noise level. By running a simulation before construction, engineers estimate possible issues and find optimal solutions of malfunction that could occur after construction.



## 06 Service & Maintenance

#### IGM

LGMV offers real-time Multi V cycle monitoring. During start-up, it's possible to check whether it is normal operation or not. Also it helps to find causes of errors and solve the problem faster.



<sup>\*</sup> LATS : LG Air-conditioner Technical Solution

## **BENEFITS OF LG MULTI V**

## Benefits for

## **Building owners**



## **Efficient Management & Cost Reduction**

- Fault Detection Diagnosis enables easy maintenance
- Requires no extra manpower for regular maintenance
- With diverse control systems, maintenance cost is minimized



## Reliability Guaranteed in Every Aspect

- Ultimate Inverter Compressor developed and manufactured in Korea
- Corrosion resistant Ocean Black Fin for harsh conditions operation
- Smart Oil management (Auto Oil Balancing and Active Oil return) decreases compressor damage



#### **Customized Comfort and Solution**

- Compatible option between Heat pump and Heat recovery system is possible



## Benefits for

## Developers / Construction companies



#### **Green Solutions**

- Helps scoring LEED/BREAEM points
- Renewable energy solution provided through geothermal application



## **Maximizing Space Utilization**

- Large Capacity in compact size enhances space utilization



## **Smart Building Solutions**

- Easy interlocking with Building Management
- Wi-fi control available for anytime anywhere (via mobile app. "LG SmartThinQ")
- Energy management and control according to usage and planning is possible with LG's centralized control solution



## Benefits for

## Consultants



#### **Versatile Solutions**

- Air-cooled, Water-cooled, Heating, and Air Handing Unit interlocking solutions



## Professional Designing Support

- LATS(LG Air-conditioner Technical Solution) for draft energy estimation, model selection, HVAC design and 3D designing
- CFD Analysis to ensure suitable solutions and prevent malfunctions
- Energy simulation offered to find the optimal solution



## Optimized Comfort in HVAC Design

- Flexible and Longer piping length facilitates HVAC designing process
- Meets any type of customer requirements of diverse environment, design conditions, and building applications



## Benefits for

## **End-users**



#### Cost Saving Operation

- High efficiency is assured in all line up
- Maximum 31% of cost saved through Multi V 5 Smart Load Control\*



## Comfortable Cooling & Heating

- Smart Load Control maximizes indoor comfort level
- Dual sensing offers pleasant and comfortable cooling and heating environment
- Duration time of Continuous Heating is 11% longer than previous model\*\*



#### **Convenient Functions**

- Low-noise operation provides a pleasant





## **APPLICATION SOLUTIONS**

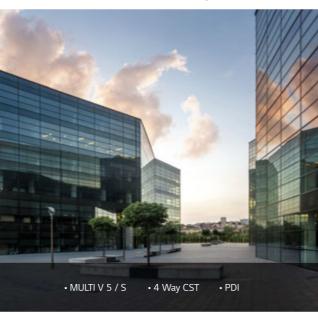
## Office

Supporting efficiency with flexibility

High Rise Office Building



## Small to Medium sized Office Building



MULTI V series vitalizes the workspace with fresh air at all time, combined with its various indoor selection. The intelligent control solutions add comfort to the space.

**Commercial** Maximize business, minimize costs

## **Shopping Mall**



Retail



QSR



The highly efficient, energy saving MULTI V 5 and MULTI V M reduces operation costs, and provides comfort that suits any purpose and any space, helping to invest the extra space and expense to your business.

\* CST : Cassette \* PDI : Power Distribution Indicator

## Residential

Home is where your comfort is

## **Condominium & Apartments**



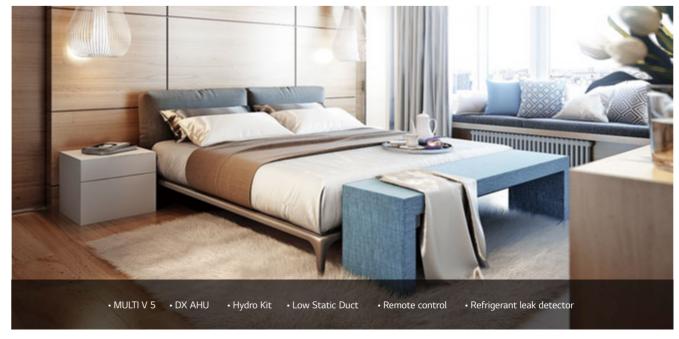
Single Family House & Villa



Remarkably compact size and high static pressure of MULTI V S enables optimal space solution, providing comfort to every space through individual zone control and hot water solution.

## Hospitality

Meeting diverse needs in every aspect



The diverse applications that can be applied to MULTI V 5 helps bring just the right solution to a sophisticated hotel business.

\* ESS : Energy Storage System \* PV : Photovoltaics

## **DIVERSE INTEGRATED SOLUTION**

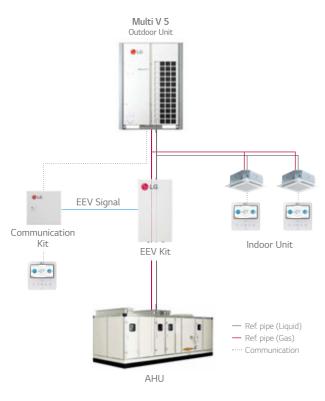
## **Hot Water Solution**

Cost of hot water can be reduced with heat pump system, which is highly efficient compared to a boiler system. The Hydro kit can be connected to Multi V 5, and hot water temperatures up to 80°C can be provided. Also energy saving can be increased when Hydro kit is combined with Multi V 5 Heat Recovery.



## Air Handling Unit (AHU) Solution

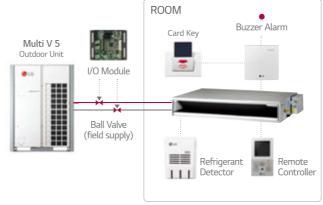
AHU is a suitable solution for cooling and heating in large space. With an LG AHU Comm. Kit (for both return air / supply air control) connected to the DX coil of the AHU, LG VRF system can be applied to deliver conditioned air.



## **Refrigerant Leak Detection Solution**

Real time refrigerant leak detection is needed for a safe environment. When the refrigerant concentration exceeds 6,000ppm for 5 seconds the indoor unit will stop operation and can also give an alarm using a buzzer or a light with the dry contact (option). The central controller can also display an error signal.

 $^{\star}$  When the solution for refrigerant leak detection is required, contact LG and discuss the requirement.



% Regulation: EN378, BREEAM, ASHRAE Std. 15 & 34

## **Power Consumption Distribution Solution**

In case of shared power consumption in a building, a solution to distribute the power consumption amount per tenant might be necessary. Electricity charges can be billed to each tenant by using output from the LG Power Distributor Indicator (PDI). An administrator is able to check the power usage for each space and date as needed. If the PDI is used in conjunction with an LG central controller, the results can be exported to Excel.



## **Total Control on Any Device**

In order to manage multiple spaces and multiple buildings, the administrators should be able to control systems from wherever they are. The LG central controller can be controlled from any web browser that supports HTML5. Now through the implementation of HTML5, the interface will look great and perform well on any of your devices.



## **Energy Management Solution**

Since HVAC systems use a significant portion of any building's total amount of energy, the energy saving functions of a controller can make a big difference. The energy navigation function enables you to set target values for energy consumption over a certain period of time. In addition, to achieve that value, the administrator can set the energy saving logic in 7 steps and predict the expected usage relative to the target value. Active self-management enables energy savings through out the building.



## **Integration Solution with BMS**

There are many BMS protocols used for the control of buildings' various systems such as HVAC, lighting, power and security. LG has a wide range of gateway products for different protocols such as BACnet, Modbus, and LonWorks. In addition, LG gateways include Stand-alone central control capability to act as a back-up controller of the BMS if needed.



# Interlocking Solution by Using ACS IO Module

It is costly to introduce a BMS system to control multiple devices or systems in a small building. With the ACS IO module, various IO contact points (DI, DO, UI, AO) can be interlocked and integrated, while control is possible from the LG central controller. This enables an efficient management of lighting, pumps and other devices in the building in conjunction with the HVAC system.



## **Interlocking Solution Using Dry Contact**

3<sup>rd</sup> party thermostats can be used to control LG air conditioners in a room by using a multi point dry contact. The dry contact enables basic control of air conditioners as well as making it possible to report the status and any errors impacting the indoor unit.

The Standard III remote control has a DO port. With this DO port, it is possible to interlock the indoor unit with  $3^{rd}$  party devices such as lighting, a fan, or a radiator, based on things like operation mode or current temperature.

The indoor unit can be interlocked with various types of input such as card key-tag, door sensor, human detection sensor etc. so that the air conditioner is automatically operated. In addition, the dry contact option settings enable operation of air conditioner to maintain proper temperature when the occupant is absent. This solution makes sure that the room does not overheat or become too cold when unoccupied so that energy cost can be saved.



## **OUTDOOR UNITS LINE-UP**

Туре	Features	Appearance	4	5	6	8	10	12	14	16	18	20
						•	•	•				
	<ul><li>Dual sensing control</li><li>Large capacity ODU (Up to 26HP)</li></ul>								•	•	•	•
MULTI V 5	<ul> <li>Continuous Heating</li> <li>Ocean black fin heat exchanger</li> <li>Ability to function as HP or HR</li> <li>Flexible installation with heat recovery unit and large capacity</li> </ul>											
	For large space, high rise building and individual control building											
	Space saving	0	0	0								
MULTI V S	<ul> <li>Flexible design applications</li> <li>Slim, Light, and Broad range (4 ~ 12HP)</li> <li>Large number of connectable indoor units (Up to 20 Units)</li> </ul>	0	•	0	0							
	For Small / Medium building	0				•	•	•				
MULTI V S Heat Recovery		0			0							
MULTI V M	High flexibility of installation     Quiet operation     Various indoor unit combinations & Long distance between modules			•								
						•	•		•			•
MULTI V WATER IV	<ul> <li>High efficiency system regardless external conditions</li> <li>Indoor installation</li> <li>Low noise operation (No fan)</li> <li>For Water sourced system, High rise</li> </ul>									•	•	
Heat Pump / Heat Recovery	building and Aesthetic building     Simultaneous cooling and heating     Minimized energy cost by water sourced heat recovery system											
	• For individual control building											
MULTI V WATER S	Compact size     Light weight     For Residential and Commercial     building				0							

22	24	26	28	30	32	34	36	38	40	42	44	46	48	50	52	54	56	58	60	62	64	66	68	70	72	74	76	78	80		96
•	•	•																													
•	•	•	•	•	•	•	•	•	•	•	•	•	•																		
														•	•	•	•	•	•	•	•	•	•	•	•						
																										•	•	•	•	•	•
•	•		•	•		•			•																						
										•	•		•	•		•			•												
																				•	•		•	•		•			•		

● 380V, 3Ø ○ 220V, 1Ø

## **INDOOR UNITS LINE-UP**

	kW		1.5	2.2	2.8	3.6	4.5	5.6	6.2	7.1	8.2	9.0	10.6	12.3	14.1	15.8	22.4	28.0
Туре		Btu/h	5k	7k	9k	12k	15k	18k	21k	24k	28k	30k	36k	42k	48k	54k	76k	96k
	Artcool Gallery			•	•	•											Π	
4 <sup>th</sup> generation Wall Mounted Unit	Artcool Mirror		•	•	•	•	•	•		•								
Offic	Standard		•	•	•	•	•	•		•		•	•					
	4 Way Cassette (570 x 570)		•	•	•	•	•	•	•									
	4 Way Cassette (840 x 840)									•	•	•	•	•	•	•		
4 <sup>th</sup> generation Ceiling Mounted Cassette	4 Way Cassette High Sensible (840 x 840)	T.		•	•	•	•	•		•	•		•	•				
Cassette	2 Way Cassette				•	•		•		•								
	1 Way Cassette			•	•	•		•		•								
	Mid / High Statics			•	•	•	•	•		•	•		•	•	•	•	•	•
4 <sup>th</sup> generation Ceiling Concealed Duct	Low Statics		•	•	•	•	•	•	•	•								
buct	High Sensible			•	•	•	•	•		•	•		•	•	•			
4 <sup>th</sup> generation Fresh Air Intak															•		•	•
4 <sup>th</sup> generation Ceiling & Floor	Convertible Unit				•	•												
4 <sup>th</sup> generation Ceiling Suspend	ded Unit							•		•			•		•			
4 <sup>th</sup> generation Console				•	•	•	•											
4 <sup>th</sup> generation Floor	Floor Standing Unit with Case			•	•	•	•	•		•								
Standing Unit	Floor Standing Unit without Case			•	•	•	•	•		•								
4 <sup>th</sup> generation	Low Temperature	•												•				•
HYDRO KIT	High Temperature	•												•			•	
Recovery -	with Humidifier						•			•		•						
	without Humidifier						•			•		•						

## **INDOOR UNITS FEATURE OVERVIEW**

Energy Monitoring	2 Set Point	Occupied / Unoccupied Scheduling Function	Group Control	Test Run (Cooling)	Test Run (Heating)	Model Information Monitoring	Auto Addressing	Refrigerant Leakage Detection	Thermo On / Off Range Setting (Cooling)	Thermo On / Off Range Setting (Heating)	Static Pressure 11 Step Control (Only for Ceiling Concealed Duct Type)	1 Point External Input (On / Off Control)	Filter Sign (Remaining Time)	Auto Rerstart Function Disable / Enable	Wi-Fi Ready
•	•	•	•	•	•	•	•	•	•	•		•	•	•	•
•	•	•	•	•	•	•	•	•	•	•		•	•	•	•
•	•	•	•	•	•	•	•	•	•	•		•	•	•	•
•	•	•	•	•	•	•	•	•	•	•		•	•	•	•
•	•	•	•	•	•	•	•	•	•	•		•	•	•	•
•	•	•	•	•	•	•	•	•	•	•		•	•	•	•
•	•	•	•	•	•	•	•	•	•	•		•	•	•	•
•	•	•	•	•	•	•	•	•	•	•		•	•	•	•
•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
•			•	•	•	•	•	•	•	•		•		•	•
•			•	•	•	•	•	•		•		•		•	•
				•	•		•	•				•	•	•	
				•	•		•	•				•	•	•	

If 4th generation indoor units are connected to MULTI V WATER S, several funtions are not available.
 If 4th generation indoor units are combined to 2nd generation indoor units, several funtions are not available.
 More detailed information, refer to the "MULTI V Indoor units Compatibility Table"

## **LG HVAC CONTROL LINE-UP**

	INDIVIDUAL CONTROL		CENTRALIZED CONTROL								
Wired Remote	e Controller Simple	Wireless Remote Controller	Display	Platform	Gateway						
Standard III (White)			AC Ez	ACP 5	ACP Lonworks						
) • (2) • (		6 0 0 0 0 0		## (11) (11) (11) (11) (11) (11) (11) (1							
PREMTB100	PQRCVCL0QW	PQWRHQ0FDB	PQCSZ250S0 (Indoor Unit ~32)	PACP5A000 (Indoor Unit ~256)	PLNWKB000 (Indoor Unit ~64)						
Standard III (Black)		Wi-Fi Controller LG Wi-Fi Modem	AC Ez Touch	AC Manager 5	Modbus RTU Gateway						
PREMTBB10	PQRCVCL0Q	For Indoor Unit PWFMDD200	PACEZA000 (Indoor Unit ~64)	PACM5A000 (Indoor Unit ~8,192)	PMBUSB00A						
Standard II (White)			AC Smart 5		KNX Gateway						
PREMTB001	PQRCHCA0QW (Simple for Hotel)		PACS5A000 (Indoor Unit ~128)		LG-AC-KNX4 LG-AC-KNX8						
Standard II (Black)					LG-AC-KNX16 LG-AC-KNX64 PI-485						
PREMTBB01	PQRCHCA0Q (Simple for Hotel)				For Indoor Unit (ERV) PHNFP14A0						
Premium											
PREMTA000											
PREMTA000A PREMTA000B											

CENTRALIZED CONTROL	INTEGRATION DEVICE										
Facility Integrator		r Unit	Outdoor Unit	AHU Kit							
PDI (Pausa Distribution Indicator)	Dry Contact	Control Accessory	IO Module	Communication Kit							
(Power Distribution Indicator)	•	Group Control Wire	(Input / Output Module)	©LG							
Premium (8 port) PQNUD1S40 Standard (2 port) PPWRDB000	Simple Dry Contact PDRYCB000	PZCWRCG3	For MULTI V 5 PVDSMN000	Return/Room Air control PAHCMR000							
ACS IO Module (Input / Output Module)	Dry Contact for Thermostat PDRYCB300	Remote Temperature Sensor	Variable Water Flow Control kit  For MULTI V WATER IV PWFCKN000	Discharge Air control PAHCMS000							
Chiller Option Kit PCHILLN000	2 Points Dry Contact (For Setback) PDRYCB400	Low Profile Remote Temperature Button Sensor ZRTBS01	Low Ambient Kit  For MULTI V IV, 5 PRVC2	PRCKD21E (~ 4 ODUs) PRCKD41E (~ 8 ODUs)							
ACU IO Module  NEW UIO  PEXPM300	For Modbus PDRYCB500	Zone Controller  4 Zones by thermostat ABZCA	Cool / Heat Selector PRDSBM	EEV Kit (Electronic Expansion Valve)  PRLK048A0 (~ 10HP) PRLK096A0 (~ 20HP)							
PEXPM200				TXV Kit (Thermal Expansion Valve)  PATX13A0E (8 ~ 16HP) PATX20A0E (18 ~ 26HP) PATX25A0E (28 ~ 36 HP) PATX35A0E (38 ~ 46 HP) PATX50A0E (48 ~ 56 HP)							
PEXPM100											

Note 1. AC Smart 5 & ACP 5 provides BACnet IP / Modbus TCP 2. KNX Gateway is provided by INTESIS

# OUTDOOR UNITS

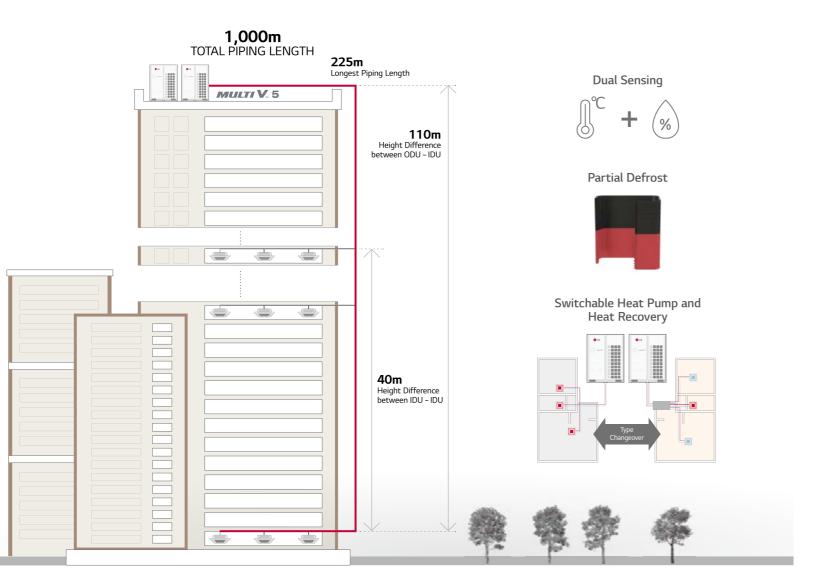
MULTI V 5 / MULTI V S / MULTI V M

MULTI V WATER IV (HEAT PUMP / HEAT RECOVERY) /

MULTI V WATER S

## MULTI V<sub>IM</sub> 5

- Air cooled VRF Heat Pump & Heat Recovery
- 22.4kW ~ 268.8kW (Cooling capacity based)
- 3Φ, 380 ~ 415V, 50 ~ 60Hz
- Top discharge outdoor unit
- Ability to function as Heat Pump or Heat Recovery



## **Features & Benefits**

- Ultimate energy saving with Dual Sensing Control
- Certified corrosion resistance for heat exchanger
- Heat pump and heat recovery are interchangeable with one platform
- Includes low noise operation mode

## **Key Applications**

- High rise up to 110M building
- · Large commercial office and shopping mall
- Individually and simultaneous operation at premium hotel
- Capable of replacing large chiller facilities

## **CREATIVE TECHNOLOGIES**

## Dual Sensing SLC (Smart Load Control)

Enhanced energy saving & increased indoor Comfort

Cooling loads vary according to both temperature and humidity. With Dual sensing SLC, the proper amount of work can be exerted to meet the load not only depending on current temperature, but also on humidity. As a result, less capacity will be needed at the same temperature when humidity is lower.

It influences the VRF system main processor's decision on where to set the system's target high or low system pressure values.

## Smart Load Control monitors two inputs

1) Outdoor ambient dry bulb temperature

2) Outdoor ambient relative humidity (when enabled)

#### Cooling Indoor Units - adjusts target low pressure

Raises the target low pressure value as cooling load falls and/or ambient temperature falls. Lowers the target low pressure value as cooling load rises and/or ambient temperature rises.

#### Heating Indoor Units - adjusts target high pressure

Lowers the target high pressure as heating load falls and/or ambient temperature rises. Raises the target high pressure as heating load rises and/or ambient temperature falls.

#### What are the benefits?

#### Enhanced energy savings

#### - Cooling Mode

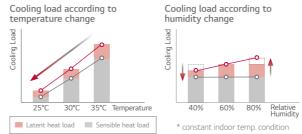
By raising the target low pressure during off-peak cooling operation, the compressor lift is reduced. This slows compressor's speed which leads to a decrease in compressor's power consumption.

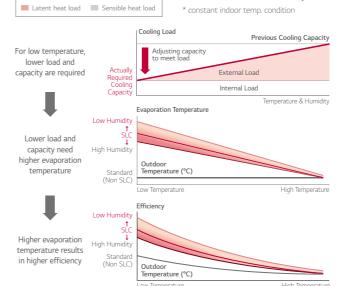
#### - Heating Mode

By lowering the target high pressure during off-peak heating operation, the compressor lift is reduced. This slows compressor's speed which leads to a decrease in compressor's power consumption.

#### Increased indoor comfort

Smart Load Control uses one (or two) sensors to measure changing outdoor weather conditions and prepares the VRF system for operation under the revised weather conditions before the changed conditions have a chance to impact indoor comfort.



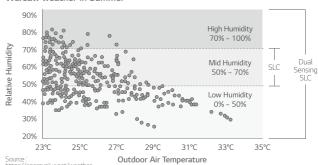


# Energy Saving by Dual (Temperature & Humidity) Sensing Control Case study

#### Weather characteristics of Warsaw, Poland

The portion of cooling operation hours at low humidity condition (below 50% RH) is big. The cooling load of this condition is less than the load at standard ( $50 \sim 70\%$  RH) or high (over 70% RH) humidity condition even in the same outdoor air temperature. MULTI V 5 raises the evaporating Temp. up at low load (low humidity) condition to enable energy saving and prevent over-cooling which can happen when the system is controlled only by using outdoor air Temp.

#### Warsaw weather in Summer

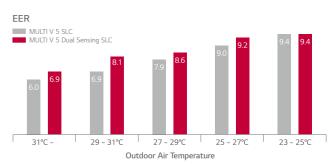


Time Portion of Relative Humidity in Summer (Warsaw, Poland)

RH (%)	Portion
70% ~ 100%	8%
50% ~ 70%	45%
0% ~ 50%	47%

## Energy Consumption in Cooling Season

When we compared the energy consumption between SLC (Outdoor air Temp. sensing only) and Dual sensing SLC (Outdoor air Temp. and humidity sensing), Dual sensing SLC control can save 6% more energy compared to SLC. So dual sensing control is more efficient than SLC.



\* This energy simulation was performed in LG internally based on 16HP model

#### Power Consumption in Cooling Season

Yearly Power Input (kWh) - OI

really Fower input (KWII) = ODO										
OAT	MV4 (Fixed)	MV5 SLC	MV5 Dual SLC							
31 ~	17	15	13							
29 ~ 31	91	73	62							
27 ~ 29	183	136	124							
25 ~ 27	243	170	165							
23 ~ 25	155	110	109							
Total	690 (137%)	503 (100%)	474 (94%)							

6% more energy saving compared to SLC

## **CREATIVE TECHNOLOGIES**

## **Comfort Cooling**

Increased indoor comfort & enhanced operating efficiency

IDU is operating in a season when its load is less than the design load, the comfort cooling algorithm controls the indoor unit's coil superheat, thus raising the discharged air temperature as the space temperature is approaching set point. MULTI V 5's comfort control algorithm monitors the outdoor air temperature and humidity conditions. When changing weather conditions are deteriorating and there is a high potential the indoor unit's load will remain stable or may increase, comfort cooling delays or abandons raising the target superheat as the room temperature approaches set-point. When changing weather conditions are favorable to raising target superheat, target superheat is moderated.

#### What are the benefits?

#### Increased indoor comfort

If comfort cooling is turned off, and the temperature of the leaving air is not raised, when the fan speed is reduced to low speed, there is a potential that occupants located directly under a cassette IDU or supply air registers could feel cold air falling on them resulting in a lower overall comfort experience. With comfort cooling turned on, the discharged air temperature is controlled. When the IDU controller reduces the fan speed, the potential for cold air falling on occupants located under the cassette IDU or supply air registers is reduced.

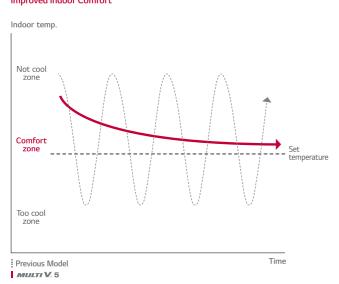
#### Enhanced operating efficiency

Raising superheat reduces refrigerant volume flowing through the coil. As flow decreases, demand on the compressor decreases and the compressor speed will be reduced, thus saving energy.



\* Indoor unit set up available with Standard III Remote Controlle

#### Preventing cold draft & repeated turn On / Offs Improved Indoor Comfort



## Intelligent Defrost

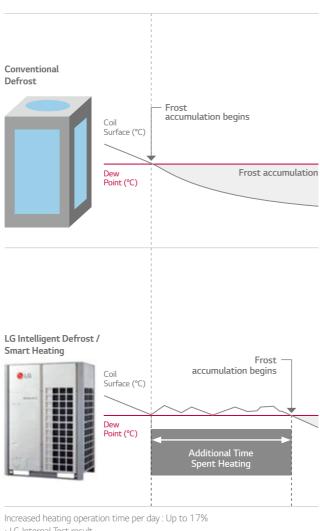
Increased heating run-hours

MULTI V has provided an intelligent defrost algorithm and settings based on current outdoor ambient temperature. With the addition of the outdoor air humidity sensor, MULTI V 5 Intelligent Defrost just got smarter.

MULTI V 5 computes the current ambient air dew point temperature - the temperature at which frost will form on the outdoor unit coil in winter operation. MULTI V 5 makes continuous adjustments to the refrigeration cycle operating parameters to keep the outdoor coil surface temperature above actual dew point which can be calculated by using dry bulb Temp. and relative humidity. When the refrigeration cycle operating parameters can be adjusted no further without sacrificing heating comfort, further adjustment is stopped and frost is allowed to build on the the coil, therefore activating defrost.

#### What are the benefits?

The Intelligent Defrost algorithm increases the VRF system's heating run-hours and reduces the number of defrost cycles required to maintain optimum heating performance irrelevant of the mode and method of defrost selected.



- LG Internal Test result.
- Test condition (MULTI V 5 vs MULTI V IV, 22HP)
- Outdoor: 2/1℃, Indoor: 20/15℃
- Humidity: 83%, Dew Point: -0.5℃

## Variable Path Heat Exchanger

Optimized system efficiency & continuous heating

MULTI V 5 outdoor units are manufactured with horizontally split ODU coil consisting of two independent circuit sections. Each half of the coil is independently controlled.

This split coil feature makes it possible for MULTI V 5 to provide continuous heating during defrost. The split coil and valve arrangement also makes it possible for the MULTI V 5 to change the flow path of refrigerant through one of the two coils only, or through both coils in either a series or parallel arrangement. Based on system pressures, ambient temperature conditions, and mode of operation, the system controller may modify the selected path at

#### What are the benefits?

Optimizes system efficiency regardless of operating modes as ambient weather conditions change.

Customizes the used area of the outdoor unit's heat exchange surface.



#### Low ambient cooling and / or light building load

- Half active
- Lower idle



## Full load cooling

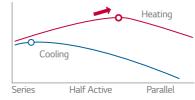
- Upper & lower active
- Series circuited
- · High velocity refrigerant flow



#### Heating - all conditions · Upper & lower active

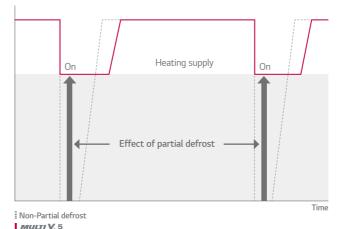
- Parallel circuited
- · Low velocity refrigerant flow

## Efficiency



## Continuous Heating

Heating performance



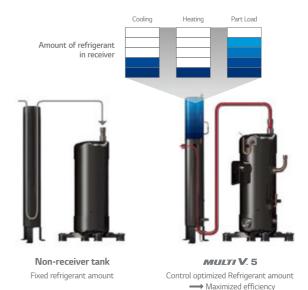
## **Active Refrigerant Control**

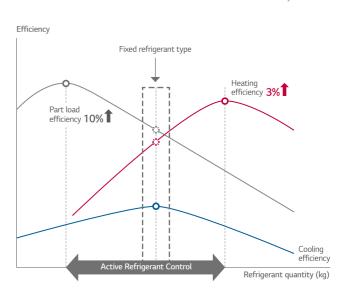
Stable operation & sustaining most efficient operation

The accumulator in the outdoor unit has a storage tank mounted inside known as the receiver tank. The receiver tank is equipped with inlet and outlet valves that are electronically opened and closed. Refrigerant is being passed between the accumulator and the receiver tank on a continuous basis. MULTI V 5 active refrigerant control algorithm goal is to minimize the amount of refrigerant in circulation. The lower the volume in circulation the lower the cost to move it around the system and the higher the stability of the refrigeration cycle. It accomplishes this by constantly monitoring the system operating pressures and temperatures and a variety of other vital control metrics of the refrigeration cycle. When the cycle is out of balance, an adjustment in the amount of circulating refrigerant occurs.

## What are the benefits?

Widens the ambient temperature range at which stable operation occurs. Sustains most efficient system operation regardless of outdoor weather conditions, operating mode, or building load.





## **CREATIVE TECHNOLOGIES**

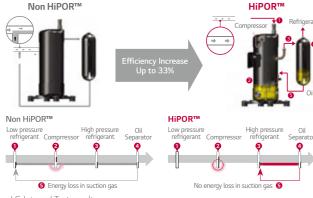
## **HiPOR™**

## Maximized reliability & efficiency of compressor

HiPOR™ is an LG trademark that stands for High Pressure Oil Return. It consists of an oil separator, oil drain line between the separator and the compressor. HiPOR™ technology enables oil to return directly into the compressor, instead of returning through the refrigerant suction pipe. This does not waste energy when oil flows between the separator and the compressor. Because the operating pressure in the chamber containing the oil sump of the compressor and the pressure in the oil separator are nearly equal, there is no loss in compressor efficiency.

#### What are the benefits?

Maximizes reliability and efficiency of the compressor



- LG Internal Test result,
- Test condition 15Hz Rating Condition : TC = 37.9C°, Te : 7.2°C

## **Smart Oil Management**

Energy saving, enhanced heating & increased compressor reliability

MULTI V 5 performs oil return when needed under normal operating conditions. An oil level sensor is provided in every LG VRF compressor. If the sensor indicates the compressor oil level is low, the main system processor is notified that an oil return cycle is necessary. Oil balancing cycle occurs every hour and does not hinder system performance. It balances the oil level deposit between both compressors in multicompressor frames. Older VRF technology protects compressors from oil loss based on timed oil return logic because there was no way to know if the oil level in any one compressor was low. LG's unique oil level measuring sensor actively monitors the oil level in each compressor.

## What are the benefits?

Energy savings compared with other systems. Fewer oil return cycles eliminates unnecessary energy consumption.

Increases system heating run-time during winter operation.



- Increased heating operation time per day : Up to 12%
- LG Internal Test result,

  Test condition

MULTI V. 5

- Test condition
- without oil level sensor :
- every 8 hour oil recovery operation with oil level sensor:
- non oil recovery operation

## Sub-cooling & Vapor Injection

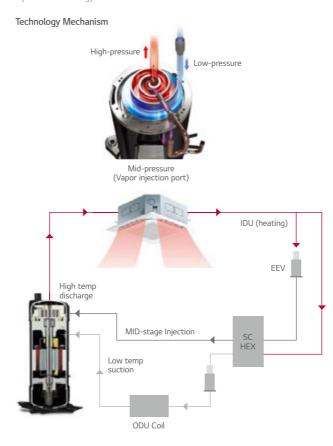
Increased heating performance

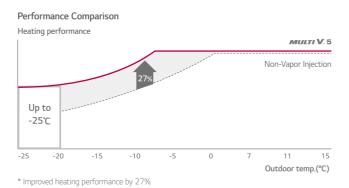
MULTI V 5 is equipped with advanced sub-cooler and vapor injection control system. The sub-cooler algorithm sub-cools liquid refrigerant just enough so that it can travel to the farthest IDU in the system operating in cooling mode without changing state. During low ambient operation down to -25°C (heating mode), the sub-cooler provides medium temperature refrigerant gas to the compressor's vapor injection system. When injected into the compression chamber, system mass flow increases which stabilizes the system's suction pressure. In all cases the vapor injection increases the compressors cycle efficiency and reduces operating cost.

## What are the benefits?

Provides stable refrigeration cycle operation over a wide range of outdoor ambient operating conditions.

Increases compressor efficiency when compared to systems without vapor injection technology.





## Ocean Black Fin

Improved durability

The black coating with enhanced epoxy resin is applied on the heat exchanger 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.

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, UL (Underwriters Laboratories).

#### What are the benefits?

This improvement in durability prolongs the product's lifespan and lowers both the operational and maintenance costs.

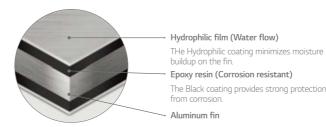


Ocean Black Fin





(Test condition: Salt contaminated condition + severe industrial / traffic environment (NO<sub>2</sub> / SO<sub>2</sub>))



#### Condition of salt spray test

	Temperature	35°C						
Mist of 5% NaCl (mass fraction) solution								

#### Condition of gas exposure test

Tomp	Relative	Gas Volume Fraction							
Temp.	Humidity	NO <sub>2</sub>	SO <sub>2</sub>						
25℃	95%	10 x 10 <sup>-6</sup>	5 x 10 <sup>-6</sup>						

## **Biomimetic Fan**

Maximized performance

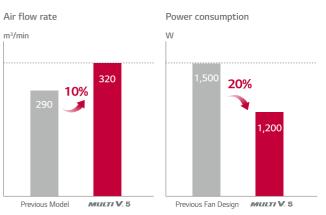
MULTI V 5 outdoor units fans have been upgraded. The moire pattern from external texture of clam shells has been applied on fans to create the range difference that results in reduction of noise level. At the same time, unlike the fans installed in previous products that generate separation of flow due to absence of tubercles, the bumpy back design inspired by the bumps on the humpback whale's flipper is applied as the tubercles on the back side of the fans, increasing wind power by reducing flacking. In addition to the biomimetic technology-based fans, extended shroud of MULTI V 5 allows more high static pressure and helps fans to blow higher air volume for efficient operation. With wider air guide, discharged air current is stabilized and noise level is reduced.

#### What are the benefits?

Based on the biomimetic technology, the fans of MULTI V 5 increased air flow rate by 10% in comparison to previous model and reduced its power consumption up to 20% when compared with the fan blade design on MULTI V IV. This eventually results in maximized performance with large capacity.







\* Comparison based on 20HP model

\* Comparison based on air volume of 290m³/min

## **DESIGN FLEXIBILITY**

## One Unified Model

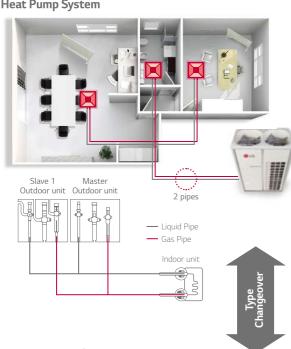
Heat pump / Heat recovery with one platform

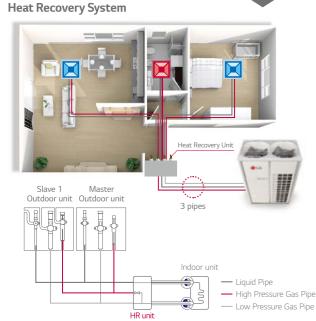
LG MULTI V 5 satisfies users' various needs with just one platform. Heat Pump System works for the sites where either cooling or heating operation is needed, while Heat Recovery System fits perfectly to the sites wherein both the cooling and heating operations are simultaneously needed or locations installed with Hot Water Solution to provide hot water and heating via radiators. By providing suitable solutions that cater to any building types and their requirements, MULTI V 5 offers the best HVAC system.

#### What are the benefits?

MULTI V 5 allows the building previously installed with Heat Pump system to switch to the Heat Recovery system (by adding HR boxes and a third pipe) for changing purpose of the building or remodeling reasons via simple piping construction.

## **Heat Pump System**

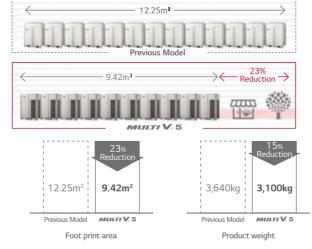




## Flexible Installation with **Large Capacity Outdoor Units**

More flexible design potential & Space saving

Large capacity outdoor units of MULTI V 5 minimize installation space that spares valuable floor space and significantly decreases total installed weight. This gives users more flexible design potential and better use of the saved space.

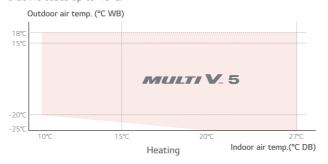


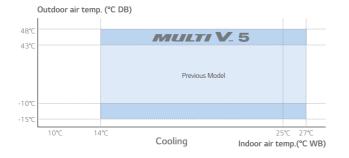
<sup>\*</sup> Comparison basis: 1 Rows of outdoor units 728kW (72.8kW x 10sets) installation case

## Wider Operation Range

Able to operate at extreme conditions

With enhanced inverter compressor and control technology coming from improved inverter cooling technology, sub-cooling and vapor injection, MULTI V 5 has achieved extended range of cooling and heating operations. For heating, it can operate at as low as -25°C to perform properly even at very cold environment. It is improved perfectly to fully function at extreme conditions such as performing cooling operation at -15°C, making the product adequate for uses in specialized venues like technical rooms. Moreover, MULTI V 5's cycle technology with enhanced durability enables optimal cooling performance at high temperature that increases up to 48°C.





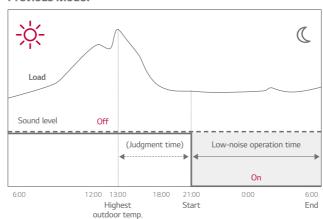
## **USER-FRIENDLY CONTROL**

## **Low-Noise Operation**

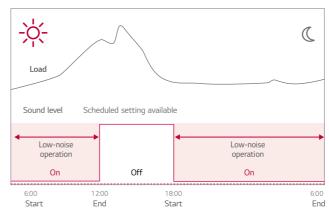
For noise sensitive environment

Unlike the previous model which enables Low-Noise Operation only during night after judgment time, the Low-Noise Operation of MULTI V 5 can function regardless of the time at the noise sensitive areas. When used, the speed of the outdoor unit fans is restricted during normal operation.

#### **Previous Model**



## **MULTI V.** 5



Indoor setting available



Model (HP)	8 - 12HP	14 - 20HP	22 - 26HP
Step		Sound Pressure, dB(A)	)
1	55	59	60
2	52	56	57
3	49	53	55

<sup>\*</sup> Capacity could be decreased during Low-Noise operation.

## Simple Test Run via LGMV

Increased overall efficiency in installation

To make sure that the product functions properly, conducting a test run is recommended. For previous product, professional engineer who is wellaware of more than 40 different functional settings and more than 200 error codes had to check main parts in order to make sure that the test run had succeeded. With Mobile LGMV of MULTI V 5, fast and accurate auto test run can be executed and the professional installer running the test can receive test results via email, which shortens installation hours and increases overall efficiency in installation processes.

#### Previous



## MULTI V. 5

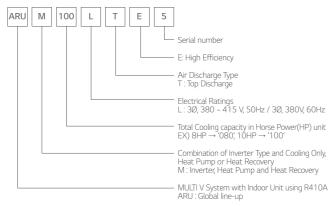




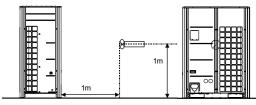
#### **LGMV**



#### Nomenclature



## Position of Sound Pressure Level Measuring



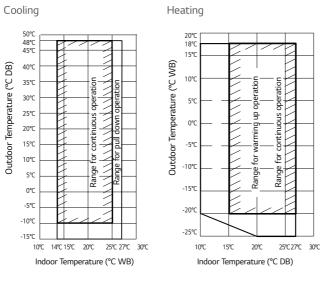
- Data is valid at free field condition
- Data is valid at nominal operating condition
- Sound level will vary depending on a range of factors such as the construction (acoustic absorption coefficient) of particular room in which the equipment is installed
- Sound level can be increased in static pressure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

#### **Outside Unit Function**

Category	Category Functions	
	Variable Path of Outdoor Unit HEX	0
	HiPOR™ (High Pressure Oil Return)	0
Key Refrigerant Components	Humidity Sensor	0
Components	Anti Corrosion Black Fin	0
	Oil Sensor	0
	Dual Sensing	0
	Low Noise Operation	0
	Hgih Static Mode of Outdoor Unit Fan	0
	Partial Defrosting	0
Useful Function	Auto Cleaning of Outdoor Unit (Fan reverse rotation)	0
oscial i anction	Indoor Cooling Comfort Mode Based Outdoor Temperature	0
	Smart Load Control (SLC) (Changing indoor discharge air temperature according to load)	0
	Outdoor Unit Control Refer to Humidity	0
	Defrost / Deicing	0
	High Pressure Switch	0
	Phase Protection	0
Reliability	Restart Delay (3-minutes)	0
	Self Diagnosis	0
	Soft Start	0
	Test Run Function	0
	AC Ez (Simple Controller)	PQCSZ250S0
	AC Ez Touch	PACEZA000
	AC Smart IV	PACS4B000
Central Controller	AC Smart 5	PACS5A000
	ACP (Advanced Control Platform) IV	PACP4B000
	ACP (Advanced Control Platform) 5	PACP5A000
	AC Manager 5	PACM5A000
BNU (Building	ACP Lonworks	PLNWKB000
Network Unit)	ACP BACnet	PQNFB17C0
	Refrigerant Charging Kit	PRAC1
Installation	Variable Water Flow Valve Control Kit	-
PDI (Power	Standard	PPWRDB000
Distribution Indicator)	Premium	PQNUD1S40
Cool / Heat Selector		PRDSBM
Low Ambient Kit		PRVC2
IO Module (ODU Dry C	ontact)	PVDSMN000
Cycle Monitoring	LGMV	PRCTIL0
Device	Mobile LGMV	PLGMVW100

※ ○ : Applied, - : Not Applied

## **Cooling / Heating Operation**

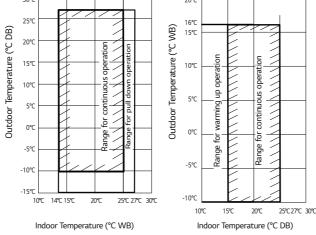


- Note
  1. These figures assume the following operating conditions:
  Equivalent piping length: 7.5m
  Level difference: 0m

- 2. Range of pull down operation
- If the relative humidity is too high, cooling capacity can be decreased by the sensible heat

## Simultaneous Cooling / Heating Operation

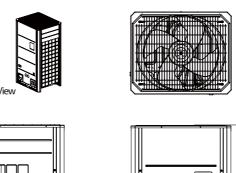




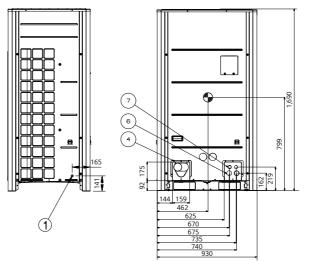
- These figures assume the following operating conditions: Equivalent piping length : 7.5m Level difference : 0m
- 2. Range of pull down operation:

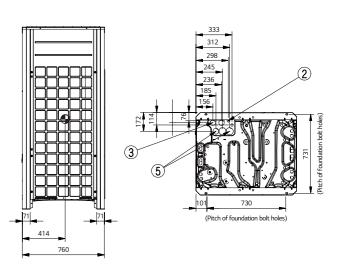
  If the relative humidity is too high, cooling capacity can be decreased by the sensible heat.

#### ARUM080LTE5 / ARUM100LTE5 / ARUM120LTE5



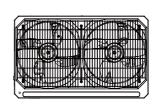
No.	Part Name	Description
1	Leakage test hole (side)	Ø 22.2
2	Wire routing hole (bottom)	2-Ø 22.2
3	Power cord routing hole (bottom)	2-Ø 50
4	Pipe routing hole (front)	-
5	Pipe routing hole (bottom)	2-Ø 66, Ø 53.88
6	Power cord routing hole (front)	2-Ø 45
7	Wire routing hole (front)	2-Ø 30



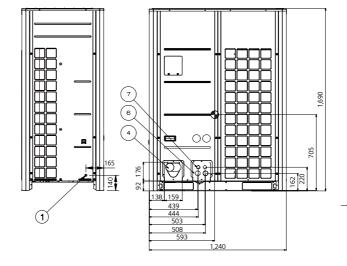


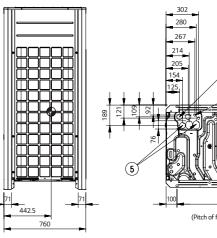
## ARUM140LTE5 / ARUM160LTE5 / ARUM180LTE5 / ARUM200LTE5 ARUM220LTE5 / ARUM240LTE5 / ARUM260LTE5

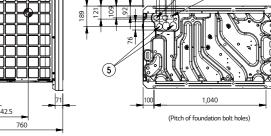




No.	Part Name	Description
1	Leakage test hole (side)	Ø 22.2
2	Wire routing hole (bottom)	2-Ø 22.2
3	Power cord routing hole (bottom)	2-Ø 50
4	Pipe routing hole (front)	-
5	Pipe routing hole (bottom)	2-Ø 66, Ø 53.88
6	Power cord routing hole (front)	2-Ø 45
7	Wire routing hole (front)	2-Ø 30







## **MULTI V 5 Q&A**

## 01 What are the differences between MULTI V IV and MULTI V 5?

۷.		
<b>A</b> 1	Category	MULTI V IV H/P (ARUN***LTE4)

Category		MULTI V IV H/P (ARUN***LTE4)	MULTI V 5 H/P & H/R (ARUM***LTE5)
Vapor Ir	njection	0	0
HiPO	DR™	0	0
Smart Oil Control (Oil Level Sensor)		0	0
Active Refrige	erant Control	0	0
Variable Heat Ex	changer Circuit	0	0
Continuou	ıs Heating	0	0
Smart Loa	nd Control	0	0
Dual sensing (Humidity Sensor)		-	0
Comfort Cooling		0	0
Ocean Black Fin		-	0
Maximum Capacit	y (1 Unit / 4 Unit)	20 HP / 80 HP	26 HP / 96 HP
Height Difference (OI	DU ~ IDU / IDU ~ IDU)	110m / 40m	110m / 40m
Cooling Operating	Range (OAT, °CDB)	-10 ~ 43	-15 ~ 48
Heating Operating I	Range (OAT, °CWB)	-25 ~ 18	-25 ~ 18
	1 Unit	50 ~ 200%	50 ~ 200%
Combination ratio of IDU	2 Unit	50 ~ 160%	50 ~ 160%
	3 or 4 Units	50 ~ 130%	50 ~ 130%

<sup>※ ○ :</sup> Applied, - : Not Applied

## Q2 Can MULTI V 5 ODU be connected with the 2 series indoor unit?

A2 Yes, MULTI V 5 ODU can be connected with the 2 series indoor unit. In this case, the ODU DIP Switch No.3 should be "OFF" which is default setting. Refer to the below table.

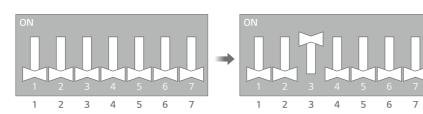
ODU	IDU	Compatibility	ODU DIP Switch No. 3	If dip switch setting is not correct	Ref.
	Gen. 2 (ARNU*2)	0	Must be OFF (factory default)	Can not communicate between Indoor & Outdoor unit (System will not be operated)	
MULTI V IV MULTI V 5	Gen. 4 (ARNU*4)	0	Must be ON to enable gen. 4 functions	When Dip Switch No. 3 is OFF, System can be operated, but some function of Gen. 4 is not available	
	Gen. 2 + Gen. 4	0	Must be OFF (factory default)	When Dip Switch No. 3 is ON, Can not communicate between Gen. 2 Indoor & Outdoor unit (Gen 2 units are not operated), only Gen 4 Units are operated.	Some functions of Gen.4 are not available

<sup>※ ○ :</sup> Applied, - : Not Applied

## ODU dip switch setting procedure (No.3)

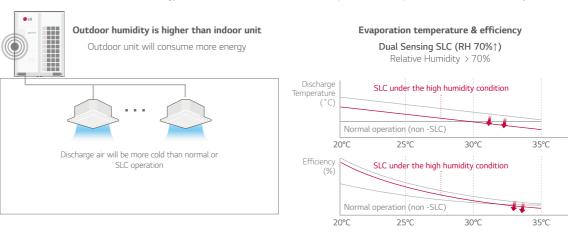
ODU main PCB dip switch is all "OFF" at default state

- (1) Check and make sure that all connected indoor units are 4 series. (ARNU\*\*\*\*\*4.)
- (2) Change Dip switch No. 3 from OFF  $\rightarrow$  ON
- (3) Push the reset button.

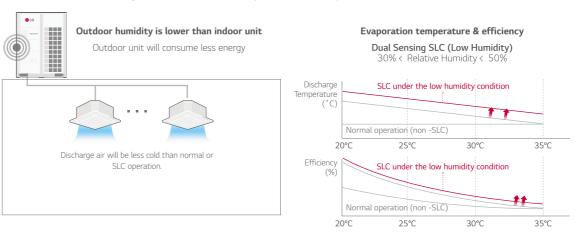


## **Q3** How does MULTI V 5 operate when humidity reference of the dual sensing SLC is that of the outdoor?

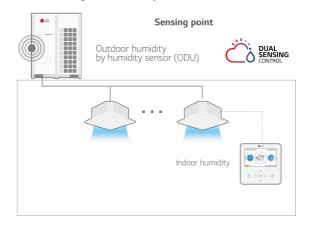
A3 During dual sensing SLC, outdoor unit changes target pressure of the system referring to temperature and humidity in cooling mode. When the humidity of outdoor side is higher than that of indoor side, outdoor unit will lower target pressure to remove humidity, thus outdoor unit will consume more energy and indoor will be more cooled compared to SLC operation but more efficiency than normal operation



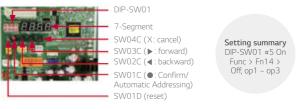
- When the humidity of outdoor side is lower than that of indoor side, outdoor unit will rise target pressure to save energy and keep comfort, but indoor humidity will be less removed compared to normal operation.



To keep comfort and save energy you may turn off outdoor unit humidity sensing or propose to install new standard remote controller in order to sensing indoor humidity.



## SLC Setting CASE 1. Dual Sensing SLC with Outdoor humidity sensor in ODU Setting



CASE 2. Dual Sensing SLC with Indoor humidity sensor in New Standard R/C setting (PREMTB100)

Function [	Back MOK	
Comfort Cooling	< Step 1 >	Se
ODU Refrigerant Noise Reducti	ion (Smpl)	Sma
Defrost Mode	< Step 0 >	
Smart Load Control	00 >	

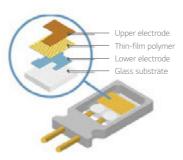
% User can turn off humidity control in ODU Setting (humidity reference) <Setting summary> ODU DIP-SW01 #5 On > Func > Fn16 > Off

## **MULTI V 5 Q&A**

## **Q4** What is the principle and accuracy of humidity sensor?

A4 Total Tolerance (%) = Sensor measurement tolerance (%) + Location of sensor tolerance (%)

The capacitive measurement principle established and proved itself as a standard in the past. For this principle, the sensor element is built out of a capacitor. The dielectric is a polymer which absorbs or releases water proportional to the relative environmental humidity, and thus changes the capacitance of the capacitor. This change in capacitance can be measured by an electronic circuit. For humidity sensors with CMOSens® technology, a "micro-machined" finger electrode system with different protective and polymer cover layers forms the capacitance for the sensor chip, and, in addition to providing the sensor property, simultaneously protects the sensor from interference in ways previously not achieved.

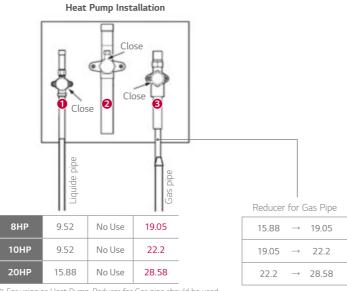


Model	Humidity Sensor of Outdoor	Humidity Sensor of R/Controller	
Size (mm)	3 x 3 x 1.1	2.5 x 2.5 x 0.9	
Supply voltage range	2.1 to 3.6 V	2.4 to 5.5 V	
RH operating range	0 ~ 100% RH	0 ~ 100% RH	
T operating range	-40 to +125°C (-40 to +257°F)	-40 to +125°C (-40 to +257°F)	
RH response time	8 sec (tau 63%)	8 sec (tau63%)	

## Q5 What is difference in refrigerant piping connection between heat pump and heat recovery?

From MULTI V 5, Low pressure gas pipe in heat pump operation changes to high pressure gas pipe in heat recovery operation due to internal cycle. So for heat pump cycle, no. 1, 3 pipe should be connected and for heat recovery operation, No. 1,2,3 pipe is connected. (For the heat pump operation, DO NOT connect No.2 pipe)

# Heat Recovery Installation Close Close annssaud Anns



#### ※ For using as Heat Pump, Reducer for Gas pipe should be used. Reducer is included in outdoor unit.

## **Other Questions**

Item	Question	Answer
Fan	The static pressure of MULTI V 5 is Max.  8 mmAq as MULTI V IV??	Yes, the static pressure of MULTI V 5 is the same with MULTI V IV.
Compressor	Is the limitation of Compressor max. Hz applied by the capacity of outdoor unit?	No, the limitation of comp Hz is not applied for default. But, it can be set by option for limitation of max Hz (or current).
4Way V/V	MULTI V 5 has the function of both H/ Main valve has a function to change th (cooling ↔ heating) Sub. Valve has a fu product type (H/P ↔ H/R)	
VI	In case of vapor injection, how much is the middle pressure?	The optimal middle pressure for vapor injection is 1.2 $P_s$ . $P_s$ : Suction pressure of compressor
VI	By how much is heating capacity increased by vapor injection?	Generally, the heating capacity is increased up to 15 ~ 20%.
Humidity Sensor	Where is Indoor Humidity sensor?	It is placed inside of the RS3 remote controller.
Remote Controller	Does remote controller show the humidity information (status) as well?	Yes. It shows the current humidity information on screen. (for RS3 Only) But has no function to control the humidity
Remote Controller	Is it possible to connect the local humidity sensor with Remote controller (RS3)?	No. All of RS3 remote controller can not be connected with local humidity sensor.
SLC	Does dual sensing SLC function control the humidity ratio?	No. There is no control of humidity ratio.
SLC	Is SLC fully used on Eurovent? Isn't humdity fixed for the test? What about AHRI?	Eurovent (RH 47%) and AHRI (RH 51%) have fixed humidity test condition.
Comfort Cooling	Why is not the comfort heating applied in product?	Comfort cooling need super heating controlled and Comfort heating need sub cooling controlled. In case of controlling EEV for sub cooling noise and stable operation may be affected and critical.
Installation	Does the IDU – Central controller direct connection for communication cable is possible? (Flat connection)	No, it is not possible.







#### ARUM080LTE5 / ARUM100LTE5 / ARUM120LTE5 / ARUM140LTE5

	HP		8	10	12	14
	Combination Unit		ARUM080LTE5	ARUM100LTE5	ARUM120LTE5	ARUM140LTE5
Model Name	Independent Unit		ARUM080LTE5	ARUM100LTE5	ARUM120LTE5	ARUM140LTE5
	Cooling (Rated)	kW	22.4	28.0	33.6	39.2
Capacity	Heating (Rated)	kW	22.4	28.0	33.6	39.2
	Heating (Max)	kW	25.2	31.5	37.8	44.1
	Cooling (Rated)	kW	4.49	5.80	7.58	8.68
Input	Heating (Rated)		3.97	4.92	6.85	8.13
	Heating (Max)		4.78	5.92	8.26	9.72
EER			4.99	4.83	4.43	4.52
SEER			10.1	9.7	9.59	8.89
	Rated Capacity		5.64	5.69	4.91	4.82
COP	Max. Capacity		5.27	5.32	4.58	4.54
SCOP			4.69	4.51	5.01	4.63
	Color		Warm Gray / Dawn Gray			
	RAL Code (Classic)		RAL 7044 / RAL 7037			
Heat Exchanger			Wide Louver Plus / Black Fin			
	Туре		Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll
	Combination x No.		(Inverter) x 1	(Inverter) x 1	(Inverter) x 1	(Inverter) x 1
Compressor	Motor Output x Number		4,200 x 1	5,300 x 1	5,300 x 1	5,300 x 1
	Oil Type		FVC68D (PVE)	FVC68D (PVE)	FVC68D (PVE)	FVC68D (PVE)
	Oil Charge	cc	3,900	3.900	3,900	3.900
	Type		Propeller fan	Propeller fan	Propeller fan	Propeller fan
	Motor Output x Number		1,200 x 1	1,200 x 1	1,200 x 1	900 x 2
	Air Flow Rate (High)	m³/min x No.	240 x 1	240 x 1	240 x 1	320 x 1
	Drive		DC INVERTER	DC INVERTER	DC INVERTER	DC INVERTER
	 Discharge	Side / Top	TOP	TOP	TOP	TOP
	Liquid Pipe	mm (inch)	Ø 9.52 (3/8)	Ø 9.52 (3/8)	Ø 12.7 (1/2)	Ø 12.7 (1/2)
Pipe Connctions #1	Low Pressure Gas Pipe	mm (inch)	Ø 19.05 (3/4)	Ø 22.2 (7/8)	Ø 28.58 (1-1/8)	Ø 28.58 (1-1/8)
CONTICUONS # 1	High Pressure Gas Pipe	mm (inch)	Ø 15.88 (5/8)	Ø 19.05 (3/4)	Ø 19.05 (3/4)	Ø 22.2 (7/8)
Pipe	Liquid Pipe	mm (inch)	Ø 9.52 (3/8)	Ø 9.52 (3/8)	Ø 12.7 (1/2)	Ø 12.7 (1/2)
Connctions #2	Gas Pipe	mm (inch)	Ø 19.05 (3/4)	Ø 22.2 (7/8)	Ø 28.58 (1-1/8)	Ø 28.58 (1-1/8)
Dimensions (W	x H x D)		(930 x 1,690 x 760) x 1	(930 x 1,690 x 760) x 1	(930 x 1,690 x 760) x 1	(1,240 x 1,690 x 760) x1
	x H x D) - Shipping	mm x No.	(960 x 1,825 x 796) x 1	(960 x 1,825 x 796) x 1	(960 x 1,825 x 796) x 1	(1,280 x 1,825 x 796) x 1
Net Weight		kg x No.	198 x 1	215 x 1	215 x 1	237 x 1
Shipping Weight	t	kg x No.	208 x 1	225 x 1	225 x 1	250 x 1
Sound	Cooling	dB(A)	58.0	58.0	59.0	60.0
Pressure Level	Heating	dB(A)	59.0	59.0	60.0	61.0
Sound Power	Cooling	dB(A)	84.0	85.0	86.0	89.0
Level	Heating	dB(A)	87.0	88.0	89.0	93.0
Communication	Cable	mm <sup>2</sup> x No. (VCTF-SB)	1.0 ~ 1.5 x 2C			
	Refrigerant Name		R410A	R410A	R410A	R410A
Pofrigorant -	Precharged Amount in Factory		7.5	9.5	9.5	13.5
Refrigerant	t-CO <sub>2</sub> eq.		15.7	19.8	19.8	28.2
	Control		Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve
			3, 380 ~ 415, 50	3, 380 ~ 415, 50	3, 380 ~ 415, 50	3, 380 ~ 415, 50
Power Supply			3, 380, 60	3, 380, 60	3, 380, 60	3, 380, 60
	imum Connectable Indoo		13 (20)	16 (25)	20 (30)	23 (35)

<sup>1)</sup> The numbers in parentheses means maximum connectable indoor units in accordance with outdoor units combination. The recommended ratio is 130%. (2.2kW criteria)



LG participates in the ECP programme for EUROVENT VRF program. Check ongoing validity of certification : www.eurovent-certification.com



#### ARUM160LTE5 / ARUM180LTE5 / ARUM200LTE5 / ARUM220LTE5

	HP		16	18	20	22
Mardal Name	Combination Unit		ARUM160LTE5	ARUM180LTE5	ARUM200LTE5	ARUM220LTE5
Model Name	Independent Unit		ARUM160LTE5	ARUM180LTE5	ARUM200LTE5	ARUM220LTE5
	Cooling (Rated)	kW	44.8	50.4	56.0	61.6
Capacity	Heating (Rated)		44.8	50.4	56.0	61.6
	Heating (Max)		50.4	56.7	63.0	69.3
	Cooling (Rated)	kW	10.89	10.91	12.77	15.70
Input	Heating (Rated)		10.28	10.12	12.20	14.15
	Heating (Max)		12.39	11.94	14.69	16.76
EER			4.11	4.62	4.39	3.92
SEER			8.38	8.23	8.05	7.51
	Rated Capacity		4.36	4.98	4.59	4.35
COP	Max. Capacity		4.07	4.75	4.29	4.13
SCOP			4.83	4.0	3.98	3.9
	Color		Warm Gray / Dawn Gray	Warm Gray / Dawn Gray	Warm Gray / Dawn Gray	Warm Gray / Dawn Gray
	RAL Code (Classic)		RAL 7044 / RAL 7037	RAL 7044 / RAL 7037	RAL 7044 / RAL 7037	RAL 7044 / RAL 7037
Heat Exchanger			Wide Louver Plus / Black Fin	Wide Louver Plus / Black Fin		Wide Louver Plus / Black Fi
	Туре		Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scrol
	Combination x No.		(Inverter) x 1	(Inverter) x 2	(Inverter) x 2	(Inverter) x 2
Compressor	Motor Output x Number		5,300 x 1	(5,300 x 1) + (4,200 x 1)	(5,300 x 1) + (4,200 x 1)	(5,300 x 1) + (4,200 x 1)
	Oil Type		FVC68D (PVE)	FVC68D (PVE)	FVC68D (PVE)	FVC68D (PVE)
	Oil Charge	CC	3.900	5.200	5.200	5.200
	Type		Propeller fan	Propeller fan	Propeller fan	Propeller fan
	Motor Output x Number		900 x 2	900 x 2	900 x 2	900 x 2
	Air Flow Rate (High)		320 x 1	320 x 1	320 x 1	320 x 1
	Drive		DC INVERTER	DC INVERTER	DC INVERTER	DC INVERTER
	Discharge	Side / Top	TOP	TOP	TOP	TOP
	Liquid Pipe	mm (inch)	Ø 12.7 (1/2)	Ø 15.88 (5/8)	Ø 15.88 (5/8)	Ø 15.88 (5/8)
Pipe	Low Pressure Gas Pipe		Ø 28.58 (1-1/8)	Ø 28.58 (1-1/8)	Ø 28.58 (1-1/8)	Ø 28.58 (1-1/8)
Connctions #1	High Pressure Gas Pipe		Ø 22.2 (7/8)	Ø 22.2 (7/8)	Ø 22.2 (7/8)	Ø 28.58 (1-1/8)
Pipe	Liquid Pipe	mm (inch)	Ø 12.7 (1/2)	Ø 15.88 (5/8)	Ø 15.88 (5/8)	Ø 15.88 (5/8)
Connctions #2	Gas Pipe	mm (inch)	Ø 28.58 (1-1/8)	Ø 28.58 (1-1/8)	Ø 28.58 (1-1/8)	Ø 28.58 (1-1/8)
Dimensions (W			(1,240 x 1,690 x 760) x 1	(1,240 x 1,690 x 760) x 1	(1,240 x 1,690 x 760) x 1	(1,240 x 1,690 x 760) x 1
	x H x D) - Shipping	mm x No.	(1,280 x 1,825 x 796) x 1	(1,280 x 1,825 x 796) x 1	(1,280 x 1,825 x 796) x 1	(1,280 x 1,825 x 796) x 1
Net Weight		kg x No.	237 x 1	300 x 1	300 x 1	300 x 1
Shipping Weigh		kg x No.	250 x 1	312 x 1	312 x 1	312 x 1
Sound	Cooling	dB(A)	60.5	61.0	62.0	64.5
Pressure Level		dB(A)	61.5	62.0	64.5	65.5
Sound Power	Cooling	dB(A)	90.0	92.0	93.0	93.0
	Heating	dB(A)	94.0	95.0	96.0	97.0
Communication		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	(VCTT-SD)	R410A	R410A	R410A	R410A
	Precharged Amount		13.5	16.0	16.0	16.0
	in Factory t-CO <sub>2</sub> eq.		28.2	33.4	33.4	33.4
	Control		Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve	
	Control		3, 380 ~ 415, 50	3, 380 ~ 415, 50	3, 380 ~ 415, 50	3, 380 ~ 415, 50
Power Supply			3, 380, 60	3, 380, 60	3, 380, 60	3, 380, 60

<sup>1)</sup> The numbers in parentheses means maximum connectable indoor units in accordance with outdoor units combination. The recommended ratio is 130%. (2.2kW criteria)





LG participates in the ECP programme for EUROVENT VRF program. Check ongoing validity of certification : www.eurovent-certification.com







#### ARUM240LTE5 / ARUM260LTE5 / ARUM221LTE5 / ARUM241LTE5

	HP		24	26	22'	24'
	Combination Unit		ARUM240LTE5	ARUM260LTE5	ARUM221LTE5	ARUM241LTE5
Model Name	Independent Unit		ARUM240LTE5	ARUM260LTE5	ARUM120LTE5 ARUM100LTE5	ARUM120LTE5 ARUM120LTE5
	Cooling (Rated)	kW	67.2	72.8	61.6	67.2
Capacity	Heating (Rated)	kW	67.2	67.2	61.6	67.2
	Heating (Max)	kW	74.3	74.3	69.3	75.6
	Cooling (Rated)		17.40	20.20	13.38	15.16
Input	Heating (Rated)		15.89	15.99	11.77	13.70
	Heating (Max)		18.80	19.15	14.18	16.52
EER			3.86	3.60	4.60	4.43
SEER			7.88	7.55	-	-
COD	Rated Capacity		4.23	4.20	5.23	4.91
COP	Max. Capacity		3.95	3.88	4.89	4.58
SCOP			4.34	4.34	-	-
F	Color		Warm Gray / Dawn Gray	Warm Gray / Dawn Gray	Warm Gray / Dawn Gray	Warm Gray / Dawn Gray
Exterior	RAL Code (Classic)		RAL 7044 / RAL 7037	RAL 7044 / RAL 7037	RAL 7044 / RAL 7037	RAL 7044 / RAL 7037
Heat Exchanger	Туре		Wide Louver Plus / Black Fin	Wide Louver Plus / Black Fin	Wide Louver Plus / Black Fin	Wide Louver Plus / Black Fin
	Туре		Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll
	Combination x No.		(Inverter) x 2	(Inverter) x 2	(Inverter) x 2	(Inverter) x 2
Compressor	Motor Output x Number		5,300 x 2	5,300 x 2	5,300 x 2	5,300 x 2
	Oil Type		FVC68D (PVE)	FVC68D (PVE)	FVC68D (PVE)	FVC68D (PVE)
	Oil Charge	СС	5,200	5,200	7,800	7,800
	Туре		Propeller fan	Propeller fan	Propeller fan	Propeller fan
	Motor Output x Number		900 x 2	900 x 2	(1,200 x 1) + (1,200 x 1)	(1,200 x 1) + (1,200 x 1)
Fan	Air Flow Rate (High)	m³/min x No.	320 x 1	320 x 1	(240 x 1) + (240 x 1)	(240 x 1) + (240 x 1)
	Drive		DC INVERTER	DC INVERTER	DC INVERTER	DC INVERTER
	Discharge	Side / Top	ТОР	TOP	TOP	TOP
Dive	Liquid Pipe	mm (inch)	Ø 15.88 (5/8)	Ø 19.05 (3/4)	Ø 15.88 (5/8)	Ø 15.88 (5/8)
Pipe Connctions #1	Low Pressure Gas Pipe	mm (inch)	Ø 34.9 (1-3/8)	Ø 34.9 (1-3/8)	Ø 28.58 (1-1/8)	Ø 34.9 (1-3/8)
	High Pressure Gas Pipe	mm (inch)	Ø 28.58 (1-1/8)	Ø 28.58 (1-1/8)	Ø 28.58 (1-1/8)	Ø 28.58 (1-1/8)
Pipe	Liquid Pipe	mm (inch)	Ø 15.88 (5/8)	Ø 19.05 (3/4)	Ø 15.88 (5/8)	Ø 15.88 (5/8)
Connctions #2	Gas Pipe	mm (inch)	Ø 34.9 (1-3/8)	Ø 34.9 (1-3/8)	Ø 28.58 (1-1/8)	Ø 34.9 (1-3/8)
Dimensions (W	x H x D)		(1,240 x 1,690 x 760) x 1	(1,240 x 1,690 x 760) x 1	(930 x 1,690 x 760) x 1 + (930 x 1,690 x 760) x 1	(930 x 1,690 x 760) x 1 + (930 x 1,690 x 760) x 1
Dimensions (W	x H x D) - Shipping		(1,280 x 1,825 x 796) x 1	(1,280 x 1,825 x 796) x 1	(960 x 1,825 x 796) x 1 + (960 x 1,825 x 796) x 1	(960 x 1,825 x 796) x 1 + (960 x 1,825 x 796) x 1
Net Weight		kg x No.	310 x 1	310 x 1	(215 x 1) + (215 x 1)	(215 x 1) + (215 x 1)
Shipping Weigh		kg x No.	320 x 1	320 x 1	(225 x 1) + (225 x 1)	(225 x 1) + (225 x 1)
Sound	Cooling	dB(A)	65.0	65.0	61.5	62.0
Pressure Level	Heating	dB(A)	67.0	67.0	62.5	63.0
Sound Power	Cooling	dB(A)	95.0	95.0	88.5	89.0
Level	Heating	dB(A)	99.0	99.0	91.5	92.0
Communication	ı Cable	mm² 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
Refrigerant	Precharged Amount in Factory		17.0	17.0	19.0	19.0
	t-CO <sub>2</sub> eq.		35.5	35.5	39.7	39.7
	Control		Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve
Power Supply			3, 380 ~ 415, 50	3, 380 ~ 415, 50	3, 380 ~ 415, 50	3, 380 ~ 415, 50
			3, 380, 60	3, 380, 60	3, 380, 60	3, 380, 60
Number of Max	kimum Connectable Indoo	r Units 1)	39 (61)	42 (64)	35 (44)	39 (48)

<sup>1)</sup> The numbers in parentheses means maximum connectable indoor units in accordance with outdoor units combination. The recommended ratio is 130%. (2.2kW criteria)



#### ARUM261LTE5 / ARUM280LTE5 / ARUM300LTE5 / ARUM320LTE5

	HP		26'	28	30	32
	Combination Unit		ARUM261LTE5	ARUM280LTE5	ARUM300LTE5	ARUM320LTE5
Model Name			ARUM140LTE5 ARUM120LTE5	ARUM160LTE5 ARUM120LTE5	ARUM180LTE5 ARUM120LTE5	ARUM200LTE5 ARUM120LTE5
	Cooling (Rated)	kW	72.8	78.4	84.0	89.6
Capacity	Heating (Rated)	kW	72.8	78.4	84.0	89.6
	Heating (Max)	kW	81.9	88.2	94.5	100.8
	Cooling (Rated)	kW	16.26	18.47	18.49	20.35
	Heating (Rated)	kW	14.98	17.13	16.97	19.05
	Heating (Max)	kW	17.98	20.65	20.20	22.95
EER			4.48	4.24	4.54	4.40
SEER			-	-	-	-
COP	Rated Capacity		4.86	4.58	4.95	4.70
	Max. Capacity		4.56	4.27	4.68	4.39
SCOP			-	-	-	-
Exterior	Color		Warm Gray / Dawn Gray	Warm Gray / Dawn Gray	Warm Gray / Dawn Gray	Warm Gray / Dawn Gray
Exterior	RAL Code (Classic)		RAL 7044 / RAL 7037	RAL 7044 / RAL 7037	RAL 7044 / RAL 7037	RAL 7044 / RAL 7037
Heat Exchanger	Туре		Wide Louver Plus / Black Fin	Wide Louver Plus / Black Fin	Wide Louver Plus / Black Fin	Wide Louver Plus / Black Fir
			Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll
	Combination x No.		(Inverter) x 2	(Inverter) x 2	(Inverter) x 3	(Inverter) x 3
	Motor Output x Number		5,300 x 2	5,300 x 2	(5,300 x 2) + (4,200 x 1)	(5,300 x 2) + (4,200 x 1)
	Oil Type		FVC68D (PVE)	FVC68D (PVE)	FVC68D (PVE)	FVC68D (PVE)
	Oil Charge		7,800	7,800	9,100	9,100
	Туре		Propeller fan	Propeller fan	Propeller fan	Propeller fan
	Motor Output x Number		(900 x 2) + (1,200 x 1)	(900 x 2) + (1,200 x 1)	(900 x 2) + (1,200 x 1)	(900 x 2) + (1,200 x 1)
	Air Flow Rate (High)	m³/min x No.	(320 x 1) + (240 x 1)	(320 x 1) + (240 x 1)	(320 x 1) + (240 x 1)	(320 x 1) + (240 x 1)
	Drive		DC INVERTER	DC INVERTER	DC INVERTER	DC INVERTER
	Discharge	Side / Top	TOP	TOP	TOP	TOP
	Liquid Pipe	mm (inch)	Ø 19.05 (3/4)	Ø 19.05 (3/4)	Ø 19.05 (3/4)	Ø 19.05 (3/4)
Pipe Connctions #1	Low Pressure Gas Pipe	mm (inch)	Ø 34.9 (1-3/8)	Ø 34.9 (1-3/8)	Ø 34.9 (1-3/8)	Ø 34.9 (1-3/8)
	High Pressure Gas Pipe	mm (inch)	Ø 28.58 (1-1/8)	Ø 28.58 (1-1/8)	Ø 28.58 (1-1/8)	Ø 28.58 (1-1/8)
Pipe	Liquid Pipe	mm (inch)	Ø 19.05 (3/4)	Ø 19.05 (3/4)	Ø 19.05 (3/4)	Ø 19.05 (3/4)
Connctions #2	Gas Pipe	mm (inch)	Ø 34.9 (1-3/8)	Ø 34.9 (1-3/8)	Ø 34.9 (1-3/8)	Ø 34.9 (1-3/8)
Dimensions (W	x H x D)		(1,240 x 1,690 x 760) x 1 + (930 x 1,690 x 760) x 1	(1,240 x 1,690 x 760) x 1 + (930 x 1,690 x 760) x 1	(1,240 x 1,690 x 760) x 1 + (930 x 1,690 x 760) x 1	(1,240 x 1,690 x 760) x 1 + (930 x 1,690 x 760) x 1
Dimensions (W	x H x D) - Shipping		(1,280 x 1,825 x 796) x 1 + (960 x 1,825 x 796) x 1	(1,280 x 1,825 x 796) x 1 + (960 x 1,825 x 796) x 1	(1,280 x 1,825 x 796) x 1 + (960 x 1,825 x 796) x 1	(1,280 x 1,825 x 796) x 1 + (960 x 1,825 x 796) x 1
Net Weight		kg x No.	(237 x 1) + (215 x 1)	(237 x 1) + (215 x 1)	(300 x 1) + (215 x 1)	(300 x 1) + (215 x 1)
Shipping Weight			(250 x 1) + (225 x 1)	(250 x 1) + (225 x 1)	(312 x 1) + (225 x 1)	(312 x 1) + (225 x 1)
Sound	Cooling	dB(A)	62.5	62.8	63.1	63.8
Pressure Level	Heating	dB(A)	63.5	63.8	64.1	65.8
Sound Power	Cooling	dB(A)	90.8	91.5	93.0	93.8
	Heating	dB(A)	94.5	95.2	96.0	96.8
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	1.0 ~ 1.5 x 2C
	Refrigerant Name		R410A	R410A	R410A	R410A
	Precharged Amount in Factory		23.0	23.0	25.5	25.5
	t-CO <sub>2</sub> eq.		48.0	48.0	53.2	53.2
	Control		Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve
			3, 380 ~ 415, 50	3, 380 ~ 415, 50	3, 380 ~ 415, 50	3, 380 ~ 415, 50
		3, 380, 60	3, 380, 60		3, 380, 60	
ower supply			3, 300, 00	3, 300, 00	3, 380, 60	3, 300, 00

<sup>1)</sup> The numbers in parentheses means maximum connectable indoor units in accordance with outdoor units combination. The recommended ratio is 130%. (2.2kW criteria)





#### ARUM340LTE5 / ARUM360LTE5 / ARUM380LTE5 / ARUM400LTE5

	НР		34	36	38	40
	Combination Unit		ARUM340LTE5	ARUM360LTE5	ARUM380LTE5	ARUM400LTE5
Model Name	Independent Unit		ARUM220LTE5 ARUM120LTE5	ARUM240LTE5 ARUM120LTE5	ARUM240LTE5 ARUM140LTE5	ARUM240LTE5 ARUM160LTE5
	Cooling (Rated)	kW	95.2	100.8	106.4	112.0
Capacity	Heating (Rated)	kW	95.2	100.8	106.4	112.0
	Heating (Max)	kW	107.1	112.1	118.4	124.7
	Cooling (Rated)	kW	23.28	24.98	26.08	28.29
Input	Heating (Rated)	kW	21.00	22.74	24.02	26.17
	Heating (Max)	kW	25.02	27.06	28.52	31.19
EER			4.09	4.04	4.08	3.96
SEER			-	-	-	-
COD	Rated Capacity		4.53	4.43	4.43	4.28
COP	Max. Capacity		4.28	4.14	4.15	4.00
SCOP			-	-	-	-
Futoviou	Color		Warm Gray / Dawn Gray	Warm Gray / Dawn Gray	Warm Gray / Dawn Gray	Warm Gray / Dawn Gray
Exterior	RAL Code (Classic)		RAL 7044 / RAL 7037	RAL 7044 / RAL 7037	RAL 7044 / RAL 7037	RAL 7044 / RAL 7037
Heat Exchanger	Туре		Wide Louver Plus / Black Fin	Wide Louver Plus / Black Fin	Wide Louver Plus / Black Fin	Wide Louver Plus / Black Fin
	Туре		Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll
	Combination x No.		(Inverter) x 3	(Inverter) x 3	(Inverter) x 3	(Inverter) x 3
Compressor	Motor Output x Number		(5,300 x 2) + (4,200 x 1)	5,300 x 3	5,300 x 3	5,300 x 3
	Oil Type		FVC68D (PVE)	FVC68D (PVE)	FVC68D (PVE)	FVC68D (PVE)
	Oil Charge	СС	9,100	9,100	9,100	9,100
	Туре		Propeller fan	Propeller fan	Propeller fan	Propeller fan
	Motor Output x Number		(900 x 2) + (1,200 x 1)	(900 x 2) + (1,200 x 1)	900 x 4	900 x 4
Fan	Air Flow Rate (High)	m³/min x No.	(320 x 1) + (240 x 1)	(320 x 1) + (240 x 1)	320 x 2	320 x 2
	Drive		DC INVERTER	DC INVERTER	DC INVERTER	DC INVERTER
	Discharge	Side / Top	TOP	TOP	TOP	TOP
	Liquid Pipe	mm (inch)	Ø 19.05 (3/4)	Ø 19.05 (3/4)	Ø 19.05 (3/4)	Ø 19.05 (3/4)
Pipe Connctions #1	Low Pressure Gas Pipe	mm (inch)	Ø 34.9 (1-3/8)	Ø 41.3 (1-5/8)	Ø 41.3 (1-5/8)	Ø 41.3 (1-5/8)
Connections :: 1	High Pressure Gas Pipe	mm (inch)	Ø 28.58 (1-1/8)	Ø 28.58 (1-1/8)	Ø 34.9 (1-3/8)	Ø 34.9 (1-3/8)
Pipe	Liquid Pipe	mm (inch)	Ø 19.05 (3/4)	Ø 19.05 (3/4)	Ø 19.05 (3/4)	Ø 19.05 (3/4)
Connctions #2	Gas Pipe	mm (inch)	Ø 34.9 (1-3/8)	Ø 41.3 (1-5/8)	Ø 41.3 (1-5/8)	Ø 41.3 (1-5/8)
Dimensions (W	x H x D)		(1,240 x 1,690 x 760) x 1 + (930 x 1,690 x 760) x 1	(1,240 x 1,690 x 760) x 1 + (930 x 1,690 x 760) x 1	(1,240 x1,690 x 760) x 2	(1,240 x1,690 x 760) x 2
Dimensions (W	x H x D) - Shipping		(1,280 x 1,825 x 796) x 1 + (960 x 1,825 x 796) x 1	(1,280 x 1,825 x 796) x 1 + (960 x 1,825 x 796) x 1	(1,280 x 1,825 x 796) x 2	(1,280 x 1,825 x 796) x 2
Net Weight		kg x No.	(300 x 1) + (215 x 1)	(310 x 1) + (215 x 1)	(310 x 1) + (237 x 1)	(310 x 1) + (237 x 1)
Shipping Weigh		kg x No.	(312 x 1) + (225 x 1)	(320 x 1) + (225 x 1)	(320 x 1) + (250 x 1)	(320 x 1) + (250 x 1)
Sound	Cooling	dB(A)	65.6	66.0	66.2	66.3
Pressure Level	Heating	dB(A)	66.6	67.8	68.0	68.1
Sound Power	Cooling	dB(A)	93.8	95.5	96.0	96.2
Level	Heating	dB(A)	97.6	99.4	100.0	100.2
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	1.0 ~ 1.5 x 2C
	Refrigerant Name		R410A	R410A	R410A	R410A
Refrigerant	Precharged Amount in Factory	kg	25.5	26.5	30.5	30.5
	t-CO <sub>2</sub> eq.		53.2	55.3	63.7	63.7
	Control		Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve
Power Supply			3, 380 ~ 415, 50	3, 380 ~ 415, 50	3, 380 ~ 415, 50	3, 380 ~ 415, 50
Power Supply		ಲ, v, ⊓∠	3, 380, 60	3, 380, 60	3, 380, 60	3, 380, 60
Number of Max	kimum Connectable Indoo	or Units 1)	55 (64)	58 (64)	61 (64)	64

<sup>1)</sup> The numbers in parentheses means maximum connectable indoor units in accordance with outdoor units combination. The recommended ratio is 130%. (2.2kW criteria)





#### ARUM420LTE5 / ARUM440LTE5 / ARUM460LTE5 / ARUM480LTE5

	HP		42	44	46	48
	Combination Unit		ARUM420LTE5	ARUM440LTE5	ARUM460LTE5	ARUM480LTE5
Model Name			ARUM240LTE5 ARUM180LTE5	ARUM240LTE5 ARUM200LTE5	ARUM240LTE5 ARUM220LTE5	ARUM240LTE5 ARUM240LTE5
	Cooling (Rated)	kW	117.6	123.2	128.8	134.4
Capacity	Heating (Rated)	kW	117.6	123.2	128.8	134.4
	Heating (Max)	kW	131.0	137.3	143.6	148.5
	Cooling (Rated)	kW	28.31	30.17	33.10	34.80
Input	Heating (Rated)	kW	26.01	28.09	30.04	31.78
	Heating (Max)	kW	30.74	33.48	35.56	37.60
EER			4.15	4.08	3.89	3.86
SEER			-	-	-	-
	Rated Capacity		4.52	4.39	4.29	4.23
COP	Max. Capacity		4.26	4.10	4.04	3.95
SCOP			-	-	-	-
	Color		Warm Gray / Dawn Gray	Warm Gray / Dawn Gray	Warm Gray / Dawn Gray	Warm Gray / Dawn Gray
	RAL Code (Classic)		RAL 7044 / RAL 7037	RAL 7044 / RAL 7037	RAL 7044 / RAL 7037	RAL 7044 / RAL 7037
Heat Exchanger	Туре		Wide Louver Plus / Black Fin	Wide Louver Plus / Black Fin	Wide Louver Plus / Black Fin	Wide Louver Plus / Black Fi
	Туре		Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scrol
	Combination x No.		(Inverter) x 4	(Inverter) x 4	(Inverter) x 4	(Inverter) x 4
Compressor	Motor Output x Number		(5,300 x 3) + (4,200 x 1)	(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)	FVC68D (PVE)
	Oil Charge		10,400	10,400	10,400	10,400
	Туре		Propeller fan	Propeller fan	Propeller fan	Propeller fan
	Motor Output x Number		900 x 4	900 x 4	900 x 4	900 x 4
	Air Flow Rate (High)	m³/min x No.	320 x 2	320 x 2	320 x 2	320 x 2
	Drive		DC INVERTER	DC INVERTER	DC INVERTER	DC INVERTER
	Discharge	Side / Top	TOP	TOP	TOP	TOP
	Liquid Pipe	mm (inch)	Ø 19.05 (3/4)	Ø 19.05 (3/4)	Ø 19.05 (3/4)	Ø 19.05 (3/4)
Pipe Connctions #1	Low Pressure Gas Pipe	mm (inch)	Ø 41.3 (1-5/8)	Ø 41.3 (1-5/8)	Ø 41.3 (1-5/8)	Ø 41.3 (1-5/8)
	High Pressure Gas Pipe	mm (inch)	Ø 34.9 (1-3/8)	Ø 34.9 (1-3/8)	Ø 34.9 (1-3/8)	Ø 34.9 (1-3/8)
Pipe	Liquid Pipe	mm (inch)	Ø 19.05 (3/4)	Ø 19.05 (3/4)	Ø 19.05 (3/4)	Ø 19.05 (3/4)
Connctions #2	Gas Pipe	mm (inch)	Ø 41.3 (1-5/8)	Ø 41.3 (1-5/8)	Ø 41.3 (1-5/8)	Ø 41.3 (1-5/8)
Dimensions (W	x H x D)	mm x No.	(1,240 x1,690 x 760) x 2	(1,240 x1,690 x 760) x 2	(1,240 x1,690 x 760) x 2	(1,240 x1,690 x 760) x 2
Dimensions (W	x H x D) - Shipping	mm x No.	(1,280 x 1,825 x 796) x 2	(1,280 x 1,825 x 796) x 2	(1,280 x 1,825 x 796) x 2	(1,280 x 1,825 x 796) x 2
		kg x No.	(310 x 1) + (300 x 1)	(310 x 1) + (300 x 1)	(310 x 1) + (300 x 1)	310 x 2
Shipping Weight		kg x No.	(320 x 1) + (312 x 1)	(320 x 1) + (312 x 1)	(320 x 1) + (312 x 1)	320 x 2
	Cooling	dB(A)	66.5	66.8	67.8	68.0
Pressure Level	Heating	dB(A)	68.2	68.9	69.3	70.0
Sound Power	Cooling	dB(A)	96.8	97.1	97.1	98.0
	Heating	dB(A)	100.5	100.8	101.1	102.0
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	1.0 ~ 1.5 x 2C
	Refrigerant Name		R410A	R410A	R410A	R410A
Refrigerant .	Precharged Amount in Factory	kg	33.0	33.0	33.0	34.0
	t-CO <sub>2</sub> eq.		68.9	68.9	68.9	71.0
	Control		Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve
Dawer Const			3, 380 ~ 415, 50	3, 380 ~ 415, 50	3, 380 ~ 415, 50	3, 380 ~ 415, 50
			3, 380, 60	3, 380, 60	3, 380, 60	3, 380, 60
	imum Connectable Indoo		64	64	64	64

<sup>1)</sup> The numbers in parentheses means maximum connectable indoor units in accordance with outdoor units combination. The recommended ratio is 130%. (2.2kW criteria)





#### ARUM500LTE5 / ARUM520LTE5 / ARUM540LTE5 / ARUM560LTE5

	HP		50	52	54	56
	Combination Unit		ARUM500LTE5	ARUM520LTE5	ARUM540LTE5	ARUM560LTE5
Model Name	Independent Unit		ARUM240LTE5 ARUM140LTE5 ARUM120LTE5	ARUM240LTE5 ARUM160LTE5 ARUM120LTE5	ARUM240LTE5 ARUM180LTE5 ARUM120LTE5	ARUM240LTE5 ARUM200LTE5 ARUM120LTE5
	Cooling (Rated)	kW	140.0	145.6	151.2	156.8
Capacity	Heating (Rated)	kW	140.0	145.6	151.2	156.8
	Heating (Max)	kW	156.2	162.5	168.8	175.1
	Cooling (Rated)	kW	33.66	35.87	35.89	37.75
Input	Heating (Rated)	kW	30.87	33.02	32.86	34.94
	Heating (Max)	kW	36.78	39.45	39.00	41.74
EER			4.16	4.06	4.21	4.15
SEER			-	-	-	-
COD	Rated Capacity		4.54	4.41	4.60	4.49
COP	Max. Capacity		4.25	4.12	4.33	4.19
SCOP			-	-	-	-
Exterior	Color		Warm Gray / Dawn Gray			
Exterior	RAL Code (Classic)		RAL 7044 / RAL 7037			
Heat Exchanger	Туре		Wide Louver Plus / Black Fin			
	Туре		Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll
	Combination x No.		(Inverter) x 4	(Inverter) x 4	(Inverter) x 5	(Inverter) x 5
Compressor	Motor Output x Number		5,300 x 4	5,300 x 4	(5,300 x 4) + (4,200 x 1)	(5,300 x 4) + (4,200 x 1)
	Oil Type		FVC68D (PVE)	FVC68D (PVE)	FVC68D (PVE)	FVC68D (PVE)
	Oil Charge		13,000	13,000	14,300	14,300
	Туре		Propeller fan	Propeller fan	Propeller fan	Propeller fan
	Motor Output x Number		(900 x 4) + (1,200 x 1)			
Fan	Air Flow Rate (High)	m³/min x No.	(320 x 2) + (240 x 1)			
	Drive		DC INVERTER	DC INVERTER	DC INVERTER	DC INVERTER
	Discharge	Side / Top	TOP	TOP	TOP	TOP
	Liquid Pipe	mm (inch)	Ø 19.05 (3/4)	Ø 19.05 (3/4)	Ø 19.05 (3/4)	Ø 19.05 (3/4)
Pipe Connctions #1	Low Pressure Gas Pipe	mm (inch)	Ø 41.3 (1-5/8)	Ø 41.3 (1-5/8)	Ø 41.3 (1-5/8)	Ø 41.3 (1-5/8)
	High Pressure Gas Pipe	mm (inch)	Ø 34.9 (1-3/8)	Ø 34.9 (1-3/8)	Ø 34.9 (1-3/8)	Ø 34.9 (1-3/8)
Pipe	Liquid Pipe	mm (inch)	Ø 19.05 (3/4)	Ø 19.05 (3/4)	Ø 19.05 (3/4)	Ø 19.05 (3/4)
Connctions #2	Gas Pipe	mm (inch)	Ø 41.3 (1-5/8)	Ø 41.3 (1-5/8)	Ø 41.3 (1-5/8)	Ø 41.3 (1-5/8)
Dimensions (W	x H x D) x H x D) - Shipping	mm x No.	(1,240 x 1,690 x 760) x 2 + (930 x 1,690 x 760) x 1 (1,280 x 1,825 x 796) x 2 +	(1,240 x 1,690 x 760) x 2 + (930 x 1,690 x 760) x 1 (1,280 x 1,825 x 796) x 2 +	(1,240 x 1,690 x 760) x 2 + (930 x 1,690 x 760) x 1 (1,280 x 1,825 x 796) x 2 +	(1,240 x 1,690 x 760) x 2 + (930 x 1,690 x 760) x 1 (1,280 x 1,825 x 796) x 2 +
Dimensions (W		IIIII X NO.	(960 x 1,825 x 796) x 1			
		kg x No.	(310 x 1) + (237 x 1) + (215 x 1)	(310 x 1) + (237 x 1) + (215 x 1)	(310 x 1) + (300 x 1) + (215 x 1)	(310 x 1) + (300 x 1) + (215 x 1)
Shipping Weight		kg x No.	(320 x 1) + (250 x 1) + (225 x 1)	(320 x 1) + (250 x 1) + (225 x 1)	(320 x 1) + (312 x 1) + (225 x 1)	(320 x 1) + (312 x 1) + (225 x 1)
Sound	Cooling	dB(A)	67.0	67.1	67.2	67.4
Pressure Level	Heating	dB(A)	68.6	68.7	68.8	69.5
Sound Power	Cooling	dB(A)	96.4	96.6	97.1	97.4
Level	Heating	dB(A)	100.3	100.5	100.8	101.0
Communication		mm² x No. (VCTF-SB)	1.0 ~ 1.5 x 2C			
	Refrigerant Name		R410A	R410A	R410A	R410A
Refrigerant	Precharged Amount in Factory		40.0	40.0	42.5	42.5
	t-CO <sub>2</sub> eq.		83.5	83.5	88.7	88.7
	Control		Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve
Power Supply			3, 380 ~ 415, 50	3, 380 ~ 415, 50	3, 380 ~ 415, 50	3, 380 ~ 415, 50
			3, 380, 60	3, 380, 60	3, 380, 60	3, 380, 60
Number of Max	imum Connectable Indoo	r Units 1)	64	64	64	64

<sup>1)</sup> The numbers in parentheses means maximum connectable indoor units in accordance with outdoor units combination. The recommended ratio is 130%. (2.2kW criteria)





#### ARUM580LTE5 / ARUM600LTE5 / ARUM620LTE5 / ARUM640LTE5 / ARUM660LTE5

	HP		58	60	62	64	66
	Combination Unit		ARUM580LTE5	ARUM600LTE5	ARUM620LTE5	ARUM640LTE5	ARUM660LTE5
Model Name			ARUM240LTE5 ARUM220LTE5 ARUM120LTE5	ARUM240LTE5 ARUM240LTE5 ARUM120LTE5	ARUM240LTE5 ARUM240LTE5 ARUM140LTE5	ARUM240LTE5 ARUM240LTE5 ARUM160LTE5	ARUM240LTE5 ARUM240LTE5 ARUM180LTE5
	Cooling (Rated)	kW	162.4	168.0	173.6	179.2	184.8
Capacity	Heating (Rated)	kW	162.4	168.0	173.6	179.2	184.8
	Heating (Max)	kW	181.4	186.3	192.6	198.9	205.2
	Cooling (Rated)	kW	40.68	42.38	43.48	45.69	45.71
	Heating (Rated)	kW	36.89	38.63	39.91	42.06	41.90
	Heating (Max)	kW	43.82	45.86	47.32	49.99	49.54
EER			3.99	3.96	3.99	3.92	4.04
SEER			-	-	-	-	-
COP	Rated Capacity		4.40	4.35	4.35	4.26	4.41
COF	Max. Capacity		4.14	4.06	4.07	3.98	4.14
SCOP			-	-	-	-	-
Exterior	Color		Warm Gray / Dawn Gray	Warm Gray / Dawn Gray	Warm Gray / Dawn Gray	Warm Gray / Dawn Gray	Warm Gray / Dawn Gra
	RAL Code (Classic)		RAL 7044 / RAL 7037	RAL 7044 / RAL 7037	RAL 7044 / RAL 7037	RAL 7044 / RAL 7037	RAL 7044 / RAL 703
Heat Exchanger			Wide Louver Plus / Black Fin	Wide Louver Plus / Black Fin	Wide Louver Plus / Black Fin	Wide Louver Plus / Black Fin	Wide Louver Plus / Black Fin
			Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Seale Scroll
	Combination x No.		(Inverter) x 5	(Inverter) x 5	(Inverter) x 5	(Inverter) x 5	(Inverter) x 6
Compressor	Motor Output x Number		(5,300 x 4) + (4,200 x 1)	5,300 x 5	5,300 x 5	5,300 x 5	(5,300 x 5) + (4,200 x
	Oil Type		FVC68D (PVE)	FVC68D (PVE)	FVC68D (PVE)	FVC68D (PVE)	FVC68D (PVE)
	Oil Charge		14,300	14,300	14,300	14,300	15,600
	Туре		Propeller fan	Propeller fan	Propeller fan	Propeller fan	Propeller fan
	Motor Output x Number		(900 x 4) + (1,200 x 1)	(900 x 4) + (1,200 x 1)	900 x 6	900 x 6	900 x 6
Fan	Air Flow Rate (High)	m³/min x No.	(320 x 2) + (240 x 1)	(320 x 2) + (240 x 1)	320 x 3	320 x 3	320 x 3
	Drive		DC INVERTER	DC INVERTER	DC INVERTER	DC INVERTER	DC INVERTER
	Discharge	Side / Top	TOP	TOP	TOP	TOP	TOP
	Liquid Pipe	mm (inch)	Ø 19.05 (3/4)	Ø 19.05 (3/4)	Ø 22.2 (7/8)	Ø 22.2 (7/8)	Ø 22.2 (7/8)
Pipe Connctions #1	Low Pressure Gas Pipe		Ø 41.3 (1-5/8)	Ø 41.3 (1-5/8)	Ø 44.5 (1-3/4)	Ø 44.5 (1-3/4)	Ø 53.98 (2-1/8)
	High Pressure Gas Pipe	mm (inch)	Ø 34.9 (1-3/8)	Ø 34.9 (1-3/8)	Ø 41.3 (1-5/8)	Ø 41.3 (1-5/8)	Ø 44.5 (1-3/4)
Pipe	Liquid Pipe	mm (inch)	Ø 19.05 (3/4)	Ø 19.05 (3/4)	Ø 22.2 (7/8)	Ø 22.2 (7/8)	Ø 22.2 (7/8)
Connctions #2 Dimensions (W	Gas Pipe x H x D)	mm (inch) mm x No.	Ø 41.3 (1-5/8) (1,240 x 1,690 x 760) x 2 + (930 x 1,690 x 760) x 1	Ø 41.3 (1-5/8) (1,240 x 1,690 x 760) x 2 + (930 x 1,690 x 760) x 1	Ø 44.5 (1-3/4) (1,240 x1,690 x 760) x 3	Ø 44.5 (1-3/4) (1,240 x1,690 x 760) x 3	Ø 53.98 (2-1/8) (1,240 x1,690 x 760) x
Dimensions (W	x H x D) - Shipping			(1,280 x 1,825 x 796) x 2 + (960 x 1,825 x 796) x 1	(1,280 x 1,825 x 796) x 3	(1,280 x 1,825 x 796) x 3	(1,280 x 1,825 x 796)>
			(310 x 1) + (300 x 1) + (215 x 1)	(310 x 2) + (215 x 1)	(310 x 2) + (237 x 1)	(310 x 2) + (237 x 1)	(310 x 2) + (300 x 1
Shipping Weigh			(320 x 1) + (312 x 1) + (225 x 1)	(320 x 2) + (225 x 1)	(320 x 2) + (250 x 1)	(320 x 2) + (250 x 1)	(320 x 2) + (312 x 1
Sound	Cooling	dB(A)	68.3	68.5	68.6	68.7	68.8
Pressure Level	Heating	dB(A)	69.8	70.4	70.5	70.6	70.6
Sound Power	Cooling	dB(A)	97.4	98.3	98.5	98.6	99.0
	Heating	dB(A)	101.4	102.2	102.5	102.6	102.8
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	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C
	Refrigerant Name		R410A	R410A	R410A	R410A	R410A
	Precharged Amount in Factory		42.5	43.5	47.5	47.5	50.0
Refrigerant	t-CO <sub>2</sub> eq.		88.7	90.8	99.2	99.2	104.4
	Control		Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansio Valve
Power Supply			3, 380 ~ 415, 50	3, 380 ~ 415, 50	3, 380 ~ 415, 50	3, 380 ~ 415, 50	3, 380 ~ 415, 50
			3, 380, 60	3, 380, 60	3, 380, 60	3, 380, 60	3, 380, 60
Number of Max	imum Connectable Indoo	r Units 1)	64	64	64	64	64

<sup>1)</sup> The numbers in parentheses means maximum connectable indoor units in accordance with outdoor units combination. The recommended ratio is 130%. (2.2kW criteria)





ARUM680LTE5 / ARUM700LTE5 / ARUM720LTE5 / ARUM740LTE5 / ARUM760LTE5

	НР		68	70	72	74	76
	Combination Unit		ARUM680LTE5	ARUM700LTE5	ARUM720LTE5	ARUM740LTE5	ARUM760LTE5
Model Name	Independent Unit		ARUM240LTE5 ARUM240LTE5 ARUM200LTE5	ARUM240LTE5 ARUM240LTE5 ARUM220LTE5	ARUM240LTE5 ARUM240LTE5 ARUM240LTE5	ARUM240LTE5 ARUM240LTE5 ARUM140LTE5 ARUM120LTE5	ARUM240LTE5 ARUM240LTE5 ARUM160LTE5 ARUM120LTE5
	Cooling (Rated)	kW	190.4	196.0	201.6	207.2	212.8
Capacity	Heating (Rated)	kW	190.4	196.0	201.6	207.2	212.8
	Heating (Max)	kW	211.5	217.8	222.8	230.4	236.7
	Cooling (Rated)	kW	47.57	50.50	52.20	51.06	53.27
Input	Heating (Rated)	kW	43.98	45.93	47.67	46.76	48.91
	Heating (Max)	kW	52.28	54.36	56.40	55.58	58.25
EER			4.00	3.88	3.86	4.06	3.99
SEER			-	-	-	-	-
COP	Rated Capacity		4.33	4.27	4.23	4.43	4.35
COP	Max. Capacity		4.05	4.01	3.95	4.15	4.06
SCOP			-	-	-	-	-
Exterior	Color		Warm Gray / Dawn Gray	Warm Gray / Dawn Gray			
LXterior	RAL Code (Classic)			RAL 7044 / RAL 7037			RAL 7044 / RAL 7037
Heat Exchanger			Wide Louver Plus / Black Fin	Wide Louver Plus / Black Fin			
			Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll
	Combination x No.		(Inverter) x 6	(Inverter) x 6	(Inverter) x 6	(Inverter) x 6	(Inverter) x 6
Compressor	Motor Output x Number		(5,300 x 5) + (4,200 x 1)	(5,300 x 5) + (4,200 x 1)	5,300 x 6	5,300 x 6	5,300 x 6
	Oil Type		FVC68D (PVE)	FVC68D (PVE)	FVC68D (PVE)	FVC68D (PVE)	FVC68D (PVE)
	Oil Charge		15,600	15,600	15,600	18,200	18,200
	Туре		Propeller fan	Propeller fan	Propeller fan	Propeller fan	Propeller fan
_	Motor Output x Number		900 x 6	900 x 6	900 x 6	(900 x 6) + (1,200 x 1)	(900 x 6) + (1,200 x 1)
Fan	Air Flow Rate (High)	m³/min x No.	320 x 3	320 x 3	320 x 3	(320 x 3) + (240 x 1)	(320 x 3) + (240 x 1)
	Drive		DC INVERTER	DC INVERTER	DC INVERTER	DC INVERTER	DC INVERTER
	Discharge	Side / Top	TOP	TOP	TOP	TOP	TOP
Dina	Liquid Pipe	mm (inch)	Ø 22.2 (7/8)	Ø 22.2 (7/8)	Ø 22.2 (7/8)	Ø 22.2 (7/8)	Ø 22.2 (7/8)
Pipe Connctions #1	Low Pressure Gas Pipe	mm (inch)	Ø 53.98 (2-1/8)	Ø 53.98 (2-1/8)	Ø 53.98 (2-1/8)	Ø 53.98 (2-1/8)	Ø 53.98 (2-1/8)
	High Pressure Gas Pipe	mm (inch)	Ø 44.5 (1-3/4)	Ø 44.5 (1-3/4)	Ø 44.5 (1-3/4)	Ø 44.5 (1-3/4)	Ø 44.5 (1-3/4)
Pipe	Liquid Pipe	mm (inch)	Ø 22.2 (7/8)	Ø 22.2 (7/8)	Ø 22.2 (7/8)	Ø 22.2 (7/8)	Ø 22.2 (7/8)
Connctions #2	Gas Pipe	mm (inch)	Ø 53.98 (2-1/8)	Ø 53.98 (2-1/8)	Ø 53.98 (2-1/8)	Ø 53.98 (2-1/8) (1.240 x 1.690 x 760) x 3	Ø 53.98 (2-1/8) (1,240 x 1,690 x 760) x 3
Dimensions (W			(1,240 x1,690 x 760) x 3	, , ,	(1,240 x1,690 x 760) x 3	+ (930 x 1,690 x 760) x 1	+ (930 x 1,690 x 760) x 1 (1,280 x 1,825 x 796) x 3
	x H x D) - Shipping	mm x No.		(1,280 x 1,825 x 796) x 3		+ (960 x 1,825 x 796) x 1	+ (960 x 1,825 x 796) x 1 (310 x 2) + (237 x 1) +
Net Weight		kg x No.	(310 x 2) + (300 x 1)	(310 x 2) + (300 x 1)	310 x 3	(215 x 1) (320 x 2) + (250 x 1)	(215 x 1) (320 x 2) + (250 x 1)
Shipping Weigh		kg x No.	(320 x 2) + (312 x 1)	(320 x 2) + (312 x 1)	320 x 3	+ (225 x 1)	+ (225 x 1)
Sound	Cooling	dB(A)	69.0	69.6	69.8	69.1	69.2
Pressure Level	Heating	dB(A)	71.1	71.3	71.8	70.9	70.9
	Cooling	dB(A)	99.2	99.2	99.8	98.8	98.9
Level	Heating	dB(A)	103.0	103.2	103.8	102.7	102.8
Communication		mm² x No. (VCTF-SB)	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C			
	Refrigerant Name		R410A	R410A	R410A	R410A	R410A
Refrigerant	Precharged Amount in Factory		50.0	50.0	51.0	57.0	57.0
	t-CO <sub>2</sub> eq.		104.4	104.4	106.5	119.0	119.0
	Control		Electronic Expansion Valve	Valve	Valve	Electronic Expansion Valve	Electronic Expansion Valve
Power Supply			3, 380 ~ 415, 50 3, 380, 60	3, 380 ~ 415, 50 3, 380, 60			
Number of Man	imum Connectable Indoc	or I Inite 1)	3, 380, 60		3, 380, 60	3, 380, 60	3, 380, 60
Number of Max	imani Connectable indoc	or Offics '/	04	64	04	04	04

<sup>1)</sup> The numbers in parentheses means maximum connectable indoor units in accordance with outdoor units combination. The recommended ratio is 130%. (2.2kW criteria)





#### ARUM780LTE5 / ARUM800LTE5 / ARUM820LTE5 / ARUM840LTE5 / ARUM860LTE5

	HP		78	80	82	84	86
	Combination Unit		ARUM780LTE5	ARUM800LTE5	ARUM820LTE5	ARUM840LTE5	ARUM860LTE5
Model Name	Independent Unit		ARUM240LTE5 ARUM240LTE5 ARUM180LTE5 ARUM120LTE5	ARUM240LTE5 ARUM240LTE5 ARUM200LTE5 ARUM120LTE5	ARUM240LTE5 ARUM240LTE5 ARUM220LTE5 ARUM120LTE5	ARUM240LTE5 ARUM240LTE5 ARUM240LTE5 ARUM120LTE5	ARUM240LTE5 ARUM240LTE5 ARUM240LTE5 ARUM140LTE5
	Cooling (Rated)	kW	218.4	224.0	229.6	235.2	240.8
Capacity	Heating (Rated)	kW	218.4	224.0	229.6	235.2	240.8
	Heating (Max)	kW	243.0	249.3	255.6	260.6	266.9
	Cooling (Rated)	kW	53.29	55.15	58.08	59.78	60.88
Input	Heating (Rated)	kW	48.75	50.83	52.78	54.52	55.80
	Heating (Max)	kW	57.80	60.54	62.62	64.66	66.12
EER			4.10	4.06	3.95	3.93	3.96
SEER			-	-	-	-	-
COD	Rated Capacity		4.48	4.41	4.35	4.31	4.32
COP	Max. Capacity		4.20	4.12	4.08	4.03	4.04
SCOP			-	-	-	-	-
	Color		Warm Gray / Dawn Gray	Warm Gray / Dawn Gray	Warm Gray / Dawn Gray	Warm Gray / Dawn Gray	Warm Gray / Dawn Gra
Exterior	RAL Code (Classic)		RAL 7044 / RAL 7037	RAL 7044 / RAL 7037	RAL 7044 / RAL 7037	RAL 7044 / RAL 7037	RAL 7044 / RAL 703
Heat Exchanger			Wide Louver Plus / Black Fin	Wide Louver Plus / Black Fin	Wide Louver Plus / Black Fin	Wide Louver Plus / Black Fin	Wide Louver Plus / Black Fin
			Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Seale Scroll
	Combination x No.		(Inverter) x 7	(Inverter) x 7	(Inverter) x 7	(Inverter) x 7	(Inverter) x 7
Compressor	Motor Output x Number		(5,300 × 6) + (4,200 × 1)	(5,300×6) + (4,200×1)	(5,300×6)+(4,200×1)	5,300 x 7	5,300 x 7
	Oil Type		FVC68D (PVE)	FVC68D (PVE)	FVC68D (PVE)	FVC68D (PVE)	FVC68D (PVE)
	Oil Charge	СС	19,500	19,500	19,500	19,500	19,500
	Туре		Propeller fan	Propeller fan	Propeller fan	Propeller fan	Propeller fan
	Motor Output x Number		(900 x 6) + (1,200 x 1)	(900 x 6) + (1,200 x 1)	(900 x 6) + (1,200 x 1)	(900 x 6) + (1,200 x 1)	900 x 8
	Air Flow Rate (High)	m³/min x No.	(320 x 3) + (240 x 1)	(320 x 3) + (240 x 1)	(320 x 3) + (240 x 1)	(320 x 3) + (240 x 1)	320 x 4
	Drive		DC INVERTER	DC INVERTER	DC INVERTER	DC INVERTER	DC INVERTER
	Discharge	Side / Top	TOP	TOP	TOP	TOP	TOP
	Liquid Pipe	mm (inch)	Ø 22.2 (7/8)	Ø 22.2 (7/8)	Ø 22.2 (7/8)	Ø 22.2 (7/8)	Ø 22.2 (7/8)
Pipe Connctions #1	Low Pressure Gas Pipe		Ø 53.98 (2-1/8)	Ø 53.98 (2-1/8)	Ø 53.98 (2-1/8)	Ø 53.98 (2-1/8)	Ø 53.98 (2-1/8)
	High Pressure Gas Pipe		Ø 44.5 (1-3/4)	Ø 44.5 (1-3/4)	Ø 44.5 (1-3/4)	Ø 44.5 (1-3/4)	Ø 44.5 (1-3/4)
Pipe	Liquid Pipe	mm (inch)	Ø 22.2 (7/8)	Ø 22.2 (7/8)	Ø 22.2 (7/8)	Ø 22.2 (7/8)	Ø 22.2 (7/8)
Connctions #2 Dimensions (W	Gas Pipe x H x D)	mm (inch) mm x No.		Ø 53.98 (2-1/8) (1,240 x 1,690 x 760) x 3			Ø 53.98 (2-1/8) (1,240 x1,690 x 760))
	× H × D) - Shipping		(1,280 x 1,825 x 796) x 3	+ (930 x 1,690 x 760) x 1 (1,280 x 1,825 x 796) x 3 + (960 x 1,825 x 796) x 1	(1,280 x 1,825 x 796) x 3	(1,280 x 1,825 x 796) x 3	(1,280 x 1,825 x 796);
				(310 x 2) + (300 x 1) + (215 x 1)			(310 x 3) + (237 x
Shipping Weigh			(320 x 2) + (312 x 1) + (225 x 1)	(320 x 2) + (312 x 1) + (225 x 1)		(320 x 3) + (225 x 1)	(320 x 3) + (250 x
Sound	Cooling	dB(A)	69.2	69.4	70.0	70.1	70.2
Pressure Level	Heating	dB(A)	71.0	71.4	71.6	72.1	72.1
Sound Power	Cooling	dB(A)	99.2	99.4	99.4	99.9	100.1
Level	Heating	dB(A)	103.0	103.2	103.4	103.9	104.1
Communication		mm² 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	1.0 ~ 1.5 x 2C
	Refrigerant Name		R410A	R410A	R410A	R410A	R410A
Refrigerant	Precharged Amount in Factory		59.5	59.5	59.5	60.5	64.5
	t-CO <sub>2</sub> eq.		124.2	124.2	124.2	126.3	134.6
	Control		Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve	Valve	Electronic Expansio
Power Supply			3, 380 ~ 415, 50	3, 380 ~ 415, 50	3, 380 ~ 415, 50	3, 380 ~ 415, 50	3, 380 ~ 415, 50
	in Consolidate		3, 380, 60	3, 380, 60	3, 380, 60	3, 380, 60	3, 380, 60
Number of Max	imum Connectable Indoo	r Units ")	64	64	64	64	64

<sup>1)</sup> The numbers in parentheses means maximum connectable indoor units in accordance with outdoor units combination. The recommended ratio is 130%. (2.2kW criteria)



#### ARUM880LTE5 / ARUM900LTE5 / ARUM920LTE5 / ARUM940LTE5 / ARUM960LTE5

	HP		88	90	92	94	96
	Combination Unit		ARUM880LTE5	ARUM900LTE5	ARUM920LTE5	ARUM940LTE5	ARUM960LTE5
Model Name	Independent Unit		ARUM240LTE5 ARUM240LTE5 ARUM240LTE5 ARUM160LTE5	ARUM240LTE5 ARUM240LTE5 ARUM240LTE5 ARUM180LTE5	ARUM240LTE5 ARUM240LTE5 ARUM240LTE5 ARUM200LTE5	ARUM240LTE5 ARUM240LTE5 ARUM240LTE5 ARUM220LTE5	ARUM240LTE5 ARUM240LTE5 ARUM240LTE5 ARUM240LTE5
	Cooling (Rated)	kW	246.4	252.0	257.6	263.2	268.8
Capacity	Heating (Rated)	kW	246.4	252.0	257.6	263.2	268.8
	Heating (Max)	kW	273.2	279.5	285.8	292.1	297.0
	Cooling (Rated)	kW	63.09	63.11	64.97	67.90	69.60
	Heating (Rated)	kW	57.95	57.79	59.87	61.82	63.56
	Heating (Max)	kW	68.79	68.34	71.08	73.16	75.19
			3.91	3.99	3.96	3.88	3.86
SEER			-	-	-	-	-
COP	Rated Capacity		4.25	4.36	4.30	4.26	4.23
	Max. Capacity		3.97	4.09	4.02	3.99	3.95
SCOP					-	-	
	Color		Warm Gray / Dawn Gray	, ,	, ,	Warm Gray / Dawn Gray	, ,
	RAL Code (Classic)		RAL 7044 / RAL 7037 Wide Louver Plus /	RAL 7044 / RAL 7037 Wide Louver Plus /	RAL 7044 / RAL 7037 Wide Louver Plus /	RAL 7044 / RAL 7037 Wide Louver Plus /	RAL 7044 / RAL 7037 Wide Louver Plus /
Heat Exchanger			Black Fin				
			Hermetically Sealed Scroll				
	Combination x No.		(Inverter) x 7	(Inverter) x 8	(Inverter) x 8	(Inverter) x 8	(Inverter) x 8
Compressor	Motor Output x Number		5,300 x 7	, , , ,	(5,300 x 7) + (4,200 x 1)	, , , ,	5,300 x 8
	Oil Type		FVC68D (PVE)				
	Oil Charge		19,500	20,800	20,800	20,800	20,800
	Туре		Propeller fan				
Fan	Motor Output x Number		900 x 8				
Fall	Air Flow Rate (High)	m³/min x No.	320 x 4				
	Drive		DC INVERTER				
	Discharge	Side / Top	TOP	TOP	TOP	TOP	TOP
Pipe	Liquid Pipe	mm (inch)	Ø 22.2 (7/8)				
Connctions #1	Low Pressure Gas Pipe	mm (inch)	Ø 53.98 (2-1/8)				
	High Pressure Gas Pipe Liquid Pipe	mm (inch)	Ø 44.5 (1-3/4) Ø 22.2 (7/8)				
Pipe Connctions #2	Gas Pipe	mm (inch)	Ø 53.98 (2-1/8)				
Dimensions (W		mm x No.		` ′	` ′	(1,240 x1,690 x 760) x 4	` ′
	x H x D) - Shipping					(1,280 x 1,825 x 796) x 4	
Net Weight	<u> </u>	kg x No.	(310 x 3) + (237 x 1)	(310 x 3) + (300 x 1)	(310 x 3) + (300 x 1)	(310 x 3) + (300 x 1)	310 x 4
Shipping Weigh		kg x No.	(320 x 3) + (250 x 1)	(320 x 3) + (312 x 1)	(320 x 3) + (312 x 1)	(320 x 3) + (312 x 1)	320 x 4
Sound	Cooling	dB(A)	70.3	70.3	70.4	70.9	71.0
Pressure Level	Heating	dB(A)	72.2	72.2	72.5	72.7	73.0
Sound Power	Cooling	dB(A)	100.2	100.4	100.6	100.6	101.0
	Heating	dB(A)	104.2	104.3	104.4	104.6	105.0
Communication	Cable	mm² x No. (VCTF-SB)	1.0 ~ 1.5 x 2C				
	Refrigerant Name		R410A	R410A	R410A	R410A	R410A
	Precharged Amount in Factory		64.5	67.0	67.0	67.0	68.0
	t-CO <sub>2</sub> eq.		134.6	139.9	139.9	139.9	142.0
	Control		Electronic Expansion Valve	Electronic Expansion Valve	Valve	Electronic Expansion Valve	Electronic Expansion Valve
Power Supply			3, 380 ~ 415, 50	3, 380 ~ 415, 50	3, 380 ~ 415, 50	3, 380 ~ 415, 50	3, 380 ~ 415, 50
	imum Connectable Indoo		3, 380, 60	3, 380, 60 64	3, 380, 60	3, 380, 60 64	3, 380, 60 64
radifibel of Max	man connectable muoo	offics "	L 04	04	1 04	04	04

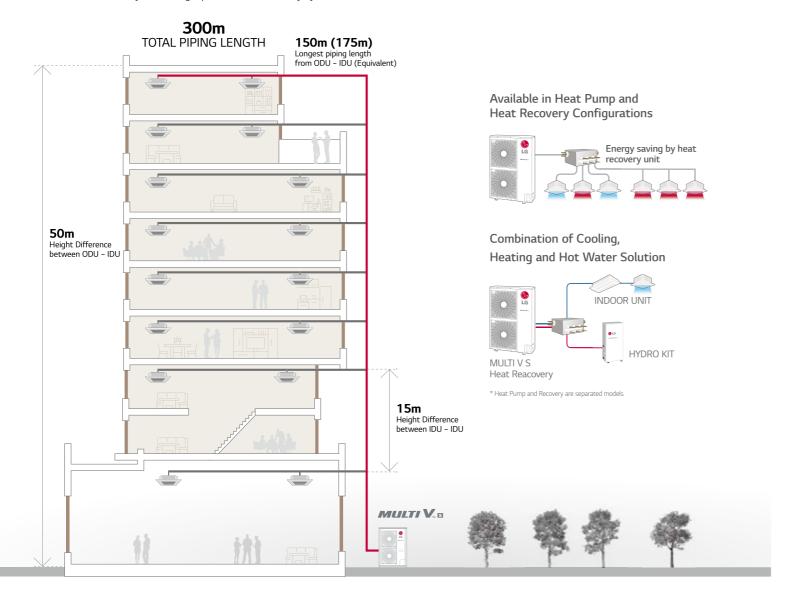
<sup>1)</sup> The numbers in parentheses means maximum connectable indoor units in accordance with outdoor units combination. The recommended ratio is 130%. (2.2kW criteria)

## **NOTES**

- 1. **Eurovent Test Condition**: For more info regarding program consult www.eurovent-certification.com
- 2. Capacities 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
- $\bullet \ \, \text{Heating Temperature: Indoor 20°C (68°F) DB / 15°C (59°F) WB Outdoor 7°C (44.6°F) DB / 6°C (42.8°F) WB }$
- Piping Length: Interconnected Pipe Length = 7.5m
- Difference Limit of Elevation (Outdoor ~ Indoor Unit) is Zero.
- 3. Wiring cable size must comply with the applicable local and national code.
- 4. Sound Level Values can be increased owing to ambient conditions during operation.
- 5. The numbers in parentheses means maximum connectable indoor units in accordance with outdoor units combination. The recommended ratio is 130%.
- 6. Explanation of Terms
  - EER : Energy Efficiency Ratio (Cooling)
- SEER : Seasonal Energy Efficiency Ratio (Refer to Typical Cooling Season)
- COP : Coefficient Of Performance (Heating)
- SCOP : Seasonal Coefficient Of Performance (Refer to Typical Heating Season)
- 7. Due to our policy of innovation some specifications may be changed without notification.
- 8. This product contains Fluorinated greenhouse gases.

# MULTI V. S

- Air cooled VRF Heat pump & Heat Recovery
- 12.1 ~ 33.6kW (Cooling capacity based)
- Both 1Φ, 220 ~ 240V, 50 ~ 60Hz and 3Φ, 380 ~ 415V, 50 ~ 60Hz
- Side discharge outdoor unit
- Includes the industry's first single phase Heat Recovery system



## **Features & Benefits**

- Energy saving
- High reliability
- Improved user convenience

## **Key Applications**

- Premium residential apartment / house
- Small sized office / restaurant / retail shops
- Building with multiple owners

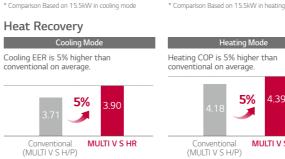
## **ENERGY SAVING**

## **EER / COP / Part Load**

Saving Energy Cost with High Efficient Product

#### Heat Pump





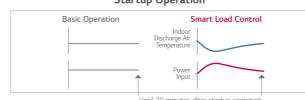
**Smart Load Control Applied** 

## Increase comfortable sensation and Max. 23% energy

saving thanks to MULTI V load control MULTI V S changes indoor discharge air temperature continuously



#### After 20 minutes **Startup Operation**



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 temperatur
   Comfort level in cooling / heating operations ensured

## Max. 10% Energy saving

#### **Real Time Operation** Smart Load Control



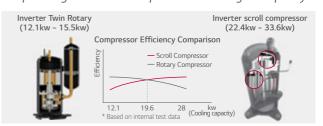
Max. 13% Energy saving

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 comindon . 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 (Temparature & 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.



## - Down to 15Hz : Part load efficiency improvement 6 By-pass Valve

- Rapid response capability

Compressor reliability is maximized with 6 By-pass Valve

- Prevent compressor damage due to excessively compressed refrigerant mo efficiently than 4 by-pass valve

## Direct Oil Injection

- Eliminate suction refrigerant gas heat loss through direct oil injection into compression chamber (efficiency increases

Inverter scroll compressor World Best Class Compressor Speed

Compact core design (Concentrated motor)

#### - Reliability increase due to proper oil amount supply

#### Scroll Profile

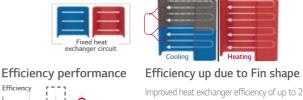
The enhanced reliability by increasing the thickness of scroll central part within largest pressure

- Efficiency increases by expanding 96% bypass area and 17% improved volume ratio by non uniform scroll thickness

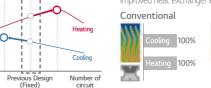
## Optimal Heat Exchanger

Maximize Efficiency according to different Heat Exchanger path by cooling and heating (LG's own technology)

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



Improved heat exchanger efficiency of up to 28%



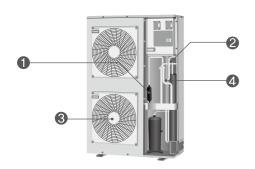
Wide Louver Plus Fin

## **HIGH RELIABILITY**

## High Reliability of Refrigerant Components

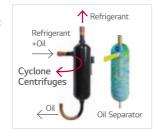
Superior Performance and Strong Durable Components are developed by LG's technologies

MULTI V S improved reliability through an excellent technique of Oil separator / Accumulator / Sub-cooling.



## 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



Accumulator

## 2 Large Volume Accumulator

- Improved reliability by adopting the large volume accumulator

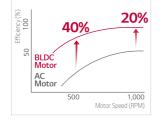
(38% volume up compared to conventional)

- Prevents the liquid refrigerant entering the compressor suction
- Maximize efficiency by optimal amount of refrigerant
- Protect compressor break down and Increase life time



- 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





#### 4 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



## **Smart Control**

Pressure Control applied for smart, quick, and precise responds to the user's requested temperature

## **Temperature + Pressure Control**

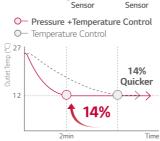
Senses and controls pressure directly using pressure sensor for faster and more exact response to load variation



## **Quick Operating Response**

The desired temperature can be reached in up to 14% less time in cooling mode due to pressure control. The indoor environment can be controlled more accurately 12 and more comfortably.

\* Specifications may vary for each model.



## Heat Exchanger with Ocean Black Fin for Corrosion Resistance

Strong Durability against high salinity and heavily polluted air

LG's exclusive Ocean Black Fin is applied on the heat exchanger of MULTI V S in order to perform even in corrosive environments. The strong protection from various corrosive external environments such as seaside with high salt contamination and industrial cities with severe air pollution keeps MULTI V S operating without breakdown. This improvement in durability prolongs the Black Fin product's lifespan and lowers both the operational and maintenance costs.



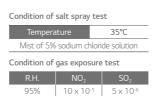
#### **Corrosion Resistance Proven by Certified Tests**

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, UL (Underwriters Laboratories).

#### Certified protection

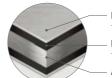






#### **Enhanced Coating Layers**

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.



Hydrophilic film (Water flow) The Hydrophilic coating minimizes moisture buildup on the fin.

**Epoxy resin** (Corrosion resistant) The Black coating provides strong protection from corrosion

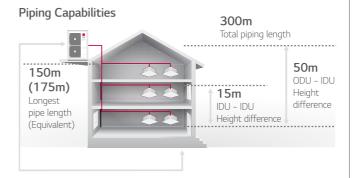
Aluminum fin

## IMPROVED USER CONVENIENCE

## **Sufficient Pipe Length Limit**

Sufficient pipe length limitation provides 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.



#### 4 Way Piping

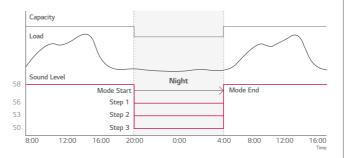
- Free design and installation by 4 way piping.



## **Low Noise Operation**

Free from noise at any time with low noise operation function

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





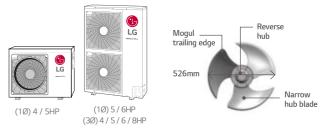
## Fan Technology and RPM Control

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

For efficient operation, newly developed fan blows higher air volume and has more high static pressure. In addition, operating noise is decreased.

#### Fan Technology

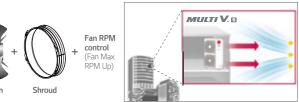
The new axial fan has a mogul trailing edge, narrow hub blade and reverse hub, this provides a high efficiency, low noise, wide fan, as well as improving the air flow rate



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



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



\* E.S.P : External Static Pressure

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





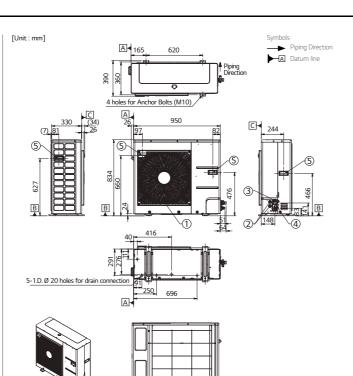
<sup>\*</sup> Based on equivalent pipe length

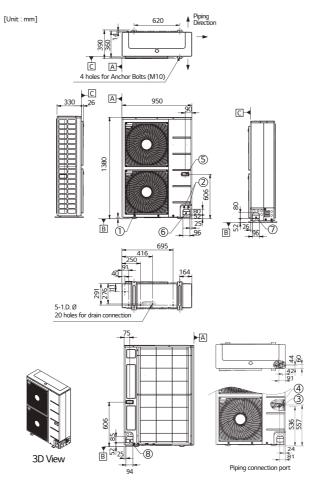
# Nomenclature

## ARU N 100 L S S 0 Serial number – Model Type S : Standard L : Compact R : Corrosion Resistance - Air Discharge Type S : Side Discharge Electrical Ratings L : 3Ø, 380-415V, 50Hz / 3Ø, 380V, 60Hz G: 10, 220-240V, 50Hz / 10, 220V, 60Hz - Total Cooling Capacity in Horse Power(HP) unit EX) 8HP → '080', 10HP → '100' Combination of Inverter Type and Cooling Only or Heat Pump N : Inverter and H/P, V : Inverter and C/O MULTI V System Outdoor Unit using R410A

Category	Functions	MULTI V S
	Variable Path of Outdoor Unit HEX	-
	HiPOR™ (High Pressure Oil Return)	-
Key Refrigerant Components	Humidity Sensor	ARUB060GSS4 only
	Anti Corrosion Black Fin	0
	Oil Sensor	-
	Dual Sensing	ARUB060GSS4 only
	Low Noise Operation	0
	Hgih Static Mode of Outdoor Unit Fan	0
	Partial Defrosting	-
Special Function	Auto Cleaning of Outdoor Unit (Fan reverse rotation)	-
	Indoor Cooling Comfort Mode Based Outdoor Temperature	0
	Smart Load Control (SLC) (Changing indoor discharge air temperature according to load)	0
	Outdoor Unit Control Refer to Humidity	ARUB060GSS4 only
	Defrost / Deicing	0
	High Pressure Switch	0
	Phase Protection	0
Basic Function	Restart Delay (3-minutes)	0
	Self Diagnosis	0
	Soft Start	0
	Test Run Function	-
	AC Ez (Simple Controller)	PQCSZ250S0
	AC Ez Touch	PACEZA000
	AC Smart IV	PACS4B000
Central Controller	AC Smart 5	PACS5A000
	ACP (Advanced Control Platform) IV	PACP4B000
	ACP (Advanced Control Platform) 5	PACP5A000
	AC Manager 5	PACM5A000
BNU (Building	ACP Lonworks	PLNWKB000
Network Unit)	ACP BACnet	PQNFB17C0
IO Module (ODU Dry (	Contact)	PVDSMN000
PDI (Power	Standard	PPWRDB000
PDI (Power Distribution Indicator)	Premium	PQNUD1S40
Cool / Heat Selector		PRDSBM
Cycle Monitoring	LGMV	PRCTIL0
Device	Mobile LGMV	PLGMVW100
Additional kit	Refrigerant Charging Kit	O (Logical operation) Not applied to ARUB060GSS4
	Low Ambient Kit	-
	Variable Water Flow Valve Control Kit	

※ ○ : Applied, - : Not Applied





Unit should be installed in compliance with the installation manual in the product box.

local regulation or applicable national codes.

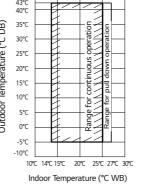
4. Electrical characteristics chapter should be considered for electrical work and design. Especially the power cable and circuit breaker should be selected in accordance with that.

regulations or international codes.

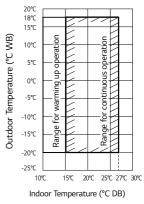
## 2. Unit should be grounded in accordance with the 3. All electrical components and materials to be supplied from the site must comply with the local Output Description of applicable fractional codes. Output Description of applicable fractional codes.

## Heat Pump

Cooling 25°C 20°C

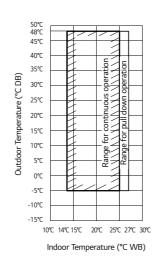






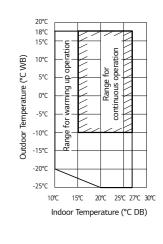
## **Heat Recovery**

Cooling

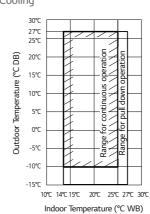


Heating

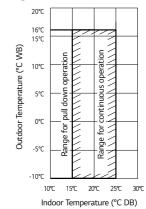
Heating



#### Simultaneous Cooling



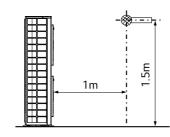
Simultaneous Heating



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

2. Range of pull down operation: If the relative humidity is too high, cooling capacity can be decreased by the sensible

## Position of Sound Level Measuring



These figures assume the following operating conditions: Equivalent piping length : 7.5m Level difference : 0m

## MULTI V S HEAT PUMP

LG participates in the ECP programme for EUROVENT VRF program. Check ongoing validity of certification eurovent-certification.com



#### ARUN040GSS0 / ARUN040GSR0 / ARUN050GSL0

	НР		4	5
	General Model		ARUN040GSS0	ARUN050GSL0
Model Name	Corrosion Resistance Mod	del	ARUN040GSR0	-
6 ':	Cooling (Rated)	kW	12.1	14.0
Capacity	Heating (Rated)	kW	12.5	15.0
Laurente	Cooling (Rated)	kW	3.78	4.38
Input	Heating (Rated)	kW	2.10	2.65
EER			3.20	3.20
SEER			5.98	6.60
COP	Rated Capacity		5.9	5.7
SCOP			5.15	4.96
	Color (General)		Warm Gray	Warm Gray
	Color (Corrosion Resistan	ice)	Morning Gray	-
Exterior	RAL Code (Classic), Gene	ral	RAL 7044	RAL 7044
	RAL Code (Classic), Corro	sion Resistance	RAL 7030	-
Heat Exchanger			Wide Louver Plus / Black Fin	Wide Louver Plus / Black Fin
	Type		BLDC Inverter Twin Rotary	BLDC Inverter Twin Rotary
	Combination x No.		(Inverter) x 1	(Inverter) x 1
Compressor	Motor Output x Number	W x No.	4,000 x 1	4,000 x 1
	Oil Type		FVC68D (PVE)	FVC68D (PVE)
	Oil Charge		1,300	1,300
			Axial Flow Fan	Axial Flow Fan
	Motor Output x Number	W x No.	124 x 1	124 x 1
Fan	Air Flow Rate (High)	m³/min x No.	60 x 1	60 x 1
	Drive		DC INVERTER	DC INVERTER
	Discharge	Side / Top	Side	Side
Pipe	Liquid Pipe	mm (inch)	Ø 9.52 (3/8)	Ø 9.52 (3/8)
Connctions	Gas Pipe	mm (inch)	Ø 15.88 (5/8)	Ø 15.88 (5/8)
Dimensions (\		mm x No.	(950 x 834 x 330) x 1	(950 x 834 x 330) x 1
Dimensions (\	W x H x D) - Shipping	mm x No.	(1,065 x 918 x 461) x 1	(1,065 x 918 x 461) x 1
Net Weight		kg x No.	70 x 1	73 x 1
Shipping Weig	jht	kg x No.	77 x 1	81 x 1
Sound	Cooling	dB(A)	50.0	52.0
Pressure Level	Heating	dB(A)	52.0	58.0
Sound Power		dB(A)	72.0	72.0
Level	Heating	dB(A)	75.0	75.0
Communication	on Cable	mm² x No. (VCTF-SB)	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C
	Refrigerant Name		R410A	R410A
Refrigerant	Precharged Amount in factory	kg	1.8	2.4
	t-CO <sub>2</sub> eq.		3.8	5.0
	Control		Electronic Expansion Valve	Electronic Expansion Valve
Dower Sural		Ø V H=	1, 220 ~ 240, 50	1, 220 ~ 240, 50
Power Supply		Ø, V, Hz	1, 220, 60	1, 220, 60
Number of Ma	aximum Connectable Indoc	or Units	8	8*

- \*: In case of ARUN050GSL0, maximum combination ratio is 130%.

  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.

  - 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 Level Values are measured at Anechoic chamber. 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





#### ARUN050GSS0 / ARUN050GSR0 / ARUN060GSS0 / ARUN060GSR0

	HP		5	6
M. J.I N.	General Model		ARUN050GSS0	ARUN060GSS0
Model Name	Corrosion Resistance N	Model	ARUN050GSR0	ARUN060GSR0
C	Cooling (Rated)	kW	14.0	15.5
Capacity	Heating (Rated)	kW	16.0	18.0
	Cooling (Rated)	kW	3.33	3.97
Input	Heating (Rated)	kW	2.77	3.40
EER			4.20	3.90
SEER			6.56	6.65
СОР	Rated Capacity		5.77	5.30
SCOP			5.23	5.19
	Color (General)		Warm Gray	Warm Gray
	Color (Corrosion Resist	tance)	Morning Gray	Morning Gray
	RAL Code (Classic), Ge	neral	RAL 7044	RAL 7044
	RAL Code (Classic), Cor	rrosion Resistance	RAL 7030	RAL 7030
Heat Exchanger			Wide Louver Plus / Black Fin	Wide Louver Plus / Black Fin
	Type		BLDC Inverter Twin Rotary	BLDC Inverter Twin Rotary
	Combination x No.		(Inverter) x 1	(Inverter) x 1
Compressor	Motor Output x Number	er W x No.	4,000 x 1	4,000 x 1
	Oil Type		FVC68D (PVE)	FVC68D (PVE)
	Oil Charge	СС	1,300	1,300
	Туре		Axial Flow Fan	Axial Flow Fan
	Motor Output x Number	er W x No.	124 x 2	124 x 2
Fan	Air Flow Rate (High)	m³/min x No.	110 x 1	110 x 1
	Drive		DC INVERTER	DC INVERTER
	Discharge	Side / Top	Side	Side
Pipe	Liquid Pipe	mm (inch)	Ø 9.52 (3/8)	Ø 9.52 (3/8)
Connctions	Gas Pipe	mm (inch)	Ø 15.88 (5/8)	Ø 19.05 (3/4)
Dimensions (	W x H x D)	mm x No.	(950 x 1,380 x 330) x 1	(950 x 1,380 x 330) x 1
Dimensions (	W x H x D) - Shipping	mm x No.	(1,140 x 1,462 x 461) x 1	(1,140 x 1,462 x 461) x 1
Net Weight		kg x No.	94 x 1	94 x 1
Shipping Wei	ght	kg x No.	106 x 1	106 x 1
Sound	Cooling	dB(A)	51.0	52.0
Pressure Level		dB(A)	53.0	54.0
Sound Power		dB(A)	72.0	72.0
Level	Heating	dB(A)	76.0	77.0
Communicati		mm² x No. (VCTF-SB)	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C
	Refrigerant Name	,	R410A	R410A
Refrigerant	Precharged Amount in factory	kg	3.0	3.0
	t-CO <sub>2</sub> eq.		6.3	6.3
	Control		Electronic Expansion Valve	Electronic Expansion Valve
Dower Curel		Ø V H=	1, 220 ~ 240, 50	1, 220 ~ 240, 50
		Ø, V, Hz	1, 220, 60	1, 220, 60
Number of M	aximum Connectable Ind	loor Units	10	13

- 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%.

  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 Level Values are measured at Anechoic chamber. 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





## ARUN040LSS0 / ARUN050LSS0 / ARUN060LSS0 ARUN040LSR0 / ARUN050LSR0 / ARUN060LSR0

	HP		4	5	6
	General Model		ARUN040LSS0	ARUN050LSS0	ARUN060LSS0
Model Name	Corrosion Resistance Mo	del	ARUN040LSR0	ARUN050LSR0	ARUN060LSR0
	Cooling (Rated)	kW	12.1	14.0	15.5
Capacity	Heating (Rated)	kW	12.5	16.0	18.0
	Cooling (Rated)	kW	2.37	3.33	3.97
	Heating (Rated)	kW	1.93	2.77	3.40
EER			5.10	4.20	3.90
SEER			6.46	6.56	6.65
COP	Rated Capacity		6.49	5.77	5.30
SCOP			5.02	5.23	5.19
	Color (General)		Warm Gray	Warm Gray	Warm Gray
	Color (Corrosion Resistar	nce)	Morning Gray	Morning Gray	Morning Gray
	RAL Code (Classic), Gene		RAL 7044	RAL 7044	RAL 7044
	RAL Code (Classic), Corro		RAL 7030	RAL 7030	RAL 7030
Heat Exchanger			Wide Louver Plus / Black Fin	Wide Louver Plus / Black Fin	Wide Louver Plus / Black Fin
	Туре		BLDC Inverter Twin Rotary	BLDC Inverter Twin Rotary	BLDC Inverter Twin Rotary
	Combination x No.		(Inverter) x 1	(Inverter) x 1	(Inverter) x 1
	Motor Output x Number	W x No.	4,000 x 1	4,000 x 1	4,000 x 1
	Oil Type		FVC68D (PVE)	FVC68D (PVE)	FVC68D (PVE)
	Oil Charge	СС	1,300	1,300	1,300
	Туре		Axial Flow Fan	Axial Flow Fan	Axial Flow Fan
	Motor Output x Number	W x No.	124 x 2	124 x 2	124 x 2
	Air Flow Rate (High)	m³/min x No.	110 x 1	110 x 1	110 x 1
	Drive		DC INVERTER	DC INVERTER	DC INVERTER
	Discharge	Side / Top	Side	Side	Side
Pipe	Liquid Pipe	mm (inch)	Ø 9.52 (3/8)	Ø 9.52 (3/8)	Ø 9.52 (3/8)
Connctions	Gas Pipe	mm (inch)	Ø 15.88 (5/8)	Ø 15.88 (5/8)	Ø 19.05 (3/4)
Dimensions (\	N x H x D)	mm x No.	(950 x 1,380 x 330) x 1	(950 x 1,380 x 330) x 1	(950 x 1,380 x 330) x 1
	N x H x D) - Shipping	mm x No.	(1,140 x 1,462 x 461) x 1	(1,140 x 1,462 x 461) x 1	(1,140 x 1,462 x 461) x 1
let Weight		kg x No.	96 x 1	96 x 1	96 x 1
hipping Wei	ght	kg x No.	108 x 1	106 x 1	106 x 1
Sound	Cooling	dB(A)	50.0	51.0	52.0
	Heating	dB(A)	52.0	53.0	54.0
Sound Power	Cooling	dB(A)	72.0	72.0	72.0
	Heating	dB(A)	76.0	76.0	77.0
Communication	on Cable	mm² x No. (VCTF-SB)	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C
	Refrigerant Name	(1311 33)	R410A	R410A	R410A
Refrigerant	Precharged Amount in factory	kg	3.0	3.0	3.0
	t-CO <sub>2</sub> eq.		6.3	6.3	6.3
	Control		Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve
		<i>(</i> 1)////-	3, 380 ~ 415, 50	3, 380 ~ 415, 50	3, 380 ~ 415, 50
		Ø, V, Hz	3, 380, 60	3, 380, 60	3, 380, 60
Number of M	aximum Connectable Indoc	or Units	8	10	13

- 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%.

  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 Level Values are measured at Anechoic chamber: 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



LG participates in the ECP programme for EUROVENT VRF program. Check ongoing validity of certification www.eurovent-certification.com



#### ARUN080LSS0 / ARUN100LSS0 / ARUN120LSS0

	HP		8	10	12
Model Name	General Model		ARUN080LSS0	ARUN100LSS0	ARUN120LSS0
iviodel ivame	Corrosion Resistance Mo	del	-	-	-
C:	Cooling (Rated)	kW	22.4	28.0	33.6
Capacity	Heating (Rated)	kW	24.5	30.6	36.7
	Cooling (Rated)	kW	8.30	8.75	14.00
	Heating (Rated)	kW	6.62	8.12	7.46
EER			2.70	3.20	2.40
SEER			6.03	6.59	5.72
COP	Rated Capacity		3.70	3.77	4.92
SCOP			4.33	4.17	3.86
	Color (General)		Warm Gray	Warm Gray	Warm Gray
	Color (Corrosion Resista	nce)	-	-	-
Exterior	RAL Code (Classic), Gene		RAL 7044	RAL 7044	RAL 7044
	RAL Code (Classic), Corro		-	-	-
Heat Exchanger			Wide Louver Plus / Black Fin	Wide Louver Plus / Black Fin	Wide Louver Plus / Black Fin
	Туре		Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll
	Combination x No.		(Inverter) x 1	(Inverter) x 1	(Inverter) x 1
Compressor	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	СС	2.400	2.600	3,400
	Туре		Propeller fan	Propeller fan	Propeller fan
	Motor Output x Number	W x No	124 x 2	250 x 2	250 x 2
Fan	Air Flow Rate (High)	m³/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
Pipe	Liquid Pipe	mm (inch)	Ø 9.52 (3/8)	Ø 9.52 (3/8)	Ø 12.7 (1/2)
Pipe Connctions	Gas Pipe	mm (inch)	Ø 19.05 (3/4)	Ø 22.2 (7/8)	Ø 28.58 (1-1/8)
Dimensions (\		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
	W x H x D) - Shipping	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
Net Weight	V X TT X D) Shipping	kg x No.	115 x 1	144 x 1	157 x 1
Shipping Wei		kg x No.	127 x 1	160 x 1	173 x 1
Sound	Cooling	dB(A)	57.0	58.0	60.0
Souna Pressure Level		dB(A)	57.0	58.0	60.0
		dB(A)	81.0	80.0	81.0
Sound Power Level	Heating	dB(A)	84.0	84.0	85.0
		mm <sup>2</sup> x No.			
Communication		(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
Refrigerant	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
Power Supply		Ø, V, Hz	3, 380 ~ 415, 50	3, 380 ~ 415, 50	3, 380 ~ 415, 50
rower Supply		Ø, v, ⊓∠	3, 380, 60	3, 380, 60	3, 380, 60
Number of M	aximum Connectable Indo	or Units	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%.

  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 Level Values are measured at Anechoic chamber. 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
Model Name			ARUB060GSS4
Canasitu	Cooling (Rated)	kW	15.5
Capacity	Heating (Rated)	kW	18.0
lance to	Cooling (Rated)	kW	3.97
Input	Heating (Rated)	kW	4.10
EER			3.90
SEER			6.84
COP	Rated Capacity		4.39
SCOP			4.38
Exterior	Color		Warm Gray
LACETIOI	RAL Code (Classic)		RAL 7044
Heat Exchanger			Wide Louver Plus
	Туре		Hermetically Sealed Scroll
	Combination x No.		(Inverter) x 1
Compressor	Motor Output x Number	W x No.	4,200 x 1
	Oil Type		FVC68D (PVE)
	Oil Charge	СС	1,700
	Туре		Axial Flow Fan
	Motor Output x Number	W x No.	124 x 2
Fan	Air Flow Rate (High)	m³/min x No.	110 x 1
	Drive		DC INVERTER
	Discharge	Side / Top	Side
Pipe	Liquid Pipe	mm (inch)	Ø 9.52 (3/8)
Connctions	Low Pressure Gas Pipe	mm (inch)	Ø 19.05 (3/4)
#1	High Pressure Gas Pipe	mm (inch)	Ø 15.88 (5/8)
Dimensions (		mm x No.	(950 x 1,380 x 330) x 1
	W x H x D) - shipping	mm x No.	(1,140 x 1,549 x 466) x 1
Net Weight		kg x No.	118 x 1
Shipping Wei		kg x No.	132 x 1
Sound	Cooling	dB(A)	56.0
Pressure Level		dB(A)	58.0
Sound Power		dB(A)	80.0
Level	Heating	dB(A)	84.0
Communicati		mm <sup>2</sup> x No. (VCTF-SB)	1.0 ~ 1.5 x 2C
	Refrigerant Name		R410A
Refrigerant	Precharged Amount in factory		3.5
	t-CO <sub>2</sub> eq.		7.3
	Control		Electronic Expansion Valve
Power Supply			1, 220 ~ 240, 50
			1, 220, 60
Number of M	aximum Connectable Indoo	r Units	13

- 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

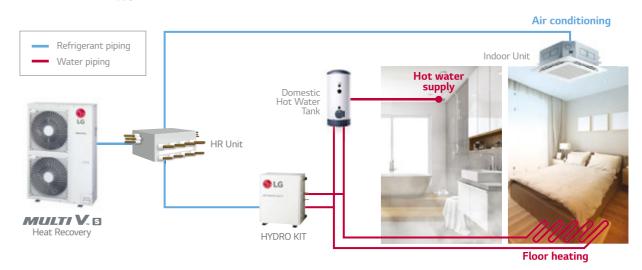
  - The maximum combination ratio is 160%.
     Wiring cable size must comply with the applicable local and national codes.

  - 4. Wrining 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 Level Values are measured at Anechoic chamber. 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 APPLICATION GUIDE

## **System Diagram**

Providing a total solution by heat pump, air conditioning (cooling by refrigerant & chilled water, heating by refrigerant & hot water) and domestic hot water supply.

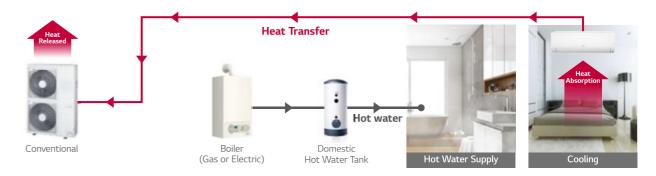


## **Energy Saving**

Energy consumption can be reduced since absorbed heat from indoor space is used for supplying hot water.

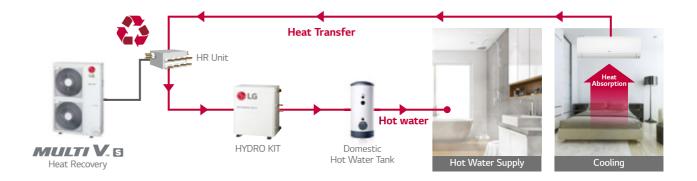
#### Conventional

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.

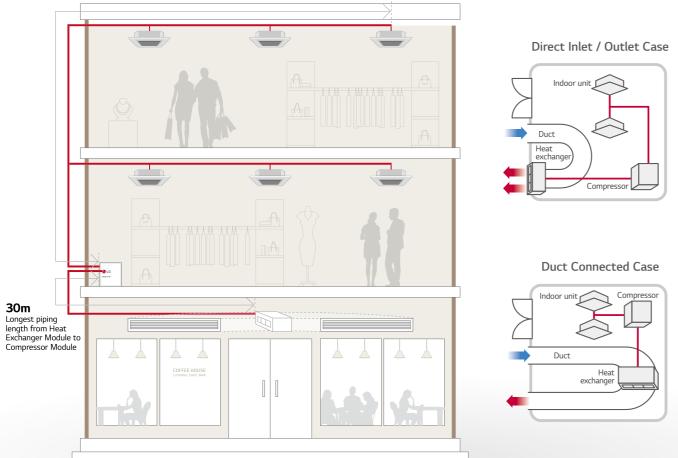




- Air Cooled VRF Heat Pump
- 14kW (Cooling capacity based)
- 3Φ, 380 ~ 415V, 50 ~ 60Hz (Compressor Module)
- 1Φ, 220 ~ 240V, 50 ~ 60Hz (Heat Exchanger Module)
- Outdoor unit is installed inside building



140m TOTAL PIPING LENGTH



## **Features & Benefits**

- Flexible design & installation
- Space & installation cost saving
- Easy maintenance
- Building permit could be simplified

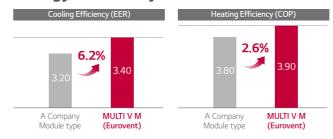
## **Key Applications**

- Regulation that outdoor unit should be installed inside building
- · Lack of installation space at restaurant, retail shop
- Do not want to expose the outdoor unit for safety reason or aesthetic design
- Building nearby that could cause noise problem or historic city centers

## HIGH CLASS EFFICIENCY

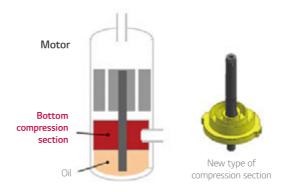
World's best inverter compressor, smart load control and wide louver plus fin make world class high efficiency

## **Energy Efficiency**



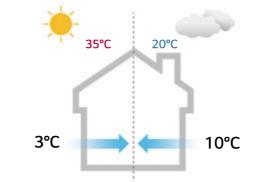
## **New Type Scroll**

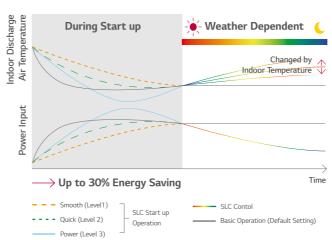
MULTI V M ensures world's best class energy efficiency with innovative technology including the LG's New Type Scroll compressor.



## **Smart Load Control**

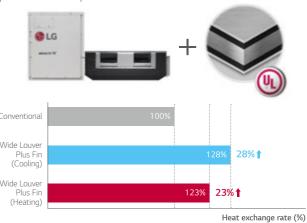
To save operation energy consumption, automatically controls the refrigerant temperature according to outside temperature.





## Wide Louver Plus Fin + Corrosion Resistance

Wide Louver Plus fin technology increases efficiency and heating performance compared to conventional fin.



## **Quiet Operation**

Low sound level of both compressor module and heat exchanger module allows outdoor units to be installed and operated inside.



## **REGULATORY COMPLIANCE**

Building permit could be simplified

## Regulation in Spain



Exposure regulation of outdoor unit on wall installation

- · Can only be installed inside the building
- Discharge air volume less than 60CMM
- Securing more than 5m distance between outdoor discharge grilles
- · Securing at least 2.5m from the floor
- Securing more than 2.5m from surrounding windows

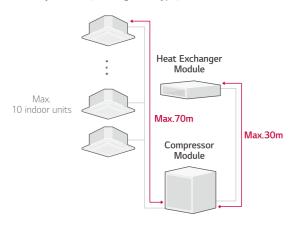
# FLEXIBLE DESIGN & INSTALLATION

## Module Type

Increased freedom of design

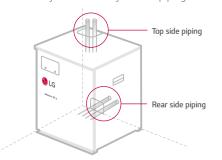
- Additional structure installation and ceiling construction isn't required

Ease of service (Replacement of the comp)
Low noise by module (vs Integrated Type)



## Flexible Piping Location

Neat & easy installation by flexible piping location piping.



## **Increased Freedom of Design**

Additional structure installation or ceiling construction isn't required due to improved freedom of design. This makes replacement of the compressor easier, making the service and maintenance of products handy. Moreover, split module provides low noise operation in comparison to the integrated type.



Conventional Outdoor Unit



Heat exchanger module can be installed in false ceiling spaces



Compressor module can be installed at any place inside

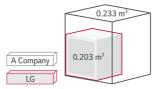


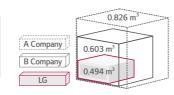
# SPACE SAVING & CONVENIENT INSTALLATION

## Volume

**Compressor Module** 



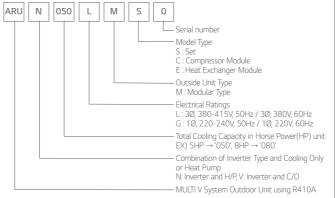




## E.S.P. (External Static Pressure) Control



## Nomenclature

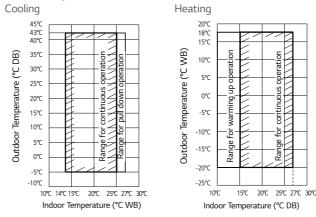


#### **Outside Unit Function**

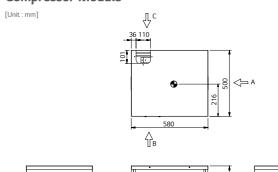
Category	Functions	Modular
	Variable Path of Outdoor Unit HEX	-
	HiPOR™ (High Pressure Oil Return)	-
	Humidity Sensor	-
Components	Anti Corrosion Black Fin	0
	Oil Sensor	-
	Dual Sensing	-
	Low Noise Operation	0
	Hgih Static Mode of Outdoor Unit Fan	0
	Partial Defrosting	-
Useful Function	Auto Dust Cleaning of Outdoor Unit (Fan reverse rotation)	-
Useful Function	Indoor Cooling Comfort Mode Based Outdoor Temperature	0
	Smart Load Control (SLC) (Changing indoor discharge air temperature according to load)	0
	Outdoor Unit Control Refer to Humidity	-
	Defrost / Deicing	0
	High Pressure Switch	0
	Phase Protection	0
Reliability	Restart Delay (3-minutes)	0
	Self Diagnosis	0
	Soft Start	0
	Test Run Function	-
	AC Ez (Simple Controller)	PQCSZ250S0
	AC Ez Touch	PACEZA000
	AC Smart IV	PACS4B000
Central Controller	AC Smart 5	PACS5A000
	ACP (Advanced Control Platform) IV	PACP4B000
	ACP (Advanced Control Platform) 5	PACP5A000
	AC Manager 5	PACM5A000
BNU (Building Network	ACP Lonworks	PLNWKB000
Unit)	ACP BACnet	PONFB17C0
	Refrigerant Charging Kit	-
	Variable Water Flow Valve Control Kit	-
PDI (Power Distribution	Standard	-
Indicator)	Premium	_
Cool / Heat Selector		PRDSBM
Low Ambient Kit		-
IO Module (ODU Dry Contact)		PVDSMN000
Cycle Monitoring	LGMV	PRCTIL0
Device	Mobile LGMV	PLGMVW100

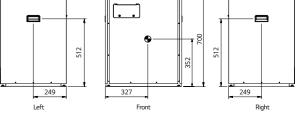
※ ○ : Applied, - : Not Applied

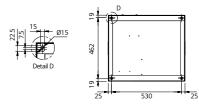
## **Heat Pump**

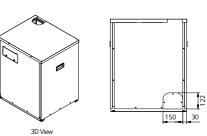


## **Compressor Module**

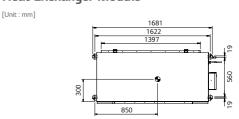


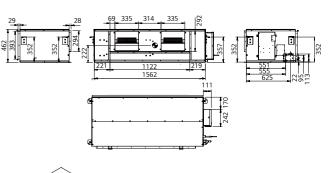


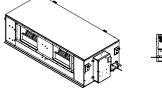




## **Heat Exchanger Module**



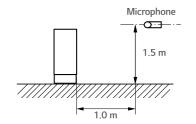






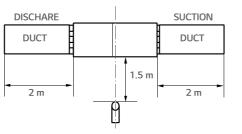
## **Position of Sound Pressure Level Measuring**

Compressor Module



\* Measuring place : Anechoic chamber

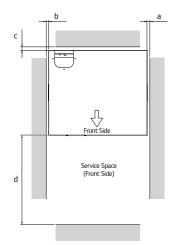
#### Heat Exchanger Module



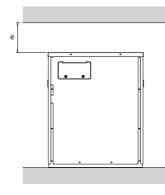
\* Measuring place : Anechoic chamber

## Installation Space for Compressor Module

Top View



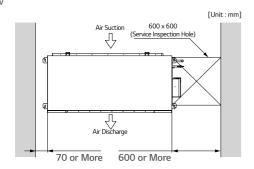




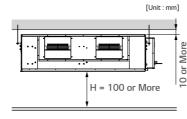
Category	Mark	Description	Installation Space (mm)
	а	Right	10 or More
	Ь	Left	10 or More
Compressor Module	С	Rear	10 or More
	d	Front	500 or More
	е	Тор	200 or More

## Installation Space for Compressor Module

Top View



Front View



## **MULTI V M**



LG participates in the ECP programme for EUROVENT VRF program. Check ongoing validity of certification w.eurovent-certification.com





#### System

	HP		5
			ARUN050LMS0
Model Name	Compressor Module		ARUN050LMC0
	Heat Exchanger Module		ARUN050GME0
	Cooling* (Rated)	kW	14.0
Capacity	Heating* (Rated)	kW	14.0
	Heating* (Max.)	kW	16.0
	Cooling* (Rated)	kW	4.12
	Heating* (Rated)	kW	3.59
	Heating* (Max.)	kW	4.32
EER	Based on Rated Capacity		3.40
SEER			7.03
COD	Based on Rated Capacity		3.90
COP	Based on Max. Capacity		3.70
SCOP			4.12
Number of Max	imum Connectable Indoor Un	its	10

#### Modulo

	HP			5
Madal Name			Compressor Module	Heat Exchanger Module
Model Names			ARUN050LMC0	ARUN050GME0
	Color		Morning Gray	-
	RAL Code (Classic)		RAL 7030	-
Dimensions	Net	mm x No.	580 x 700 x 500	1,562 x 460 x 688
(W x H x D)	Shipping	mm x No.	618 x 833 x 564	1,806 x 537 x 825
Weight	Net	kg x No.	69 x 1	84 x 1
vveignt	Shipping	kg x No.	76 x 1	95 x 1
	Туре		Hermetic Motor Compressor	-
	Combination x No.		(Inverter) x 1	-
Compressor	Motor Output	W x No.	3,200	-
	Oil Type		FVC68D (PVE)	-
	Oil Charge	сс	1,300	
Heat Exchanger	Туре		-	Wide Louver Plus / Black Fin
	Туре		-	Sirocco Fan
	Motor Output x Number	W x No.	-	400 x 2
	Air Flow Rate (Rated)	m³/min x No.	-	60
External Static	Nominal (Rated, Factory Set)	mmAq (Pa)	-	3 (29)
Pressure	Max.	mmAq (Pa)	-	16 (157)
	Liquid	mm (inch)	Ø 9.52 (3/8) to IDU	Ø 12.7 (1/2) to Comp. Module
Pipe Connctions	Gas	mm (inch)	Ø 15.88 (5/8) to IDU	Ø 19.05 (3/4) to Comp. Module
	Drain	mm (inch)	-	Ø 25 (1)
Sound Pressure	Cooling (Rated)	dB(A)	45.0	45.0
Level	Heating (Rated)	dB(A)	45.0	45.0
Sound Power Lev	rel	dB(A)	59.0	66.0
Communication C		mm <sup>2</sup> x No. (VCTF-SB)	1.0 ~ 1.5 x 2C to IDU	1.0 ~ 1.5 x 2C to Comp. Module
		_	R410A	R410A
Refrigerant	Precharged Amount	kg	2.0	-
Remigerant	t-CO <sub>2</sub> eq.		4.175	-
	Control		-	Electronic Expansion Valve
Power Supply		Ø, V, Hz	3, 380 ~ 415, 50	1, 220 ~ 240, 50

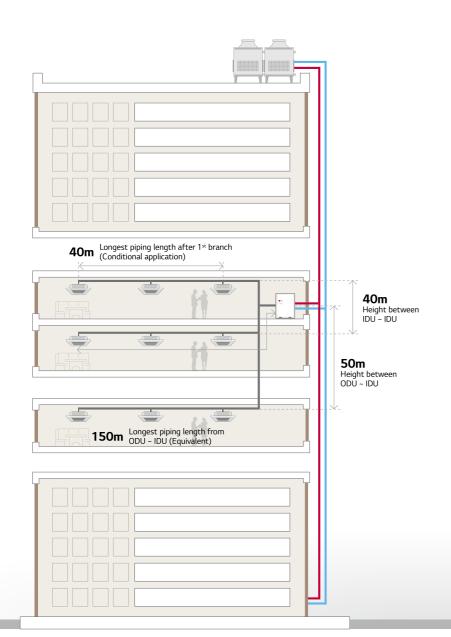
- \*\*Co: Applied, -: Not Applied
   Note: 1. Due to our policy of innovation some specifications may be changed without notification.
   2. Wiring cable size must comply with the applicable local and national codes. And "Electric characteristics" chapter should be considered for electrical work and design. Especially the power cable and circuit breaker should be selected in accordance with that.
   3. Power factor could vary less than ±1% according to the operating conditions.
   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. Performances are based on the following conditions:

   \*Cooling: Indoor Ambient Temp. 27°CDB / 19°CWB, Outdoor Ambient Temp. 35°CDB / 24°CWB
   \*Heating: Indoor Ambient Temp. 20°CDB / 15°CWB, Outdoor Ambient Temp. 7°CDB / 6°CWB
   Interconnected Pipe Length and Difference of Elevation: Heat Exchanger Module Compressor Module = 5m
   Compressor Module Indoor Unit = 7.5m
   Difference of Elevation (Heat Exchanger Module- Compressor Moduler Indoor Unit) is Zero

- The maximum combination ratio is 130%.
   This product contains Fluorinated greenhouse gases. (R410A, GWP(Global warming potential) = 2,087.5)

# MULTI

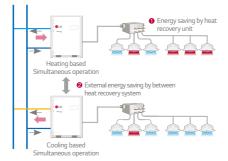
- Water Cooled VRF Heat Pump & Heat Recovery
- 22.4 ~ 201.6kw (Cooling capacity based)
- 3Ф, 380 ~ 415V, 50 ~ 60Hz
- Outdoor unit installed indoor



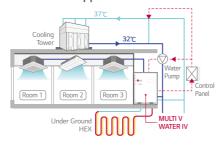
#### Operation independent of weather conditions



## Available in Heat Pump & Heat Recovery Configuration



#### Geothermal Application



Total Piping Length	300m
Longest piping length from ODU ~ IDU(Equivalent)	150m (175m)
Longest piping length after 1st branch (Conditional application)	40m (90m)
Height between ODU ~ IDU	50m
Height between IDU ~ ODU	40m

## **Features & Benefits**

- Operation independent of weather conditions
- Utilizing renewable source
- Replacement of Chiller-FCU system

## **Key Applications**

- Large scale office with curtain wall
- Building using geothermal & various water heat source
- Luxurious residential building
- Seaside building

## **KEY FEATURES**

## High Efficiency System Regardless of **External Conditions**

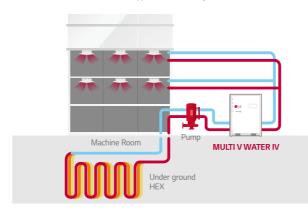
Regardless of outdoor temperature and other environmental conditions, MULTI V WATER IV is the optimal solution.

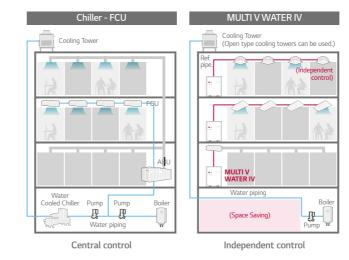


## **MULTI V WATER IV System for Geothermal Applications**

Uses underground heat sources such as soil, ground water, lake, river, etc. as renewable energy for cooling and heating of a building. Water or antifreeze solution is circulated through the closed loop HDPE (High Density Poly-Ethylene) pipes buried beneath the earth's surface. It is highly efficient since it uses renewable energy.

- The Circulating water temperature range is between -5°C ~ 45°C
- Antifreeze should be applied depending on the application.
- \* Please contact local LG office for application availability.



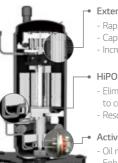


## **ENERGY SAVING**

## **Economical, Highly Efficient System**

LG's key technologies are integrated to inverter compressor

With 4th generation inverter compressor, the Multi V Water IV boasts top-class energy efficiency.



- Extended Compressor Speed 20Hz ~ 140Hz
- Rapid operation response
- Capable of reaching required temperature quickly Increase part load efficiency

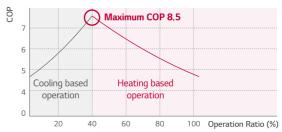
#### HiPOR™ (High Pressure Oil Return)

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

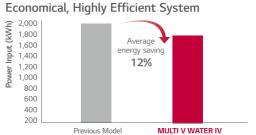
## Active oil control (Oil level sensor)

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

#### Maximum COP



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

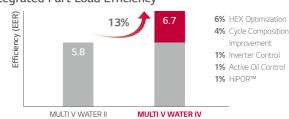


## LG's 4th Generation Inverter Compressor



\* Comparison between 10HP (28kW) in cooling mode

#### Integrated Part Load Efficiency

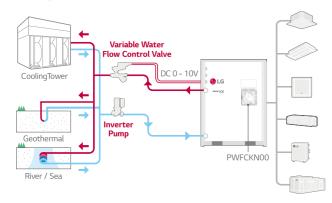


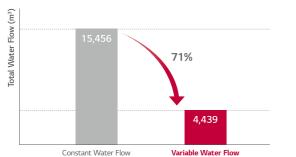
## **WATER SAVING**

## Variable Water Flow Control (Option)

Supporting your buildings to become greener

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



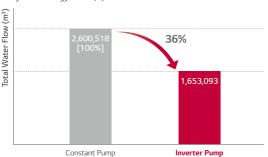


- 1. Location : Paris, France
- 2. Office, 68,000m<sup>2</sup> 3. Operation time: 1,344 hours (cooling period)

#### Project Example: 63F (Pump: 20,064 LPM, 42.4mAq \* 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 (\$)



	5 y	ears	10 y	/ears
Unit	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

068

• Annual power consumption rate expected to increase by 5%

## **FLEXIBLE DESIGN & SPACE SAVING**

## **Largest Capacity**

Sufficient pipe length limitation provides flexible design

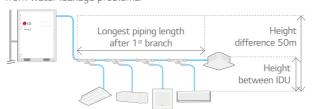
Providing 8 ~ 20HP (22.4 ~ 56kW) with single unit, and up to the world's largest capacity 80HP (224kW) by combination.

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 ~ 16	8 173.6 ~ 224
LG		_	Jnit				2 U	-			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 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.



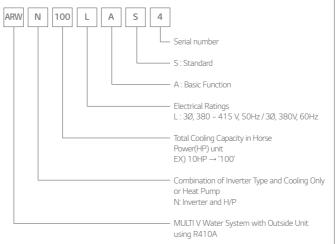
## Lightweight

Nothing or Decrease additional load reinforcement work at building

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



#### Nomenclature

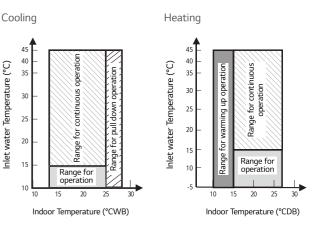


#### **Outside Unit Function**

Category	Functions	MULTI V WATER IV
	Variable Path of Outdoor unit HEX	-
	HiPOR™ (High Pressure Oil Return)	0
Key Refrigerant Components	Humidity Sensor	-
	Anti Corrosion Black Fin	-
	Oil Sensor	0
	Dual Sensing	-
	Low Noise Operation	-
	Hgih Static Mode of Outdoor Unit Fan	-
	Partial Defrosting	-
Useful Function	Auto Dust Cleaning of Outdoor Unit (Fan reverse rotation)	-
	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	0
	Phase Protection	0
	Restart Delay (3-minutes)	0
	Self Diagnosis	0
	Soft Start	0
	Test Run Function	0
	AC Ez (Simple Controller)	PQCSZ250S0
	AC Ez Touch	PACEZA000
	AC Smart IV	PACS4B000
Central Controller	AC Smart 5	PACS5A000
	ACP (Advanced Control Platform) IV	PQCPC22A0
	ACP (Advanced Control Platform) 5	PACP5A000
	AC Manager 5	PACM5A000
	ACP Lonworks	PLNWKB000
Network Unit)	ACP BACnet	PQNFB17C0
	Refrigerant Charging Kit	-
	Variable Water Flow Valve Control Kit	PWFCKN000
PDI (Power	Standard	PPWRDB000
Distribution Indicator)	Premium	PQNUD1S40
Cool / Heat Selector		PRDSBM
Low Ambient Kit		-
IO Module (ODU Dry C	ontact)	PVDSMN000
Cycle Monitoring	LGMV	PRCTILO
Device	Mobile LGMV	PLGMVW100

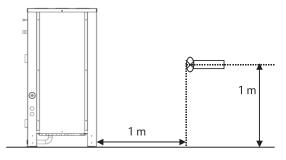
#### ※ ○ : Applied, - : Not Applied

## **Operation Limits**



- Note
  1. These figures assume the following operating conditions:

#### **Position of Sound Pressure Level Measuring**



- Data is valid at free field condition
- 2. Data is valid at nominal operating condition
- 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
   Sound level can be increased in static pressure mode or air guide application.

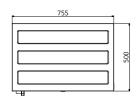
#### **Optional Accessories**

No.	Name	Model	
1	Y branch pipe	ARBLN01621	
		ARBLN03321	
		ARBLN07121	
		ARBLN14521	
		ARBLN23220	
2		ARBL054	
		ARBL057	
		ARBL104	
		ARBL107	
		ARBL1010	
		ARBL2010	
3	Connection pipe of Outdoor Units	ARCNN21	
		ARCNN31	
		ARCNN41	

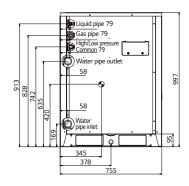
## MULTI V WATER IV Heating Dissipation Value by Model

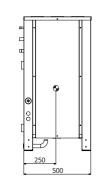
Model	HP	Heating Dissipation Value		
ARWN080LAS4	8	600 W	515.9 kcal/h	0.143 kcal/s
ARWN100LAS4	10	630 W	541.7 kcal/h	0.150 kcal/s
ARWN120LAS4	12	660 W	567.5 kcal/h	0.158 kcal/s
ARWN140LAS4	14	690 W	593.3 kcal/h	0.165 kcal/s
ARWN160LAS4	16	700 W	601.9 kcal/h	0.167 kcal/s
ARWN180LAS4	18	720 W	619.1 kcal/h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

## ARWN080LAS4 / ARWN100LAS4 / ARWN140LAS4 / ARWN200LAS4

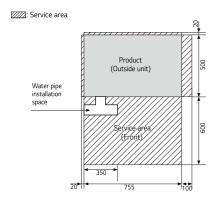




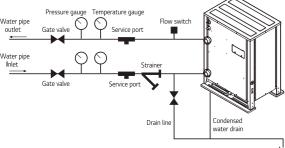




## Individual Installation



## Water Piping Installation



#### Precaution of Installation

- 1. Do not install the unit at the outdoors. (Otherwise it may cause fire, electric shock and trouble.) Recommended ambient temperature of outdoor unit is between 0 ~ 40°C
- 2. Keep the water temperature between 10 ~ 45°C. Otherwise it may cause the breakdown. Standard water supply temperature is 30°C for cooling and 20°C 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 PDB (Product Data Book)
- 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. 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.)
- 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%**.)
- 12. 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.
  - 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 the refrigerant side drops to drop the temperature of the heat water supply, which can result in icing point in the water
  - 4) As the heating process progresses, the water paths can be partially frozen to lead to damage in plate type heat
  - 5) 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

## **Bouyques Challenger**

LG MULTI V WATER Solution with Geothermal Application









## **Site Information**

The industrial group Bouyques 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 Bouyques Construction was officially opened for business. Named Challenger, the complex became a technological showcase for late 20th century architecture.

## LG Solution

Bouyques 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.

Test condition : 1) Indoor air temperature : DB 40°C, WB : 32°C  $\times$  A design stage should be considered to ventilation system in mechanical room

### ARWN080LAS4 / ARWN100LAS4 / ARWN140LAS4

	HP		8	10	14
	Combination Unit		ARWN080LAS4	ARWN100LAS4	ARWN140LAS4
Model Name	Independent Unit		ARWN080LAS4	ARWN100LAS4	ARWN140LAS4
Ci	Cooling (Rated)	kW	22.4	28.0	39.2
Capacity	Heating (Rated)	kW	25.2	31.5	44.1
Lauren	Cooling (Rated)	kW	3.86	5.09	7.84
Input	Heating (Rated)	kW	4.2	5.34	8.17
EER			5.80	5.50	5.00
СОР	Rated Capacity		6.00	5.90	5.40
Exterior	Color		Warm Gray / Mornig Gray	Warm Gray / Mornig Gray	Warm Gray / Mornig Gray
Exterior	RAL Code (Classic)		RAL 7044 / RAL 7030	RAL 7044 / RAL 7030	RAL 7044 / RAL 7030
	Туре		Stainless Steel Plate	Stainless Steel Plate	Stainless Steel Plate
Heat Exchanger	Maximum Pressure Resistance	kgf/cm²	45	45	45
	Head Loss	kPa	10.7	15.8	28.6
	Rated Water Flow	LPM	77	96	135
	Туре		Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll
	Combination x No.		(Inverter) x 1	(Inverter) x 1	(Inverter) x 1
Compressor	Motor Output x Number		4,200 x 1	4,200 x 1	4,200 x 1
	Oil Type		FVC68D (PVE)	FVC68D (PVE)	FVC68D (PVE)
	Oil Charge	СС	2,800	2,800	2,800
Pipe Connctions	Liquid Pipe	mm (inch)	Ø 9.52 (3/8)	Ø 9.52 (3/8)	Ø 12.7 (1/2)
Tipe Confictions	Gas Pipe	mm (inch)	Ø 22.2 (7/8)	Ø 22.2 (7/8)	Ø 25.4 (1)
\\/C\:	Inlet	A (inch)	40A(PT 1-1/2) (Internal Thread)	40A(PT 1-1/2) (Internal Thread)	40A(PT 1-1/2) (Internal Thread)
Water Connecting Pipes	Outlet	A (inch)	40A(PT 1-1/2) (Internal Thread)	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)	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	58.0
	` Heating	dB(A)	51.0	53.0	57.0
Sound Power Level	Cooling	dB(A)	59.0	62.0	70.0
	Heating	dB(A)	63.0	65.0	69.0
Communication Cable		mm² 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
Refrigerant	Precharged Amount in Factory		5.8	5.8	5.8
	t-CO <sub>2</sub> eq.		12.1	12.1	12.1
	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
			3, 380, 60	3, 380, 60	3, 380, 60
Number of Maximum	Connectable Indoor Unit		13 (20)	16 (25)	23 (35)

<sup>1)</sup> The numbers in parentheses means maximum connectable indoor units in accordance with outdoor units combination. The recommended ratio is 130%. (2.2kW criteria)
\* This product contains Fluorinated Greenhouse Gases. (R410A)
Note: 1. Capacities and Inputs are based on the following conditions

- Cooling: Indoor temp. 20°C (80.6°F) DB / 19°C (66.2°F) WB, Water inlet temp. 30°C (86°F), Interconnecting piping length 7.5m, Level difference of zero

- Heating: Indoor temp. 20°C (68°F) DB, Water inlet temp. 20°C (68°F)
2. Capacities are net capacities

# MULTI V WATER IV HEAT PUMP

### ARWN200LAS4 / ARWN160LAS4 / ARWN180LAS4

	HP		20	16	18
	Combination Unit		ARWN200LAS4	ARWN160LAS4	ARWN180LAS4
Model Name			ARWN200LAS4	ARWN080LAS4 ARWN080LAS4	ARWN100LAS4 ARWN080LAS4
Canacita	Cooling (Rated)	kW	56.0	44.8	50.4
Capacity	Heating (Rated)	kW	63.0	50.4	56.7
	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
	Color		Warm Gray / Mornig Gray	Warm Gray / Mornig Gray	Warm Gray / Mornig Gray
	RAL Code (Classic)		RAL 7044 / RAL 7030	RAL 7044 / RAL 7030	RAL 7044 / RAL 7030
	Туре		Stainless Steel Plate	Stainless Steel Plate	Stainless Steel Plate
Heat Exchanger	Maximum Pressure Resistance		45	45	45
	Head Loss	kPa	30.1	10.7 + 10.7	15.8 + 10.7
	Rated Water Flow	LPM	192	77 + 77	96 + 77
	Туре		Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll
	Combination x No.		(Inverter) x 1	(Inverter) x 2	(Inverter) x 2
Compressor	Motor Output x Number		5,300 x 1	4,200 x 2	4,200 x 2
	Oil Type		FVC68D (PVE)	FVC68D (PVE)	FVC68D (PVE)
	Oil Charge	СС	3,000	5,600	5,600
Pipe Connctions	Liquid Pipe	mm (inch)	Ø 12.7 (1/2)	Ø 12.7 (1/2)	Ø 12.7 (1/2)
ripe Confictions	Gas Pipe	mm (inch)	Ø 28.58 (1-1/8)	Ø 28.58 (1-1/8)	Ø 28.58 (1-1/8)
Water Connecting		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)
Pipes	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 >	<u>(D)</u>	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 >	k 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 Leve	Cooling	dB(A)	54.0	50.0	51.8
Souria i ressure Leve	` 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 Cabl		mm² 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		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
Tower Supply			3, 380, 60	3, 380, 60	3, 380, 60
Number of Maximum	n Connectable Indoor Unit		32 (50)	26 (40)	29 (45)

<sup>3.</sup> Due to our policy of innovation some specifications may be changed without notification
4. Add an anti freeze to circulation water when outside unit is operating under 10°C (50°F), and change the DIP switch on main PCB. (For more information on installation section.)

<sup>1)</sup> The numbers in parentheses means maximum connectable indoor units in accordance with outdoor units combination. The recommended ratio is 130%. (2.2kW criteria)

\* This product contains Fluorinated Greenhouse Gases. (R410A)

Note: 1. Capacities and Inputs 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), Interconnecting piping length 7.5m, Level difference of zero

- Heating: Indoor temp. 20°C (68°F) DB, Water inlet temp. 20°C (68°F)

2. Capacities are net capacities

3. Due to our policy of innovation some specifications may be changed without notification

4. Add an anti freeze to circulation water when outside unit is operating under 10°C (50°F), and change the DIP switch on main PCB. (For more information on installation section.)

### ARWN220LAS4 / ARWN240LAS4 / ARWN280LAS4

	HP		22	24	28
	Combination Unit		ARWN220LAS4	ARWN240LAS4	ARWN280LAS4
Model Name			ARWN140LAS4 ARWN080LAS4	ARWN140LAS4 ARWN100LAS4	ARWN140LAS4 ARWN140LAS4
C	Cooling (Rated)	kW	61.6	67.2	78.4
Capacity	Heating (Rated)	kW	69.3	75.6	88.2
la contra	Cooling (Rated)	kW	11.70	12.93	15.68
Input	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
	Color		Warm Gray / Mornig Gray	Warm Gray / Mornig Gray	Warm Gray / Mornig Gray
	RAL Code (Classic)		RAL 7044 / RAL 7030	RAL 7044 / RAL 7030	RAL 7044 / RAL 7030
	Туре		Stainless Steel Plate	Stainless Steel Plate	Stainless Steel Plate
Heat Exchanger	Maximum Pressure Resistance		45	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
	Туре		Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll
	Combination x No.		(Inverter) x 2	(Inverter) x 2	(Inverter) x 2
Compressor	Motor Output x Number		4,200 x 2	4,200 x 2	4,200 x 2
	Oil Type		FVC68D (PVE)	FVC68D (PVE)	FVC68D (PVE)
	Oil Charge	СС	5,600	5,600	5,600
Pipe Connctions	Liquid Pipe	mm (inch)	Ø 19.05 (3/4)	Ø 19.05 (3/4)	Ø 19.05 (3/4)
Pipe Confictions	Gas Pipe	mm (inch)	Ø 34.9 (1-3/8)	Ø 34.9 (1-3/8)	Ø 34.9 (1-3/8)
		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)
Water Connecting Pipes	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 Leve	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 Cabl		mm² 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
	Precharged Amount in Factory		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			3, 380 ~ 415, 50	3, 380 ~ 415, 50	3, 380 ~ 415, 50
- Ower Supply			3, 380, 60	3, 380, 60	3, 380, 60
Number of Maximun	n Connectable Indoor Unit		35 (44)	39 (48)	45 (56)

# MULTI V WATER IV HEAT PUMP

### ARWN300LAS4 / ARWN340LAS4 / ARWN400LAS4

	HP		30	34	40
	Combination Unit		ARWN300LAS4	ARWN340LAS4	ARWN400LAS4
Model Name			ARWN200LAS4 ARWN100LAS4	ARWN200LAS4 ARWN140LAS4	ARWN200LAS4 ARWN200LAS4
	Cooling (Rated)	kW	84.0	95.2	112.0
Capacity	Heating (Rated)	kW	94.5	107.1	126.0
	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
	Color		Warm Gray / Mornig Gray	Warm Gray / Mornig Gray	Warm Gray / Mornig Gray
	RAL Code (Classic)		RAL 7044 / RAL 7030	RAL 7044 / RAL 7030	RAL 7044 / RAL 7030
	Туре		Stainless Steel Plate	Stainless Steel Plate	Stainless Steel Plate
Heat Exchanger	Maximum Pressure Resistance		45	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
	Туре		Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll
	Combination x No.		(Inverter) x 2	(Inverter) x 2	(Inverter) x 2
Compressor	Motor Output x Number		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	СС	5,800	5,800	6,000
Pipe Connctions	Liquid Pipe	mm (inch)	Ø 19.05 (3/4)	Ø 19.05 (3/4)	Ø 19.05 (3/4)
	Gas Pipe	mm (inch)	Ø 34.9 (1-3/8)	Ø 34.9 (1-3/8)	Ø 41.3 (1-5/8)
Water Connecting		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)
Pipes	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 >	( 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 >	k 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 Leve	Cooling	dB(A)	55.5	59.0	55.0
Souther ressure Leve	` 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 Cabl		mm² 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
	Precharged Amount in Factory		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
			3, 380, 60	3, 380, 60	3, 380, 60
Number of Maximun	n Connectable Indoor Unit		49 (60)	55 (64)	64

<sup>1)</sup> The numbers in parentheses means maximum connectable indoor units in accordance with outdoor units combination. The recommended ratio is 130%. (2.2kW criteria) \* This product contains Fluorinated Greenhouse Gases. (R410A)

Note: 1. Capacities and Inputs 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), Interconnecting piping length 7.5m, Level difference of zero

- Heating: Indoor temp. 20°C (68°F) DB, Water inlet temp. 20°C (68°F)

<sup>1)</sup> The numbers in parentheses means maximum connectable indoor units in accordance with outdoor units combination. The recommended ratio is 130%. (2.2kW criteria)

\* This product contains Fluorinated Greenhouse Gases. (R410A)

Note: 1. Capacities and Inputs 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), Interconnecting piping length 7.5m, Level difference of zero

- Heating: Indoor temp. 20°C (68°F) DB, Water inlet temp. 20°C (68°F)

2. Capacities are net capacities

3. Due to our policy of innovation some specifications may be changed without notification

4. Add an anti freeze to circulation water when outside unit is operating under 10°C (50°F), and change the DIP switch on main PCB. (For more information on installation section.)

<sup>2.</sup> Capacities are net capacities
3. Due to our policy of innovation some specifications may be changed without notification
4. Add an anti freeze to circulation water when outside unit is operating under 10°C (50°F), and change the DIP switch on main PCB. (For more information on installation section.)

### ARWN420LAS4 / ARWN440LAS4 / ARWN480LAS4

	НР		42	44	48
	Combination Unit		ARWN420LAS4	ARWN440LAS4	ARWN480LAS4
Model Name			ARWN200LAS4 ARWN140LAS4 ARWN080LAS4	ARWN200LAS4 ARWN140LAS4 ARWN100LAS4	ARWN200LAS4 ARWN140LAS4 ARWN140LAS4
C	Cooling (Rated)	kW	117.6	123.2	134.4
Capacity	Heating (Rated)	kW	132.3	138.6	151.2
Laure de	Cooling (Rated)	kW	22.9	24.13	26.88
Input	Heating (Rated)	kW	24.04	25.18	28.01
EER			5.14	5.11	5.00
СОР	Rated Capacity		5.50	5.50	5.40
Exterior	Color		Warm Gray / Mornig Gray	Warm Gray / Mornig Gray	Warm Gray / Mornig Gray
Exterior	RAL Code (Classic)		RAL 7044 / RAL 7030	RAL 7044 / RAL 7030	RAL 7044 / RAL 7030
	Туре		Stainless Steel Plate	Stainless Steel Plate	Stainless Steel Plate
Heat Exchanger	Maximum Pressure Resistance		45	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
	Туре		Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll
	Combination x No.		(Inverter) x 3	(Inverter) x 3	(Inverter) x 3
Compressor	Motor Output x Number		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		8,600	8,600	8,600
Pipe Connctions	Liquid Pipe	mm (inch)	Ø 19.05 (3/4)	Ø 19.05 (3/4)	Ø 19.05 (3/4)
Tipe Confictions	Gas Pipe	mm (inch)	Ø 41.3 (1-5/8)	Ø 41.3 (1-5/8)	Ø 41.3 (1-5/8)
Water Connecting		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)
Pipes	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		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 Leve	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 Cabl		mm² 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
Refrigerant	Precharged Amount in Factory		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
			3, 380, 60	3, 380, 60	3, 380, 60
Number of Maximum	n Connectable Indoor Unit		64	64	64

<sup>1)</sup> The numbers in parentheses means maximum connectable indoor units in accordance with outdoor units combination. The recommended ratio is 130%. (2.2kW criteria)

\* This product contains Fluorinated Greenhouse Gases. (R410A)

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

- Cooling: Indoor temp. 20°C (80.6°F) DB / 19°C (66.2°F) WB, Water inlet temp. 30°C (86°F), Interconnecting piping length 7.5m, Level difference of zero

- Heating: Indoor temp. 20°C (68°F) DB, Water inlet temp. 20°C (68°F)

2. Capacities are net capacities

3. Due to our policy of importance come specifications, may be changed without polification.

# MULTI V WATER IV HEAT PUMP

### ARWN500LAS4 / ARWN540LAS4 / ARWN600LAS4

	HP		50	54	60
	Combination Unit		ARWN500LAS4	ARWN540LAS4	ARWN600LAS4
Model Name			ARWN200LAS4 ARWN200LAS4 ARWN100LAS4	ARWN200LAS4 ARWN200LAS4 ARWN140LAS4	ARWN200LAS4 ARWN200LAS4 ARWN200LAS4
	Cooling (Rated)		140.0	151.2	168.0
Capacity	Heating (Rated)		157.5	170.1	189.0
	Cooling (Rated)		27.49	30.24	33.60
	Heating (Rated)	kW	28.68	31.51	35.01
EER			5.09	5.00	5.00
COP	Rated Capacity		5.49	5.40	5.40
	Color		Warm Gray / Mornig Gray	Warm Gray / Mornig Gray	Warm Gray / Mornig Gray
Exterior	RAL Code (Classic)		RAL 7044 / RAL 7030	RAL 7044 / RAL 7030	RAL 7044 / RAL 7030
	Туре		Stainless Steel Plate	Stainless Steel Plate	Stainless Steel Plate
Heat Exchanger	Maximum Pressure Resistance		45	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
	Туре		Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll
	Combination x No.		(Inverter) x 3	(Inverter) x 3	(Inverter) x 3
Compressor	Motor Output x Number		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)
	Oil Charge		8,800	8,800	9,000
Pipe Connctions	Liquid Pipe	mm (inch)	Ø 19.05 (3/4)	Ø 19.05 (3/4)	Ø 19.05 (3/4)
i ipe conficcions	Gas Pipe	mm (inch)	Ø 41.3 (1-5/8)	Ø 41.3 (1-5/8)	Ø 41.3 (1-5/8)
Water Connecting		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)
Pipes	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		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 2) + (127 x 1)	(140 x 2) + (127 x 1)	140 x 3
Shipping Weight		kg x No.	(150 x 2) + (137 x 1)	(150 x 2) + (137 x 1)	150 x 3
Sound Pressure Level	Cooling	dB(A)	57.8	60.0	56.0
	Heating	dB(A)	63.4	62.0	62.0
Sound Power Level	Cooling	dB(A)	69.8	74.0	70.0
	Heating	dB(A)	75.4	76.0	76.0
Communication Cable		mm² 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
Refrigerant	Precharged Amount in Factory		11.8	11.8	9.0
	t-CO <sub>2</sub> eq.		24.6	24.6	18.8
	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
1 Ower Supply			3, 380, 60	3, 380, 60	3, 380, 60
Number of Maximum	Connectable Indoor Unit		64	64	64

<sup>1)</sup> The numbers in parentheses means maximum connectable indoor units in accordance with outdoor units combination. The recommended ratio is 130%. (2.2kW criteria)

\* This product contains Fluorinated Greenhouse Gases. (R410A)

Note: 1. Capacities and Inputs 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), Interconnecting piping length 7.5m, Level difference of zero

- Heating: Indoor temp. 20°C (68°F) DB, Water inlet temp. 20°C (68°F)

2. Capacities are net capacities

3. Due to our policy of innovation some specifications may be changed without notification

4. Add an anti freeze to circulation water when outside unit is operating under 10°C (50°F), and change the DIP switch on main PCB. (For more information on installation section.)

Due to our policy of innovation some specifications may be changed without notification
 Add an anti freeze to circulation water when outside unit is operating under 10°C (50°F), and change the DIP switch on main PCB. (For more information on installation section.)

### ARWN620LAS4 / ARWN640LAS4 / ARWN680LAS4

	НР		62	64	68
	Combination Unit		ARWN620LAS4	ARWN640LAS4	ARWN680LAS4
Model Name			ARWN200LAS4 ARWN200LAS4 ARWN140LAS4 ARWN080LAS4	ARWN200LAS4 ARWN200LAS4 ARWN140LAS4 ARWN100LAS4	ARWN200LAS4 ARWN200LAS4 ARWN140LAS4 ARWN140LAS4
Canacity	Cooling (Rated)	kW	173.6	179.2	190.4
Capacity	Heating (Rated)	kW	195.3	201.6	214.2
lanut	Cooling (Rated)	kW	34.10	35.33	38.08
Input	Heating (Rated)	kW	35.71	36.85	39.68
EER			5.09	5.07	5.00
СОР	Rated Capacity		5.47	5.47	5.40
Exterior	Color		Warm Gray / Mornig Gray	Warm Gray / Mornig Gray	Warm Gray / Mornig Gray
LXtellol	RAL Code (Classic)		RAL 7044 / RAL 7030	RAL 7044 / RAL 7030	RAL 7044 / RAL 7030
	Туре		Stainless Steel Plate	Stainless Steel Plate	Stainless Steel Plate
Heat Exchanger	Maximum Pressure Resistance		45	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
	Туре		Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll
	Combination x No.		(Inverter) x 4	(Inverter) x 4	(Inverter) x 4
Compressor	Motor Output x Number		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)
	Oil Charge		11,600	11,600	11,600
Pipe Connctions	Liquid Pipe	mm (inch)	Ø 22.2 (7/8)	Ø 22.2 (7/8)	Ø 22.2 (7/8)
- ipe connections	Gas Pipe	mm (inch)	Ø 44.5 (1-3/4)	Ø 44.5 (1-3/4)	Ø 53.98 (2-1/8)
W		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)	40A (PT 1-1/2) + 40A (PT 1-1/2) + 40A (PT 1-1/2) + PT40 (Internal Thread)
Water Connecting Pipes	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)	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)	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 2) + (127 x 2)	(140 x 2) + (127 x 2)	(140 x 2) + (127 x 2)
Shipping Weight		kg x No.	(150 x 2) + (137 x 2)	(150 x 2) + (137 x 2)	(150 x 2) + (137 x 2)
Sound Pressure Leve	Cooling	dB(A)	60.7	60.9	61.0
	Heating	dB(A)	64.2	64.3	63.0
Sound Power Level	Cooling	dB(A)	72.7	72.9	75.0
	Heating	dB(A)	76.2	76.3	77.0
Communication Cabl		mm² 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
Refrigerant	Precharged Amount in Factory		17.6	17.6	17.6
	t-CO <sub>2</sub> eq.		36.7	36.7	36.7
	Control		Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve
Power Supply			3, 380 ~ 415, 50 3, 380, 60	3, 380 ~ 415, 50 3, 380, 60	3, 380 ~ 415, 50 3, 380, 60
Number of Maximum	n Connectable Indoor Uni	ts 1)	64	64	64
TVaniber of Maximum	T COTHICC CADIC THOOD OTH		04	J	04

<sup>1)</sup> The numbers in parentheses means maximum connectable indoor units in accordance with outdoor units combination. The recommended ratio is 130%. (2.2kW criteria)

\* This product contains Fluorinated Greenhouse Gases. (R410A)

Note: 1. Capacities and Inputs 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), Interconnecting piping length 7.5m, Level difference of zero

- Heating: Indoor temp. 20°C (68°F) DB, Water inlet temp. 20°C (68°F)

# MULTI V WATER IV HEAT PUMP

### ARWN700LAS4 / ARWN740LAS4 / ARWN800LAS4

	HP		70	74	80
	Combination Unit		ARWN700LAS4	ARWN740LAS4	ARWN800LAS4
Model Name			ARWN200LAS4 ARWN200LAS4 ARWN200LAS4 ARWN100LAS4	ARWN200LAS4 ARWN200LAS4 ARWN200LAS4 ARWN140LAS4	ARWN200LAS4 ARWN200LAS4 ARWN200LAS4 ARWN200LAS4
Canacity —	Cooling (Rated)	kW	196.0	207.2	224.0
Capacity	Heating (Rated)	kW	220.5	233.1	252.0
	Cooling (Rated)	kW	38.69	41.44	44.80
Input	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
	Color		Warm Gray / Mornig Gray	Warm Gray / Mornig Gray	Warm Gray / Mornig Gray
Exterior	RAL Code (Classic)		RAL 7044 / RAL 7030	RAL 7044 / RAL 7030	RAL 7044 / RAL 7030
	Туре		Stainless Steel Plate	Stainless Steel Plate	Stainless Steel Plate
Heat Exchanger	Maximum Pressure Resistance		45	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
	Туре		Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll
	Combination x No.		(Inverter) x 4	(Inverter) x 4	(Inverter) x 4
Compressor	Motor Output x Number		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)
	Oil Charge		11,800	11,800	12,000
Pipe Connctions	Liquid Pipe	mm (inch)	Ø 22.2 (7/8)	Ø 22.2 (7/8)	Ø 22.2 (7/8)
i ipe connecions	Gas Pipe	mm (inch)	Ø 53.98 (2-1/8)	Ø 53.98 (2-1/8)	Ø 53.98 (2-1/8)
		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)	40A (PT 1-1/2) + 40A (PT 1-1/2) + 40A (PT 1-1/2) + PT40 (Internal Thread)
Water Connecting Pipes	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)	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)	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 Leve	Cooling	dB(A)	59.3	61.0	57.0
	Heating	dB(A)	65.1	63.0	63.0
Sound Power Level	Cooling	dB(A)	71.3	75.0	71.0
	Heating	dB(A)	77.1	77.0	77.0
Communication Cabl		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		14.8	14.8	12.0
	t-CO <sub>2</sub> eq.		30.9	30.9	25.1
	Control		Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve
Power Supply			3, 380 ~ 415, 50	3, 380 ~ 415, 50	3, 380 ~ 415, 50
rower Supply		<i>⊌</i> , v, ⊓∠	3, 380, 60	3, 380, 60	3, 380, 60
Number of Maximum	Connectable Indoor Unit		64	64	64

<sup>1)</sup> The numbers in parentheses means maximum connectable indoor units in accordance with outdoor units combination. The recommended ratio is 130%. (2.2kW criteria)

\* This product contains Fluorinated Greenhouse Gases. (R410A)

Note: 1. Capacities and Inputs 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), Interconnecting piping length 7.5m, Level difference of zero

- Heating: Indoor temp. 20°C (68°F) DB, Water inlet temp. 20°C (68°F)

<sup>2.</sup> Capacities are net capacities

 <sup>3.</sup> Due to our policy of innovation some specifications may be changed without notification
 4. Add an anti freeze to circulation water when outside unit is operating under 10°C (50°F), and change the DIP switch on main PCB. (For more information on installation section.)

<sup>2.</sup> Capacities are net capacities
3. Due to our policy of innovation some specifications may be changed without notification
4. Add an anti freeze to circulation water when outside unit is operating under 10°C (50°F), and change the DIP switch on main PCB. (For more information on installation section.)

### ARWB080LAS4 / ARWB100LAS4 / ARWB140LAS4

	HP		8	10	14
	Combination Unit		ARWB080LAS4	ARWB100LAS4	ARWB140LAS4
Model Name	Independent Unit		ARWB080LAS4	ARWB100LAS4	ARWB140LAS4
	Cooling (Rated)		22.4	28.0	39.2
Capacity	Heating (Rated)	kW	25.2	31.5	44.1
	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
	Color		Warm Gray / Mornig Gray	Warm Gray / Mornig Gray	Warm Gray / Mornig Gray
	RAL Code (Classic)		RAL 7044 / RAL 7030	RAL 7044 / RAL 7030	RAL 7044 / RAL 7030
	Туре		Stainless Steel Plate	Stainless Steel Plate	Stainless Steel Plate
Heat Exchanger	Maximum Pressure Resistance		45	45	45
	Head Loss	kPa	10.7	15.8	28.6
	Rated Water Flow	LPM	77	96	135
	Туре		Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll
	Combination x No.		(Inverter) x 1	(Inverter) x 1	(Inverter) x 1
Compressor	Motor Output x Number		4,200 x 1	4,200 x 1	4,200 x 1
	Oil Type		FVC68D (PVE)	FVC68D (PVE)	FVC68D (PVE)
	Oil Charge	СС	2,800	2,800	2,800
	Liquid Pipe	mm (inch)	Ø 9.52 (3/8)	Ø 9.52 (3/8)	Ø 12.7 (1/2)
Pipe Connctions #1	Low Pressure Gas Pipe	mm (inch)	Ø 22.2 (7/8)	Ø 22.2 (7/8)	Ø 25.4 (1)
	High Pressure Gas Pipe	mm (inch)	Ø 19.05 (3/4)	Ø 19.05 (3/4)	Ø 19.05 (3/4)
	Inlet	A (inch)	40A (PT 1-1/2) (Internal Thread)	40A (PT 1-1/2) (Internal Thread)	40A (PT 1-1/2) (Internal Thread)
Water Connecting Pipes	Outlet	A (inch)	40A (PT 1-1/2) (Internal Thread)	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)	20A (PT 3/4) (External Thread)
Dimensions (W x H >	( 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 >	(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 Leve	Cooling	dB(A)	47.0	50.0	58.0
	Heating	dB(A)	51.0	53.0	57.0
Sound Power Level	Cooling	dB(A)	59.0	62.0	70.0
	Heating	dB(A)	63.0	65.0	69.0
Communication Cabl		mm² 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
Refrigerant	Precharged Amount in Factory		5.8	5.8	5.8
	t-CO <sub>2</sub> eq.		12.1	12.1	12.1
	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
— — — — — — — — — — — — — — — — — — —			3, 380, 60	3, 380, 60	3, 380, 60
Number of Maximun	n Connectable Indoor Unit		13 (20)	16 (25)	23 (35)

<sup>1)</sup> The numbers in parentheses means maximum connectable indoor units in accordance with outdoor units combination. The recommended ratio is 130%. (2.2kW criteria) 
\* This product contains Fluorinated Greenhouse Gases. (R410A)

Note: 1. Capacities and Inputs 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), Interconnecting piping length 7.5m, Level difference of zero

- Heating: Indoor temp. 20°C (68°F) DB, Water inlet temp. 20°C (68°F)

# MULTI V WATER IV HEAT RECOVERY

### ARWB200LAS4 / ARWB160LAS4 / ARWB180LAS4

	HP		20	16	18
	Combination Unit		ARWB200LAS4	ARWB160LAS4	ARWB180LAS4
Model Name			ARWB200LAS4	ARWB080LAS4 ARWB080LAS4	ARWB100LAS4 ARWB080LAS4
	Cooling (Rated)	kW	56.0	44.8	50.4
Capacity	Heating (Rated)	kW	63.0	50.4	56.7
	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 / Mornig Gray	Warm Gray / Mornig Gray	Warm Gray / Mornig Gray
EXTELIO	RAL Code (Classic)		RAL 7044 / RAL 7030	RAL 7044 / RAL 7030	RAL 7044 / RAL 7030
	Туре		Stainless Steel Plate	Stainless Steel Plate	Stainless Steel Plate
Heat Exchanger	Maximum Pressure Resistance		45	45	45
	Head Loss	kPa	30.1	10.7 + 10.7	15.8 + 10.7
	Rated Water Flow	LPM	192	77 + 77	96 + 77
	Туре		Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll
	Combination x No.		(Inverter) x 1	(Inverter) x 2	(Inverter) x 2
Compressor	Motor Output x Number		5,300 x 1	4,200 x 2	4,200 x 2
	Oil Type		FVC68D(PVE)	FVC68D(PVE)	FVC68D(PVE)
	Oil Charge	СС	3,000	5,600	5,600
Pipe Connctions #1	Liquid Pipe	mm (inch)	Ø 12.7(1/2)	Ø 12.7(1/2)	Ø 12.7(1/2)
	Low Pressure Gas Pipe	mm (inch)	Ø 28.58(1-1/8)	Ø 28.58(1-1/8)	Ø 28.58(1-1/8)
	High Pressure Gas Pipe	mm (inch)	Ø 19.05(3/4)	Ø 19.05(3/4)	Ø 19.05(3/4)
		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)
Water Connecting Pipes	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 >	(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 >	(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 Leve	Cooling	dB(A)	54.0	50.0	52.0
	Heating	dB(A)	60.0	54.0	55.0
Sound Power Level	Cooling	dB(A)	66.0	62.0	64.0
	Heating	dB(A)	72.0	66.0	67.0
Communication Cabl		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
			3, 380~415, 50	3, 380~415, 50	3, 380~415, 50
			3, 380, 60	3, 380, 60	3, 380, 60
Number of Maximum	n Connectable Indoor Unit		32(50)	26(40)	29(45)

<sup>1)</sup> The numbers in parentheses means maximum connectable indoor units in accordance with outdoor units combination. The recommended ratio is 130%. (2.2kW criteria)

\* This product contains Fluorinated Greenhouse Gases. (R410A)

Note: 1. Capacities and Inputs 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), Interconnecting piping length 7.5m, Level difference of zero

- Heating: Indoor temp. 20°C (68°F) DB, Water inlet temp. 20°C (68°F)

2. Capacities are net capacities

3. Due to our policy of importation compressions may be changed without partification.

<sup>2.</sup> Capacities are net capacities
3. Due to our policy of innovation some specifications may be changed without notification
4. Add an anti freeze to circulation water when outside unit is operating under 10°C (50°F), and change the DIP switch on main PCB. (For more information on installation section.)

<sup>2.</sup> Capacities are net capacities

3. Due to our policy of innovation some specifications may be changed without notification

4. Add an anti freeze to circulation water when outside unit is operating under 10°C (50°F), and change the DIP switch on main PCB. (For more information on installation section.)

### ARWB220LAS4 / ARWB240LAS4 / ARWB280LAS4

	HP		22	24	28
	Combination Unit		ARWB220LAS4	ARWB240LAS4	ARWB280LAS4
Model Name			ARWB140LAS4 ARWB080LAS4	ARWB140LAS4 ARWB100LAS4	ARWB140LAS4 ARWB140LAS4
Canacity	Cooling (Rated)	kW	61.6	67.2	78.4
Capacity	Heating (Rated)	kW	69.3	75.6	88.2
Input	Cooling (Rated)	kW	11.70	12.93	15.68
Прис	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 / Mornig Gray	Warm Gray / Mornig Gray	Warm Gray / Mornig Gray
EXTENDI	RAL Code (Classic)		RAL 7044 / RAL 7030	RAL 7044 / RAL 7030	RAL 7044 / RAL 7030
	Туре		Stainless Steel Plate	Stainless Steel Plate	Stainless Steel Plate
Heat Exchanger	Maximum Pressure Resistance		45	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
	Туре		Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll
	Combination x No.		(Inverter) x 2	(Inverter) x 2	(Inverter) x 2
Compressor	Motor Output x Number		4,200 x 2	4,200 x 2	4,200 x 2
	Oil Type		FVC68D (PVE)	FVC68D (PVE)	FVC68D (PVE)
	Oil Charge	СС	5,600	5,600	5,600
	Liquid Pipe	mm (inch)	Ø 19.05 (3/4)	Ø 19.05 (3/4)	Ø 19.05 (3/4)
Pipe Connctions #1	Low Pressure Gas Pipe	mm (inch)	Ø 34.9 (1-3/8)	Ø 34.9 (1-3/8)	Ø 34.9 (1-3/8)
	High Pressure Gas Pipe	mm (inch)	Ø 28.58 (1-1/8)	Ø 28.58 (1-1/8)	Ø 28.58 (1-1/8)
		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)
Water Connecting Pipes	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)	58.0	59.0	59.0
	Heating	dB(A)	58.0	58.0	58.0
Sound Power Level	Cooling	dB(A)	70.0	71.0	72.0
	Heating	dB(A)	70.0	70.0	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 Name		R410A	R410A	R410A
Refrigerant	Precharged Amount in Factory		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
Dower Supply		Ø V U-	3, 380 ~ 415, 50	3, 380 ~ 415, 50	3, 380 ~ 415, 50
Power Supply			3, 380, 60	3, 380, 60	3, 380, 60
Number of Maximum	Connectable Indoor Unit		35 (44)	39 (48)	45 (56)

<sup>1)</sup> The numbers in parentheses means maximum connectable indoor units in accordance with outdoor units combination. The recommended ratio is 130%. (2.2kW criteria)

\* This product contains Fluorinated Greenhouse Gases. (R410A)

Note: 1. Capacities and Inputs 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), Interconnecting piping length 7.5m, Level difference of zero

- Heating: Indoor temp. 20°C (68°F) DB, Water inlet temp. 20°C (68°F)

2. Capacities are net capacities

3. Due to our policy of innovation some specifications may be changed without notification

# MULTI V WATER IV HEAT RECOVERY

### ARWB300LAS4 / ARWB340LAS4 / ARWB400LAS4

	HP		30	34	40
	Combination Unit		ARWB300LAS4	ARWB340LAS4	ARWB400LAS4
Model Name			ARWB200LAS4 ARWB100LAS4	ARWB200LAS4 ARWB140LAS4	ARWB200LAS4 ARWB200LAS4
Canadit	Cooling (Rated)	kW	84.0	95.2	112.0
Capacity	Heating (Rated)	kW	94.5	107.1	126.0
	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 / Mornig Gray	Warm Gray / Mornig Gray	Warm Gray / Mornig Gray
LALEHOI	RAL Code (Classic)		RAL 7044 / RAL 7030	RAL 7044 / RAL 7030	RAL 7044 / RAL 7030
	Туре		Stainless Steel Plate	Stainless Steel Plate	Stainless Steel Plate
Heat Exchanger	Maximum Pressure Resistance		45	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
	Туре		Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll
	Combination x No.		(Inverter) x 2	(Inverter) x 2	(Inverter) x 2
Compressor	Motor Output x Number		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	СС	5,800	5,800	6,000
	Liquid Pipe	mm (inch)	Ø 19.05 (3/4)	Ø 19.05 (3/4)	Ø 19.05 (3/4)
Pipe Connctions #1	Low Pressure Gas Pipe	mm (inch)	Ø 34.9 (1-3/8)	Ø 34.9 (1-3/8)	Ø 41.3 (1-5/8)
	High Pressure Gas Pipe	mm (inch)	Ø 28.58 (1-1/8)	Ø 28.58 (1-1/8)	Ø 34.9 (1-3/8)
		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)
Water Connecting Pipes	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)	55.0	59.0	55.0
Souria i ressure Ecve	` Heating	dB(A)	61.0	61.0	61.0
Sound Power Level	Cooling	dB(A)	67.0	72.0	68.0
	Heating	dB(A)	73.0	74.0	74.0
Communication Cable		mm² 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
Refrigerant	Precharged Amount in Factory		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
Power Supply		<u>⊌,</u> v, ⊓Z	3, 380, 60	3, 380, 60	3, 380, 60
Number of Maximum	Connectable Indoor Unit	S 1)	49 (60)	55 (64)	64

<sup>1)</sup> The numbers in parentheses means maximum connectable indoor units in accordance with outdoor units combination. The recommended ratio is 130% .(2.2kW criteria)

\* This product contains Fluorinated Greenhouse Gases. (R410A)

Note: 1. Capacities and Inputs 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), Interconnecting piping length 7.5m, Level difference of zero

- Heating: Indoor temp. 20°C (68°F) DB, Water inlet temp. 20°C (68°F)

2. Capacities are net capacities

3. Due to our policy of importance come specifications may be chapted without patification.

<sup>2.</sup> Capacities are net capacities

3. Due to our policy of innovation some specifications may be changed without notification

4. Add an anti freeze to circulation water when outside unit is operating under 10°C (50°F), and change the DIP switch on main PCB. (For more information on installation section.)

<sup>2.</sup> Capacities are net capacities

3. Due to our policy of innovation some specifications may be changed without notification

4. Add an anti freeze to circulation water when outside unit is operating under 10°C (50°F), and change the DIP switch on main PCB. (For more information on installation section.)

### ARWB420LAS4 / ARWB440LAS4 / ARWB480LAS4

	HP		42	44	48
	Combination Unit		ARWB420LAS4	ARWB440LAS4	ARWB480LAS4
Model Name			ARWB200LAS4 ARWB140LAS4 ARWB080LAS4	ARWB200LAS4 ARWB140LAS4 ARWB100LAS4	ARWB200LAS4 ARWB140LAS4 ARWB140LAS4
C ':	Cooling (Rated)	kW	117.6	123.2	134.4
Capacity	Heating (Rated) kW		132.3	138.6	151.2
	Cooling (Rated)	kW	22.9	24.13	26.88
Input	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
F	Color		Warm Gray / Mornig Gray	Warm Gray / Mornig Gray	Warm Gray / Mornig Gray
Exterior	RAL Code (Classic)		RAL 7044 / RAL 7030	RAL 7044 / RAL 7030	RAL 7044 / RAL 7030
	Туре		Stainless Steel Plate	Stainless Steel Plate	Stainless Steel Plate
Heat Exchanger	Maximum Pressure Resistance		45	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
	Туре		Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll
	Combination x No.		(Inverter) x 3	(Inverter) x 3	(Inverter) x 3
Compressor	Motor Output x Number		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		8,600	8,600	8,600
	Liquid Pipe	mm (inch)	Ø 19.05 (3/4)	Ø 19.05 (3/4)	Ø 19.05 (3/4)
Pipe Connctions #1	Low Pressure Gas Pipe		Ø 41.3 (1-5/8)	Ø 41.3 (1-5/8)	Ø 41.3 (1-5/8)
	High Pressure Gas Pipe	mm (inch)	Ø 34.9 (1-3/8)	Ø 34.9 (1-3/8)	Ø 34.9 (1-3/8)
Water Connecting		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)
Pipes	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)
D: : (14/ 11	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		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)	60.0	60.0	60.0
	Heating	dB(A)	62.0	62.0	62.0
Sound Power Level	Cooling Heating	dB(A)	72.0 74.0	72.0 74.0	74.0 76.0
	Heating	mm <sup>2</sup> x No.			1 - 1 - 1 - 1
Communication Cable		(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
Refrigerant	Precharged Amount in Factory		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			3, 380 ~ 415, 50	3, 380 ~ 415, 50	3, 380 ~ 415, 50
112			3, 380, 60	3, 380, 60	3, 380, 60
Number of Maximum	Connectable Indoor Unit	S <sup>I)</sup>	64	64	64

<sup>1)</sup> The numbers in parentheses means maximum connectable indoor units in accordance with outdoor units combination. The recommended ratio is 130%. (2.2kW criteria)

\* This product contains Fluorinated Greenhouse Gases. (R410A)

Note: 1. Capacities and Inputs 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), Interconnecting piping length 7.5m, Level difference of zero

- Heating: Indoor temp. 20°C (68°F) DB, Water inlet temp. 20°C (68°F)

# MULTI V WATER IV HEAT RECOVERY

### ARWB500LAS4 / ARWB540LAS4 / ARWB600LAS4

	HP		50	54	60
	Combination Unit		ARWB500LAS4	ARWB540LAS4	ARWB600LAS4
Model Name			ARWB200LAS4 ARWB200LAS4 ARWB100LAS4	ARWB200LAS4 ARWB200LAS4 ARWB140LAS4	ARWB200LAS4 ARWB200LAS4 ARWB200LAS4
	Cooling (Rated)	kW	140.0	151.2	168.0
Capacity	Heating (Rated)	kW	157.5	170.1	189.0
	Cooling (Rated)	kW	27.49	30.24	33.60
	Heating (Rated)	kW	28.68	31.51	35.01
EER			5.09	5.00	5.00
COP	Rated Capacity		5.49	5.40	5.40
	Color		Warm Gray / Mornig Gray	Warm Gray / Mornig Gray	Warm Gray / Mornig Gray
	RAL Code (Classic)		RAL 7044 / RAL 7030	RAL 7044 / RAL 7030	RAL 7044 / RAL 7030
	Туре		Stainless Steel Plate	Stainless Steel Plate	Stainless Steel Plate
Heat Exchanger	Maximum Pressure Resistance		45	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
	Туре		Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll
	Combination x No.		(Inverter) x 3	(Inverter) x 3	(Inverter) x 3
Compressor	Motor Output x Number		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)
	Oil Charge	СС	8,800	8,800	9,000
	Liquid Pipe	mm (inch)	Ø 19.05 (3/4)	Ø 19.05 (3/4)	Ø 19.05 (3/4)
Pipe Connctions #1	Low Pressure Gas Pipe	mm (inch)	Ø 41.3 (1-5/8)	Ø 41.3 (1-5/8)	Ø 41.3 (1-5/8)
	High Pressure Gas Pipe	mm (inch)	Ø 34.9 (1-3/8)	Ø 34.9 (1-3/8)	Ø 34.9 (1-3/8)
Water Connecting		A (inch)	40A (PT 1-1/2) + 40A (PT 1-1/2) + 40A (PT 1-1/2) (Internal Thread)	40A (PT 1-1/2) (Internal Thread)	40A (PT 1-1/2) + 40A (PT 1-1/2) 40A (PT 1-1/2) (Internal Thread
Pipes	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		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 2) + (127 X 1)	(140 x 2) + (127 X 1)	140 x 3
Shipping Weight		kg x No.	(150 x 2) + (137 X 1)	(150 x 2) + (137 X 1)	150 x 3
Sound Pressure Leve	Cooling	dB(A)	58.0	60.0	56.0
	Heating	dB(A)	63.0	62.0	62.0
Sound Power Level	Cooling	dB(A)	70.0	74.0	70.0
	Heating	dB(A)	75.0	76.0	76.0
Communication Cable		mm² 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
	Precharged Amount in Factory		11.8	11.8	9.0
	t-CO <sub>2</sub> eq.		24.6	24.6	18.8
	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
			3, 380, 60	3, 380, 60	3, 380, 60
Number of Maximum	Connectable Indoor Unit		64	64	64

<sup>1)</sup> The numbers in parentheses means maximum connectable indoor units in accordance with outdoor units combination. The recommended ratio is 130%. (2.2kW criteria)

\* This product contains Fluorinated Greenhouse Gases. (R410A)

Note: 1. Capacities and Inputs 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), Interconnecting piping length 7.5m, Level difference of zero

- Heating: Indoor temp. 20°C (68°F) DB, Water inlet temp. 20°C (68°F)

<sup>2.</sup> Capacities are net capacities
3. Due to our policy of innovation some specifications may be changed without notification
4. Add an anti freeze to circulation water when outside unit is operating under 10°C (50°F), and change the DIP switch on main PCB. (For more information on installation section.)

<sup>2.</sup> Capacities are net capacities
3. Due to our policy of innovation some specifications may be changed without notification
4. Add an anti freeze to circulation water when outside unit is operating under 10°C (50°F), and change the DIP switch on main PCB. (For more information on installation section.)

### ARWB620LAS4 / ARWB640LAS4 / ARWB680LAS4

	НР		62	64	68
	Combination Unit		ARWB620LAS4	ARWB640LAS4	ARWB680LAS4
Model Name			ARWB200LAS4 ARWB200LAS4 ARWB140LAS4 ARWB080LAS4	ARWB200LAS4 ARWB200LAS4 ARWB140LAS4 ARWB100LAS4	ARWB200LAS4 ARWB200LAS4 ARWB140LAS4 ARWB140LAS4
Carracita	Cooling (Rated) kW		173.6	179.2	190.4
Capacity	Heating (Rated)	kW	195.3	201.6	214.2
lanut	Cooling (Rated)	kW	34.10	35.33	38.08
Input	Heating (Rated)	kW	35.71	36.85	39.68
EER			5.09	5.07	5.00
СОР	Rated Capacity		5.47	5.47	5.40
Exterior	Color		Warm Gray / Mornig Gray	Warm Gray / Mornig Gray	Warm Gray / Mornig Gray
Exterior	RAL Code (Classic)		RAL 7044 / RAL 7030	RAL 7044 / RAL 7030	RAL 7044 / RAL 7030
	Туре		Stainless Steel Plate	Stainless Steel Plate	Stainless Steel Plate
Heat Exchanger	Maximum Pressure Resistance		45	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
	Туре		Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll
	Combination x No.		(Inverter) x 4	(Inverter) x 4	(Inverter) x 4
Compressor	Motor Output x Number		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)
	Oil Charge		11,600	11,600	11,600
	Liquid Pipe	mm (inch)	Ø 22.2 (7/8)	Ø 22.2 (7/8)	Ø 22.2 (7/8)
Pipe Connctions #1	Low Pressure Gas Pipe	mm (inch)	Ø 44.5 (1-3/4)	Ø 44.5 (1-3/4)	Ø 53.98 (2-1/8)
	High Pressure Gas Pipe	mm (inch)	Ø 41.3 (1-5/8)	Ø 41.3 (1-5/8)	Ø 44.5 (1-3/4)
		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)	40A (PT 1-1/2) + 40A (PT 1-1/2) + 40A (PT 1-1/2) + PT40 (Internal Thread)
Water Connecting Pipes	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)	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)	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 2) + (127 x 2)	(140 x 2) + (127 x 2)	(140 x 2) + (127 x 2)
Shipping Weight		kg x No.	(150 x 2) + (137 x 2)	(150 x 2) + (137 x 2)	(150 x 2) + (137 x 2)
Sound Pressure Level	Cooling	dB(A)	61.0	61.0	61.0
Journal Pressure Level	Heating	dB(A)	64.0	64.0	63.0
Sound Power Level	Cooling	dB(A)	73.0	73.0	75.0
Souria i ovici Ecvet	Heating	dB(A)	76.0	76.0	77.0
Communication Cable		mm² 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
Refrigerant	Precharged Amount in Factory		17.6	17.6	17.6
	t-CO <sub>2</sub> eq.		36.7	36.7	36.7
	Control		Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve
Power Supply			3, 380 ~ 415, 50	3, 380 ~ 415, 50	3, 380 ~ 415, 50
			3, 380, 60	3, 380, 60	3, 380, 60
Number of Maximum	Connectable Indoor Unit	S <sup>1)</sup>	64	64	64

<sup>1)</sup> The numbers in parentheses means maximum connectable indoor units in accordance with outdoor units combination. The recommended ratio is 130%. (2.2kW criteria)

\* This product contains Fluorinated Greenhouse Gases. (R410A)

Note: 1. Capacities and Inputs 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), Interconnecting piping length 7.5m, Level difference of zero

- Heating: Indoor temp. 20°C (66°F) DB, Water inlet temp. 20°C (68°F)

2. Capacities are net capacities

3. Due to our policy of inputstion some specifications may be changed without notification.

# MULTI V WATER IV HEAT RECOVERY

### ARWB700LAS4 / ARWB740LAS4 / ARWB800LAS4

	HP		70	74	80
	Combination Unit		ARWB700LAS4	ARWB740LAS4	ARWB800LAS4
Model Name			ARWB200LAS4 ARWB200LAS4 ARWB200LAS4 ARWB100LAS4	ARWB200LAS4 ARWB200LAS4 ARWB200LAS4 ARWB140LAS4	ARWB200LAS4 ARWB200LAS4 ARWB200LAS4 ARWB200LAS4
	Cooling (Rated)	kW	196.0	207.2	224.0
Capacity	Heating (Rated)	kW	220.5	233.1	252.0
	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
	Color		Warm Gray / Mornig Gray	Warm Gray / Mornig Gray	Warm Gray / Mornig Gray
	RAL Code (Classic)		RAL 7044 / RAL 7030	RAL 7044 / RAL 7030	RAL 7044 / RAL 7030
	Type		Stainless Steel Plate	Stainless Steel Plate	Stainless Steel Plate
Heat Exchanger	Maximum Pressure Resistance		45	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
			Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll
	Combination x No.		(Inverter) x 4	(Inverter) x 4	(Inverter) x 4
Compressor	Motor Output x Number		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)
	Oil Charge		11,800	11,800	12,000
	Liquid Pipe	mm (inch)	Ø 22.2 (7/8)	Ø 22.2 (7/8)	Ø 22.2 (7/8)
Pipe Connctions #1	Low Pressure Gas Pipe	mm (inch)	Ø 53.98 (2-1/8)	Ø 53.98 (2-1/8)	Ø 53.98 (2-1/8)
	High Pressure Gas Pipe	mm (inch)	Ø 44.5 (1-3/4)	Ø 44.5 (1-3/4)	Ø 44.5 (1-3/4)
		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)	40A (PT 1-1/2) + 40A (PT 1-1/2) + 40A (PT 1-1/2) + PT40 (Internal Thread)
Water Connecting Pipes	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)	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)	20A (PT 3/4) (External Thread
Dimensions (W x H x		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 Leve	Cooling	dB(A)	59.0	61.0	57.0
	Heating	dB(A)	65.0	63.0	63.0
Sound Power Level	Cooling	dB(A)	71.0	75.0	71.0
	Heating	dB(A)	77.0	77.0	77.0
Communication Cabl		mm² 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
Refrigerant	Precharged Amount in Factory		14.8	14.8	12.0
	t-CO <sub>2</sub> eq.		30.9	30.9	25.1
	Control		Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve
Dower Cupply		Ø, V, Hz	3, 380 ~ 415, 50	3, 380 ~ 415, 50	3, 380 ~ 415, 50
		⊌, v, HZ	3, 380, 60	3, 380, 60	3, 380, 60
Number of Maximum	n Connectable Indoor Unit		64	64	64

<sup>1)</sup> The numbers in parentheses means maximum connectable indoor units in accordance with outdoor units combination. The recommended ratio is 130%. (2.2kW criteria)

<sup>2.</sup> Capacities are net capacities

3. Due to our policy of innovation some specifications may be changed without notification

4. Add an anti freeze to circulation water when outside unit is operating under 10°C (50°F), and change the DIP switch on main PCB. (For more information on installation section.)

<sup>1)</sup> The numbers in parentheses means maximum connectable indoor units in accordance with outdoor units combination. The recommended ratio is 130%. (2.2kW criteria)

\* This product contains Fluorinated Greenhouse Gases. (R410A)

Note: 1. Capacities and Inputs 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), Interconnecting piping length 7.5m, Level difference of zero

- Heating: Indoor temp. 20°C (68°F) DB, Water inlet temp. 20°C (68°F)

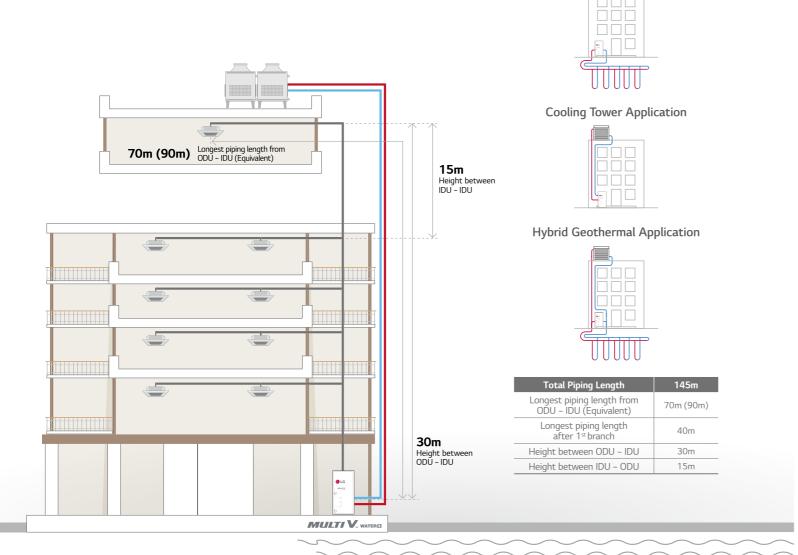
2. Capacities are net capacities

3. Due to our policy of innovation some specifications may be changed without notification

4. Add an anti freeze to circulation water when outside unit is operating under 10°C (50°F), and change the DIP switch on main PCB. (For more information on installation section.)

# MULTI V<sub>IM</sub> WATERS

- Water Cooled VRF Heat Pump
- 11.2 ~ 15.5kW (Cooling capacity based)
- 1Φ, 220 ~ 240V, 50 ~ 60Hz
- Outdoor unit installed indoor



### **Features & Benefits**

- Independent weather condition
- Utilizing renewable source
- Replacement of Chiller-FCU system

### **Key Applications**

- Small-medium scale office
- Building using geothermal & various water heat source

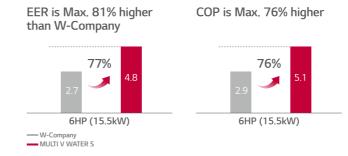
**Geothermal Application** 

- Luxurious residential building
- Seaside hotel

# **ENERGY SAVING**

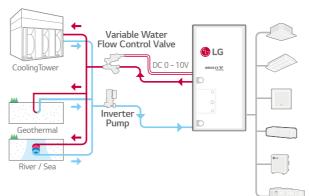
# World's First Class Cooling and Heating Efficiency

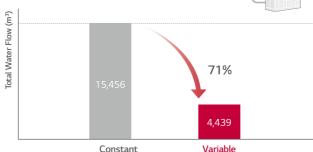
MULTI V WATER S EER and COP is superior



### Variable Water Flow Control (Option)

Supporting your buildings to become greener

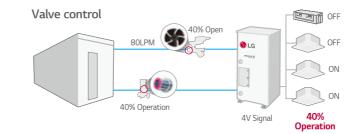




Water Flow

- Note : 1. Location : France 2. Total operationn time : 1,344hr
  - Indian operationn time: 1,344nr
     Indoor temperature: Normal office environment
  - 4. Outdoor temperature : Average summer temperature 5. Inlet flow temperature : Approximately 30°C

Water Flow



Signal [V]	Water Flow
10	100%
9	90%
8	80%
7	70%
6	60%
5	50%
4	40%

# SPACE SAVING & CONVENIENT INSTALLATION

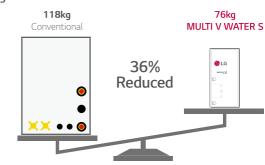
# **Compact Size**

Outdoor unit can be placed inside a closet, no need for roof or outside space. It can be applicable for small space application such as shops in city centers and malls.



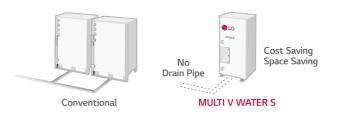


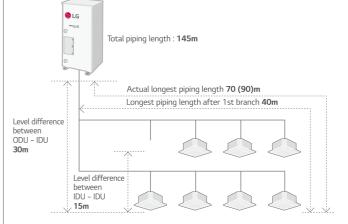
### Weight



### **Convenient Installation**

Absence of drain pipe makes installation easier





# Nomenclature ARW N 60 G a 0 Air Discharge Type A : Basic G: 1Ø, 220 ~ 240V, 50Hz / 1Ø, 220V, 60Hz Total Cooling Capacity in Horse Power EX) '60' → 6HP Class Combination of Inverter Type and Cooling Only or Heat Pump N: Inverter and H/P

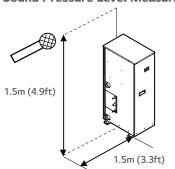
Indicates that this is **MULTI V. WATERS** Water System Outside Unit using the R410A

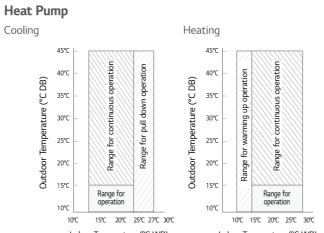
### **Outside Unit Function**

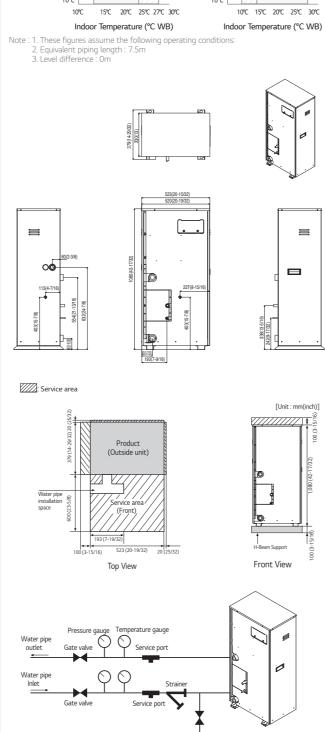
Category	Functions	MULTI V WATER S
	Variable Path of Outdoor Unit HEX	-
	HiPOR™ (High Pressure Oil Return)	-
Key Refrigerant Components	Humidity Sensor	-
	Anti Corrosion Black Fin	-
	Oil Sensor	-
	Dual Sensing	-
	Low Noise Operation	-
	Hgih Static Mode of Outdoor Unit Fan	-
	Partial Defrosting	-
Useful Function	Auto Dust Cleaning of Outdoor Unit (Fan reverse rotation)	-
	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	0
	Phase Protection	-
	Restart Delay (3-minutes)	0
	Self Diagnosis	0
	Soft Start	0
	Test Run Function	0
	AC Ez (Simple Controller)	PQCSZ250S0
	AC Ez Touch	-
	AC Smart IV	PACS4B000
Central Controller	AC Smart 5	PACS5A000
	ACP (Advanced Control Platform) IV	PQCPC22A0
	ACP (Advanced Control Platform) 5	PACP5A000
	AC Manager 5	PACM5A000
BNU (Building	ACP Lonworks	-
Network Unit)	ACP BACnet	-
	Refrigerant Charging Kit	PRAC1
	Variable Water Flow Valve Control Kit	PRVC0
PDI (Power	Standard	PPWRDB000
Distribution Indicator)	Premium	-
Cool / Heat Selector		-
Low Ambient Kit		-
IO Module (ODU Dry (	Contact)	-
Cycle Monitoring	LGMV	PRCTIL0
Device	Mobile LGMV	-

※ ○ : Applied, - : Not Applied

### Position of Sound Pressure Level Measuring







Drain li

# **MULTI V WATER S**



ARWN60GA0

HP			6
	Cooling (Rated)	kW	15.5
Capacity		kW	18.0
		kW	3.20
		kW	3.50
EER	riedting (Nateu)	NVV	4.84
COP	Rated Capacity		5.14
	Color		Warm Gray
	RAL Code (Classic)		RAL 7044
	Type		Cupro brazed Stainless Steel Plate
Heat Exchanger	M D	kgf/cm²	45
	Head Loss	kPa	28.4
	Rated Water Flow I	LPM	60
	Туре		BLDC Inverter Twin Rotary
	Combination x No.		(Inverter) x 1
	Motor Output x Number	W x No.	4,000 x 1
	Oil Type		FVC68D (PVE)
	Oil Charge	сс	2,600
Pipe Connctions	Liquid Pipe r	mm (inch)	Ø 9.52 (3/8)
-ipe Connections	Gas Pipe r	mm (inch)	Ø 19.05 (3/4)
Water Connecting	Inlet	A (inch)	32A (PT 1-1/4)
Pipes		A (inch)	32A (PT 1-1/4)
Dimensions (W x H x	(D)	mm x No.	(520 X 1,080 X 330) x 1
Dimensions (W x H x	x D) - Shipping r	mm x No.	(688 x 1,170 x 414) x 1
Vet Weight		kg x No.	76 x 1
Shipping Weight		kg x No.	82 x 1
Sound Pressure Leve		dB(A)	50.0
	Heating	dB(A)	50.0
Sound Power Level		dB(A)	62.0
		dB(A)	62.0
Communication Cabl	le (	mm² x No. (VCTF-SB)	1.0 ~ 1.5 x 2C
	Refrigerant Name		R410A
Refrigerant	Precharged Amount in Factory	kg	1.0
	t-CO <sub>2</sub> eq.		2.1
	Control		Electronic Expansion Valve
Power Supply		Ø, V, Hz	1, 220 ~ 240, 50
		0, 1, 112	1, 220, 60
Jumber of Maximun	n Connectable Indoor Units		13

- \* This product contains Fluorinated Greenhouse Gases. (R410A)

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

   Cooling Temperature: Indoor 27°C (80.6°F) DB / 19°C (66.2°F) WB / Water 30°C (86°F)

   Heating Temperature: Indoor 20°C (68°F) DB / 15°C (59°F) WB / Water 20°C (68°F)

   Piping Length: Interconnected Pipe Length = 7.5m

   Difference Limit of Elevation (Outside Indoor Unit) is Zero.

  - Uniference Limit or Elevation (Outside ~ Indoor Only) is Zero.
    2. Wiring cable size must comply with the applicable local and national codes.
    3. Due to our policy of innovation some specifications may be changed without notification.
    4. Sound Level Values are measured at Anechoic chamber. Therefore, these values can be increased owing to ambient conditions during operation.
    5. Add an anti freeze to circulation water when outside unit is operating under 10°C (50°F), and change the DIP switch on main PCB. (For more information on installation section.)



# INDOOR UNITS

WALL MOUNTED UNIT / CEILING MOUNTED CASSETTE /
CEILING CONCEALED DUCT / FRESH AIR INTAKE UNIT /
CEILING & FLOOR CONVERTIBLE UNIT /
CEILING SUSPENDED UNIT /
CONSOLE & FLOOR STANDING UNIT /
/ COMPATIBILITY / FEATURE FUNCTIONS



### **Features & Benefits**

- $\bullet$  6 different discharge angles can be programmed via the remote controller.
- Easily detachable full surface cover helps to clean the air conditioner.
- Drain pipe can be easily hidden from sight.

### **Key Applications**

- Restaurant • Multi-family Residence
- Office

Wa	all Mounted Unit	Artcool Mirror	Artcool Gallery	Standard
Smart	Wi-Fi	0	0	0
Energy Efficiency	Energy Display	0	0	0
Fast Cooling &	Jet Cool	0	0	0
Heating	Auto Swing (up & down)	0	0	0
Health		0	-	O ~7.1kW Only
	Pre Filter	0	0	0
	Auto Cleaning	0	0	0
	Sleep Mode	0	0	0
Comfort	Timer (on / off)	0	0	0
	Timer (weekly)	0	0	0
	Two Thermistor Control	0	0	0
	Group Control	0	0	0

※ ○: Applied, - : Not applied

# **SMART**

### Wi-Fi Control

Control your air conditioners by using the smart internet devices as Android or iOS based smartphones.



### LG SmartThinQ

Search "LG SmartThinQ" on Google market or Appstore then download the app.

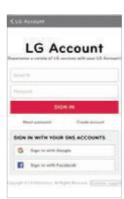
### Integrated Home Appliances Control

Control / Monitor all your LG appliances from one place.



### Easy Registration and Log-in

Follow the easy set-up steps that will activate SmartThinQ's impressive feature.



### Simple operation for various functions



### Straight forward Management



### Access your air conditioner anytime and from anywhere

with a Wi-Fi equipped device and LG's exclusive control app, Smart ThinQ.



### Wi-Fi Connectivity

Let's every member of your family choose their own preferred air conditioning temperature and fan speed, then save the settings in their app to run later. You can save the setting for each air conditioner as well.

### Multiple Devices



### Multi-Control



# PERFECT HEALTHCARE

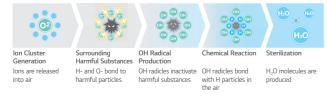
### **Ionizer**PLUS

The powerful Ionizer protects you from bad odors and harmful and contagious particles in the air with over 3 million ions to sterilize not only the air passing through the air conditioner, but also surrounding surfaces for a safer, and cleaner environment.

- \* Specifications may vary for each model.
- \* Depending on the experimental conditions

### Sterilization and Deodorization (Utilizes Over 3 Million Ions)

Ionizer+ reduces harmful and contagious microscopic particles by infusing the air passing through the air conditioner with over 3 million ions.



### Sterilization Performance Evaluations

Sterilize Bacteria (E.coli colon bacillus) over 99.9% in 30 min.



### 2.1 odor strength decrease in 60 minutes

An odor of measured as 2 European odor units (ouE/m³) or less indicates that the level of odor falls within permissible limits.



Odor strength reduce 3.6 → 1.5 / The Odor floating in the room as well as curtain and clothes.

# **Auto Cleaning**

The interior of the air conditioner is maintained clean by drying off the heat exchanger, then sterilizing the interior once more.

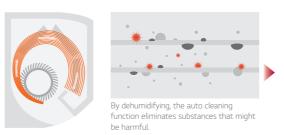
### Pain Point

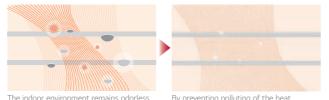
The main cause of odor within air conditioners is mold and bacteria growing on the heat exchanger. These germs can spread when the heat exchanger is wet.



### Cleans Filter with Regular Airflow

The comprehensive auto cleaning function prevents the formation of bacteria and mold on the heat exchanger, providing an enhancing environment.



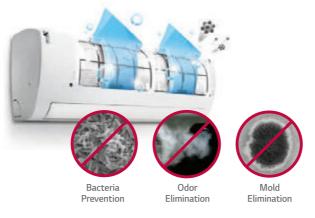


By preventing polluting of the heat exchanger caused by various germs and bacteria, the performance and life span of the air conditioner do not wither away even after a period of 10 years.

### Removes Harmful Particles

with the advanced deodorizing function.

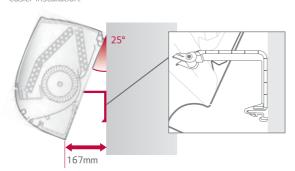
Auto Cleaning provides clean air by preventing bacteria, mold and odors that can otherwise accumulate in an indoor unit.



# **INSTALLATION**

### Installation Support Clip

A support clip creates adequate space between the wall and the unit for easier installation.



# **FAST COOLING & HEATING**

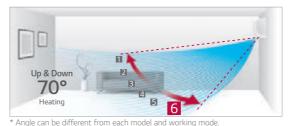
### **Auto Swing**

Cool air reaches out to the entire room regardless of where the air conditioner is installed.

\* Specifications may vary for each model.

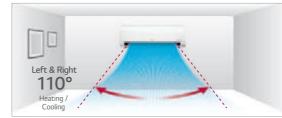
### 6-Step Vane, Control up to 70°

The vertical vane, which moves up and down, has 6 different settings including full-auto swing.



### Control up to 100°

The louver can be adjusted by manual.



\* Angle can be different from each model and working mode

### Easy and Simple Control

Airflow direction can be changed by LG ThinQ Wi-Fi app.



### Jet Cool

LG air conditioners provide optimized high-speed airflow, which can cool rooms faster while delivering cool air evenly in every direction.

\* Specifications may vary for each model.
\* Depending on the experimental conditions

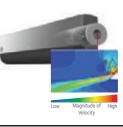
### One Click "Jet Mode"

Reduces the temperature of outflowing air to 18°C for 30 minutes with just one click.



### More Powerful Performance

By reducing the second vortex, which decreases airflow within the air outlet, and enlarging the fan size, the amount of air flow is increased to 13 CMM.



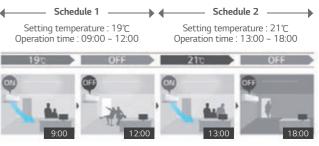
# **COMFORT**

### **Scheduled Operation**

You can set the daily temperature, fan speed, the operation mode and automatic on/off time for two weeks. It will keep running on that time until cancelled by the user or after setting period

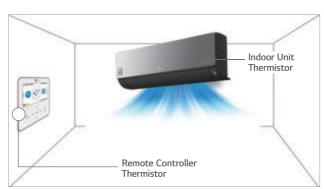
\* This function is for wired remote controller only.

\* Wired remote controller is need to be separately purchased



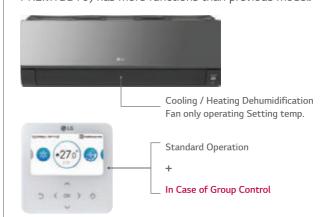
### Two Thermistors Control

The indoor temperature can be checked using the thermistors in the remote controller as well as from the indoor unit. There may be a significant difference between ceiling and floor air temperature. Two thermistors can optimise indoor air temperature for a more comfortable environment.



# **Group Control**

Group control by new remote controller (PREMTB100/ PREMTBB10) has more functions than previous model.



# **ARTCOOL MIRROR**



ARNU05GSJR4 / ARNU07GSJR4 / ARNU09GSJR4 ARNU12GSJR4 / ARNU15GSJR4

	Model	Unit	ARNU05GSJR4	ARNU07GSJR4	ARNU09GSJR4	ARNU12GSJR4	ARNU15GSJR4
Cooling Capa	city		1.6	2.2	2.8	3.6	4.5
Heating Capa	acity	kW	1.8	2.5	3.2	4.0	5.0
Power Input (H / M / L)			11 / 10 / 9	12 / 11 / 9	13 / 12 / 9	15 / 13 / 11	23 / 18 / 11
Exterior Colo	r		Mirror (Black)				
RAL Code			RAL 9005				
Dimensions	Body	mm	837 x 308 x 192				
$(W \times H \times D)$	Shipping	mm	909 x 383 x 256				
	Туре		Cross Flow Fan				
For	Motor Output x Number	W x No.	30 x 1				
Fan	Air Flow Rate (H / M / L)	m³/min	6.8 / 6.5 / 5.9	7.2 / 6.8 / 5.9	7.8 / 7.2 / 5.9	8.5 / 7.8 / 6.8	10.5 / 9.5 / 6.8
	Motor Type		BLDC	BLDC	BLDC	BLDC	BLDC
Air Filter			Pre Filter				
	Liquid Side	mm (inch)	Ø6.35 (1/4)				
Pipe Connections	Gas Side	mm (inch)	Ø12.7 (1/2)				
Connections	Drain Pipe (Internal Dia.)	mm (inch)	Ø16 (5/8)				
Weight	Body	kg	9.2	9.2	9.2	9.2	9.2
Sound Pressu	ıre Levels (H / M / L)	dB(A)	30 / 29 / 28	32 / 30 / 28	34 / 32 / 28	37 / 34 / 30	42 / 39 / 32
Sound Power	Levels (H / M / L)	dB(A)	54 / 53 / 52	54 / 53 / 52	55 / 54 / 52	55 / 54 / 53	58 / 56 / 54
Dower Supply		Ø V U-	1, 220 ~ 240, 50	1, 220 ~ 240, 50	1, 220 ~ 240, 50	1, 220 ~ 240, 50	1, 220 ~ 240, 50
Power Supply		Ø, V, Hz	1, 220, 60	1, 220, 60	1, 220, 60	1, 220, 60	1, 220, 60
Communicati	on Cable	mm² x No.	1.0 ~ 1.5 x 2C				

Note: 1. Performance tested under EN14511
2. Capacities are based on the following conditions
- Cooling: Indoor temp. 27°C (80.6°F) DB / 19°C (66.2°F) WB, Outdoor temp. 35°C (95°F) DB / 24°C (75.2°F) WB, Interconnecting piping length 7.5m, Level difference of zero
- Heating: Indoor temp. 20°C (68°F) DB / 15°C (59°F) WB, Outdoor temp. 7°C (44.6°F) DB / 6°C (42.8°F) WB, Interconnecting piping length 7.5m, Level difference of zero
3. Due to our policy of innovation, some specifications may be changed without notification

# Accessories

Chassis	ARNU05GSJR4	ARNU07GSJR4	ARNU09GSJR4	ARNU12GSJR4	ARNU15GSJR4	
Drain Pump	-					
Cassette Cover	-					
Refrigerant Leakage Detector			PRLDNVS0			
EEV Kit			PRGK024A0			
Independent Power Module			PRIP0			
Robot Cleaner			-			
Pre Filter (washable / anti-fungus)	0					
Ion Generator	0					
CO <sub>2</sub> Sensor			-			
Ventilation Kit			-			
IR Receiver			-			
Zone Controller			-			
Dry Contact (with additional accessory)	PDRYCB000 (1 point contact) PDRYCB300 (8 points for thermostat compatible) PDRYCB400 (2 points input) PDRYCB500 (Modbus)					
External Input (1 point)	0					
Wi-Fi			0			

※ ○ : Applied, - : Not applied Option : Refer to model name in table



ARNU18GSKR4 / ARNU24GSKR4

	Model	Unit	ARNU18GSKR4	ARNU24GSKR4
Cooling Capa	city		5.6	7.1
Heating Capa	city	kW	6.3	7.5
Power Input (H / M / L)	Nominal	W	32 / 26 / 16	39 / 26 / 16
Exterior Colo	r		Mirror (Black)	Mirror (Black)
RAL Code			RAL 9005	RAL 9005
Dimensions	Body	mm	998 x 345 x 212	998 x 345 x 212
$(W \times H \times D)$	Shipping	mm	1,080 x 422 x 281	1,080 x 422 x 281
	Туре		Cross Flow Fan	Cross Flow Fan
F	Motor Output x Number	W x No.	58 x 1	58 x 1
Air Flow Rate (H / M / L)	Air Flow Rate (H / M / L)	m³/min	14.0 / 12.0 / 10.5	15.2 / 12.7 / 10.5
	Motor Type		BLDC	BLDC
Air Filter			Pre Filter	Pre Filter
	Liquid Side	mm (inch)	Ø6.35 (1/4)	Ø9.52 (3/8)
Pipe Connections	Gas Side	mm (inch)	Ø12.7 (1/2)	Ø15.88 (5/8)
COMPCCHOILS	Drain Pipe (Internal Dia.)	mm (inch)	Ø16(5/8)	Ø16 (5/8)
Weight	Body	kg	13.4	13.4
Sound Pressu	re Levels (H / M / L)	dB(A)	43 / 39 / 34	46 / 41 / 34
Sound Power	Levels (H / M / L)	dB(A)	63 / 57 / 54	65 / 60 / 54
Dannar Comple		Ø V II-	1, 220 ~ 240, 50	1, 220 ~ 240, 50
Power Supply		Ø, V, Hz	1, 220, 60	1, 220, 60
Communicati	on Cable	mm² x No.	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C

Note: 1. Performance tested under EN14511
2. Capacities are based on the following conditions
- Cooling: Indoor temp. 27°C (80.6°F) DB / 19°C (66.2°F) WB, Outdoor temp. 35°C (95°F) DB / 24°C (75.2°F) WB, Interconnecting piping length 7.5m, Level difference of zero
- Heating: Indoor temp. 20°C (68°F) DB / 15°C (59°F) WB, Outdoor temp. 7°C (44.6°F) DB / 6°C (42.8°F) WB, Interconnecting piping length 7.5m, Level difference of zero
3. Due to our policy of innovation, some specifications may be changed without notification

### Accessories

Chassis	ARNU18GSKR4	ARNU24GSKR4		
Drain Pump		-		
Cassette Cover		-		
Refrigerant Leakage Detector	PRLE	DNVS0		
EEV Kit	PRGK	024A0		
Independent Power Module	PF	RIPO		
Robot Cleaner		-		
Pre Filter (washable / anti-fungus)		0		
Ion Generator	0			
CO <sub>2</sub> Sensor		-		
Ventilation Kit		-		
IR Receiver		-		
Zone Controller		-		
Dry Contact (with additional accessory)	PDRYCB000 (1 point contact) PDRYCB300 (8 points for thermostat compatible) PDRYCB400 (2 points input) PDRYCB500 (Modbus)			
External Input (1 point)	0			
Wi-Fi		0		

※ ○ : Applied, - : Not applied Option : Refer to model name in table

# **ARTCOOL GALLERY**



### ARNU07GSF14 / ARNU09GSF14 / ARNU12GSF14

	Model	Unit	ARNU07GSF14	ARNU09GSF14	ARNU12GSF14
Cooling Capa	city		2.2	2.8	3.6
Heating Capa	city	kW	2.5	3.2	4.0
Power Input (H / M / L)	Nominal	W	28 / 16 / 10	28 / 16 / 10	32 / 20 / 12
Dimensions	Body	mm	600 x 600 x 146	600 x 600 x 146	600 x 600 x 146
$(W \times H \times D)$	Shipping	mm	685 x 670 x 215	685 x 670 x 215	685 x 670 x 215
	Туре		Turbo Fan	Turbo Fan	Turbo Fan
F	Motor Output x Number	W x No.	30 x 1	30 x 1	30 x 1
Fan	Air Flow Rate (H / M / L)	m³/min	8.1 / 6.3 / 4.2	8.1 / 6.3 / 4.2	9.3 / 7.7 / 6.0
	Motor Type		BLDC	BLDC	BLDC
Air Filter			Pre Filter	Pre Filter	Pre Filter
	Liquid Side	mm (inch)	Ø6.35 (1/4)	Ø6.35 (1/4)	Ø6.35 (1/4)
Pipe Connections	Gas Side	mm (inch)	Ø12.7 (1/2)	Ø12.7 (1/2)	Ø12.7 (1/2)
	Drain Pipe (Internal Dia.)	mm (inch)	Ø12 (15/32)	Ø12 (15/32)	Ø12 (15/32)
Weight	Body	kg	15.0	15.0	15.0
Sound Pressu	re Levels (H / M / L)	dB(A)	38 / 32 / 27	38 / 32 / 27	44 / 38 / 32
Sound Power	Levels (H / M / L)	dB(A)	48 / 46 / 41	48 / 46 / 41	54 / 46 / 38
		Ø 1/11-	1, 220 ~ 240, 50	1, 220 ~ 240, 50	1, 220 ~ 240, 50
Power Supply		Ø, V, Hz	1, 220, 60	1, 220, 60	1, 220, 60
Communication	on Cable	mm² x No.	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C

- Note: 1. Performance tested under EN14511
  2. Capacities are based on the following conditions
   Cooling: Indoor temp. 27°C (80.6°F) DB / 19°C (66.2°F) WB, Outdoor temp. 35°C (95°F) DB / 24°C (75.2°F) WB, Interconnecting piping length 7.5m, Level difference of zero
   Heating: Indoor temp. 20°C (68°F) DB / 15°C (59°F) WB, Outdoor temp. 7°C (44.6°F) DB / 6°C (42.8°F) WB, Interconnecting piping length 7.5m, Level difference of zero
  3. Due to our policy of innovation, some specifications may be changed without notification

### Accessories

Chassis	ARNU07GSF14	ARNU09GSF14	ARNU12GSF14			
Drain Pump		-				
Cassette Cover	-					
Refrigerant Leakage Detector	PRLDNVS0					
EEV Kit		PRGK024A0				
Independent Power Module	PRIPO					
Robot Cleaner	-					
Pre Filter (washable / anti-fungus)	0					
Ion Generator						
CO <sub>2</sub> Sensor	-					
Ventilation Kit		-				
IR Receiver		-				
Zone Controller	-					
Dry Contact (with additional accessory)	PDRYCB000 (1 point contact) PDRYCB300 (8 points for thermostat compatible) PDRYCB400 (2 points input) PDRYCB500 (Modbus)					
External Input (1 point)	0					
Wi-Fi		PWFMDD200 <sup>1)</sup>				

O: Applied, -: Not applied
 Option: Refer to model name in table
 External installation only

# **STANDARD**



### ARNU05GSJ\*4 / ARNU07GSJ\*4 / ARNU09GSJ\*4 / ARNU12GSJ\*4 / ARNU15GSJ\*4

	Model	Unit	ARNU05GSJ*4	ARNU07GSJ*4	ARNU09GSJ*4	ARNU12GSJ*4	ARNU15GSJ*4
Cooling Capac	city		1.6	2.2	2.8	3.6	4.5
Heating Capa	city	kW	1.8	2.5	3.2	4.0	5.0
Power Input (H / M / L)			11 / 10 / 9	12 / 11 / 9	13 / 12 / 9	15 / 13 / 11	23 / 18 / 11
Exterior Color	•		White	White	White	White	White
RAL Code			RAL 9016				
Dimensions	Body	mm	818 x 316 x 189				
$(W \times H \times D)$	Shipping	mm	892 x 381 x 249				
	Туре		Cross Flow Fan				
Fan	Motor Output x Number	W x No.	30 x 1				
rdii	Air Flow Rate (H / M / L)	m³/min	6.8 / 6.5 / 5.9	7.2 / 6.8 / 5.9	7.8 / 7.2 / 5.9	8.5 / 7.8 / 6.8	10.5 / 9.5 / 6.8
	Motor Type		BLDC	BLDC	BLDC	BLDC	BLDC
Air Filter			Pre Filter				
	Liquid Side	mm (inch)	Ø6.35 (1/4)				
Pipe Connections	Gas Side	mm (inch)	Ø12.7 (1/2)				
	Drain Pipe (Internal Dia.)	mm (inch)	Ø16 (5/8)				
Weight	Body	kg	8.4	8.4	8.4	8.4	8.4
Sound Pressu	re Levels (H / M / L)	dB(A)	30 / 29 / 28	32 / 30 / 28	34 / 32 / 28	37 / 34 / 30	42 / 39 / 32
Sound Power	Levels (H / M / L)	dB(A)	54 / 53 / 52	54 / 53 / 52	55 / 54 / 52	55 / 54 / 53	58 / 56 / 54
Dower Sund		Ø V U-	1, 220 ~ 240, 50	1, 220 ~ 240, 50	1, 220 ~ 240, 50	1, 220 ~ 240, 50	1, 220 ~ 240, 50
Power Supply		Ø, V, Hz	1, 220, 60	1, 220, 60	1, 220, 60	1, 220, 60	1, 220, 60
Communication	on Cable	mm² x No.	1.0 ~ 1.5 x 2C				

<sup>\*:</sup> N or C can be applied which has little bit different shape of panel. Note: 1. Performance tested under EN14511

- 2. Capacities are based on the following conditions
   Cooling: Indoor temp. 27°C (80.6°F) DB / 19°C (66.2°F) WB, Outdoor temp. 35°C (95°F) DB / 24°C (75.2°F) WB, Interconnecting piping length 7.5m, Level difference of zero
   Heating: Indoor temp. 20°C (68°F) DB / 15°C (59°F) WB, Outdoor temp. 7°C (44.6°F) DB / 6°C (42.8°F) WB, Interconnecting piping length 7.5m, Level difference of zero
  3. Due to our policy of innovation, some specifications may be changed without notification

### Accessories

Chassis	ARNU05GSJ*4	ARNU07GSJ*4	ARNU09GSJ*4	ARNU12GSJ*4	ARNU15GSJ*4			
Drain Pump			-					
Cassette Cover			-					
Refrigerant Leakage Detector		PRLDNVS0						
EEV Kit			PRGK024A0					
Independent Power Module		PRIPO						
Robot Cleaner		-						
Pre Filter (washable / anti-fungus)			0					
Ion Generator	0							
CO <sub>2</sub> Sensor			-					
Ventilation Kit			-					
IR Receiver			-					
Zone Controller			-					
Dry Contact (with additional accessory)	PDRYCB000 (1 point contact) PDRYCB300 (8 points for thermostat compatible) PDRYCB400 (2 points input) PDRYCB500 (Modbus)							
External Input (1 point)	0							
Wi-Fi		<u> </u>	0					

<sup>※ ○ :</sup> Applied, - : Not applied Option : Refer to model name in table

# **STANDARD**



### ARNU18GSK\*4 / ARNU24GSK\*4

	Model	Unit	ARNU18GSK*4	ARNU24GSK*4
Cooling Capa	city		5.6	7.1
Heating Capa	icity	kW	6.3	7.5
Power Input (H / M / L)			32 / 26 / 16	39 / 26 / 16
Exterior Colo	r		White	White
RAL Code			RAL 9016	RAL 9016
Dimensions	Body	mm	975 x 354 x 209	975 x 354 x 209
$(W \times H \times D)$	Shipping		1,063 x 420 x 274	1,063 x 420 x 274
	Туре		Cross Flow Fan	Cross Flow Fan
Fan	Motor Output x Number	W x No.	58 x 1	58 x 1
ran	Air Flow Rate (H / M / L)	m³/min	14.0 / 12.0 / 10.5	15.2 / 12.7 / 10.5
	Motor Type		BLDC	BLDC
Air Filter			Pre Filter	Pre Filter
	Liquid Side	mm (inch)	Ø6.35 (1/4)	Ø9.52 (3/8)
Pipe Connections	Gas Side	mm (inch)	Ø12.7 (1/2)	Ø15.88 (5/8)
Connections	Drain Pipe (Internal Dia.)	mm (inch)	Ø16 (5/8)	Ø16 (5/8)
Weight	Body	kg	12.2	12.2
Sound Pressu	ire Levels (H / M / L)	dB(A)	43 / 39 / 34	46 / 41 / 34
Sound Power	Levels (H / M / L)	dB(A)	63 / 57 / 54	65 / 60 / 54
Davier Cuanh		Ø \/      -	1, 220 ~ 240, 50	1, 220 ~ 240, 50
Power Supply		Ø, V, Hz	1, 220, 60	1, 220, 60
Communicati	on Cable	mm² x No.	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C

 $<sup>^{\</sup>star}$  : N or C can be applied which has little bit different shape of panel. Note : 1. Performance tested under EN14511

### ARNU30GSVA4 / ARNU36GSVA4

	Model	Unit	ARNU30GSVA4	ARNU36GSVA4
Cooling Capa	city	kW	8.8	10.4
Heating Capa	city	kW	9.4	10.8
Power Input (H / M / L)			54 / 43 / 31	85 / 51 / 36
Exterior Colo	r		White	White
RAL Code			RAL 9016	RAL 9016
Dimensions	Body	mm	1,190 x 346 x 265	1,190 x 346 x 265
$(W \times H \times D)$	Shipping	mm	1,265 x 432 x 335	1,265 x 432 x 335
	Туре		Cross Flow Fan	Cross Flow Fan
Fan	Motor Output x Number	W x No.	113 x 1	113 x 1
ran	Air Flow Rate (H / M / L)	m³/min	23.0 / 20.0 / 17.0	26.0 / 23.0 / 19.0
	Motor Type		BLDC	BLDC
Air Filter			Pre Filter	Pre Filter
	Liquid Side	mm (inch)	Ø9.52 (3/8)	Ø9.52 (3/8)
Pipe Connections	Gas Side	mm (inch)	Ø15.88 (5/8)	Ø15.88 (5/8)
COMMECCIONS	Drain Pipe (Internal Dia.)	mm (inch)	Ø16 (5/8)	Ø16 (5/8)
Weight	Body	kg	16.6	16.6
Sound Pressu	re Levels (H / M / L)	dB(A)	49 / 44 / 42	52 / 47 / 43
		a.v	1, 220 ~ 240, 50	1, 220 ~ 240, 50
Power Supply		Ø, V, Hz	1, 220, 60	1, 220, 60
Communication	on Cable	mm² x No.	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C

Note: 1. Performance tested under EN14511

### Accessories

Chassis	ARNU18GSK*4	ARNU24GSK*4		
Drain Pump		-		
Cassette Cover		-		
Refrigerant Leakage Detector	PRLD	NVS0		
EEV Kit	PRGK024A0			
Independent Power Module	PRIPO PRIPO			
Robot Cleaner	-			
Pre Filter (washable / anti-fungus)		)		
Ion Generator	0			
CO <sub>2</sub> Sensor		-		
Ventilation Kit		-		
IR Receiver		-		
Zone Controller				
Dry Contact (with additional accessory)	PDRYCB000 (1 point contact) PDRYCB300 (8 points for thermostat compatible) PDRYCB400 (2 points input) PDRYCB500 (Modbus)			
External Input (1 point)		)		
Wi-Fi				

<sup>※ ○ :</sup> Applied, - : Not applied Option : Refer to model name in table

### Accessories

Chassis	ARNU30GSVA4	ARNU36GSVA4			
Drain Pump		-			
Cassette Cover		-			
Refrigerant Leakage Detector	PRLD	NVS0			
EEV Kit	-				
Independent Power Module	PRIPO				
Robot Cleaner	-				
Pre Filter (washable / anti-fungus)	0				
Ion Generator		-			
CO <sub>2</sub> Sensor					
Ventilation Kit		-			
IR Receiver		-			
Zone Controller					
Dry Contact (with additional accessory)	PDRYCB000 (1 point contact) PDRYCB300 (8 points for thermostat compatible) PDRYCB400 (2 points input) PDRYCB500 (Modbus)				
External Input (1 point)	0				
Wi-Fi	PWFMI	DD200 <sup>1)</sup>			

<sup>2.</sup> Capacities are based on the following conditions
- Cooling: Indoor temp. 27°C (80.6°F) DB / 19°C (66.2°F) WB, Outdoor temp. 35°C (95°F) DB / 24°C (75.2°F) WB, Interconnecting piping length 7.5m, Level difference of zero
- Heating: Indoor temp. 20°C (68°F) DB / 15°C (59°F) WB, Outdoor temp. 7°C (44.6°F) DB / 6°C (42.8°F) WB, Interconnecting piping length 7.5m, Level difference of zero
3. Due to our policy of innovation, some specifications may be changed without notification

<sup>2.</sup> Capacities are based on the following conditions

- Cooling: Indoor temp. 27°C (80.6°F) DB / 19°C (66.2°F) WB, Outdoor temp. 35°C (95°F) DB / 24°C (75.2°F) WB, Interconnecting piping length 7.5m, Level difference of zero

- Heating: Indoor temp. 20°C (68°F) DB / 15°C (59°F) WB, Outdoor temp. 7°C (44.6°F) DB / 6°C (42.8°F) WB, Interconnecting piping length 7.5m, Level difference of zero

3. Due to our policy of innovation, some specifications may be changed without notification

O: Applied, -: Not applied
 Option: Refer to model name in table
 External installation only



### **Features & Benefits**

- Human Detection Control allows energy saving & comfort through "wind direction operation"
- New multi-functional 4 way cassette panel for large sizes with aesthetic shape
- The Independent Vane Operation makes desired and comfortable flow

### **Key Applications**

- Retail
- School
- Office
- Hotel
- Dormitory
- Restaurant

	Cassette	4 Way	2 Way	1 Way
Smart	Wi-Fi	0	0	0
Energy Efficiency	Human Detect Sensor	0	-	-
Health	Auto Cleaning	-	0	-
	Drain Pump	0	0	0
	Sleep Mode	0	0	0
Comfort	Timer (on / off)	eaning - O O O O O O O O O O O O O O O O O O	0	
Cominic	Timer (weekly)	0	0	0
	Two Thermistor Control	0	0	0
	Group Control	0	0	0

※ ○ : Applied, - : Not applied

# **SMART**

### Wi-Fi Control

Control your air conditioners by using the smart internet devices as Android or iOS based smartphones.



### LG SmartThinQ

Search "LG SmartThinQ" on Google market or Appstore LG Smart ThinQ then download the app.

### Access your air conditioner anytime and from anywhere



### Easy Registration and Log-in

Follow the easy set-up steps that will activate SmartThinQ's impressive feature.



### Wi-Fi Connectivity

Allows every member of your family choose their own preferred air conditioning temperature and fan speed, then save the settings in their app to run later. You can save the setting for each air conditioner as well.

### Multiple Devices

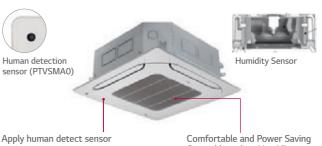


### Multi-Control



# **ENERGY EFFICIENCY**

# **Human Detect Sensor & Humidity Sensor**



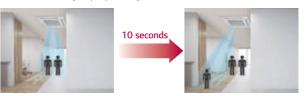
- · Supply comfortable flow
- Sensor is optional accessory than can only be applied to PT-MCHW0

### Control based on Humidity Apply humidity sensor

- (To apply humidity sensor, new remote controller, PREMTB100 or PREMTBB10 is needed)

### Direction control based on human motion

Air flow direction is controlled automatically by motion sensor that detects the activity of people every 10 seconds.



### Detection range



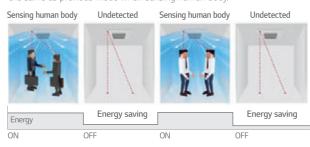
Height 3.2 (15 x 8m)



90° rotation 12 x 6m  $\rightarrow$  6 x 12m detecting

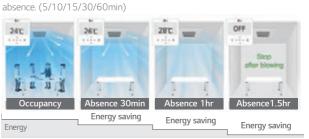
### On/Off mode

The indoor unit automatically stops when detecting absence. It runs as the same as previous mode when sensing human body.



### Temperature control mode

Energy savings by automatically setting target temperature during



# PERFECT HEALTHCARE

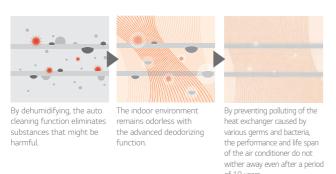
### **Auto Cleaning**

The interior of the air conditioner is maintained clean by drying off the heat exchanger, then sterilizing the interior once more

\* Specifications may vary for each model.

### Cleans Filter with Regular Airflow

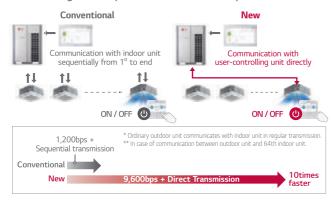
The comprehensive auto cleaning function prevents the formation of bacteria and mold on the heat exchanger, providing an enhancing environment.



# **COMFORT**

### **Quick Control**

4th Generation indoor unit offers rapid heating and cooling about 10times faster than conventional through communication mode change and improved communication speed.



# **Group Control**

In case of group control, user can control much more function than conventional



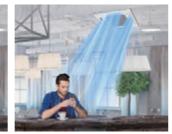
# **COMFORT**

### Independent Vane Control

The Independent Vane Operation feature uses separate motors, making it possible to control all four vanes independently.

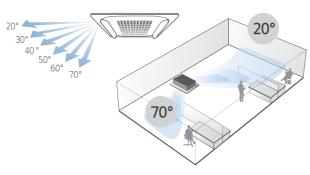
Indirect air flow Direct air flow

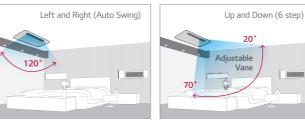




### 6-Step Vane Control

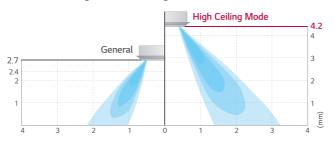
The Independent Vane Operation feature uses separate motors, making it possible to control all four vanes independently. There are 6 different steps to control air flow direction. Also 1 way cassette has a vane able to execute auto swing between left and right as 120 degree.





# **High Ceiling Mode**

High ceiling mode provides powerful cooling and heating up to 4.2m in height, from ceiling to floor.



# **INSTALLATION**

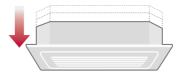
### Compact and Stylish Design

New 4 way cassette panel is adapted unibody shape which is matching ceiling. Also panel size fits with ceiling tile.



### **Compact Size**

The indoor unit with slim and compact dimensions has reduced the restriction which enables successful installation in various spaces.

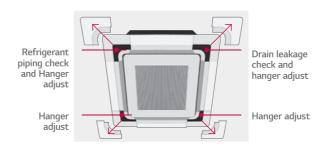


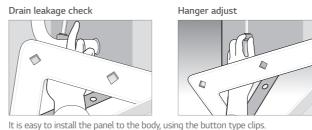
Capacity	Height
7.1 ~ 9.0kW	204mm
10.6kW	246mm
12.3 ~ 15.8kW	288mm
* Length x Width : 8	840 x 840mm

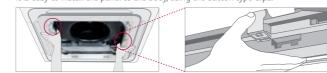
### **Convenient Panel Installation**

The detachable corner design makes it easy to adjust the hanger during installation and to check for leakages in the drain connection pipe.

Detachable Corner Design

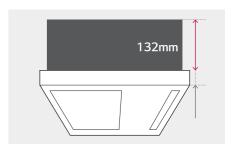






### Minimized Height

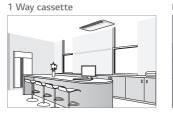
LG 1 Way cassette isn't affected by installation environment. LG 1 Way cassette height is 132mm, so it can provide ideal solution for installation in limited space.

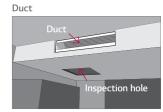


Size Comparison			(Unit:mm)
	A Company	B Company	LG
1 Way Cassette	215	230	132

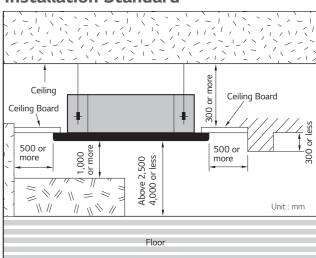
### Flexible Installation

1 way cassette doesn't require the inspection access hole, so that simple installation is possible.





### **Installation Standard**



# 4 WAY CASSETTE (570 X 570)



### ARNU05GTRD4 / ARNU07GTRD4 / ARNU09GTRD4 / ARNU12GTRD4 ARNU15GTQD4 / ARNU18GTQD4 / ARNU21GTQD4

	Model	Unit	ARNU05GTRD4	ARNU07GTRD4	ARNU09GTRD4	ARNU12GTRD4	ARNU15GTQD4	ARNU18GTQD4	ARNU21GTQD4
Cooling Capac	city		1.6	2.2	2.8	3.6	4.5	5.6	6.0
Heating Capa	city	kW	1.8	2.5	3.2	4.0	5.0	6.3	6.8
Power Input (H / M / L)			13/12/11	13 / 12 / 11	14 / 13 / 12	17 / 15 / 13	24 / 21 / 18	25 / 22 / 19	28 / 23 / 20
Dimensions	Body	mm	570 x 214 x 570	570 x 256 x 570	570 x 256 x 570	570 x 256 x 570			
$(W \times H \times D)$	Shipping		667 x 285 x 646	667 x 327 x 646	667 x 327 x 646	667 x 327 x 646			
	Туре		Turbo Fan						
Fan	Motor Output x Number	W	43 x 1						
Fall	Air Flow Rate (H / M / L)	m³/min	7.5 / 7.0 / 6.6	7.5 / 7.0 / 6.6	8.0 / 7.5 / 7.1	8.7 / 8.0 / 7.0	11.0 / 10.0 / 9.3	11.2 / 11.0 / 10.0	12.0 / 11.1 / 9.4
	Motor Type		BLDC						
Air Filter			Pre Filter						
	Liquid Side	mm (inch)	Ø6.35 (1/4)	Ø9.52 (3/8)					
Pipe Connections	Gas Side	mm (inch)	Ø12.7 (1/2)	Ø15.88 (5/8)					
Connections	Drain Pipe (Internal Dia.)	mm (inch)	Ø25 (1)						
Weight	Body	kg	12.6	12.6	13.7	13.7	15.0	15.0	15.0
Sound Pressure	Levels (H / M / L)	dB(A)	29 / 27 / 26	29 / 27 / 26	30 / 29 / 27	32 / 30 / 27	36 / 34 / 32	37 / 35 / 34	40 / 38 / 34
Sound Power L	evels (H / M / L)	dB(A)	45 / 43 / 42	45 / 43 / 42	46 / 43 / 42	48 / 46 / 43	50 / 48 / 46	51 / 50 / 46	53 / 51 / 46
D C l		Ø 1/ 11-	1, 220 ~ 240, 50	1, 220 ~ 240, 50	1, 220 ~ 240, 50	1, 220 ~ 240, 50	1, 220 ~ 240, 50	1, 220 ~ 240, 50	1, 220 ~ 240, 50
Power Supply		Ø, V, Hz	1, 220, 60	1, 220, 60	1, 220, 60	1, 220, 60	1, 220, 60	1, 220, 60	1, 220, 60
Communication	n Cable	mm² x No.	1.0 ~ 1.5 x 2C						
Decoration Panel	Model Name		PT-UQC PT-QCHW0						
	Exterior Color		Morning Fog						
	RAL Code		RAL 9001						
(Accessory)	Net Dimensions (W x H x D)		700 x 22 x700 620 x 20 x 620	700 x 22 x700 620 x 20 x 620	700 x 22 x700 620 x 20 x 620	700 x 22 x700 620 x 20 x 620	700 x 22 x700 620 x 20 x 620	700 x 22 x700 620 x 20 x 620	700 x 22 x700 620 x 20 x 620
	Net Weight	kg	3.0 / 3.0	3.0 / 3.0	3.0 / 3.0	3.0 / 3.0	3.0 / 3.0	3.0 / 3.0	3.0 / 3.0

Note: 1. Performance tested under EN14511

- 2. Capacities are based on the following conditions

   Cooling: Indoor temp. 27°C (80.6°F) DB / 19°C (66.2°F) WB, Outdoor temp. 35°C (95°F) DB / 24°C (75.2°F) WB, Interconnecting piping length 7.5m, Level difference of zero

   Heating: Indoor temp. 20°C (68°F) DB / 15°C (59°F) WB, Outdoor temp. 7°C (44.6°F) DB / 6°C (42.8°F) WB, Interconnecting piping length 7.5m, Level difference of zero

  3. Due to our policy of innovation, some specifications may be changed without notification

### Accessories

Chassis	ARNU05GTRD4 ARNU07GTRD4 ARNU09GTRD4 ARNU12GTRD4 ARNU15GTQD4 ARNU18GTQD4 ARNU21GTQD4
Drain Pump	0
Cassette Cover	PTDCQ
Refrigerant Leakage Detector	PRLDNVS0
EEV Kit	PRGK024A0 (~4.5kW)
Independent Power Module	PRIPO PRIPO
Robot Cleaner	
Pre Filter (washable / anti-fungus)	0
lon Generator	
CO <sub>2</sub> Sensor	
Ventilation Kit	PTVK430
IR Receiver	
Zone Controller	
Dry Contact (with additional accessory)	PDRYCB000 (1 point contact) PDRYCB300 (8 points for thermostat compatible) PDRYCB400 (2 points input) PDRYCB501 (Modbus)
External Input (1 point)	0
Wi-Fi	PWFMDD200

※ ○ : Applied, - : Not applied Option : Refer to model name in table



### ARNU05GTRC4 / ARNU07GTRC4 / ARNU09GTRC4 / ARNU12GTRC4 ARNU15GTQC4 / ARNU18GTQC4 / ARNU21GTQC4

	Model	Unit	ARNU05GTRC4	ARNU07GTRC4	ARNU09GTRC4	ARNU12GTRC4	ARNU15GTOC4	ARNU18GTQC4	ARNU21GTOC4
Cooling Capa		kW	1.6	2.2	2.8	3.6	4.5	5.6	6.0
Heating Capa		kW	1.8	2.5	3.2	4.0	5.0	6.3	6.8
Power Input (H / M / L)			13 / 12 / 11	13 / 12 / 11	14 / 13 / 12	17 / 15 / 13	24 / 21 / 18	25 / 22 / 19	28 / 23 / 20
Dimensions	Body	mm	570 x 214 x 570	570 x 214 x 570	570 x 214 x 570	570 x 214 x 570	570 x 256 x 570	570 x 256 x 570	570 x 256 x 570
$(W \times H \times D)$	Shipping	mm	667 x 285 x 646	667 x 285 x 646	667 x 285 x 646	667 x 285 x 646	667 x 327 x 646	667 x 327 x 646	667 x 327 x 646
	Туре		Turbo Fan	Turbo Fan	Turbo Fan	Turbo Fan	Turbo Fan	Turbo Fan	Turbo Fan
	Motor Output x Number	W	43 x 1	43 x 1	43 x 1	43 x 1	43 x 1	43 x 1	43 x 1
	Air Flow Rate (H / M / L)	m³/min	7.5 / 7.0 / 6.6	7.5 / 7.0 / 6.6	8.0 / 7.5 / 7.1	8.7 / 8.0 / 7.0	11.0 / 10.0 / 9.3	11.2 / 11.0 / 10.0	12.0 / 11.1 / 9.4
	Motor Type		BLDC	BLDC	BLDC	BLDC	BLDC	BLDC	BLDC
Air Filter			Pre Filter	Pre Filter	Pre Filter	Pre Filter	Pre Filter	Pre Filter	Pre Filter
	Liquid Side	mm (inch)	Ø6.35 (1/4)	Ø6.35 (1/4)	Ø6.35 (1/4)	Ø6.35 (1/4)	Ø6.35 (1/4)	Ø6.35 (1/4)	Ø9.52 (3/8)
Pipe Connections	Gas Side	mm (inch)	Ø12.7 (1/2)	Ø12.7 (1/2)	Ø12.7 (1/2)	Ø12.7 (1/2)	Ø12.7 (1/2)	Ø12.7 (1/2)	Ø15.88 (5/8)
	Drain Pipe (Internal Dia.)	mm (inch)	Ø25 (1)	Ø25 (1)	Ø25 (1)	Ø25 (1)	Ø25 (1)	Ø25 (1)	Ø25 (1)
Weight	Body	kg	12.6	12.6	13.7	13.7	15.0	15.0	15.0
Sound Pressure	e Levels (H / M / L)	dB(A)	29 / 27 / 26	29 / 27 / 26	30 / 29 / 27	32 / 30 / 27	36 / 34 / 32	37 / 35 / 34	40 / 38 / 34
Sound Power L	evels (H / M / L)	dB(A)	45 / 43 / 42	45 / 43 / 42	46 / 43 / 42	48 / 46 / 43	50 / 48 / 46	51 / 50 / 46	53 / 51 / 46
			1, 220 ~ 240, 50	1, 220 ~ 240, 50	1, 220 ~ 240, 50	1, 220 ~ 240, 50	1, 220 ~ 240, 50	1, 220 ~ 240, 50	1, 220 ~ 240, 50
Power Supply		Ø, V, Hz	1, 220, 60	1, 220, 60	1, 220, 60	1, 220, 60	1, 220, 60	1, 220, 60	1, 220, 60
Communication	ı Cable	mm² x No.	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C
	Model Name		PT-UQC PT-QCHW0	PT-UQC PT-QCHW0	PT-UQC PT-QCHW0	PT-UQC PT-QCHW0	PT-UQC PT-QCHW0	PT-UQC PT-QCHW0	PT-UQC PT-QCHW0
Decoration	Exterior Color		Morning Fog	Morning Fog	Morning Fog	Morning Fog	Morning Fog	Morning Fog	Morning Fog
Panel	RAL Code		RAL 9001	RAL 9001	RAL 9001	RAL 9001	RAL 9001	RAL 9001	RAL 9001
(Accessory)	Net Dimensions (W x H x D)			700 x 22 x700 620 x 20 x 620				700 x 22 x700 620 x 20 x 620	700 x 22 x700 620 x 20 x 620
	Net Weight		3.0 / 3.0	3.0 / 3.0	3.0 / 3.0	3.0 / 3.0	3.0 / 3.0	3.0 / 3.0	3.0 / 3.0

Note: 1. Performance tested under EN14511

- 2. Capacities are based on the following conditions

   Cooling: Indoor temp. 27°C (80.6°F) DB / 19°C (66.2°F) WB, Outdoor temp. 35°C (95°F) DB / 24°C (75.2°F) WB, Interconnecting piping length 7.5m, Level difference of zero

   Heating: Indoor temp. 20°C (68°F) DB / 15°C (59°F) WB, Outdoor temp. 7°C (44.6°F) DB / 6°C (42.8°F) WB, Interconnecting piping length 7.5m, Level difference of zero

  3. Due to our policy of innovation, some specifications may be changed without notification

### Accessories

Chassis	ARNU05GTRC4 ARNU07GTRC4 ARNU09GTRC4 ARNU12GTRC4 ARNU15GTQC4 ARNU18GTQC4 ARNU21GTQC4
Drain Pump	0
Cassette Cover	PTDCQ
Refrigerant Leakage Detector	PRLDNVS0
EEV Kit	PRGK024A0 (~4.5kW)
Independent Power Module	PRIPO
Robot Cleaner	-
Pre Filter (washable / anti-fungus)	0
Ion Generator	-
CO <sub>2</sub> Sensor	-
Ventilation Kit	PTVK430
IR Receiver	-
Zone Controller	-
Dry Contact (with additional accessory)	PDRYCB000 (1 point contact) PDRYCB300 (8 points for thermostat compatible) PDRYCB400 (2 points input) PDRYCB500 (Modbus)
External Input (1 point)	0
Wi-Fi	-

※ O : Applied, - : Not applied
Option : Refer to model name in table

# 4 WAY CASSETTE (840 X 840)



### ARNU24GTPC4 / ARNU28GTPC4 / ARNU30GTPC4 / ARNU36GTNC4

	Model	Unit	ARNU24GTPC4	ARNU28GTPC4	ARNU30GTPC4	ARNU36GTNC4
Cooling Capa	city		7.1	8.2	9.0	10.6
Heating Capa	city	kW	8.0	9.2	10.0	11.9
Power Input (H / M / L)			31 / 26 / 23	40 / 31 / 25	40 / 34 / 27	70 / 53 / 43
Dimensions	Body	mm	840 x 204 x 840	840 x 204 x 840	840 x 204 x 840	840 x 246 x 840
$(W \times H \times D)$	Shipping	mm	922 x 276 x 917	922 x 276 x 917	922 x 276 x 917	922 x 318 x 917
	Туре		Turbo Fan	Turbo Fan	Turbo Fan	Turbo Fan
	Motor Output x Number	W	30 x 1	30 x 1	30 x 1	135 x 1
Fan	Air Flow Rate (H / M / L)	m³/min	17.0 / 15.0 / 13.0	19.0 / 16.0 / 14.0	24.3 / 22.8 / 19.5	25.0 / 21.0 / 19.0
	Motor Type		BLDC	BLDC	BLDC	BLDC
Air Filter			Pre Filter	Pre Filter	Pre Filter	Pre Filter
	Liquid Side	mm (inch)	Ø9.52 (3/8)	Ø9.52 (3/8)	Ø9.52 (3/8)	Ø9.52 (3/8)
Pipe Connections	Gas Side	mm (inch)	Ø15.88 (5/8)	Ø15.88 (5/8)	Ø15.88 (5/8)	Ø15.88 (5/8)
	Drain Pipe (Internal Dia.)	mm (inch)	Ø25 (1)	Ø25 (1)	Ø25 (1)	Ø25 (1)
Weight	Body	kg	20.8	20.8	20.8	23.5
Sound Pressure	e Levels (H / M / L)	dB(A)	36 / 34 / 31	39 / 35 / 33	40 / 36 / 33	43 / 40 / 37
Sound Power L	evels (H / M / L)	dB(A)	46 / 44 / 43	52 / 46 / 44	58 / 57 / 54	56 / 53 / 51
		G VIII-	1, 220 ~ 240, 50	1, 220 ~ 240, 50	1, 220 ~ 240, 50	1, 220 ~ 240, 50
Power Supply		Ø, V, Hz	1, 220, 60	1, 220, 60	1, 220, 60	1, 220, 60
Communication	n Cable	mm² x No.	1.0 ~ 1.5 x 2C			
	Model Name		PT-UMC1 PT-MCHW0	PT-UMC1 PT-MCHW0	PT-UMC1 PT-MCHW0	PT-UMC1 PT-MCHW0
Decoration	Exterior Color		Morning Fog	Morning Fog	Morning Fog	Morning Fog
Panel	RAL Code		RAL 9001	RAL 9001	RAL 9001	RAL 9001
(Accessory)	Net Dimensions (W x H x D)		950 x 25 x 950 950 x 35 x 950	950 x 25 x 950 950 x 35 x 950	950 x 25 x 950 950 x 35 x 950	950 x 25 x 950 950 x 35 x 950
	Net Weight	kg	5.0 / 6.3	5.0 / 6.3	5.0 / 6.3	5.0 / 6.3

Note: 1. Performance tested under EN14511

- 2. Capacities are based on the following conditions

   Cooling: Indoor temp. 27°C (80.6°F) DB / 19°C (66.2°F) WB, Outdoor temp. 35°C (95°F) DB / 24°C (75.2°F) WB, Interconnecting piping length 7.5m, Level difference of zero

   Heating: Indoor temp. 20°C (68°F) DB / 15°C (59°F) WB, Outdoor temp. 7°C (44.6°F) DB / 6°C (42.8°F) WB, Interconnecting piping length 7.5m, Level difference of zero

  3. Due to our policy of innovation, some specifications may be changed without notification

### Accessories

Chassis	ARNU24GTPC4	ARNU28GTPC4	ARNU30GTPC4	ARNU36GTNC4		
Drain Pump	0					
Cassette Cover		PTI	DCM			
Refrigerant Leakage Detector		PRLD	NVS0			
EEV Kit			-			
Independent Power Module		PF	RIPO			
Robot Cleaner			-			
Pre Filter (washable / anti-fungus)			0			
Ion Generator			-			
CO <sub>2</sub> Sensor			-			
Ventilation Kit		PTV	K430			
IR Receiver			-			
Zone Controller			-			
Dry Contact (with additional accessory)	PDRYCB000 (1 point contact) PDRYCB300 (8 points for thermostat compatible) PDRYCB400 (2 points input) PDRYCB502 (Modbus)					
External Input (1 point)			0			
Wi-Fi		PWFN	1DD200			

<sup>※ ○ :</sup> Applied, - : Not applied Option : Refer to model name in table



### ARNU42GTM / C4ARNU48GTMC4 / ARNU54GTMC4

	Model	Unit	ARNU42GTMC4	ARNU48GTMC4	ARNU54GTMC4
Cooling Capa	city	kW	12.3	14.1	15.8
Heating Capa	acity	kW	13.8	15.9	18.0
Power Input (H / M / L)		W	104 / 75 / 53	120 / 80 / 62	135 / 93 / 70
Dimensions	Body	mm	840 x 288 x 840	840 x 288 x 840	840 x 288 x 840
$(W \times H \times D)$	Shipping	mm	922 x 360 x 917	922 x 360 x 917	922 x 360 x 917
	Туре		Turbo Fan	Turbo Fan	Turbo Fan
Fan	Motor Output x Number	W	135 x 1	135 x 1	135 x 1
FdII	Air Flow Rate (H / M / L)	m³/min	30.0 / 27.0 / 24.0	31.0 / 29.0 / 27.0	34.0 / 32.0 / 27.0
	Motor Type		BLDC	BLDC	BLDC
Air Filter			Pre Filter	Pre Filter	Pre Filter
	Liquid Side	mm (inch)	Ø9.52 (3/8)	Ø9.52 (3/8)	Ø9.52 (3/8)
Pipe Connections	Gas Side	mm (inch)	Ø15.88 (5/8)	Ø15.88 (5/8)	Ø15.88 (5/8)
	Drain Pipe (Internal Dia.)	mm (inch)	Ø25 (1)	Ø25 (1)	Ø25 (1)
Weight	Body	kg	25.6	25.6	26.5
Sound Pressur	e Levels (H / M / L)	dB(A)	44 / 41 / 38	46 / 43 / 41	50 / 48 / 44
Sound Power l	Levels (H / M / L)	dB(A)	58 / 55 / 50	60 / 56 / 55	60 / 58 / 55
		G V III-	1, 220 ~ 240, 50	1, 220 ~ 240, 50	1, 220 ~ 240, 50
Power Supply		Ø, V, Hz	1, 220, 60	1, 220, 60	1, 220, 60
Communicatio	n Cable	mm² x No.	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C
	Model Name		PT-UMC1 PT-MCHW0	PT-UMC1 PT-MCHW0	PT-UMC1 PT-MCHW0
Decoration	Exterior Color		Morning Fog	Morning Fog	Morning Fog
Panel	RAL Code		RAL 9001	RAL 9001	RAL 9001
(Accessory)	Net Dimensions (W x H x D)	mm	950 x 25 x 950 950 x 35 x 950	950 x 25 x 950 9 50 x 35 x 950	950 x 25 x 950 950 x 35 x 950
	Net Weight	kg	5.0 / 6.3	5.0 / 6.3	5.0 / 6.3

Note: 1. Performance tested under EN14511

2. Capacities are based on the following conditions

- Cooling: Indoor temp. 27°C (80.6°F) DB / 19°C (66.2°F) WB, Outdoor temp. 35°C (95°F) DB / 24°C (75.2°F) WB, Interconnecting piping length 7.5m, Level difference of zero

- Heating: Indoor temp. 20°C (68°F) DB / 15°C (59°F) WB, Outdoor temp. 7°C (44.6°F) DB / 6°C (42.8°F) WB, Interconnecting piping length 7.5m, Level difference of zero

3. Due to our policy of innovation, some specifications may be changed without notification

### Accessories

Chassis	ARNU42GTMC4	ARNU48GTMC4	ARNU54GTMC4			
Drain Pump	0					
Cassette Cover		PTDCM				
Refrigerant Leakage Detector		PRLDNVS0				
EEV Kit		-				
Independent Power Module		PRIP0				
Robot Cleaner		-				
Pre Filter (washable / anti-fungus)		0				
Ion Generator	-					
CO <sub>2</sub> Sensor		-				
Ventilation Kit		PTVK430				
IR Receiver		-				
Zone Controller		-				
Dry Contact (with additional accessory)	PDRYCB000 (1 point contact) PDRYCB300 (8 points for thermostat compatible) PDRYCB400 (2 points input) PDRYCB502 (Modbus)					
External Input (1 point)	0					
Wi-Fi		PWFMDD200				

※ O : Applied, - : Not applied
Option : Refer to model name in table

# 4 WAY CASSETTE HIGH SENSIBLE (840 X 840)



### ARNU07GTNA4 / ARNU09GTNA4 / ARNU12GTNA4 ARNU15GTNA4 / ARNU18GTNA4

	Model	Unit	ARNU07GTNA4	ARNU09GTNA4	ARNU12GTNA4	ARNU15GTNA4	ARNU18GTNA4
Cooling Capa	city		2.2	2.8	3.6	4.5	5.6
Heating Capa	acity	kW	2.5	3.2	4	5	6.3
Power Input (H / M / L)		W	18 / 15 / 12	19 / 15 / 12	22 / 17 / 14	25 / 17 / 14	27 / 18 / 14
Dimensions	Body	mm	840 x 246 x 840				
(W x H x D)	Shipping	mm	922 x 318 x 917				
	Туре		Turbo Fan				
Fan	Motor Output x Number	W	135 x 1				
Fall	Air Flow Rate (H / M / L)	m³/min	13.0 / 12.0 / 11.0	13.5 / 12.0 / 11.0	14.0 / 13.0 / 12.0	15.0 / 13.0 / 12.0	16.0 / 14.0 / 12.0
	Motor Type		BLDC	BLDC	BLDC	BLDC	BLDC
Air Filter			Pre Filter				
	Liquid Side	mm (inch)	Ø9.52 (3/8)				
Pipe Connections		mm (inch)	Ø15.88 (5/8)				
Connections	Drain Pipe (Internal Dia.)	mm (inch)	Ø25 (1)				
Weight	Body	kg	23.5	23.5	23.5	23.5	23.5
Sound Pressure	e Levels (H / M / L)	dB(A)	35 / 33 / 30	35 / 33 / 30	37 / 35 / 33	39 / 35 / 33	40 / 35 / 33
Sound Power L	evels (H / M / L)	dB(A)	42 / 38 / 36	42 / 38 / 36	43 / 40 / 38	44 / 40 / 38	45 / 41 / 38
Dayway Comple		Ø \/       -	1, 220 ~ 240, 50	1, 220 ~ 240, 50	1, 220 ~ 240, 50	1, 220 ~ 240, 50	1, 220 ~ 240, 50
Power Supply		Ø, V, Hz	1, 220, 60	1, 220, 60	1, 220, 60	1, 220, 60	1, 220, 60
Communication	n Cable	mm² x No.	1.0 ~ 1.5 x 2C				
	Model Name		PT-UMC1 PT-MCHW0	PT-UMC1 PT-MCHW0	PT-UMC1 PT-MCHW0	PT-UMC1 PT-MCHW0	PT-UMC1 PT-MCHW0
Decoration	Exterior Color		Morning Fog				
Panel	RAL Code		RAL 9001				
(Accessory)	Net Dimensions (W x H x D)	mm	950 x 25 x 950 950 x 35 x 950	950 x 25 x 950 950 x 35 x 950	950 x 25 x 950 950 x 35 x 950	950 x 25 x 950 950 x 35 x 950	950 x 25 x 950 950 x 35 x 950
	Net Weight		5.0 / 6.3	5.0 / 6.3	5.0 / 6.3	5.0 / 6.3	5.0 / 6.3

Note: 1. Performance tested under EN14511

- 2. Capacities are based on the following conditions

   Cooling: Indoor temp. 27°C (80.6°F) DB / 19°C (66.2°F) WB, Outdoor temp. 35°C (95°F) DB / 24°C (75.2°F) WB, Interconnecting piping length 7.5m, Level difference of zero

   Heating: Indoor temp. 20°C (68°F) DB / 15°C (59°F) WB, Outdoor temp. 7°C (44.6°F) DB / 6°C (42.8°F) WB, Interconnecting piping length 7.5m, Level difference of zero

  3. Due to our policy of innovation, some specifications may be changed without notification

### Accessories

Chassis	ARNU07GTNA4 ARNU09GTNA4 ARNU12GTNA4 ARNU15GTNA4 ARNU1	18GTNA4				
Drain Pump	0					
Cassette Cover	PTDCM					
Refrigerant Leakage Detector	PRLDNVS0					
EEV Kit	-					
Independent Power Module	PRIPO PRIPO					
Robot Cleaner	-					
Pre Filter (washable / anti-fungus)	0					
Ion Generator	-					
CO <sub>2</sub> Sensor	-					
Ventilation Kit	PTVK430					
IR Receiver	-					
Zone Controller	-					
Dry Contact (with additional accessory)	PDRYCB000 (1 point contact) PDRYCB300 (8 points for thermostat compatible) PDRYCB400 (2 points input) PDRYCB500 (Modbus)					
External Input (1 point)	0					
Wi-Fi	PWFMDD200					

※ ○ : Applied, - : Not applied Option : Refer to model name in table



### ARNU24GTMA4 / ARNU28GTMA4 ARNU36GTMA4 / ARNU42GTMA4

	Model	Unit	ARNU24GTMA4	ARNU28GTMA4	ARNU36GTMA4	ARNU42GTMA4
Cooling Capac	city		7.1	8.2	10.6	12.3
Heating Capa	city	kW	8	9.2	11.9	13.8
Power Input (H / M / L)			47 / 39 / 31	52 / 43 / 31	64 / 47 / 34	104 / 75 / 53
Dimensions	Body	mm	840 x 288 x 840			
(W x H x D)	Shipping	mm	922 x 360 x 917			
	Туре		Turbo Fan	Turbo Fan	Turbo Fan	Turbo Fan
	Motor Output x Number	W	135 x 1	135 x 1	135 x 1	135 x 1
	Air Flow Rate (H / M / L)	m³/min	22.0 / 20.0 / 18.0	23.0 / 21.0 / 18.0	26.0 / 23.0 / 20.0	30.0 / 26.0 / 23.0
	Motor Type		BLDC	BLDC	BLDC	BLDC
Air Filter			Pre Filter	Pre Filter	Pre Filter	Pre Filter
	Liquid Side	mm (inch)	Ø9.52 (3/8)	Ø9.52 (3/8)	Ø9.52 (3/8)	Ø9.52 (3/8)
Pipe Connections	Gas Side	mm (inch)	Ø15.88 (5/8)	Ø15.88 (5/8)	Ø15.88 (5/8)	Ø15.88 (5/8)
	Drain Pipe (Internal Dia.)	mm (inch)	Ø25 (1)	Ø25 (1)	Ø25 (1)	Ø25 (1)
Weight	Body	kg	25.6	25.6	25.6	25.6
Sound Pressure	Levels (H / M / L)	dB(A)	42 / 40 / 38	43 / 41 / 38	46 / 42 / 39	49 / 45 / 42
Sound Power L	evels (H / M / L)	dB(A)	48 / 45 / 43	49 / 47 / 43	52 / 48 / 44	55 / 51 / 48
			1, 220 ~ 240, 50	1, 220 ~ 240, 50	1, 220 ~ 240, 50	1, 220 ~ 240, 50
Power Supply		Ø, V, Hz	1, 220, 60	1, 220, 60	1, 220, 60	1, 220, 60
Communication	Cable	mm² x No.	1.0 ~ 1.5 x 2C			
	Model Name		PT-UMC1 PT-MCHW0	PT-UMC1 PT-MCHW0	PT-UMC1 PT-MCHW0	PT-UMC1 PT-MCHW0
Decoration . Panel	Exterior Color		Morning Fog	Morning Fog	Morning Fog	Morning Fog
	RAL Code		RAL 9001	RAL 9001	RAL 9001	RAL 9001
(Accessory)	Net Dimensions (W x H x D)		950 x 25 x 950 950 x 35 x 950	950 x 25 x 950 950 x 35 x 950	950 x 25 x 950 950 x 35 x 950	950 x 25 x 950 950 x 35 x 950
	Net Weight	kg	5.0 / 6.3	5.0 / 6.3	5.0 / 6.3	5.0 / 6.3

Note: 1. Performance tested under EN14511

- 2. Capacities are based on the following conditions

   Cooling: Indoor temp. 27°C (80.6°F) DB / 19°C (66.2°F) WB, Outdoor temp. 35°C (95°F) DB / 24°C (75.2°F) WB, Interconnecting piping length 7.5m, Level difference of zero

   Heating: Indoor temp. 20°C (68°F) DB / 15°C (59°F) WB, Outdoor temp. 7°C (44.6°F) DB / 6°C (42.8°F) WB, Interconnecting piping length 7.5m, Level difference of zero

  3. Due to our policy of innovation, some specifications may be changed without notification

### Accessories

Chassis	ARNU24GTMA4	ARNU28GTMA4	ARNU36GTMA4	ARNU42GTMA4		
Drain Pump	0					
Cassette Cover		PTD	CM			
Refrigerant Leakage Detector		PRLDI	NVS0			
EEV Kit		-				
Independent Power Module		PRI	P0			
Robot Cleaner		-				
Pre Filter (washable / anti-fungus)		C	)			
Ion Generator		-				
CO <sub>2</sub> Sensor		-				
Ventilation Kit		PTVk	430			
IR Receiver		-				
Zone Controller		-				
Dry Contact (with additional accessory)	PDRYCB000 (1 point contact) PDRYCB300 (8 points for thermostat compatible) PDRYCB400 (2 points input) PDRYCB500 (Modbus)					
External Input (1 point)		C				
Wi-Fi	·	PWFMI	DD200			

※ ○ : Applied, - : Not applied Option : Refer to model name in table

# **2 WAY CASSETTE**



### ARNU09GTSC4 / ARNU12GTSC4 ARNU18GTSC4 / ARNU24GTSC4

	Model	Unit	ARNU09GTSC4	ARNU12GTSC4	ARNU18GTSC4	ARNU24GTSC4
Cooling Capa	city	kW	2.8	3.6	5.6	7.1
Heating Capa	city	kW	3.2	4	6.3	8
Power Input (H / M / L)			16 / 14 / 11	18 / 14 / 11	19 / 16 / 14	31 / 22 / 14
Dimensions	Body	mm	830 x 225 x 600			
$(W \times H \times D)$	Shipping	mm	1,033 x 270 x 665			
	Туре		Turbo Fan	Turbo Fan	Turbo Fan	Turbo Fan
Гол	Motor Output x Number	W x No.	37 x 1	37 x 1	37 x 1	37 x 1
Fan	Air Flow Rate (H / M / L)	m³/min	10.8 / 9.8 / 9.1	11.1 / 10.3 / 9.1	11.8 / 10.8 / 9.8	14.5 / 12.4 / 10.3
	Motor Type		BLDC	BLDC	BLDC	BLDC
Air Filter			Pre Filter	Pre Filter	Pre Filter	Pre Filter
	Liquid Side	mm (inch)	Ø6.35 (1/4)	Ø6.35 (1/4)	Ø6.35 (1/4)	Ø9.52 (3/8)
Pipe Connections	Gas Side	mm (inch)	Ø12.7 (1/2)	Ø12.7 (1/2)	Ø12.7 (1/2)	Ø15.88 (5/8)
Connections	Drain Pipe (Internal Dia.)	mm (inch)	Ø25 (1)	Ø25 (1)	Ø25 (1)	Ø25 (1)
Weight	Body	kg	18.1	18.1	18.1	18.1
Sound Pressu	re Levels (H / M / L)	dB(A)	33 / 31 / 29	34 / 32 / 29	35 / 33 / 31	40 / 37 / 33
Sound Power	Levels (H / M / L)	dB(A)	42 / 40 / 38	43 / 41 / 39	44 / 42 / 40	48 / 45 / 40
Daywar Cyanh		Ø 1/ 11-	1, 220 ~ 240, 50	1, 220 ~ 240, 50	1, 220 ~ 240, 50	1, 220 ~ 240, 50
Power Supply		Ø, V, Hz	1, 220, 60	1, 220, 60	1, 220, 60	1, 220, 60
Communicati	on Cable	mm² x No.	1.0 ~ 1.5 x 2C			
	Model Name		PT-USC	PT-USC	PT-USC	PT-USC
Decoration	Exterior Color		Morning Fog	Morning Fog	Morning Fog	Morning Fog
Panel	RAL Code		RAL 9001	RAL 9001	RAL 9001	RAL 9001
(Accessory)	Net Dimensions (W x H x D)	mm	1,100 x 28 x 690			
	Net Weight	kg	4.7	4.7	4.7	4.7

- Note: 1. Performance tested under EN14511
  2. Capacities are based on the following conditions
   Cooling: Indoor temp. 27°C (80.6°F) DB / 19°C (66.2°F) WB, Outdoor temp. 35°C (95°F) DB / 24°C (75.2°F) WB, Interconnecting piping length 7.5m, Level difference of zero
   Heating: Indoor temp. 20°C (68°F) DB / 15°C (59°F) WB, Outdoor temp. 7°C (44.6°F) DB / 6°C (42.8°F) WB, Interconnecting piping length 7.5m, Level difference of zero
  3. Due to our policy of innovation, some specifications may be changed without notification

### Accessories

Chassis	ARNU09GTSC4	ARNU12GTSC4	ARNU18GTSC4	ARNU24GTSC4				
Drain Pump		0						
Cassette Cover			-					
Refrigerant Leakage Detector		PRLD	NVS0					
EEV Kit		PRGK024A	0 (~5.6kW)					
Independent Power Module		PR	IPO					
Robot Cleaner			-					
Pre Filter (washable / anti-fungus)		0						
Ion Generator			-					
CO <sub>2</sub> Sensor			-					
Ventilation Kit			-					
IR Receiver			-					
Zone Controller			-					
Dry Contact (with additional accessory)	PDRYCB000 (1 point contact) PDRYCB300 (8 points for thermostat compatible) PDRYCB400 (2 points input) PDRYCB500 (Modbus)							
External Input (1 point)		(	0					
Wi-Fi		PWFMDD200						

※ ○ : Applied, - : Not applied Option : Refer to model name in table

# **1 WAY CASSETTE**



### ARNU07GTUC4 / ARNU09GTUC4 / ARNU12GTUC4 ARNU18GTTC4 / ARNU24GTTC4

	Model	Unit	ARNU07GTUC4	ARNU09GTUC4	ARNU12GTUC4	ARNU18GTTC4	ARNU24GTTC4
Cooling Capa	city		2.2	2.8	3.6	5.6	7.1
Heating Capa	city	kW	2.5	3.2	4.0	6.3	7.1
Power Input (H / M / L)			20 / 18 / 16	22 / 20 / 18	24 / 22 / 20	38 / 28 / 24	51 / 33 / 26
Dimensions	Body	mm	860 x 132 x 450	860 x 132 x 450	860 x 132 x 450	1,180 x 132 x 450	1,180 x 132 x 450
$(W \times H \times D)$	Shipping		1,129 x 259 x 538	1,129 x 259 x 538	1,129 x 259 x 538	1,499 x 259 x 538	1,499 x 259 x 538
	Туре		Cross Flow Fan				
Fan	Motor Output x Number	W x No.	30 x 1				
Fd[]	Air Flow Rate (H / M / L)	m³/min	8.2 / 7.3 / 6.4	9.2 / 8.6 / 8.2	10.0 / 9.2 / 8.2	13.3 / 12.1 / 10.9	14.6 / 13.3 / 11.5
	Motor Type		BLDC	BLDC	BLDC	BLDC	BLDC
Air Filter			Pre Filter				
	Liquid Side	mm (inch)	Ø6.35 (1/4)	Ø6.35 (1/4)	Ø6.35 (1/4)	Ø6.35 (1/4)	Ø9.52 (3/8)
Pipe Connections	Gas Side	mm (inch)	Ø12.7 (1/2)	Ø12.7 (1/2)	Ø12.7 (1/2)	Ø12.7 (1/2)	Ø15.88 (5/8)
	Drain Pipe (Internal Dia.)	mm (inch)	Ø25 (1)				
Weight	Body	kg	13.6	13.6	13.6	15.6	15.6
Sound Pressu	re Levels (H / M / L)	dB(A)	32 / 29 / 25	35 / 34 / 32	38 / 35 / 32	40 / 37 / 35	43 / 40 / 36
Sound Power	Levels (H / M / L)	dB(A)	47 / 44 / 41	50 / 48 / 47	52 / 50 / 47	56 / 51 / 48	59 / 53 / 50
		Ø 1/ 11-	1, 220 ~ 240, 50	1, 220 ~ 240, 50	1, 220 ~ 240, 50	1, 220 ~ 240, 50	1, 220 ~ 240, 50
Power Supply		Ø, V, Hz	1, 220, 60	1, 220, 60	1, 220, 60	1, 220, 60	1, 220, 60
Communication	on Cable	mm² x No.	1.0 ~ 1.5 x 2C				
	Model Name		PT-UUC (Grill) PT-UUD (Panel)	PT-UUC (Grill) PT-UUD (Panel)	PT-UUC (Grill) PT-UUD (Panel)	PT-UTC (Grill) PT-UTD (Panel)	PT-UTC (Grill) PT-UTD (Panel)
Decoration	Exterior Color		Noble White				
Panel	RAL Code		RAL 9003				
(Accessory)	Net Dimensions (W x H x D)	mm	1,100 x 34 x 500 1,100 x 34 x 500	1,100 x 34 x 500 1,100 x 34 x 500	1,100 x 34 x 500 1,100 x 34 x 500	1,420 x 34 x 500 1,420 x 34 x 500	1,420 x 34 x 500 1,420 x 34 x 500
	Net Weight	kg	4.6 / 5.3	4.6 / 5.3	4.6 / 5.3	5.5 / 6.5	5.5 / 6.5

Note: 1. Performance tested under EN14511

2. Capacities are based on the following conditions

- Cooling: Indoor temp. 27°C (80.6°F) DB / 19°C (66.2°F) WB, Outdoor temp. 35°C (95°F) DB / 24°C (75.2°F) WB, Interconnecting piping length 7.5m, Level difference of zero

- Heating: Indoor temp. 20°C (68°F) DB / 15°C (59°F) WB, Outdoor temp. 7°C (44.6°F) DB / 6°C (42.8°F) WB, Interconnecting piping length 7.5m, Level difference of zero

3. Due to our policy of innovation, some specifications may be changed without notification

### Accessories

Chassis	ARNU07GTUC4	ARNU09GTUC4	ARNU12GTUC4	ARNU18GTTC4	ARNU24GTTC4	
Drain Pump		0		(		
Cassette Cover		-			-	
Refrigerant Leakage Detector		PRLDNVS0		PRLD	NVS0	
EEV Kit		PRGK024A0			-	
Independent Power Module		PRIP0		PR	IPO	
Robot Cleaner		-				
Pre Filter (washable / anti-fungus)		0		0		
Ion Generator		-		-		
CO <sub>2</sub> Sensor		-		-		
Ventilation Kit		-		-		
IR Receiver		-		-		
Zone Controller		-				
Dry Contact (with additional accessory)	PDRYCB000 (1 point contact) PDRYCB300 (8 points for thermostat compatible) PDRYCB400 (2 points input) PDRYCB500 (Modbus)			PDRYCB000 (1 point contact) PDRYCB300 (8 points for thermostat com PDRYCB400 (2 points input) PDRYCB502 (Modbus)		
External Input (1 point)		0		(	)	
Wi-Fi		-			-	

※ O : Applied, - : Not applied
Option : Refer to model name in table

# **1 WAY CASSETTE**



### ARNU07GTUD4 / ARNU09GTUD4 / ARNU12GTUD4

	Model	Unit	ARNU07GTUD4	ARNU09GTUD4	ARNU12GTUD4
Cooling Capa	city		2.2	2.8	3.6
Heating Capa	city	kW	2.5	3.2	4.0
Power Input (H / M / L)			20 / 18 / 16	22 / 20 / 18	24 / 22 / 20
Dimensions	Body	mm	860 x 132 x 450	860 x 132 x 450	860 x 132 x 450
$(W \times H \times D)$	Shipping	mm	1,129 x 259 x 538	1,129 x 259 x 538	1,129 x 259 x 538
	Туре		Cross Flow Fan	Cross Flow Fan	Cross Flow Fan
Fan	Motor Output x Number	W x No.	30 x 1	30 x 1	30 x 1
ran	Air Flow Rate (H / M / L)	m³/min	8.2 / 7.3 / 6.4	9.2 / 8.6 / 8.2	10.0 / 9.2 / 8.2
	Motor Type		BLDC	BLDC	BLDC
Air Filter			Pre Filter	Pre Filter	Pre Filter
	Liquid Side	mm (inch)	Ø6.35 (1/4)	Ø6.35 (1/4)	Ø6.35 (1/4)
Pipe Connections	Gas Side mm (inch)		Ø12.7 (1/2)	Ø12.7 (1/2)	Ø12.7 (1/2)
Connections	Drain Pipe (Internal Dia.)	mm (inch)	Ø25 (1)	Ø25 (1)	Ø25 (1)
Weight	Body	kg	13.6	13.6	13.6
Sound Pressu	re Levels (H / M / L)	dB(A)	32 / 29 / 25	35 / 34 / 32	38 / 35 / 32
Sound Power	Levels (H / M / L)	dB(A)	47 / 44 / 41	50 / 48 / 47	52 / 50 / 47
D C		Ø 1/11-	1, 220 ~ 240, 50	1, 220 ~ 240, 50	1, 220 ~ 240, 50
Power Supply		Ø, V, Hz	1, 220, 60	1, 220, 60	1, 220, 60
Communicati	on Cable	mm² x No.	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C
	Model Name		PT-UUC (Grill) PT-UUD (Panel)	PT-UUC (Grill) PT-UUD (Panel)	PT-UUC (Grill) PT-UUD (Panel)
Decoration	Exterior Color		Noble White	Noble White	Noble White
Panel	RAL Code		RAL 9003	RAL 9003	RAL 9003
(Accessory)	Net Dimensions (W x H x D)		1,100 x 34 x 500 1,100 x 34 x 500	1,100 x 34 x 500 1,100 x 34 x 500	1,100 x 34 x 500 1,100 x 34 x 500
	Net Weight	kg	4.6 / 5.3	4.6 / 5.3	4.6 / 5.3

Note: 1. Performance tested under EN14511

2. Capacities are based on the following conditions

- Cooling: Indoor temp. 27°C (80.6°F) DB / 19°C (66.2°F) WB, Outdoor temp. 35°C (95°F) DB / 24°C (75.2°F) WB, Interconnecting piping length 7.5m, Level difference of zero

- Heating: Indoor temp. 20°C (68°F) DB / 15°C (59°F) WB, Outdoor temp. 7°C (44.6°F) DB / 6°C (42.8°F) WB, Interconnecting piping length 7.5m, Level difference of zero

3. Due to our policy of innovation, some specifications may be changed without notification

### Accessories

Chassis	ARNU07GTUD4	ARNU09GTUD4	ARNU12GTUD4				
Drain Pump	0						
Cassette Cover	-						
Refrigerant Leakage Detector		PRLDNVS0					
EEV Kit		PRGK024A0					
Independent Power Module		PRIP0					
Robot Cleaner		-					
Pre Filter (washable / anti-fungus)		0					
Ion Generator		-					
CO <sub>2</sub> Sensor		-					
Ventilation Kit		-					
IR Receiver		-					
Zone Controller		-					
Dry Contact (with additional accessory)	PDRYCB000 (1 point contact) PDRYCB300 (8 points for thermostat compatible) PDRYCB400 (2 points input) PDRYCB501 (Modbus)						
External Input (1 point)	0						
Wi-Fi	PWFMDD200						

※ ○ : Applied, - : Not applied Option : Refer to model name in table



### ARNU18GTTD4 / ARNU24GTTD4

	Model	Unit	ARNU18GTTD4	ARNU24GTTD4
Cooling Capa	city	kW	5.6	7.1
Heating Capa	city	kW	6.3	7.1
Power Input [H / M / L)			38 / 28 / 24	51 / 33 / 26
	Body	mm	1,180 x 132 x 450	1,180 x 132 x 450
$W \times H \times D$ )	Shipping	mm	1,499 x 259 x 538	1,499 x 259 x 538
	Туре		Cross Flow Fan	Cross Flow Fan
	Motor Output x Number	W x No.	30 x 1	30 x 1
	Air Flow Rate (H / M / L)	m³/min	13.3 / 12.1 / 10.9	14.6 / 13.3 / 11.5
	Motor Type		BLDC	BLDC
Air Filter			Pre Filter	Pre Filter
	Liquid Side	mm (inch)	Ø6.35 (1/4)	Ø9.52 (3/8)
ipe Connections	Gas Side	mm (inch)	Ø12.7 (1/2)	Ø15.88 (5/8)
	Drain Pipe (Internal Dia.)	mm (inch)	Ø25 (1)	Ø25 (1)
Veight	Body	kg	15.6	15.6
ound Pressu	re Levels (H / M / L)	dB(A)	40 / 37 / 35	43 / 40 / 36
ound Power	Levels (H / M / L)	dB(A)	56 / 51 / 48	59 / 53 / 50
			1, 220 ~ 240, 50	1, 220 ~ 240, 50
ower Supply		Ø, V, Hz	1, 220, 60	1, 220, 60
ommunicati	on Cable	mm² x No.	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C
	Model Name		PT-UTC (Grill) PT-UTD (Panel)	PT-UTC (Grill) PT-UTD (Panel)
Decoration	Exterior Color		Noble White	Noble White
	RAL Code		RAL 9003	RAL 9003
Accessory)	Net Dimensions (W x H x D)		1,420 x 34 x 500 1,420 x 34 x 500	1,420 x 34 x 500 1,420 x 34 x 500
	Net Weight	kg	5.5 / 6.5	5.5 / 6.5

Note: 1. Performance tested under EN14511

2. Capacities are based on the following conditions

- Cooling: Indoor temp. 27°C (80.6°F) DB / 19°C (66.2°F) WB, Outdoor temp. 35°C (95°F) DB / 24°C (75.2°F) WB, Interconnecting piping length 7.5m, Level difference of zero

- Heating: Indoor temp. 20°C (68°F) DB / 15°C (59°F) WB, Outdoor temp. 7°C (44.6°F) DB / 6°C (42.8°F) WB, Interconnecting piping length 7.5m, Level difference of zero

3. Due to our policy of innovation, some specifications may be changed without notification

### Accessories

Chassis	ARNU18GTTD4	ARNU24GTTD4					
Drain Pump	0						
Cassette Cover	-						
Refrigerant Leakage Detector	PRLD	NVS0					
EEV Kit		-					
Independent Power Module	PR	P0					
Robot Cleaner	-						
Pre Filter (washable / anti-fungus)	0						
Ion Generator	-						
CO <sub>2</sub> Sensor		-					
Ventilation Kit		-					
IR Receiver		-					
Zone Controller							
Dry Contact (with additional accessory)	PDRYCB000 (1 point contact) PDRYCB300 (8 points for thermostat compatible) PDRYCB400 (2 points input) PDRYCB503 (Modbus)						
External Input (1 point)	0						
Wi-Fi	PWFM	DD200					

※ ○ : Applied, - : Not applied Option : Refer to model name in table



### **Features & Benefits**

- Easy and flexible duct working thanks to adjust air volume by E.S.P (External Static Pressure) control function
- Invisible product (Hidden in ceiling) coordinates with any interior design
- Quiet and efficient operation

### **Key Applications**

- Office
- Hotel
- Retail
- Residential building

	Duct	High	Middle	Low
Smart	Wi-Fi	0	0	0
Energy Efficiency	E.S.P Control	0	0	0
	Drain Pump	0	0	0
	Timer (on / off)	0	0	0
Comfort	Timer (weekly)	0	0	0
	Two Thermistor Control	0	0	0
	Group Control	0	0	0

※ ○ : Applied, - : Not applied

# **SMART**

### Wi-Fi Control

Control your air conditioners by using the smart internet devices as Android or iOS based smartphones.



### LG SmartThinQ

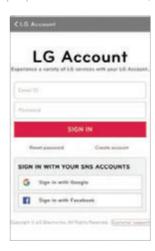
Search "LG SmartThinQ" on Google market or Appstore

Access your air conditioner anytime and from anywhere



### Easy Registration and Log-in

Follow the easy set-up steps that will activate SmartThinQ's impressive feature.



### Simple operation for various functions







Mode, Set Temp

# **ENERGY EFFICIENCY**

### E.S.P.(External Static Pressure) Control

User has easy access to air volume selection via remote controller using the ESP control function. The BLDC motor can control fan speed and air volume. No additional accessories are necessary to control air flow.



### Static Pressure 11 Steps Control

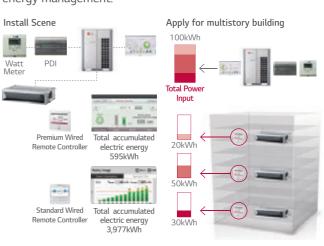
Depending on the installation environment, 4series ceiling concealed duct controls the static pressure to 11 step, for providing comfortable environment suitable for any case scenario.



# **Energy Monitoring**

### (Accumulated Electric Energy Check)

Accumulated electric energy of the indoor unit can be identified with wired remote control, as well as with the central controller. This function is an advantage for energy management.

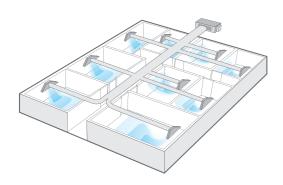


\* Outdoor unit's accumulated electric energy / using rate of individual indoor unit + indoor unit's accumulated electric energy is displayed in wired remote controller, only when central controller, digital integrating electricity meter and PDI are installed and PDI, outdoor unit and indoor unit are connected with power wire. Only total accumulated electric energy is displayed in standard wired remote controller. In premium wired remote controller, that are displayed into week / month / year.

# **COMFORT**

# **Operation for Multiple Rooms**Using a spiral duct (embedded or flexible type) and

Using a spiral duct (embedded or flexible type) and stream chamber, it is possible to operate cooling / heating for several rooms simultaneously.



# Filter Sign (Remaining Time)

The alarm is activated when the filter needs to be cleaned, and the time remaining for cleaning is displayed on the screen.

### Remain Time Until Indoor Filter Cleaning + Alarm



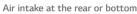
Remain time until indoor filter cleaning 2400hr.

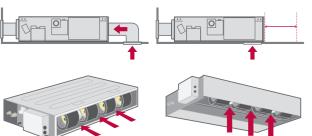


Remain time until indoor filter cleaning 1729hr.

# Flexible Installation (Low Static Duct Only)

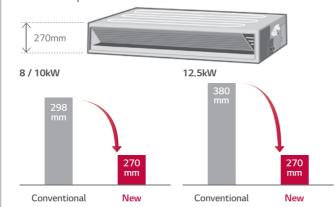
The low static duct allows the air intake at the rear or bottom under installation condition.





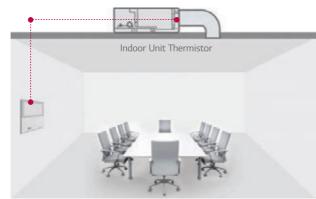
### Minimized Height

New mid-static ducts provide ideal solution for installation in limited space.



### **Two Thermistors Control**

The indoor temperature can be checked using the thermistors in the remote controller as well as from the indoor unit. There may be a significant difference between ceiling and floor air temperature. Two thermistors can optimise indoor air temperature for a more comfortable environment.

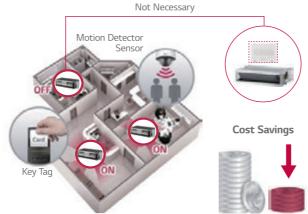


Remote Controller Thermistor

# 1 Point External Input (On / Off Control)

Indoor unit can control external devices without dry contact, so customer can save cost of installation.

Connection between an indoor unit and external devices directly



 $<sup>\</sup>star$  In case of needing more functions beside on / off control, a dry contact is required to be installed.



# **MID STATIC**



### ARNU07GM1A4 / ARNU09GM1A4 / ARNU12GM1A4 ARNU15GM1A4 / ARNU18GM1A4 / ARNU24GM1A4

	Model	Unit	ARNU07GM1A4	ARNU09GM1A4	ARNU12GM1A4	ARNU15GM1A4	ARNU18GM1A4	ARNU24GM1A4
Cooling Capac	city		2.2	2.8	3.6	4.5	5.6	7.1
Heating Capa	city	kW	2.5	3.2	4.0	5.0	6.3	8.0
Power Input (H / M / L)			39 / 30 / 25	40 / 32 / 26	46 / 38 / 31	67 / 53 / 46	85 / 63 / 55	91 / 74 / 58
Dimensions	Body	mm	900 x 270 x 700	900 x 270 x 700				
$(W \times H \times D)$	Shipping		1,100 x 338 x 773	1,100 x 338 x 773				
	Туре		Sirocco Fan	Sirocco Fan				
	Motor Output x Number	W x No.	136 x 1	136 x 1				
	Air Flow Rate (H / M / L)	m³/min	9.0 / 7.5 / 6.0	9.5 / 7.5 / 6.0	11.0 / 9.0 / 7.0	16.0 / 12.0 / 9.0	17.0 / 14.5 / 12.0	19.0 / 16.0 / 14.0
Fan	External Static Pressure (High Mode)	mmAq (Pa)	6 (59)	6 (59)	6 (59)	6 (59)	6 (59)	6 (59)
	Air Flow Rate (H / M / L) (Standard Mode)	m³/min	9.0 / 7.5 / 6.0	9.5 / 7.5 / 6.0	11.0 / 9.0 / 7.0	16.0 / 12.0 / 9.0	17.0 / 14.5 / 12.0	19.0 / 16.0 / 14.0
	External Static Pressure (Standard Mode)	mmAq (Pa)	2.5 (25)	2.5 (25)	2.5 (25)	2.5 (25)	2.5 (25)	2.5 (25)
	Motor Type		BLDC	BLDC	BLDC	BLDC	BLDC	BLDC
Air Filter			Pre Filter	Pre Filter				
D:	Liquid Side	mm (inch)	Ø6.35 (1/4)	Ø9.52 (3/8)				
Pipe Connections	Gas Side	mm (inch)	Ø12.7 (1/2)	Ø15.88 (5/8)				
Commedians	Drain Pipe (Internal Dia.)	mm (inch)	25 (1)	25 (1)	Ø25 (1)	Ø25 (1)	Ø25 (1)	Ø25 (1)
Weight	Body	kg	25.5	25.5	25.5	25.5	25.5	26.5
Sound Pressu	re Levels (H / M / L)	dB(A)	26 / 24 / 23	27 / 25 / 23	27 / 25 / 23	30 / 27 / 23	31 / 28 / 25	32 / 29 / 26
Sound Power	Levels (H / M / L)	dB(A)	55 / 54 / 51	55 / 54 / 52	56 / 54 / 52	59 / 57 / 55	59 / 57 / 55	59 / 58 / 56
Dower Supply		Ø, V, Hz	1, 220 ~ 240, 50	1, 220 ~ 240, 50	1, 220 ~ 240, 50	1, 220 ~ 240, 50	1, 220 ~ 240, 50	1, 220 ~ 240, 50
Power Supply		⊌, v, H2	1, 220, 60	1, 220, 60	1, 220, 60	1, 220, 60	1, 220, 60	1, 220, 60
Communication	on Cable	mm² x No.	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C				

Note: 1. Performance tested under EN14511
2. Capacities are based on the following conditions
- Cooling: Indoor temp. 27°C (80.6°F) DB / 19°C (66.2°F) WB, Outdoor temp. 35°C (95°F) DB / 24°C (75.2°F) WB, Interconnecting piping length 7.5m, Level difference of zero
- Heating: Indoor temp. 20°C (68°F) DB / 15°C (59°F) WB, Outdoor temp. 7°C (44.6°F) DB / 6°C (42.8°F) WB, Interconnecting piping length 7.5m, Level difference of zero
3. Due to our policy of innovation, some specifications may be changed without notification

### Accessories

Chassis	ARNU07GM1A4 ARNU09GM1A4 ARNU12GM1A4 ARNU15GM1A4 ARNU18GM1A4 ARNU24GM1A4
Drain Pump	0
Cassette Cover	-
Refrigerant Leakage Detector	PRLDNVS0
EEV Kit	PRGK024A0 (~5.6kW)
Independent Power Module	PRIPO PRIPO
Robot Cleaner	
Pre Filter (washable / anti-fungus)	0
Ion Generator	
CO <sub>2</sub> Sensor	-
Ventilation Kit	
IR Receiver	PWLRVN000
Zone Controller	ABZCA
Dry Contact (with additional accessory)	PDRYCB000 (1 point contact) PDRYCB300 (8 points for thermostat compatible) PDRYCB400 (2 points input) PDRYCB500 (Modbus)
External Input (1 point)	0
Wi-Fi	PWFMDD200

※ ○ : Applied, - : Not applied Option : Refer to model name in table



### ARNU28GM2A4 / ARNU36GM2A4 / ARNU42GM2A4 / ARNU48GM3A4 / ARNU54GM3A4

	Model	Unit	ARNU28GM2A4	ARNU36GM2A4	ARNU42GM2A4	ARNU48GM3A4	ARNU54GM3A4
Cooling Capa	city	kW	8.2	10.6	12.3	14.1	15.8
Heating Capa	city	kW	9.2	11.9	13.8	15.9	18.0
Power Input (H / M / L)			123 / 81 / 57	184 / 123 / 81	231 / 162 / 111	172 / 105 / 65	260 / 215 / 172
Dimensions	Body	mm	1,250 x 270 x 700	1,250 x 270 x 700	1,250 x 270 x 700	1,250 x 360 x 700	1,250 x 360 x 700
$(W \times H \times D)$	Shipping	mm	1,450 x 338 x 773	1,450 x 338 x 773	1,450 x 338 x 773	1,450 x 428 x 773	1,450 x 428 x 773
	Туре		Sirocco Fan				
	Motor Output x Number	W x No.	350 x 1				
	Air Flow Rate (H / M / L)	m³/min	28.0 / 24.0 / 21.0	32.0 / 28.0 / 24.0	38.0 / 33.0 / 28.0	40.0 / 34.0 / 28.0	50.0 / 45.0 / 40.0
Fan	External Static Pressure (High Mode)	mmAq (Pa)	6 (59)	6 (59)	6 (59)	6 (59)	6 (59)
	Air Flow Rate (H / M / L) (Standard Mode)	m³/min	28.0 / 24.0 / 21.0	32.0 / 28.0 / 24.0	38.0 / 33.0 / 28.0	40.0 / 34.0 / 28.0	50.0 / 45.0 / 40.0
	External Static Pressure (Standard Mode)	mmAq (Pa)	5 (49)	5 (49)	5 (49)	5 (49)	5 (49)
	Motor Type		BLDC	BLDC	BLDC	BLDC	BLDC
Air Filter			Pre Filter				
	Liquid Side	mm (inch)	Ø9.52 (3/8)				
Pipe Connections	Gas Side	mm (inch)	Ø15.88 (5/8)	Ø15.88 (5/8)	Ø15.88 (5/8)	Ø15.88 (5/8)	Ø19.05 (3/4)
COMMECCIONS	Drain Pipe (Internal Dia.)	mm (inch)	Ø25 (1)				
Weight	Body	kg	38.0	38.0	39.5	44.0	44.0
Sound Pressu	re Levels (H / M / L)	dB(A)	36 / 34 / 33	37 / 36 / 34	38 / 37 / 36	39 / 37 / 35	42 / 40 / 39
Sound Power	Levels (H / M / L)	dB(A)	59 / 57 / 55	60 / 59 / 57	62 / 61 / 60	63 / 60 / 59	65 / 64 / 62
		a	1, 220 ~ 240, 50	1, 220 ~ 240, 50	1, 220 ~ 240, 50	1, 220 ~ 240, 50	1, 220 ~ 240, 50
Power Supply		Ø, V, Hz	1, 220, 60	1, 220, 60	1, 220, 60	1, 220, 60	1, 220, 60
Communication	on Cable	mm² x No.	1.0 ~ 1.5 x 2C				

Note: 1. Performance tested under EN14511
2. Capacities are based on the following conditions
- Cooling: Indoor temp. 27°C (80.6°F) DB / 19°C (66.2°F) WB, Outdoor temp. 35°C (95°F) DB / 24°C (75.2°F) WB, Interconnecting piping length 7.5m, Level difference of zero
- Heating: Indoor temp. 20°C (68°F) DB / 15°C (59°F) WB, Outdoor temp. 7°C (44.6°F) DB / 6°C (42.8°F) WB, Interconnecting piping length 7.5m, Level difference of zero
3. Due to our policy of innovation, some specifications may be changed without notification

### Accessories

Chassis	ARNU28GM2A4	ARNU36GM2A4	ARNU42GM2A4	ARNU48GM3A4	ARNU54GM3A4		
Drain Pump	0						
Cassette Cover	-						
Refrigerant Leakage Detector			PRLDNVS0				
EEV Kit			-				
Independent Power Module			PRIP0				
Robot Cleaner			-				
Pre Filter (washable / anti-fungus)			0				
Ion Generator			-				
CO <sub>2</sub> Sensor			-				
Ventilation Kit			-				
IR Receiver			PWLRVN000				
Zone Controller			ABZCA				
Dry Contact (with additional accessory)	PDRYCB000 (1 point contact) PDRYCB300 (8 points for thermostat compatible) PDRYCB400 (2 points input) PDRYCB500 (Modbus)						
External Input (1 point)			0				
Wi-Fi			PWFMDD200				

※ O : Applied, - : Not applied
Option : Refer to model name in table

# **HIGH STATIC**



### ARNU76GB8A4 / ARNU96GB8A4

	Model	Unit	ARNU76GB8A4	ARNU96GB8A4
Cooling Capac	city		22.4	28.0
Heating Capa	city	kW	25.2	31.5
Power Input (H / M / L)			765 / 500 / 500	800 / 750 / 750
Dimensions	Body	mm	1,562 x 460 x 688	1,562 x 460 x 688
$(W \times H \times D)$	Shipping		1,806 x 537 x 825	1,806 x 537 x 825
	Туре		Sirocco Fan	Sirocco Fan
	Motor Output x Number	W x No.	375 x 2	375 x 2
	Air Flow Rate (H / M / L) (High Mode-Factory Set)	m³/min	60.0 / 50.0 / 50.0	72.0 / 64.0 / 64.0
Fan	External Static Pressure (High Mode)	mmAq (Pa)	22 (216)	22 (216)
	Air Flow Rate (H / M / L) (Standard Mode)	m³/min	64.0 / 50.0 / 50.0	76.0 / 64.0 / 64.0
	External Static Pressure (Standard Mode)	mmAq (Pa)	15 (147)	15 (147)
	Motor Type		BLDC	BLDC
Air Filter			Pre Filter	Pre Filter
	Liquid Side	mm (inch)	Ø9.52 (3/8)	Ø9.52 (3/8)
Pipe Connections	Gas Side	mm (inch)	Ø19.05 (3/4)	Ø22.2 (7/8)
Connections	Drain Pipe (Internal Dia.)	mm (inch)	Ø25 (1)	Ø25 (1)
Weight	Body	kg	87.0	87.0
Danier Comb		Ø V II-	1, 220 ~ 240, 50	1, 220 ~ 240, 50
Power Supply		Ø, V, Hz	1, 220, 60	1, 220, 60
Communication	on Cable	mm² x No.	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C

Note: 1. Performance tested under EN14511
2. Capacities are based on the following conditions
- Cooling: Indoor temp. 27°C (80.6°F) DB / 19°C (66.2°F) WB, Outdoor temp. 35°C (95°F) DB / 24°C (75.2°F) WB, Interconnecting piping length 7.5m, Level difference of zero
- Heating: Indoor temp. 20°C (68°F) DB / 15°C (59°F) WB, Outdoor temp. 7°C (44.6°F) DB / 6°C (42.8°F) WB, Interconnecting piping length 7.5m, Level difference of zero
3. Due to our policy of innovation, some specifications may be changed without notification

### Accessories

Chassis	ARNU76GB8A4	ARNU96GB8A4			
Drain Pump	0				
Cassette Cover	-				
Refrigerant Leakage Detector	PRLDNVS	50			
EEV Kit	0				
Independent Power Module	PRIPO				
Robot Cleaner	-				
Pre Filter (washable / anti-fungus)	0				
Ion Generator					
CO <sub>2</sub> Sensor	-				
Ventilation Kit	-				
IR Receiver	PWLRVNO	000			
Zone Controller	ABZCA				
Dry Contact (with additional accessory)	PDRYCB000 (1 point contact) PDRYCB300 (8 points for thermostat compatible) PDRYCB400 (2 points input) PDRYCB500 (Modbus)				
External Input (1 point)	0				
Wi-Fi	PWFMDD200				

<sup>※ ○ :</sup> Applied, - : Not applied Option : Refer to model name in table

# **LOW STATIC**



### ARNU05GL1G4 / ARNU07GL1G4 / ARNU09GL1G4

	Model	Unit	ARNU05GL1G4	ARNU07GL1G4	ARNU09GL1G4
Cooling Capa	city	kW	1.7	2.2	2.8
Heating Capa	city	kW	1.9	2.5	3.2
Power Input (H / M / L)		W	29 / 26 / 24	31 / 28 / 24	39 / 29 / 24
Dimensions	Body	mm	700 x 190 x 700	700 x 190 x 700	700 x 190 x 700
$(W \times H \times D)$	Shipping	mm	862 x 255 x 781	862 x 255 x 781	862 x 255 x 781
	Туре		Sirocco Fan	Sirocco Fan	Sirocco Fan
	Motor Output x Number	W x No.	19 x 1	19 x 1	19 x 1
	Air Flow Rate (H / M / L) (High Mode-Factory Set)	m³/min	6.7 / 6.2 / 5.5	7.5 / 6.5 / 5.5	9.0 / 7.0 / 5.5
	External Static Pressure (High Mode)	mmAq (Pa)	2.54 (25)	2.54 (25)	2.54 (25)
	Air Flow Rate (H / M / L) (Standard Mode)	m³/min	6.7 / 6.2 / 5.5	7.5 / 6.5 / 5.5	9.0 / 7.0 / 5.5
	External Static Pressure (Standard Mode)	mmAq (Pa)	0 (0)	0 (0)	0 (0)
	Motor Type		BLDC	BLDC	BLDC
Air Filter			Pre Filter	Pre Filter	Pre Filter
	Liquid Side	mm (inch)	Ø6.35 (1/4)	Ø6.35 (1/4)	Ø6.35 (1/4)
Pipe Connections		mm (inch)	Ø12.7 (1/2)	Ø12.7 (1/2)	Ø12.7 (1/2)
	Drain Pipe (Internal Dia.)	mm (inch)	Ø25 (1)	Ø25 (1)	Ø25 (1)
Weight		kg	17.5	17.5	17.5
Sound Pressu	ire Levels (H / M / L)	dB(A)	25 / 24 / 22	26 / 24 / 22	28 / 25 / 22
Sound Power	Levels (H / M / L)	dB(A)	48 / 46 / 45	50 / 47 / 45	53 / 49 / 45
		Ø V II-	1, 220 ~ 240, 50	1, 220 ~ 240, 50	1, 220 ~ 240, 50
Power Supply		Ø, V, Hz	1, 220, 60	1, 220, 60	1, 220, 60
Communicati	on Cable	mm² x No.	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C

Note: 1. Performance tested under EN14511
2. Capacities are based on the following conditions
- Cooling: Indoor temp. 27°C (80.6°F) DB / 19°C (66.2°F) WB, Outdoor temp. 35°C (95°F) DB / 24°C (75.2°F) WB, Interconnecting piping length 7.5m, Level difference of zero
- Heating: Indoor temp. 20°C (68°F) DB / 15°C (59°F) WB, Outdoor temp. 7°C (44.6°F) DB / 6°C (42.8°F) WB, Interconnecting piping length 7.5m, Level difference of zero
3. Due to our policy of innovation, some specifications may be changed without notification

### Accessories

Chassis	ARNU05GL1G4	ARNU07GL1G4	ARNU09GL1G4					
Drain Pump		0						
Cassette Cover		-						
Refrigerant Leakage Detector	PRLDNVS0							
EEV Kit		PRGK024A0						
Independent Power Module	PRIPO							
Robot Cleaner	-							
Pre Filter (washable / anti-fungus)	0							
Ion Generator	-							
CO <sub>2</sub> Sensor		-						
Ventilation Kit		-						
IR Receiver		PWLRVN000	PWLRVN000					
Zone Controller	ABZCA							
Dry Contact (with additional accessory)	PDRYCB000 (1 point contact) PDRYCB300 (8 points for thermostat compatible) PDRYCB400 (2 points input) PDRYCB500 (Modbus)							
External Input (1 point)	0							
Wi-Fi		PWFMDD200						

※ ○ : Applied, - : Not applied Option : Refer to model name in table

# **LOW STATIC**



### ARNU12GL2G4 / ARNU15GL2G4 / ARNU18GL2G4

	Model	Unit	ARNU12GL2G4	ARNU15GL2G4	ARNU18GL2G4
Cooling Capa	city		3.6	4.5	5.6
Heating Capa	acity kW		4.0	5.0	6.3
Power Input (H / M / L)			41 / 34 / 29	56 / 41 / 34	71 / 56 / 41
Dimensions	Body	mm	900 x 190 x 700	900 x 190 x 700	900 x 190 x 700
$(W \times H \times D)$	Shipping	mm	1,062 x 255 x 781	1,062 x 255 x 781	1,062 x 255 x 781
	Туре		Sirocco Fan	Sirocco Fan	Sirocco Fan
	Motor Output x Number	W x No.	19 x 1, 5 x 1	19 x 1, 5 x 1	19 x 1, 5 x 1
	Air Flow Rate (H / M / L) (High Mode-Factory Set)	m³/min	10.0 / 8.5 / 7.0	12.5 / 10.0 / 8.5	15.0 / 12.5 / 10.0
Fan	External Static Pressure (High Mode)	mmAq (Pa)	2.54 (25)	2.54 (25)	2.54 (25)
	Air Flow Rate (H / M / L) (Standard Mode)	m³/min	10.0 / 8.5 / 7.0	12.5 / 10.0 / 8.5	15.0 / 12.5 / 10.0
	External Static Pressure (Standard Mode)	mmAq (Pa)	0 (0)	0 (0)	0 (0)
	Motor Type		BLDC	BLDC	BLDC
Air Filter			Pre Filter	Pre Filter	Pre Filter
	Liquid Side	mm (inch)	Ø6.35(1/4)	Ø6.35(1/4)	Ø6.35(1/4)
Pipe Connections	Gas Side	mm (inch)	Ø12.7(1/2)	Ø12.7(1/2)	Ø12.7(1/2)
Commedians	Drain Pipe (Internal Dia.)	mm (inch)	Ø25 (1)	Ø25 (1)	Ø25 (1)
Weight			23.0	23.0	23.0
Sound Pressu	re Levels (H / M / L)	dB(A)	30 / 27 / 25	33 / 30 / 28	35 / 32 / 29
Sound Power	Levels (H / M / L)	dB(A)	50 / 47 / 46	54 / 51 / 47	56 / 54 / 51
Danier Cumb		Ø \/ II-	1, 220 - 240, 50	1, 220 - 240, 50	1, 220 - 240, 50
Power Supply		Ø, V, Hz	1, 220, 60	1, 220, 60	1, 220, 60
Communication	on Cable	mm² x No.	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C

- Note: 1. Performance tested under EN14511
  2. Capacities are based on the following conditions
   Cooling: Indoor temp. 27°C (80.6°F) DB / 19°C (66.2°F) WB, Outdoor temp. 35°C (95°F) DB / 24°C (75.2°F) WB, Interconnecting piping length 7.5m, Level difference of zero
   Heating: Indoor temp. 20°C (68°F) DB / 15°C (59°F) WB, Outdoor temp. 7°C (44.6°F) DB / 6°C (42.8°F) WB, Interconnecting piping length 7.5m, Level difference of zero
  3. Due to our policy of innovation, some specifications may be changed without notification

### Accessories

Chassis	ARNU12GL2G4	ARNU15GL2G4	ARNU18GL2G4				
Drain Pump		0					
Cassette Cover	-						
Refrigerant Leakage Detector							
EEV Kit	-						
Independent Power Module	PRIPO PRIPO						
Robot Cleaner							
Pre Filter (washable / anti-fungus)							
Ion Generator							
CO <sub>2</sub> Sensor		-					
Ventilation Kit		-					
IR Receiver		PWLRVN000					
Zone Controller		ABZCA					
Dry Contact (with additional accessory)	PDRYCB000 (1 point contact) PDRYCB300 (8 points for thermostat compatible) PDRYCB400 (2 points input) PDRYCB500 (Modbus)						
External Input (1 point)	0						
Wi-Fi		PWFMDD200					

※ ○ : Applied, - : Not applied Option : Refer to model name in table



### ARNU21GL3G4 / ARNU24GL3G4

	Model	Unit	ARNU21GL3G4	ARNU24GL3G4
Cooling Capacity k		kW	6.2	7.1
Heating Capacity		kW	7.0	8.0
Power Input (H / M / L)			72 / 53 / 48	103 / 63 / 48
Dimensions	Body	mm	1,100 x 190 x 700	1,100 x 190 x 700
$(W \times H \times D)$	Shipping		1,262 x 255 x781	1,262 x 255 x781
	Туре		Sirocco Fan	Sirocco Fan
	Motor Output x Number	W x No.	19 x 2	19 x 2
	Air Flow Rate (H / M / L) (High Mode-Factory Set)	m³/min	17.5 / 14.0 / 12.0	20.0 / 16.0 / 12.0
	External Static Pressure (High Mode)	mmAq (Pa)	2.54 (25)	2.54 (25)
	Air Flow Rate (H / M / L) (Standard Mode)	m³/min	17.5 / 14.0 / 12.0	20.0 / 16.0 / 12.0
	External Static Pressure (Standard Mode)	mmAq (Pa)	0 (0)	0 (0)
	Motor Type		BLDC	BLDC
Air Filter			Pre Filter	Pre Filter
	Liquid Side	mm (inch)	Ø9.52 (3/8)	Ø9.52 (3/8)
Pipe Connections	Gas Side	mm (inch)	Ø15.88 (5/8)	Ø15.88 (5/8)
	Drain Pipe (Internal Dia.)	mm (inch)	Ø25 (1)	Ø25 (1)
Neight	Body	kg	27.0	27.0
Sound Pressu	re Levels (H / M / L)	dB(A)	35 / 29 / 28	36 / 33 / 28
Sound Power	Levels (H / M / L)	dB(A)	59 / 55 / 54	63 / 59 / 55
		a	1, 220 ~ 240, 50	1, 220 ~ 240, 50
Power Supply			1, 220, 60	1, 220, 60
Communicati	on Cable	mm² x No.	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C

- Note: 1. Performance tested under EN14511
  2. Capacities are based on the following conditions
   Cooling: Indoor temp. 27°C (80.6°F) DB / 19°C (66.2°F) WB, Outdoor temp. 35°C (95°F) DB / 24°C (75.2°F) WB, Interconnecting piping length 7.5m, Level difference of zero
   Heating: Indoor temp. 20°C (68°F) DB / 15°C (59°F) WB, Outdoor temp. 7°C (44.6°F) DB / 6°C (42.8°F) WB, Interconnecting piping length 7.5m, Level difference of zero
  3. Due to our policy of innovation, some specifications may be changed without notification

### Accessories

Chassis	ARNU21GL3G4	ARNU24GL3G4					
Drain Pump	0						
Cassette Cover	-						
Refrigerant Leakage Detector	PRLDNVS0						
EEV Kit	PRGK02	24A0					
Independent Power Module	PRIPO						
Robot Cleaner	-						
Pre Filter (washable / anti-fungus)	0						
Ion Generator							
CO <sub>2</sub> Sensor	-						
Ventilation Kit	-						
IR Receiver	PWLRVN	N000					
Zone Controller	ABZC						
Dry Contact (with additional accessory)	PDRYCB000 (1 p PDRYCB300 (8 points for t PDRYCB400 (2 PDRYCB500	point contact) thermostat compatible) points input) (Modbus)					
External Input (1 point)	0						
Wi-Fi	PWFMDI	D200					

※ ○ : Applied, - : Not applied Option : Refer to model name in table

# **HIGH SENSIBLE**



### ARNU07GM2A4 / ARNU09GM2A4 / ARNU12GM2A4 / ARNU15GM2A4 / ARNU18GM3A4

	Model	Unit	ARNU07GM2A4	ARNU09GM2A4	ARNU12GM2A4	ARNU15GM2A4	ARNU18GM3A4
Cooling Capa	city		2.2	2.8	3.6	4.5	5.6
Heating Capa	acity	kW	2.5	3.2	4.0	5.0	6.3
Power Input (H / M / L)		W	32 / 29 / 27	32 / 29 / 27	33 / 30 / 28	33 / 30 / 28	97 / 70 / 51
Dimensions (W x H x D)			1,250 × 270 × 700	1,250 × 270 × 700	1,250 × 270 × 700	1,250 × 270 × 700	1,250 × 360 × 700
	Туре		Sirocco Fan				
	Motor Output x Number	W x No.	350 x 1	350 x 1	350 x 1	350 x 1	500 x 1
_	Air Flow Rate (H / M / L) (High static Mode - factory set)	m³/min	13.3 / 9.4 / 6.8	13.3 / 9.4 / 6.8	14.8 / 10.2 / 7.4	14.8 / 10.2 / 7.4	32.7 / 26.7 / 23.0
Fan	External Static Pressure	mmAq (Pa)	6 (59)	6 (59)	6 (59)	6 (59)	6 (59)
	Air Flow Rate (H / M / L) (Standard Mode)	m³/min	13.3 / 9.4 / 6.8	13.3 / 9.4 / 6.8	14.8 / 10.2 / 7.4	14.8 / 10.2 / 7.4	32.7 / 26.7 / 23.0
	External Static Pressure	mmAq (Pa)	5 (49)	5 (49)	5 (49)	5 (49)	5 (49)
	Motor type		BLDC	BLDC	BLDC	BLDC	BLDC
Air Filter			-	-	-	-	-
-	Liquid Side	mm (inch)	Ø9.52 (3/8)				
Pipe Connections	Gas Side	mm (inch)	Ø15.88 (5/8)				
Connections	Drain Pipe (Internal Dia.)	mm (inch)	25 (1)	25 (1)	25 (1)	25 (1)	25 (1)
Net Weight		kg	38	38	38	38	44
Sound Pressu	ıre Levels (H / M / L)	dB(A)	33 / 33 / 32	33 / 33 / 32	34 / 33 / 32	34 / 33 / 32	38 / 36 / 34
Sound Power	Levels (H / M / L)	dB(A)	52 / 52 / 52	52 / 52 / 52	53 / 52 / 52	53 / 52 / 52	52 / 51 / 50
Dower Supply	D. C. I.		1, 220 - 240, 50	1, 220 - 240, 50	1, 220 - 240, 50	1, 220 - 240, 50	1, 220 - 240, 50
Power Supply		Ø, V, Hz	1, 220, 60	1, 220, 60	1, 220, 60	1, 220, 60	1, 220, 60
Transmission	cable	mm²	1.0 ~ 1.5 x 2C				

Note: 1. Due to our policy of innovation some specifications may be changed without notification.

- 1. Due to our policy of innovation some specifications may be changed without notification.
   2. Wiring cable size must comply with the applicable local and national code. And "Electric characteristics" chapter should be considered for electrical work and design. Especially the power cable and circuit breaker should be selected in accordance with that.
   3. 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.
   4. Capacities are net capacities and based on the following conditions. Refer to the Outdoor Unit Specifications for calculating the real capacity.
   Cooling: Indoor Ambient Temp. 27°CDB / 19°CWB, Outdoor Ambient Temp. 35°CDB / 24°CWB
   Heating: Indoor Ambient Temp. 20°CDB / 15°CWB, Outdoor Ambient Temp. 7°CDB / 6°CWB
   Interconnected Pipe is standard length and difference of Elevation (Outdoor Indoor Unit) is Zero.
   Sound levels are measured at 50Pa External Static Pressure condition.
   \*: Air flow rate could be different in accordance with External Static Pressure and setting value.

### Accessories

Chassis	ARNU07GM2A4	ARNU09GM2A4	ARNU12GM2A4	ARNU15GM2A4	ARNU18GM3A4		
Drain Pump	0						
Cassette Cover	-						
Refrigerant Leakage Detector	PRLDNVS0						
EEV Kit		-					
Independent Power Module	PRIPO						
Robot Cleaner	-						
Pre Filter (washable / anti-fungus)	0						
Ion Generator			-				
CO <sub>2</sub> Sensor			-				
Ventilation Kit			-				
IR Receiver			PWLRVN000				
Zone Controller			ABZCA				
Dry Contact (with additional accessory)	PDRYCB000 (1 point contact) PDRYCB300 (8 points for thermostat compatible) PDRYCB400 (2 points input) PDRYCB500 (Modbus)						
External Input (1 point)		·	0	·	·		
Wi-Fi		·	PWFMDD200		·		

※ ○ : Applied, - : Not applied Option : Refer to model name in table



### ARNU24GM3A4 / ARNU28GM3A4 / ARNU36GB8A4 / ARNU42GB8A4 / ARNU48GB8A4

	Model	Unit	ARNU24GM3A4	ARNU28GM3A4	ARNU36GB8A4	ARNU42GB8A4	ARNU48GB8A4
Cooling Capa	city	kW	7.1	8.2	10.6	12.3	14.1
Heating Capa	city	kW	8.0	9.2	11.9	13.8	15.9
Power Input (H / M / L)		W	109 / 83 / 60	109 / 83 / 60	420 / 403 / 478	528 / 497 / 465	538 / 505 / 482
Dimensions (W x H x D)		mm	1,250 × 360 × 700	1,250 × 360 × 700	1,562 x 460 x 688	1,562 x 460 x 688	1,562 x 460 x 688
	Туре		Sirocco Fan				
	Motor Output x Number	W x No.	500 x 1	500 x 1	375 x 2	375 x 2	375 x 2
	Air Flow Rate (H / M / L) (High static Mode - factory set)	m³/min	35.5 / 30.6 / 26.2	35.5 / 30.6 / 26.2	49.0 / 37.3 / 30.2	54.2 / 41.3 / 31.8	57.2 / 43.0 / 34.0
Fan	External Static Pressure	mmAq (Pa)	6 (59)	6 (59)	18 (176)	18 (176)	18 (176)
	Air Flow Rate (H / M / L) (Standard Mode)	m³/min	35.5 / 30.6 / 26.2	35.5 / 30.6 / 26.2	53.7 / 49.5 / 43.9	55.6 / 50.6 / 45.0	58.0 / 52.3 / 47.3
	External Static Pressure	mmAq (Pa)	5 (49)	5 (49)	9 (88)	9 (88)	9 (88)
	Motor type		BLDC	BLDC	BLDC	BLDC	BLDC
Air Filter			-	-	-	-	-
	Liquid Side	mm (inch)	Ø9.52 (3/8)				
Pipe Connections	Gas Side	mm (inch)	Ø15.88 (5/8)	Ø15.88 (5/8)	Ø19.05 (3/4)	Ø19.05 (3/4)	Ø19.05 (3/4)
Connections	Drain Pipe (Internal Dia.)	mm (inch)	25 (1)	25 (1)	25 (1)	25 (1)	25 (1)
Net Weight		kg	44	44	87	87	87
Sound Pressu	re Levels (H / M / L)	dB(A)	39 / 37 / 35	39 / 37 / 35	46 / 45 / 42	47 / 46 / 43	47 / 46 / 44
Sound Power	Levels (H / M / L)	dB(A)	53 / 52 / 51	53 / 52 / 51	65 / 64 / 62	66 / 65 / 63	66 / 65 / 64
D CI		G VIII-	1, 220 - 240, 50	1, 220 - 240, 50	1, 220 - 240, 50	1, 220 - 240, 50	1, 220 - 240, 50
Power Supply		Ø, V, Hz	1, 220, 60	1, 220, 60	1, 220, 60	1, 220, 60	1, 220, 60
Transmission	cable	mm²	1.0 ~ 1.5 x 2C				

Note: 1. Due to our policy of innovation some specifications may be changed without notification.

- e: 1. Due to our policy of innovation some specifications may be changed without notification.

  2. Wiring cable size must comply with the applicable local and national code. And "Electric characteristics" chapter should be considered for electrical work and design. Especially the power cable and circuit breaker should be selected in accordance with that.

  3. 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.

  4. Capacities are net capacities and based on the following conditions. Refer to the Outdoor Unit Specifications for calculating the real capacity.

   Cooling: Indoor Ambient Temp. 27°CDB / 19°CWB, Outdoor Ambient Temp. 35°CDB / 24°CWB

   Heating: Indoor Ambient Temp. 20°CDB / 15°CWB, Outdoor Ambient Temp. 7°CDB / 6°CWB

   Interconnected Pipe is standard length and difference of Elevation (Outdoor Indoor Unit) is Zero.

  5. Sound levels are measured at 50Pa External Static Pressure condition.

  6. \*: Air flow rate could be different in accordance with External Static Pressure and setting value.

### Accessories

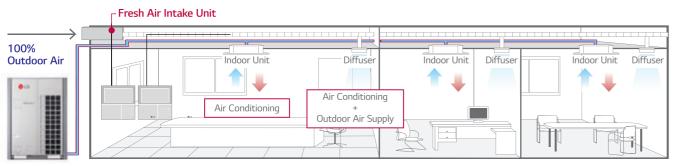
Chassis	ARNU24GM3A4	ARNU28GM3A4	ARNU36GB8A4	ARNU42GB8A4	ARNU48GB8A4			
Drain Pump		0						
Cassette Cover			-					
Refrigerant Leakage Detector			PRLDNVS0					
EEV Kit			-					
Independent Power Module		PRIPO						
Robot Cleaner		-						
Pre Filter (washable / anti-fungus)			0					
Ion Generator			-					
CO <sub>2</sub> Sensor			-					
Ventilation Kit			-					
IR Receiver			PWLRVN000					
Zone Controller			ABZCA					
Dry Contact (with additional accessory)	PDRYCB000 (1 point contact) PDRYCB300 (8 points for thermostat compatible) PDRYCB400 (2 points input) PDRYCB500 (Modbus)							
External Input (1 point)	0							
Wi-Fi			PWFMDD200					

※ ○ : Applied, - : Not applied Option : Refer to model name in table

# FRESH AIR INTAKE UNIT

### Fresh Outdoor Air Supply

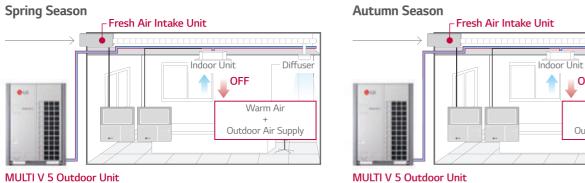
The LG Fresh Air Intake Unit (FAU) is the alternative solution for ventilation, which supplies the fresh outdoor air indoors as well as being able to cool and heat air inside simultaneously. It means the indoor space can have positive air pressure consistently, which can block cold, hot or contaminated air from outside.



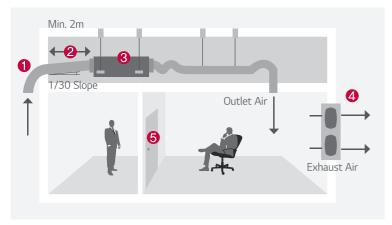
**MULTI V 5 Outdoor Unit** 

### **Economic Operation**

Using the cooling and heating can save costs by blowing the natural outdoor air inside when the seasons change.



### **Installation Scene**





OFF

Cool Air

Outdoor Air Supply

# FRESH AIR INTAKE UNIT



### ARNU76GB8Z4 / ARNU96GB8Z4

	Model	Unit	ARNU76GB8Z4	ARNU96GB8Z4
Cooling Capa	city		22.4	28.0
Heating Capa	city	kW	21.4	26.7
Power Input (H / M / L)			230 / 200 / 200	360 / 230 / 230
Dimensions	Body	mm	1,562 x 460 x 688	1,562 x 460 x 688
$(W \times H \times D)$	Shipping	mm	1,806 x 537 x 825	1,806 x 537 x 825
	Туре		Sirocco Fan	Sirocco Fan
	Motor Output x Number	W x No.	375 x 1	375 x 1
	Air Flow Rate (H / M / L) (High Mode-Factoty Set)	m³/min	23.7 / 13.2 / 13.2	35.7 / 23.7 / 23.7
	External Static Pressure	mmAq (Pa)	22 (216)	22 (216)
	Motor Type		BLDC	BLDC
Air Filter			Long Life Filter	Long Life Filter
	Liquid Side	mm (inch)	Ø9.52 (3/8)	Ø9.52 (3/8)
Pipe Connections		mm (inch)	Ø19.05 (3/4)	Ø22.2 (7/8)
20111122210113	Drain Pipe (Internal Dia.)	mm (inch)	Ø25 (1)	Ø25 (1)
Weight			73.0	73.0
Sound Pressu	re Levels (H / M / L)	dB(A)	45 / 43 / 43	47 / 45 / 45
Sound Power	Levels (H / M / L)	dB(A)	70 / 67 / 67	72 / 70 / 70
Dower Cupply		Ø, V, Hz	1, 220 ~ 240, 50	1, 220 ~ 240, 50
Power Supply		⊌, v, H2	1, 220, 60	1, 220, 60
Communicati	on Cable	mm² x No.	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C

Note: 1. Performance tested under EN14511

Capacities are based on the following conditions

- Cooling: Indoor temp. 27°C (80.6°F) DB / 19°C (66.2°F) WB, Outdoor temp. 35°C (95°F) DB / 24°C (75.2°F) WB, Interconnecting piping length 7.5m, Level difference of zero - Heating: Indoor temp. 20°C (68°F) DB / 15°C (59°F) WB, Outdoor temp. 7°C (44.6°F) DB / 6°C (42.8°F) WB, Interconnecting piping length 7.5m, Level difference of zero 3. Due to our policy of innovation, some specifications may be changed without notification

### **▲** CAUTION

1. Operation range (Cooling: 5°C ~ 43°C, Heating: -5°C ~ 43°C)
2. Installation of exhaust fan is recommended for a sealed room.
3. Indoor Unit Connection

No	Connection Condition	Combination
1	Fresh air intake units only are connected with outdoor units	1) The total capcity of fresh air intak unit should be 50 ~ 100% of outdoor unit. 2) The max quantity of fresh air intake is 4 units.
2	Mixture connection with general indoor unit and fresh intake units	1) The total capacity of indoor units (Standard Indoor Unit + Fresh Air Intake Unit) should be 50 ~ 100% of outdoor unit. 2) The total capacity of fresh air intake unit should be less than 30% of the total capacity of indoor units.

### Accessories

Chassis	ARNU76GB8Z4	ARNU96GB8Z4
Drain Pump	O	
Cassette Cover	-	
Refrigerant Leakage Detector	PRLDI	NVS0
EEV Kit	-	
Independent Power Module	PRII	PO
Robot Cleaner	-	
Pre Filter (washable / anti-fungus)	0	
Ion Generator	·	
CO <sub>2</sub> Sensor	•	
Ventilation Kit	·	
IR Receiver	PWLRVN000	
Zone Controller	-	
Dry Contact (with additional accessory)	PDRYCB000 (1 point contact) PDRYCB300 (8 points for thermostat compatible) PDRYCB400 (2 points input) PDRYCB500 (Modbus)	
External Input (1 point)	0	
Wi-Fi	PWFMI	DD200

※ ○ : Applied, - : Not applied Option : Refer to model name in table

# **CEILING & FLOOR CONVERTIBLE UNIT CEILING SUSPENDED UNIT**

### **Features & Benefits**

- Modern design with V-shape and black vane is for any commercial space
- The powerful air speed and volume reach up to 15m away

### **Key Applications**

- Retail
- Shop
- Restaurant

	Ceilings	Ceiling & Floor Convertible Unit	Ceiling Suspended Unit
Smart	Wi-Fi	0	0
Fast Cooling & Heating	Jet Cool	0	0
	Sleep mode	0	0
	Timer (on / off)	0	0
Comfort	Timer (weekly)	0	0
	Two thermistor control	0	0
	Group control	0	0

※ ○ : Applied, - : Not applied

# **SMART**

### Wi-Fi Control

Control your air conditioners by using the smart internet devices as Android or iOS based smartphones.



### LG SmartThinO

Search "LG SmartThinQ" on Google market or Appstore LG Smart ThinQ then download the app.

Access your air conditioner anytime and from anywhere



### Easy Registration and Log-in

Follow the easy set-up steps that will activate SmartThinQ's impressive feature.



# **COMFORT**(Convertible unit)

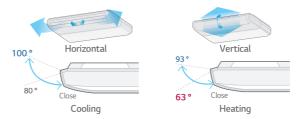
### Flexible Installation

The ceiling and floor models can be installed either on the ceiling or on the floor.



### **Air flow Direction Control**

Vertical Air flow direction can be adjusted using remote controller, and horizontal Air flow direction can be adjusted manually.



# Filter Change Alarm

The filter change alarm informs you when the unit has been operating for 2,400hours.



# **COMFORT**(Ceiling suspended unit)

### **Differentiated Design**

Modern elegance design with V-shape and black vane is appropriate for any commercial space. It received iF Design Award.



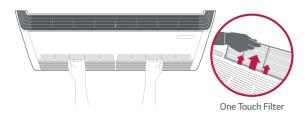
# **Powerful Cooling & Heating**

High ceiling mode provides powerful cooling and heating up to 4.2m in height from floor, 15m away from ceiling.



### One Touch & 2 Piece Filter

Easy in / out filter structure as well as a simplified two-piece filter, which slides out for easy cleaning and maintenance.



### Two Thermistors Control

Users can purchase a wired remote controller that includes a second thermistor, allowing for temperature checks from multiple locations.



# **CEILING & FLOOR CONVERTIBLE UNIT**



### ARNU09GVEA4 / ARNU12GVEA4

	Model	Unit	ARNU09GVEA4	ARNU12GVEA4
Cooling Capa	city		2.8	3.6
Heating Capa	city	kW	3.2	4.0
Power Input (H / M / L)			19 / 15 / 11	28 / 19 / 15
Exterior Colo	r		Morning Fog	Morning Fog
RAL Code			RAL 9001	RAL 9001
Dimensions	Body	mm	900 x 490 x 200	900 x 490 x 200
$(W \times H \times D)$	Shipping	mm	975 x 279 x 562	975 x 279 x 562
	Туре		Cross Flow Fan	Cross Flow Fan
	Motor Output x Number	W x No.	27 x 1	27 x 1
Fan	A:- Fl D /11 / 84 / 1 \	m³/min	7.6 / 6.9 / 6.2	9.2 / 7.6 / 6.9
	Air Flow Rate (H / M / L)	cfm	268 / 244 / 219	325 / 268 / 244
	Motor Type		BLDC	BLDC
Air Filter			Pre Filter	Pre Filter
	Liquid Side	mm (inch)	Ø6.35 (1/4)	Ø6.35 (1/4)
Pipe Connections	Gas Side	mm (inch)	Ø12.7 (1/2)	Ø12.7 (1/2)
Connections	Drain Pipe (Internal Dia.)	mm (inch)	Ø16 (5/8)	Ø16 (5/8)
Weight	Body	kg	13.3	13.3
Sound Pressu	re Levels (H / M / L)	dB(A)	36 / 32 / 28	38 / 36 / 30
Sound Power	Levels (H / M / L)	dB(A)	55 / 51 / 45	56 / 55 / 49
Danner Cumple			1, 220 ~ 240, 50	1, 220 ~ 240, 50
Power Supply		Ø, V, Hz	1, 220, 60	1, 220, 60
Communicati	on Cable	mm² x No.	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C

Note: 1. Performance tested under EN14511
2. Capacities are based on the following conditions
- Cooling: Indoor temp. 27°C (80.6°F) DB / 19°C (66.2°F) WB, Outdoor temp. 35°C (95°F) DB / 24°C (75.2°F) WB, Interconnecting piping length 7.5m, Level difference of zero
- Heating: Indoor temp. 20°C (68°F) DB / 15°C (59°F) WB, Outdoor temp. 7°C (44.6°F) DB / 6°C (42.8°F) WB, Interconnecting piping length 7.5m, Level difference of zero
3. Due to our policy of innovation, some specifications may be changed without notification

### Accessories

Chassis	ARNU09GVEA4	ARNU12GVEA4	
Drain Pump	-		
Refrigerant Leakage Detector	-		
EEV Kit	PRLDNV	/50	
Independent Power Module	PRGK024	4A0	
Plasma Kit	PRIPO	)	
Robot Cleaner	-		
Pre Filter (washable / anti-fungus)	0		
Ion Generator	-		
CO <sub>2</sub> Sensor	-		
Ventilation Kit	-		
IR Receiver	-		
Zone Controller	-		
Dry Contact (with additional accessory)	PDRYCB000 (1 p PDRYCB300 (8 points for t PDRYCB400 (2 p PDRYCB500 (	points input)	
External Input (1 point)	0		
Wi-Fi	PWFMDD200 ¹)		

※ ○ : Applied, - : Not Applied Option: Refer to model name in table

# **CEILING SUSPENDED UNIT**





### ARNU18GV1A4 / ARNU24GV1A4 ARNU36GV2A4 / ARNU48GV2A4

	Model	Unit	ARNU18GV1A4	ARNU24GV1A4	ARNU36GV2A4	ARNU48GV2A4
Cooling Capac	city		5.6	7.1	10.6	14.1
Heating Capa	city	kW	6.3	8.0	11.9	15.9
Power Input (H / M / L)			23 / 20 / 17	25 / 21 / 17	84 / 77 / 66	91 / 79 / 66
Exterior Color	•		Morning Fog	Morning Fog	Morning Fog	Morning Fog
RAL Code			RAL 9001	RAL 9001	RAL 9001	RAL 9001
Dimensions	Body	mm	1,200 x 235 x 690	1,200 x 235 x 690	1,600 x 235 x 690	1,600 x 235 x 690
$(W \times H \times D)$	Shipping	mm	1,315 x 320 x 772	1,315 x 320 x 772	1,715 x 320 x 772	1,715 x 320 x 772
	Туре		Cross Flow Fan	Cross Flow Fan	Cross Flow Fan	Cross Flow Fan
	Motor Output x Number	W x No.	85.9 x 1	85.9 x 1	125 x 1	125 x 1
Fan	Air Flow Rate (H / M / L)	m³/min	13.5 / 12.5 / 12.0	14.0 / 13.0 / 12.0	27.0 / 24.0 / 20.0	29.0 / 24.0 / 20.0
	Motor Type		BLDC	BLDC	BLDC	BLDC
Air Filter			Pre Filter	Pre Filter	Pre Filter	Pre Filter
	Liquid Side	mm (inch)	Ø6.35 (1/4)	Ø9.52 (3/8)	Ø9.52 (3/8)	Ø9.52 (3/8)
Pipe Connections	Gas Side	mm (inch)	Ø12.7 (1/2)	Ø15.88 (5/8)	Ø15.88 (5/8)	Ø15.88 (5/8)
	Drain Pipe (Internal Dia.)	mm (inch)	Ø16 (5/8)	Ø16 (5/8)	Ø16 (5/8)	Ø16 (5/8)
Weight	Body	kg	29.0	29.0	37.0	37.0
Sound Pressu	re Levels (H / M / L)	dB(A)	36 / 34 / 33	37 / 35 / 33	48 / 46 / 44	49 / 47 / 44
Sound Power	Levels (H / M / L)	dB(A)	61 / 59 / 56	62 / 59 / 56	68 / 66 / 64	68 / 67 / 66
Dower Supply		Ø 1/ U=	1, 220 ~ 240, 50	1, 220 ~ 240, 50	1, 220 ~ 240, 50	1, 220 ~ 240, 50
Power Supply		Ø, V, Hz	1, 220, 60	1, 220, 60	1, 220, 60	1, 220, 60
Communication	on Cable	mm² x No.	1.0 ~ 1.5 x 2C			

Note : 1. Performance tested under EN14511
2. Capacities are based on the following conditions
- Cooling: Indoor temp. 27°C (80.6°F) DB / 19°C (66.2°F) WB, Outdoor temp. 35°C (95°F) DB / 24°C (75.2°F) WB, Interconnecting piping length 7.5m, Level difference of zero
- Heating: Indoor temp. 20°C (68°F) DB / 15°C (59°F) WB, Outdoor temp. 7°C (44.6°F) DB / 6°C (42.8°F) WB, Interconnecting piping length 7.5m, Level difference of zero
3. Due to our policy of innovation, some specifications may be changed without notification

### Accessories

Chassis	ARNU18GV1A4	ARNU24GV1A4	ARNU36GV2A4	ARNU48GV2A4
Drain Pump			-	
Cassette Cover			-	
Refrigerant Leakage Detector		PRLD	NVS0	
EEV Kit			-	
Independent Power Module		PR	IPO	
Robot Cleaner	-			
Pre Filter (washable / anti-fungus)	0			
Ion Generator	-			
CO <sub>2</sub> Sensor	-			
Ventilation Kit	·			
IR Receiver	-			
Zone Controller			-	
Dry Contact (with additional accessory)	PDRYCB000 (1 point contact) PDRYCB300 (8 points for thermostat compatible) PDRYCB400 (2 points input) PDRYCB500 (Modbus)			
External Input (1 point)	0			
Wi-Fi	·	PWFM	DD200	

※ ○ : Applied, - : Not Applied Option: Refer to model name in table



### Features & Benefits

- 6 way flexible piping
- Protect cold draft from window
- Protect condensation

### **Key Applications**

- Residential building
- Hotel
- Historical building

Flo	or standing	Console	Floor Standing Unit
Smart	Wi-Fi	0	0
Energy Efficiency	Jet Cool	-	0
Health	Lonizer	0	-
Fast Cooling & Heating	Jet Cool	0	-
	Sleep Mode	0	0
	Timer (on / off)	0	0
Comfort	Timer (weekly)	0	0
	Two Thermistor Control	0	0
	Group Control	0	0

※ ○ : Applied, - : Not applied

# **SMART**

### Wi-Fi Control

Control your air conditioners by using the smart internet devices as Android or iOS based smartphones.



### LG SmartThinQ

Search "LG SmartThinQ" on Google market or Appstore

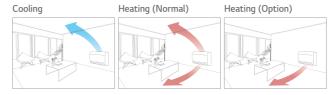
Access your air conditioner anytime and from anywhere



# COMFORT(Console)

# **Air Flow Direction Change**

During the cooling operation, the vane adjusts upwards to direct the air flow towards the ceiling. When heating, the vane directs the warm air downwards to balance the room temperature especially for floor.



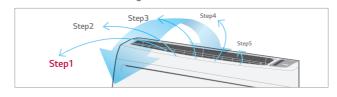
### **Protect Cold Draft**

The console protects cold draft from windows to provide comfortable environment.



# 5-Step Vane Control

There are 5 different stages to control air flow direction.



# 6 Way Flexible Piping

It is possible to install and connect the outdoor unit in 6 different ways. (Right Side, Right Back, Right Floor, Left Side, Left Back, Left Floor)



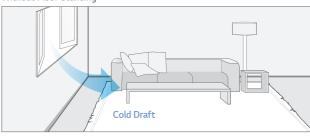


# **COMFORT**(Floor Standing Unit)

### **Protect Cold Draft**

The floor standing unit protects cold draft coming from window and preventing condensation.

Without Floor Standing

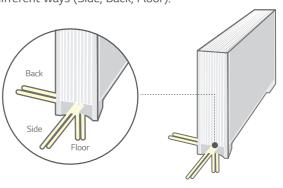


With Floor Standing



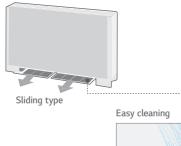
# 3 Way Flexible Piping

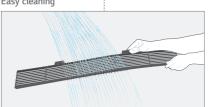
It is possible to install and connect the outdoor unit in 3 different ways (Side, Back, Floor).



# **Sliding Type Filter**

Easy maintenance and extended product life with sliding type filter.





# **CONSOLE**



### ARNU07GQAA4 / ARNU09GQAA4

	Model	Unit	ARNU07GQAA4	ARNU09GQAA4
Cooling Capacity			2.2	2.8
Heating Capa	city	kW	2.5	3.2
Power Input (H / M / L)			15 / 12 / 10	15 / 12 / 10
Exterior Color	•		Morning Fog	Morning Fog
RAL Code			RAL 9001	RAL 9001
Dimensions	Body	mm	700 x 600 x 210	700 x 600 x 210
$(W \times H \times D)$	Shipping	mm	775 x 662 x 284	775 x 662 x 284
	Туре		Turbo fan	Turbo fan
Гол	Motor Output x Number	W x No.	48 x 1	48 x 1
Fan	Air Flow Rate (H / M / L)	m³/min	6.7 / 5.9 / 4.8	6.7 / 5.9 / 4.8
	Motor Type		BLDC	BLDC
Air Filter			Pre Filter	Pre Filter
	Liquid Side	mm (inch)	Ø6.35 (1/4)	Ø6.35 (1/4)
Pipe Connections	Gas Side	mm (inch)	Ø12.7 (1/2)	Ø12.7 (1/2)
Connections	Drain Pipe (Internal Dia.)	mm (inch)	Ø12 (15/32)	Ø12 (15/32)
Weight	Body	kg	14.0	14.0
Sound Pressu	re Levels (H / M / L)	dB(A)	37 / 34 / 28	37 / 34 / 28
Sound Power	Levels (H / M / L)	dB(A)	53 / 50 / 44	53 / 50 / 44
		Ø V U-	1, 220 ~ 240, 50	1, 220 ~ 240, 50
Power Supply		Ø, V, Hz	1, 220, 60	1, 220, 60
Communication	on Cable	mm² x No.	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C

- Note: 1. Performance tested under EN14511
  2. Capacities are based on the following conditions
   Cooling: Indoor temp. 27°C (80.6°F) DB / 19°C (66.2°F) WB, Outdoor temp. 35°C (95°F) DB / 24°C (75.2°F) WB, Interconnecting piping length 7.5m, Level difference of zero
   Heating: Indoor temp. 20°C (68°F) DB / 15°C (59°F) WB, Outdoor temp. 7°C (44.6°F) DB / 6°C (42.8°F) WB, Interconnecting piping length 7.5m, Level difference of zero
  3. Due to our policy of innovation, some specifications may be changed without notification

### Accessories

Chassis	ARNU07GQAA4	ARNU15GQAA4	
Drain Pump	-		
Cassette Cover	-		
Refrigerant Leakage Detector	PRLDI	NVS0	
EEV Kit	PRGK0	24A0	
Independent Power Module	PRI	P0	
Robot Cleaner	-		
Pre Filter (washable / anti-fungus)	0		
Ion Generator	0		
CO <sub>2</sub> Sensor	-	-	
Ventilation Kit			
IR Receiver	-		
Zone Controller	-		
Dry Contact (with additional accessory)	PDRYCB000 (1 point contact) PDRYCB300 (8 points for thermostat compatible) PDRYCB400 (2 points input) PDRYCB500 (Modbus)		
External Input (1 point)	0		
Wi-Fi	PWFMDD200		

<sup>※ ○ :</sup> Applied, - : Not Applied Option: Refer to model name in table



### ARNU12GQAA4 / ARNU15GQAA4

	Model	Unit	ARNU12GQAA4	ARNU15GQAA4
Cooling Capa	city		3.6	4.5
Heating Capa	acity	kW	4.0	5.0
Power Input (H / M / L)			18 / 15 / 13	24 / 19 / 17
Exterior Colo	r		Morning Fog	Morning Fog
RAL Code			RAL 9001	RAL 9001
Dimensions	Body	mm	700 x 600 x 210	700 x 600 x 210
$(W \times H \times D)$	Shipping	mm	775 x 662 x 284	775 x 662 x 284
	Туре		Turbo fan	Turbo fan
- an	Motor Output x Number	W x No.	48 x 1	48 x 1
	Air Flow Rate (H / M / L)	m³/min	7.5 / 5.9 / 4.8	8.7 / 6.7 / 5.9
	Motor Type		BLDC	BLDC
Air Filter			Pre Filter	Pre Filter
	Liquid Side	mm (inch)	Ø6.35 (1/4)	Ø6.35 (1/4)
Pipe Connections	Gas Side	mm (inch)	Ø12.7 (1/2)	Ø12.7 (1/2)
	Drain Pipe (Internal Dia.)	mm (inch)	Ø12 (15/32)	Ø12 (15/32)
Weight	Body	kg	14.0	14.0
Sound Pressu	ire Levels (H / M / L)	dB(A)	39 / 34 / 28	42 / 37 / 31
Sound Power	Levels (H / M / L)	dB(A)	56 / 50 / 44	58 / 53 / 50
Dower Cupple		Ø V U-	1, 220 ~ 240, 50	1, 220 ~ 240, 50
Power Supply		Ø, V, Hz	1, 220, 60	1, 220, 60
Communicati	on Cable	mm² x No.	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C

Note: 1. Performance tested under EN14511
2. Capacities are based on the following conditions
- Cooling: Indoor temp. 27°C (80.6°F) DB / 19°C (66.2°F) WB, Outdoor temp. 35°C (95°F) DB / 24°C (75.2°F) WB, Interconnecting piping length 7.5m, Level difference of zero
- Heating: Indoor temp. 20°C (68°F) DB / 15°C (59°F) WB, Outdoor temp. 7°C (44.6°F) DB / 6°C (42.8°F) WB, Interconnecting piping length 7.5m, Level difference of zero
3. Due to our policy of innovation, some specifications may be changed without notification

### Accessories

Chassis	ARNU12GQAA4	ARNU15GQAA4					
Drain Pump		-					
Cassette Cover	-						
Refrigerant Leakage Detector	PRLD	NVS0					
EEV Kit	PRGK	024A0					
Independent Power Module	PR	IPO					
Robot Cleaner		-					
Pre Filter (washable / anti-fungus)	(	0					
Ion Generator		0					
CO <sub>2</sub> Sensor		-					
Ventilation Kit							
IR Receiver		-					
Zone Controller	-						
Dry Contact (with additional accessory)	PDRYCB000 (1 point contact) PDRYCB300 (8 points for thermostat compatible) PDRYCB400 (2 points input) PDRYCB500 (Modbus)						
External Input (1 point)	0						
Wi-Fi	PWFM	DD200					

※ O : Applied, - : Not Applied Option: Refer to model name in table

# **FLOOR STANDING UNIT**



\* A : Floor Standing with case

### ARNU07GCEA4 / ARNU09GCEA4 / ARNU12GCEA4 ARNU15GCEA4 / ARNU18GCFA4 / ARNU24GCFA4

Model		Unit	ARNU07GCEA4	ARNU09GCEA4	ARNU12GCEA4	ARNU15GCEA4	ARNU18GCFA4	ARNU24GCFA4
Cooling Capacity kV			2.2	2.8	3.6	4.5	5.6	7.1
Heating Capacity		kW	2.5	3.2	4.0	5.0	6.3	8.0
Power Input (H / M / L)			24 / 17 / 14	30 / 24 / 17	36 / 30 / 24	44 / 35 / 28	54 / 41 / 29	84 / 54 / 41
Exterior Color			Morning Fog	Morning Fog	Morning Fog	Morning Fog	Morning Fog	Morning Fog
RAL Code			RAL 9001	RAL 9001	RAL 9001 RAL 9001 RA		RAL 9001	RAL 9001
Dimensions	Body	mm	1,067 x 635 x 203	1,067 x 635 x 203	1,067 x 635 x 203	1,067 x 635 x 203	1,345 x 635 x 203	1,345 x 635 x 203
$(W \times H \times D)$	Shipping	mm	1,154 x 705 x 289	1,154 x 705 x 289	1,154 x 705 x 289	1,154 x 705 x 289	1,432 x 705 x 289	1,432 x 705 x 289
	Туре		Sirocco Fan	Sirocco Fan	Sirocco Fan	Sirocco Fan	Sirocco Fan	Sirocco Fan
Fan	Motor Output x Number	W x No.	19 x 1, 5 x 1	19 x 1, 5 x 1	19 x 1, 5 x 1	19 x 1, 5 x 1	19 x 2	19 x 2
Fall	Air Flow Rate (H / M / L)	m³/min	8.5 / 7.5 / 6.5	9.5 / 8.5 / 7.5	10.5 / 9.5 / 8.5	11.5 / 10.0 / 9.5	16.0 / 14.0 / 12.0	18.0 / 16.0 / 14.0
	Motor Type		BLDC	BLDC	BLDC	BLDC	BLDC	BLDC
Air Filter			Pre Filter	Pre Filter	Pre Filter	Pre Filter	Pre Filter	Pre Filter
	Liquid Side	mm (inch)	Ø6.35 (1/4)	Ø6.35 (1/4)	Ø6.35 (1/4)	Ø6.35 (1/4)	Ø6.35 (1/4)	Ø9.52 (3/8)
Pipe Connections	Gas Side	mm (inch)	Ø12.7 (1/2)	Ø12.7 (1/2)	Ø12.7 (1/2)	Ø12.7 (1/2)	Ø12.7 (1/2)	Ø15.88 (5/8)
Connections	Drain Pipe (Internal Dia.)	mm (inch)	Ø12 (15/32)	Ø12 (15/32)	Ø12 (15/32)	Ø12 (15/32)	Ø12 (15/32)	Ø12 (15/32)
Weight			27.0	27.0	27.0	27.0	34.0	34.0
Sound Pressu	re Levels (H / M / L)	dB(A)	35 / 33 / 31	36 / 34 / 32	37 / 35 / 33	38 / 37 / 35	40 / 37 / 34	43 / 40 / 37
Sound Power	Levels (H / M / L)	dB(A)	52 / 47 / 43	54 / 51 / 47	54 / 51 / 50	55 / 54 / 51	57 / 54 / 50	61 / 57 / 54
D		Ø V/ U=	1, 220 ~ 240, 50	1, 220 ~ 240, 50	1, 220 ~ 240, 50	1, 220 ~ 240, 50	1, 220 ~ 240, 50	1, 220 ~ 240, 50
Power Supply		Ø, V, Hz	1, 220, 60	1, 220, 60	1, 220, 60	1, 220, 60	1, 220, 60	1, 220, 60
Communication Cable mm² x		mm² x No.	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C

- Note: 1. Performance tested under EN14511
  2. Capacities are based on the following conditions
   Cooling: Indoor temp. 27°C (80.6°F) DB / 19°C (66.2°F) WB, Outdoor temp. 35°C (95°F) DB / 24°C (75.2°F) WB, Interconnecting piping length 7.5m, Level difference of zero
   Heating: Indoor temp. 20°C (68°F) DB / 15°C (59°F) WB, Outdoor temp. 7°C (44.6°F) DB / 6°C (42.8°F) WB, Interconnecting piping length 7.5m, Level difference of zero
  3. Due to our policy of innovation, some specifications may be changed without notification

\* U : Floor Standing without case

### ARNU07GCEU4 / ARNU09GCEU4 / ARNU12GCEU4 ARNU15GCEU4 / ARNU18GCFU4 / ARNU24GCFU4

	Model	Unit	ARNU07GCEU4	ARNU09GCEU4	ARNU12GCEU4	ARNU15GCEU4	ARNU18GCFU4	ARNU24GCFU4
Cooling Capacity			2.2	2.8	3.6	4.5	5.6	7.1
Heating Capacity		kW	2.5	3.2	4.0	5.0	6.3	8.0
Power Input (H / M / L)			24 / 17 / 14	30 / 24 / 17	36 / 30 / 24	44 / 35 / 28	54 / 41 / 29	84 / 54 / 41
Dimensions	Body	mm	978 x 639 x 190	1,256 x 639 x 190	1,256 x 639 x 190			
(W x H x D)	Shipping	mm	1,055 x 702 x 260	1,333 x 702 x 260	1,333 x 702 x 260			
	Туре		Sirocco Fan	Sirocco Fan				
Fan	Motor Output x Number	W x No.	19 x 1, 5 x 1	19 x 2	19 x 2			
FdII	Air Flow Rate (H / M / L)	m³/min	8.5 / 7.5 / 6.5	9.5 / 8.5 / 7.5	10.5 / 9.5 / 8.5	11.5 / 10.0 / 9.5	16.0 / 14.0 / 12.0	18.0 / 16.0 / 14.0
	Motor Type		BLDC	BLDC	BLDC	BLDC	BLDC	BLDC
Air Filter			Pre Filter	Pre Filter				
	Liquid Side	mm (inch)	Ø6.35 (1/4)	Ø9.52 (3/8)				
Pipe Connections	Gas Side	mm (inch)	Ø12.7 (1/2)	Ø15.88 (5/8)				
Cornicctions	Drain Pipe (Internal Dia.)	mm (inch)	Ø12 (15/32)	Ø12 (15/32)				
Weight			20.0	20.0	20.0	20.0	26.0	26.0
Sound Pressure Levels (H / M / L)		dB(A)	35 / 33 / 31	36 / 34 / 32	37 / 35 / 33	38 / 37 / 35	40 / 37 / 34	43 / 40 / 37
Sound Power Levels (H / M / L)		dB(A)	52 / 47 / 43	54 / 51 / 47	54 / 51 / 50	55 / 54 / 51	57 / 54 / 50	61 / 57 / 54
		Ø V II-	1, 220 ~ 240, 50	1, 220 ~ 240, 50	1, 220 ~ 240, 50	1, 220 ~ 240, 50	1, 220 ~ 240, 50	1, 220 ~ 240, 50
		Ø, V, Hz	1, 220, 60	1, 220, 60	1, 220, 60	1, 220, 60	1, 220, 60	1, 220, 60
		mm² x No.	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C				

- Note: 1. Performance tested under EN14511
  2. Capacities are based on the following conditions
   Cooling: Indoor temp. 27°C (80.6°F) DB / 19°C (66.2°F) WB, Outdoor temp. 35°C (95°F) DB / 24°C (75.2°F) WB, Interconnecting piping length 7.5m, Level difference of zero
   Heating: Indoor temp. 20°C (68°F) DB / 15°C (59°F) WB, Outdoor temp. 7°C (44.6°F) DB / 6°C (42.8°F) WB, Interconnecting piping length 7.5m, Level difference of zero
  3. Due to our policy of innovation, some specifications may be changed without notification

### Accessories

Chassis	ARNU07GCEA4 ARNU09GCEA4 ARNU12GCEA4 ARNU15GCEA4	ARNU18GCFA4 ARNU24GCFA4	
Drain Pump	-	-	
Cassette Cover	-	-	
Refrigerant Leakage Detector	PRLDNVS0	PRLDNVS0	
EEV Kit	PRGK024A0	-	
Independent Power Module	PRIP0	PRIP0	
Robot Cleaner		-	
Pre Filter (washable / anti-fungus)	0	0	
Ion Generator		-	
CO <sub>2</sub> Sensor	-		
Ventilation Kit		-	
IR Receiver	PWLRVN000	PWLRVN000	
Zone Controller		-	
Dry Contact (with additional accessory)	PDRYCB000 (1 point contact) PDRYCB300 (8 points for thermostat compatible) PDRYCB400 (2 points input) PDRYCB500 (Modbus)	PDRYCB000 (1 point contact) PDRYCB300 (8 points for thermostat compatible) PDRYCB400 (2 points input) PDRYCB500 (Modbus)	
External Input (1 point)	0	0	
Wi-Fi	PWFMDD200	PWFMDD200	

<sup>※ ○ :</sup> Applied, - : Not Applied Option: Refer to model name in table

### Accessories

Chassis	ARNU07GCEU4 ARNU09GCEU4 ARNU12GCEU4 ARNU15GCEU4	ARNU18GCFU4 ARNU24GCFU4
Drain Pump	-	-
Cassette Cover	-	-
Refrigerant Leakage Detector	PRLDNVS0	PRLDNVS0
EEV Kit	PRGK024A0	-
Independent Power Module	PRIP0	PRIP0
Robot Cleaner	-	-
Pre Filter (washable / anti-fungus)	0	0
Ion Generator	-	-
CO <sub>2</sub> Sensor	-	-
Ventilation Kit	-	-
IR Receiver	PWLRVN000	PWLRVN000
Zone Controller	-	-
Dry Contact (with additional accessory)	PDRYCB000 (1 point contact) PDRYCB300 (8 points for thermostat compatible) PDRYCB400 (2 points input) PDRYCB500 (Modbus)	PDRYCB000 (1 point contact) PDRYCB300 (8 points for thermostat compatible) PDRYCB400 (2 points input) PDRYCB500 (Modbus)
External Input (1 point)	0	0
Wi-Fi	PWFMDD200	PWFMDD200

O : Applied, - : Not Applied
 Option: Refer to model name in table

# **COMPATIBILITY**

	New	New Required Contro		Controller				
No.	Function Name (4th generation indoor)	Function Description	Wired Remote Controller	Centralized Controller	Remarks			
1	Energy Monitoring (Accumulated Electric	Monitoring accumulated power consumption by Wired Remote Controller	0	0	* Neccesary to install the PDI (Power Distribution Indicator) and central controller * Combined with MULTI V WATER S outdoor unit, this function is not available.			
	Energy Check)	Monitoring accumulated power consumption by Central Control Device / PDI	-	0	* Neccesary to install the PDI (Power Distribution Indicator) * To make a report, central controller must be installed			
2		2 set point control by Indoor and Central controller     Synchronization function with remote control     (Synchronization Setting and Monitoring)	0	0	* Wired remote controller and central controller must be installed * Combined with MULTI V WATER S outdoor unit, this function is not available.			
3	Occupied / Unoccupied Scheduling Function (Sub Func. Enable)	Synchronization according to occupied/unoccupied by Indoor and Central control      Synchronization icon with remote controller (Synchronization Monitoring)	0	0	* Centralized control is able to when you combine only 4th generation indoor units (Use together with 2nd generation and 4th generation indoors, only wired remote controller is able to set this function as existing way)  * Wired remote controller or central controller must be installed (Function can be activeated using just one control device.)  * Combined with MULTI V WATER S outdoor unit, this function is not available.			
4	Group Control	Group Control can use Additional function	0	0	* Check more details in PDB (Product Data Book) * Central controller can create and control group.			
5	Test Run (Heating)	Test run mode can be operated in cooling mode and heating mode for easy service	0	-				
6	Model Information Monitoring	Product Type / Indoor Type / Indoor capacity information can be monitored by remote controller	0	-				
7	Indoor unit address checking	Wired remote controller can check indoor unit address information	0	-				
8	Refrigerant Leakage Detection	Function error sign display when refrigerant leakage occurred	0	0	* Central controller has been installed, CH230 error code can be recognized (Old/New Same)  * Without Central Controller, it is able to recognize with wired remote controller (CH230)  * Combined with MULTI V WATER S outdoor unit, this function is not available.  * Accessory PRLDNVSO must be separately ordered			
9	Thermo On / Off range Setting (Cooling)	User can set cooling thermo on/off range with wired remote controller for prevention overcooling	0	-	* Thermo On / Off temperature setting (3 step)			
10	Thermo On / Off range Setting (Heating)	User can set heating thermo on/off range with wired remote controller for prevention overheating. (4 Steps)	0	-	* Thermo On / Off temperature setting (4 step)			
11	Static Pressure 11 Step Control (Only for Ceiling Concealed Duct Type)	Depends on the installation environment, 4th generation Ceiling Concealed Duct can control the static pressure by 11 steps for providing comfortable environment	0	-	* Only applied in Ceiling Concealed Duct			
12	1 point External Input (On / Off control)	Indoor unit can control external devices without purchasing Dry contact as an accessory (All 4th generation indoors)	0	-	* Simple On/Off control by Dry Contact at Indoor  [Example of Contact port by product type]  * 2 Way Cassette: CN-CC Port (Wired remote controller installation function mode 41 is required)  * 1 Way / 4 Way Cassette / Ceiling Concealed Duct / Wall Mounted Unit			
13	Filter Sign (Remaining Time)	The alarm activates when the filter needs to be cleaned, and the time remaining for cleaning is displayed on the screen.	0	0	Console / FAU / Floor Standing (with case / without case): CN-EXT Port  * The alarm activates on the central controller, but the remaining time is not displayed.			
14	Auto restart function Disable / Enable	After the power failure compensation, stand by at OFF mode Restore the operation for the status before the power off	0	-				
15	Indoor Humidity display	Monitoring indoor humidity Wired Remote Controller	0	0	* Available only with MULTI V 5			
16	Comfort Cooling setting	set the outdoor unit Comfort cooling operation value	0	0	* Available only with MULTI V 5			
17	Smart Load Control setting	Change the outdoor unit's Smart Load Control stage value.	0	0	* Available only with MULTI V 5			
18	ODU Refrigerant Noise Reduction setting	set the outdoor unit's refrigerant noise reduction function	0	0	* Available only with MULTI V 5			
19	Low noise mode time setting	set the start and end time of the outdoor unit's low noise mode operation	0	0	* Available only with MULTI V 5			

	Wii	red Remote Contro	ller		_	_	_	_		
Premium	Standard III	Standard II	Sim	ple	Centralized Controller					
(PREMTA000 PREMTA000A PREMTA000B)	(PREMTB100) (PREMTBB10)	(PREMTBB01) (PREMTB001)	Simple for Hotel (PQRCHCAOQ / QW)	Simple (PQRCVCLOQ / QW)	AC EZ (PQCSZ250S0)	AC EZ Touch (PACEZA000)	AC Smart 5 (PACS5A000)	ACP 5 (PACP5A000)	AC Manager 5 (PACM5A000)	
0	0	0	-	-	-	0	0	0	0	
-	-	-	-	-	-	0	0	0	0	
0	0	-	-	-	-	0	0	0	0	
0	0	-	-	-	-	0	0	0	0	
0	0	0	-	-	-	-	0	0	0	
0	0	0	-	-	-	-	-	-	-	
0	0	0	-	-	-	-	-	-	-	
0	0	0	-	-	-	-	-	-	-	
0	0	0	-	-	-	-	0	0	-	
0	0	0	-	-	-	-	-	-	-	
○ (4 step)	○ (4 step)	○ (3 step)	○ (3 step)	○ (3 step)	-	-	-	-	-	
0	0	0	0	0	-	-	-	-	-	
-	0	0	-	-	-	-	-	-	-	
0	0	0	-	-	0	0	0	0	0	
0	0	0	-	-	-	-	-	-	-	
-	0	-	-	-	-	-	0	0	-	
-	0	-	-	-	-	-	0	0	-	
-	0	-	-	-	-	-	0	0	-	
-	0	-	-	-	-	-	0	0	-	
	0		-	-	-	0	0	0	-	

 $\mathcal{X} \bigcirc$  : Applied, - : Not applied

Note: 1) No.1, 2, 3, 8: Functions are available to use together with 4<sup>th</sup> generation Indoor units only. If used together 2<sup>nd</sup> generation indoor unit and 4<sup>th</sup> generation indoor unit functions will not be activate. Combined with MULTI V Water S outdoor unit this function is not available

2) No. 4, 5, 6, 7, 9, 10, 11, 12, 13, 14: If used together 2nd generation indoor unit and 4<sup>th</sup> generation indoor unit these functions will be activate only in 4<sup>th</sup> generation indoor 3) 2nd generation indoor unit: Ceiling & Floor Convertible Unit, Ceiling Suspended Unit, HYDRO KIT (Low Temp. / High Temp.), ERV DX (with Humidifier, without Humidifier), AHU Communication Kit

### **COMPATIBILITY**

				Premium	Stand	dard III	Stand	dard ll	Sim	ple	Simple f	or Hotel	Wireless		Dry Co	ontact	
		Controlle	er					100		120		120		7	. ·	- T	
	Produ	ıct		PREMTA000 PREMTA000A PREMTA000B	PREMTBB10	PREMTB100	PREMTBB01	PREMTB001	PQRCVCLOQ	PQRCVC0QW	PQRCHCA0Q	PQRCHCA0QW	PQWRHQ0FDB	Simple Dry Contact PDRYCB000	2 points Dry Contact PDRYCB400	Dry Contact for Thermostat PDRYCB300	For Modbus PDRYCB500
	Ceiling .	4 Way	ARNU-A4 ARNU-C4 ARNU-D4	0	(	0	(	)	(	)	(	)	0	0	0	0	0
		2 Way / 1 Way		0	(	O	(	0	(		(	)	0	0	0	0	0
		High Sensible		0	(	0	(	)	(	)	(	)	Δ	0	0	0	0
		High Statics Mid Statics		0	(	0	(	0	(	)	(	)	Δ	0	0	0	0
		Low Statics		0	(	0	(	)	(	)	(	)	Δ	0	0	0	0
	FAU (Fresh Air intake Unit)			0	(	0	(	O	(		(	)	Δ	0	0	0	0
MULTIV	Convertible & Ceiling Suspended Unit	3		0	(	0	(	)	(	)	(	)	0	0	0	0	0
	Console			0	(	0	(	O	(	)	(	)	0	0	0	0	0
	Floor Standing Unit			0	(	0	(	)	(	)	(	)	0	0	0	0	0
				0	(	0	(	O	(	)	(	)	0	0	0	0	0
				0	(	0		O	(	)		)	0	0	0	0	0
			ARNU-A4 ARNU-C4 ARNU-N4	0	(	0	(	)	C	)	(	)	0	0	0	0	0
	HYDRO KIT <sup>1)</sup>	ARNH-A4		-		-		-	-	-		-	-	0	-	0	-
	V	Energy Recovery Ventilator	10 M	0	(	0	(	)	-			-	-	0	-	-	0
	Ventilation -	Energy Recovery Ventilator with DX coil	TIP	0	(	0	(	)	-			-	-	0	-	-	0
	AHU Commi			0	(	0	(	O	(			-	Δ	-	-	-	-

 $<sup>\</sup>Re$  O : Compatible,  $\Delta$  : Need wired remote controller / IR receiver, - : Not compatible 1) It has a separate remote controller

### **FEATURE FUNCTIONS**

			Wire	ed Remote Contr	oller		Wireless	
Controller	· Name	Premium	Standard III	Standard II	Simple	Simple(Hotel)	Remote Controller	Wi-fi Controller
Model Name		PREMTA000	PREMTB100	PREMTB001	PQRCVCLOQ	PQRCHCAOQ		<b>●</b> 1G
		PREMTA000A PREMTA000B	PREMTBB10	PREMTBB01	PQRCVCL0QW	PQRCHCA0QW	PQWRHQ0FDB	PWFMDD200
	On / Off	0	0	0	0	0	0	0
	Fan Speed Control	0	0	0	0	0	0	0
	Temperature Setting	0	0	0	0	0	0	0
	Mode Change	0	0	0	0	-	0	0
	Auto Swing	0	0	0	0	0	0	
Basic	Vane Control (Louver Angle)	0	0	0	0	0	0	0
	E.S.P (External Static Pressure)	0	0	0	0	0	-	-
	Electric Failure Compensation	0	0	0	0	0	-	0
	Indoor Temperature Display	0	0	0	0	0	0	
	ALL Button Lock (Child Lock)	0	0	0	0	0	-	-
	Schedule / Timer	Weekly~Yearly	Weekly~Yearly	Weekly	-	-	Sleep / On / Off	Weekly
	Additional Mode Setting 1)	0	0	0	-	-	-	-
	Time Display	0	0	0	-	-	0	-
	Humid. Display	0	0	-	-	-	-	-
	Advanced Lock (mode, set point, set point range, on/off Lock)	Advanced Lock	Advanced Lock	Mode Lock	-	-	-	-
Advanced	Filter Sign	0	0	0	-	-	-	-
	Energy Management 2)	0	0	0	-	-	-	-
	Dual Set Point	0	0	-	-	-	-	-
	Human Detection	-	0	-	-	-	-	-
	Temp, Humidity Compensation	0	0	-	-	-	-	-
	Wifi AP mode setting	0	0	0	0	0	0	-
	Operation Status LED	0	0	0	0	0	-	-
	Wireless Remote Controller Receiver	O <sup>3)</sup>	-	O <sub>3)</sub>	O <sub>3)</sub>	○3)	-	-
ETC	Display	5 inch Color	4.3 inch Color	4.3 inch mono	2.6 inch mono	2.6 inch mono	2 inch mono	-
	Size (W x H x D, mm)	137 x 121 x 16.5	120 x 120 x 16	120 x 120 x 16	64 x 120 x 15	64 x 120 x 15	51 x 153 x 26	-
	Black Light Control for Screen Saver	0	0	-	-	-	-	-

<sup>\*\*</sup> O : Applied, - : Not Applied

1) It might not be indicated or operated at the partial product

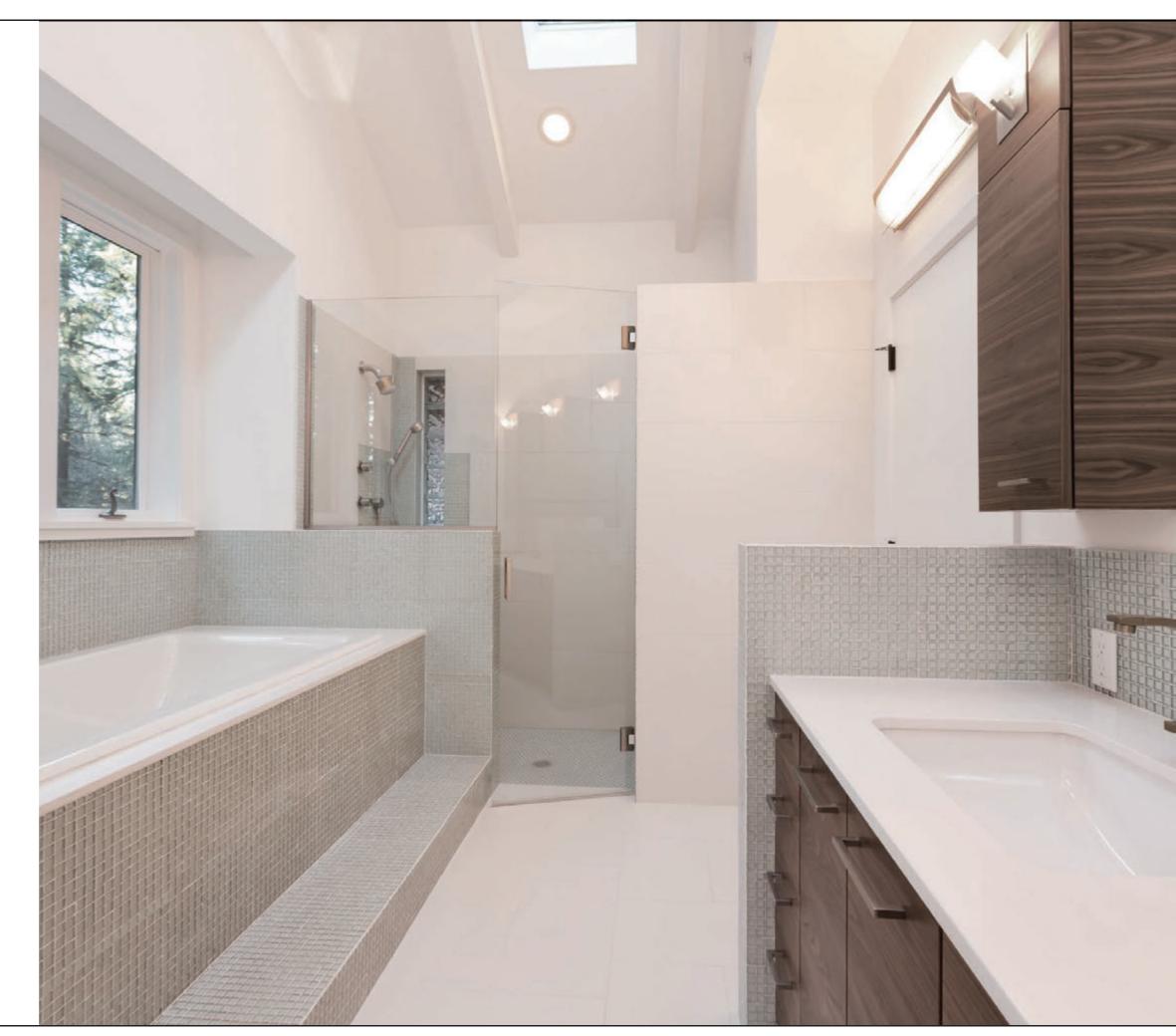
2) Centralized control (PACEZA000 / PACSSA000 / PACPSA000 / PLNWKB000) and PDI (PQNUD1S40 / PPWRDB000) should be installed for this function

3) For ceiling type duct

Note.

- Indoor unit should have functions requested by the controller

- If you need more detail, please refer to the manual of product. (http://partner.lge.com: Home> Doc.Library> Manual)



# HOT WATER SOLUTION

HYDRO KIT

→ Stage 1 → Stage 2

### **HYDRO KIT**

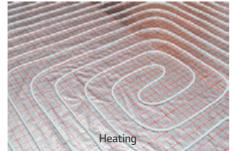
#### **Features & Benefits**

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

#### **Key Applications**

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

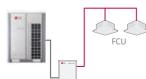






Radiant Heating / Cooling

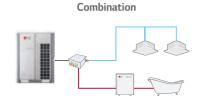
Fan Coil Unit Heating / Cooling



Hot water / Cooled Water



Hot water+ Radiant heating



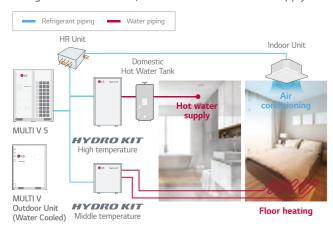
HR unit (Cooling & Hot water)



Thermal Storage System

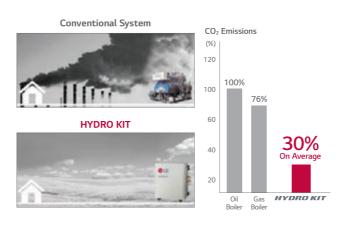
#### **System Diagram**

Providing a total solution by heat pump, air conditioning (cooling by refrigerant & chilled water, heating by refrigerant & hot water) and domestic hot water supply.



#### **Eco-friendly Green Energy Solution**

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



#### Saving Cost through High Efficiency

Possible to install with equivalent levels of capital cost as a boiler system and minimise energy bills thanks to lower operation costs.

#### 1st Proposal MULTI V 5 HYDRO KIT

(Air Conditioning + Hot Water Supply + Floor Heating) 2<sup>nd</sup> Proposal MULTI V 5 Air-Conditioning + Gas Boiler

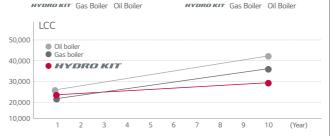
(Hot Water Supply + Floor Heating)

3rd Proposal MULTI V 5 Air-Conditioning + Oil Boiler (Hot Water Supply + Floor Heating)

#### **Analysis Conditions**

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

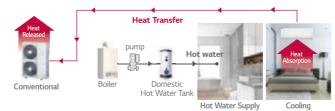




#### **Energy Saving through MULTI V 5 Heat Recovery**

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

#### Conventional

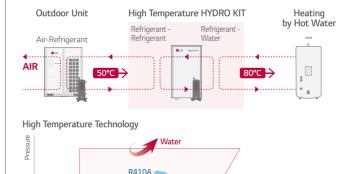


#### HYDRO KIT

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



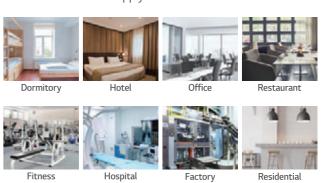
#### **High Temperature HYDRO KIT** Cycle Diagram



#### **Various Applications**

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

→ R134A



#### **Hotel Application**

It is possible to operate cooling and heating constantly at the same time during the summer, to provide hot water by using waste heat energy of indoor cooling.



#### Office Application

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



### **HYDRO KIT**



#### ARNH04GK2A4 / ARNH10GK2A4

	Model	Unit	ARNH04GK2A4	ARNH10GK2A4
Cooling Capa	city		12.3	28.0
Heating Capacity kW		kW	13.8	31.5
Power Input	Nominal	W	10	10
Exterior Colo			Morning Gray	Morning Gray
RAL Code			RAL 7030	RAL 7030
Dimensions	Body	mm	520 x 631 x 330	520 x 631 x 330
$(W \times H \times D)$	Shipping	mm	677 x 687 x 418	677 x 687 x 418
	Liquid Side	mm (inch)	Ø9.52 (3/8)	Ø9.52 (3/8)
Pipe Connections	Gas Side	mm (inch)	Ø15.88 (5/8)	Ø22.2 (7/8)
Connections	Drain Pipe (Internal Dia.)	A (inch)	25A (Male PT 1)	25A (Male PT 1)
Water Pipe	Inlet	A (inch)	25A (Male PT 1)	25A (Male PT 1)
Connections	Outlet	A (inch)	25A (Male PT 1)	25A (Male PT 1)
Weight	Body	kg	29.2	33.7
Sound Pressu	re Levels (H / M / L)	dB(A)	26	26
Power Supply		Ø, V, Hz	1, 220 ~ 240, 50	1, 220 ~ 240, 50
		Ø, V, HZ	1, 220, 60	1, 220, 60
Communication	on Cable	mm² x No.	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C

- 1) Nominal: Performance tested under EN14511

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

   Cooling: Indoor 27°C (80.6°F) DB / 19° C (66.2°F) WB, Outdoor 35°C (95°F) DB / 24°C (75.2°F) WB, Water Inlet 23°C (73.4°F) / Outlet 18°C (64.4°F)

   Heating: Indoor 20°C (68°F) DB / 15°C (59°F) WB, Outdoor 7°C (44.6°F) DB / 6°C (42.8°F) WB, Water Inlet 30°C (86°F) / Outlet 35°C (95°F)

  2. Piping Length: Interconnected Pipe Length = 7.5m

  3. Difference Limit of Elevation (Outdoor Indoor Unit) is Zero.

  4. MULTI V S 4HP (ARUN040GSSO, ARUN040LSSO) cannot be connected to Hydro Kit.

  5. MULTI V Water S cannot be connected to Hydro Kit.

  6. Anti freezing liquid should be added under 10°C (outdoor temp.) during cooling mode.

#### Accessories

Chassis	ARNH04GK2A4	ARNH10GK2A4				
Drain Pump		-				
Cassette Cover		-				
Refrigerant Leakage Detector	PRLD	NVS0				
EEV Kit		-				
Independent Power Module		)				
Robot Cleaner		-				
Pre Filter (washable / anti-fungus)	-					
Ion Generator	-					
CO <sub>2</sub> Sensor		-				
Ventilation Kit		-				
IR Receiver		-				
Zone Controller		-				
Dry Contact (with additional accessory)	PDRYCB000 (1 point contact) PDRYCB300 (8 points for thermostat compatible)					
External Input (1 point)		0				
Wi-Fi	PWFMDD200					



#### ARNH04GK3A4 / ARNH08GK3A4

	Model	Unit	ARNH04GK3A4	ARNH08GK3A4
Heating Capa	city	kW	13.8	25.2
Power Input			2,300	5,000
Exterior Colo			Morning Gray	Morning Gray
RAL Code			RAL 7030	RAL 7030
Dimensions	Body	mm	520 x 1,080 x 330	520 x 1,080 x 330
$(W \times H \times D)$	Shipping	mm	682 x 1,168 x 423	682 x 1,168 x 423
	Liquid Side	mm (inch)	Ø9.52 (3/8)	Ø9.52 (3/8)
Pipe Connections	Gas Side	mm (inch)	Ø15.88 (5/8)	Ø19.05 (3/4)
	Drain Pipe (Internal Dia.)	A (inch)	25A (Male PT 1)	25A (Male PT 1)
Water Pipe	Inlet	A (inch)	25A (Male PT 1)	25A (Male PT 1)
Connections	Outlet	A (inch)	25A (Male PT 1)	25A (Male PT 1)
Weight	Body	kg	87.0	91.0
Sound Pressu	re Levels (H / M / L)	dB(A)	43	46
		Ø 1/ 11-	1, 220 ~ 240, 50	1, 220 ~ 240, 50
Power Supply		Ø, V, Hz	1, 220, 60	1, 220, 60
Communication	on Cable	mm² x No.	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C

1) Nominal: Performance tested under EN14511

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

   Heating: Indoor 20°C (68°F) DB / 15°C (59°F) WB, Outdoor 7°C (44.6°F) DB / 6°C (42.8°F) WB, Water Inlet 55°C (131°F) / Outlet 65°C (149°F)

  2. Piping Length: Interconnected Pipe Length = 7.5m

  3. Difference Limit of Elevation (Outdoor Indoor Unit) is Zero.

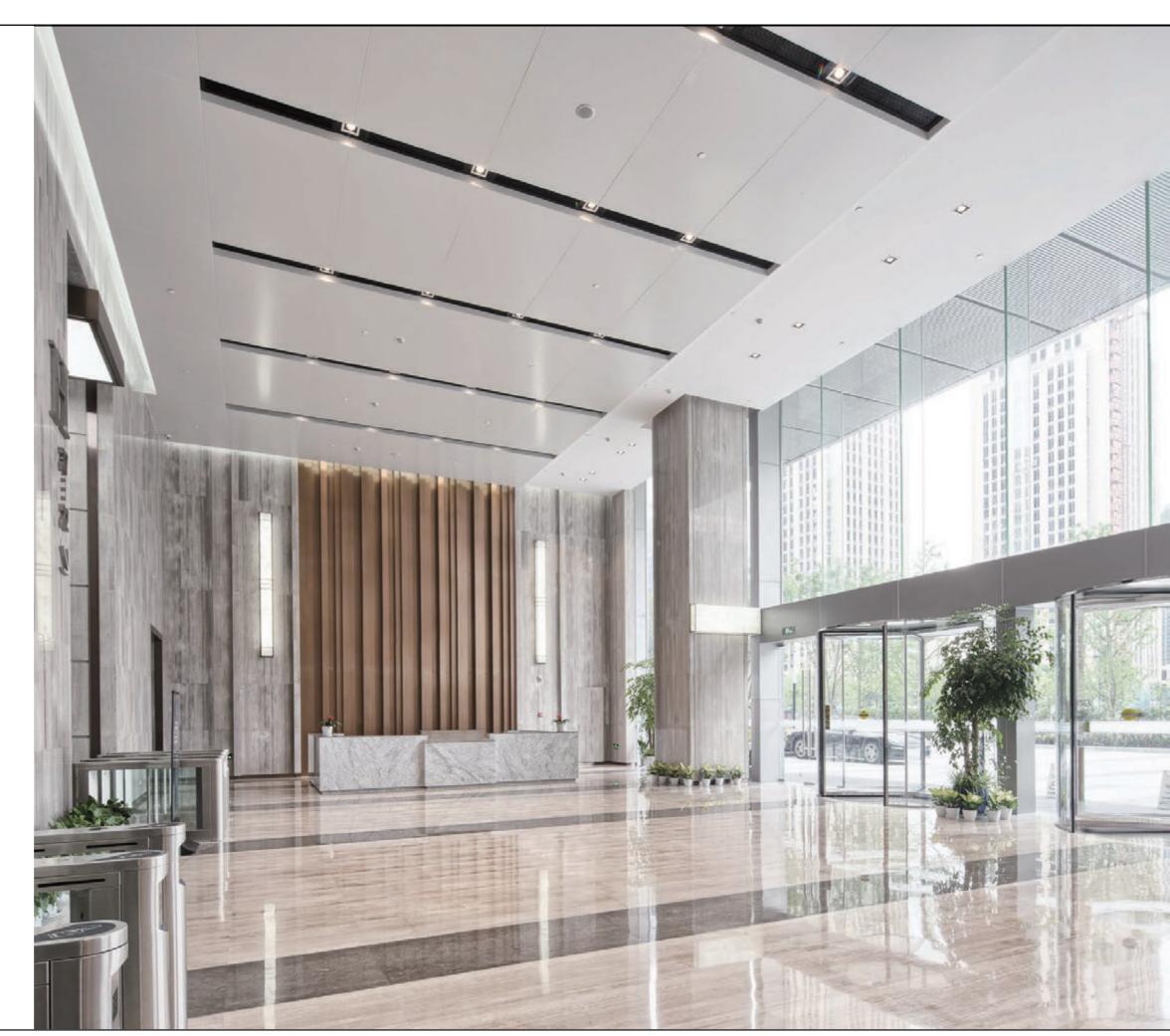
  4. MULTI V S 4HP (ARUN040GSSO, ARUN040LSSO) cannot be connected to Hydro Kit.

  5. MULTI V Water S cannot be connected to Hydro Kit.

#### Accessories

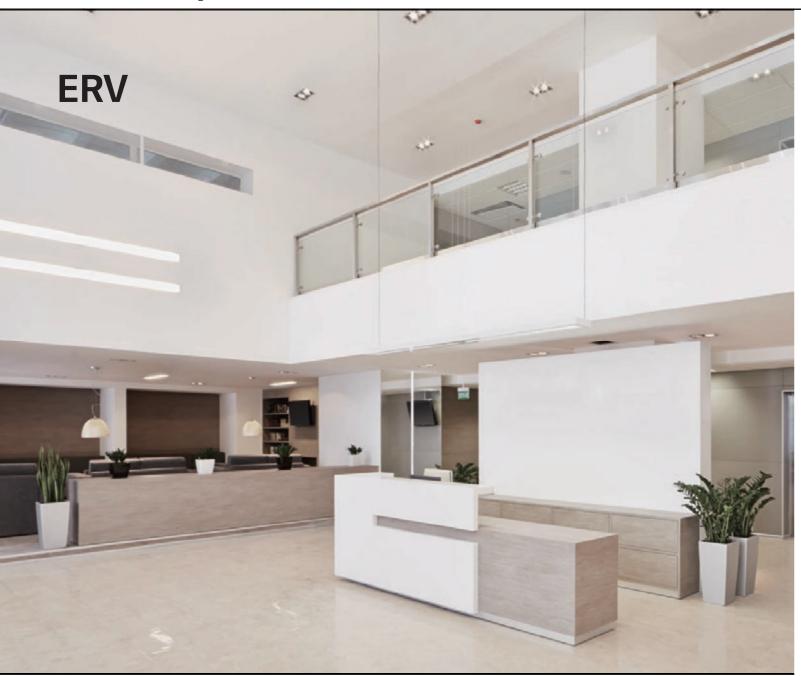
Chassis	ARNH04GK3A4	ARNH08GK3A4					
Drain Pump		-					
Cassette Cover	-						
Refrigerant Leakage Detector	PRLC	NVS0					
EEV Kit		-					
Independent Power Module		0					
Robot Cleaner		-					
Pre Filter (washable / anti-fungus)	-						
Ion Generator	-						
CO <sub>2</sub> Sensor	-						
Ventilation Kit	-						
IR Receiver	-						
Zone Controller		-					
Dry Contact (with additional accessory)	PDRYCB000 (1 point contact) PDRYCB300 (8 points for thermostat compatible)						
External Input (1 point)	0						
Wi-Fi	PWFN	DD200					

※ O : Applied, - : Not applied
 Option : Refer to model name in table

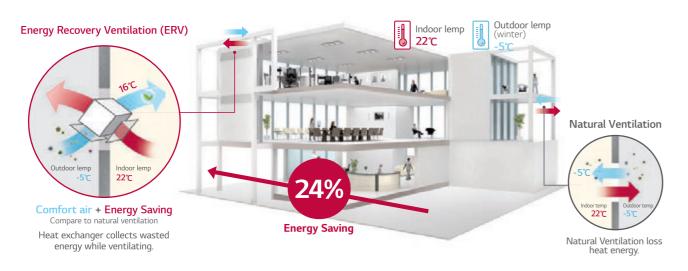


# VENTILATION SOLUTIONS

ERV / ERV WITH DX COIL



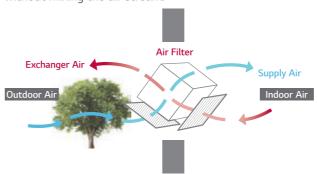
### **NECESSITY OF ERV**



#### **HIGH EFFICIENCY**

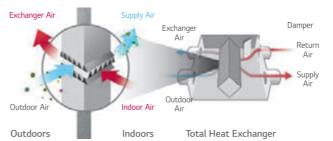
#### High Efficient Heat Exchanger

Efficiency and comfort is ensured through the high-efficiency energy recovery central core which recovers energy from the indoor air and transfers it to the fresh incoming air without mixing the air stream.



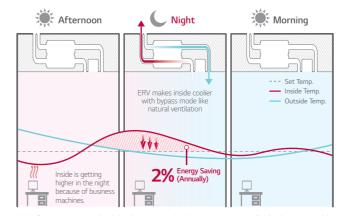
#### **Compulsory Exhausting System**

The exhausting system using high static sirocco fan removes contaminants effectively from indoor air. Supply and exhaust air flows are completely separated in the total heat exchanger, LG ERV can filter out the impurities before supplying outdoor air and make indoor air fresh and healthy.



#### **Night Time Free Cooling**

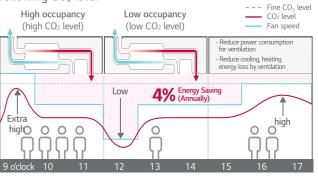
Discharge the indoor heat in the summer night and supply cool outdoor air indoors. so it can save energy.



- \* This function is operated with 'Night Time Free Cooling' on remote controller. (with MULTI V only)
- \*\* Energy saving ratio can be differed by weather condition. \*\* Test Condition
- Office (49,000ft²) / Occupancy : 30 / Area : London, UK ERV (1000 CMH) + MULTI V 4 (12HP) Unit Combination Other conditions are subject to BREEAM.

#### **CO<sub>2</sub> Auto Operation**

LG ERV reduces energy loss with auto fan speed control following CO<sub>2</sub> level



- \* This function is operated with 'Night Time Free Cooling' on remote controller. (with MULTI V only)

  \*\* Energy saving ratio can be differed by weather condition.

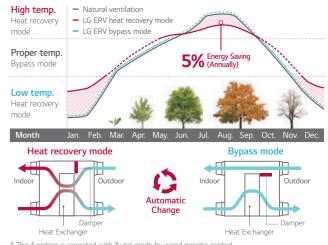
  \*\* Test Condition Office (49,000ft²) / Occupancy: 30 / Area: London, UK

   ERV (1000 CMH) + MULTI V 4 (12HP) Unit Combination

   Other conditions are subject to BREEAM.

#### Seasonal Auto Operation

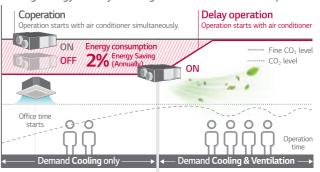
LG ERV senses outdoor temperature and operates automatically following weather condition.



- \* This function is operated with 'Auto' mode by wired remote control.
- \*\* Energy saving ratio can be differed by weather condition.
- \*\* Test Condition: Office (49,000ft²) / Occupancy: 30 / Area: London, UK ERV (1,000 CMH) + MULTI V 4 (12HP) Unit Combination
- Other conditions are subject to BREEAM

#### **Delay Operation**

When you turn on the air conditioner and ERV at the same time, Delay Operation can reduce unnecessary heating and cooling energy loss by slowing down automatic ERV operation.



- \*\* Energy saving ratio can be differed by weather condition.

  \*\* Test Condition Office (49,000ft2) / Occupancy: 30 / Area: London, UK ERV (1000 CMH) + MULTI V 4 (12HP) Unit Combination
- Other conditions are subject to BREEAM.

#### **COMFORT & RELIABILITY**

#### **CO<sub>2</sub> Level Monitoring**

CO<sub>2</sub> sensor senses CO<sub>2</sub> level in the room. Users can monitor CO<sub>2</sub> level on new wired remote controller, and ERV controls the fan speed automatically following the level.

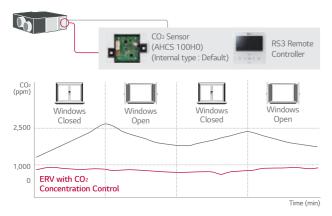
#### CO<sub>2</sub> Level Visualization

CO<sub>2</sub> sensor senses indoor CO<sub>2</sub> level and displays it on new wired remote controller.



#### CO<sub>2</sub> Concentration Control

Using CO<sub>2</sub> sensor, LG ERV controls exhaust air flow automatically to keep indoor air fresh under settled CO<sub>2</sub> concentration.



#### High Durability

LG ERV durability is increased through bacteria-resistant material of heat exchanger and corrosion protection coating. It prevents shortening product life due to corrosion and mold and supplies high quality air to inside by minimizing the bacteria.



#### **CONVENIENCE**

#### **Easy Control**

Wired remote controller is easy for usage.



- · Dual display with air conditioner
- Zoom selected directory to increase legibility







- · Indoor CO2 level
- · Alarm for filter change / Remained time to change filters

#### **Group Control**

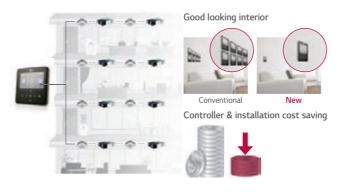
ation buttons, easy to use

Fasy installation setting

1 wired remote controller up to 16 ERV (including air conditioner). It is convenient for large common space such as lobby.

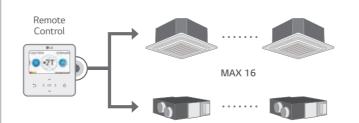
#### Several units combination

16 units group control is available with 1 remote controller.



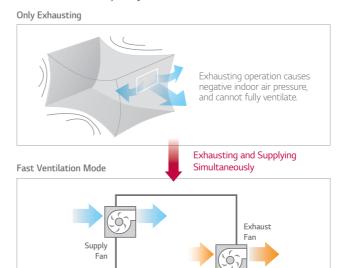
#### Interlocking with Air Conditioning System

- LG ERV can be interlocked with air conditioners and controlled individually.
- This function can be operated when the system is connected with 1 remote controller.



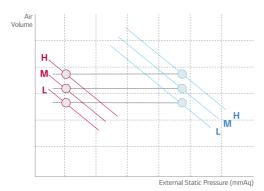
#### **Fast Ventilation Mode**

Fast ventilation mode prevents the spread of contaminants under negative indoor pressure, and makes indoor air fresh and comfortable quickly.



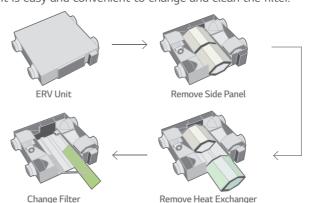
#### **External Static Pressure Control**

The high static pressure fan can control the air volume depending on the length of the duct. It is also easy to control the pressure level by using the remote controller for a more flexible duct installation and easier testing.



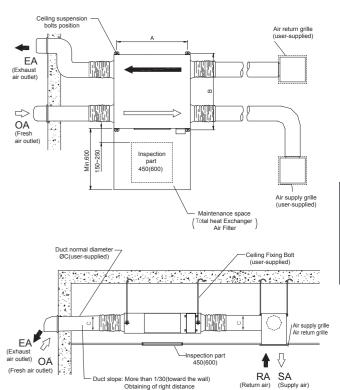
#### Easy Cleaning and Filter Change

It is easy and convenient to change and clean the filter.

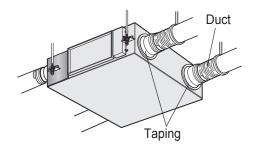


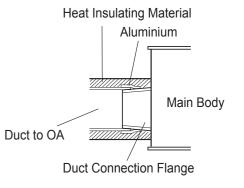
#### **Installation Scene**

LZ-H025GBA4 / LZ-H035GBA5 / LZ-050GBA5



#### **Connection of Duct**





#### **ERV**



#### LZ-H025GBA4 / LZ-H035GBA5 / LZ-H050GBA5

	Model		Unit	LZ-H025GBA4	LZ-H035GBA5	LZ-H050GBA5
Dimensions (W x H x D)					988 x 273 x 1,014	
Weight	Body		kg		44	
Power Supply			Ø, V, Hz		1, 220-240, 50	
Normal Air flow			m³/h	250	350	500
	Operating Step				Super-high / High / Low	
	Current	SH/H/L	А	0.70 / 0.60 / 0.42	1.05 / 0.90 / 0.50	1.65 / 1.56 / 0.80
	Power Input	SH/H/L	W	97 / 87 /52	150 / 125 / 60	247 / 230 / 95
	Air Flow	SH/H/L	m³/h	250 / 250 / 150	350 / 350 / 210	500 / 500 / 320
	External Static Pressure	SH/H/L	Pa	100 / 70 / 50	150 / 100 / 50	150 / 100 / 50
ERV Mode	Temperature Exchange Efficiency	SH/H/L		80 / 80 / 83	80 / 80 / 82	79 / 79 / 82
	Enthalpy Exchange	Heating (SH / H / L)	%	70 / 70 / 72	75 / 75 / 80	75 / 75 / 78
	Efficiency	Cooling (SH / H / L)	%	66 / 66 / 68	71 / 71 / 75	68 / 68 / 75
	Sound Pressure Level	SH/H/L	dB(A)	29 / 28/ 24	35 / 32 / 26	37 / 36 / 28
	Sound Power Level	SH/H/L	dB(A)	50	53 / 50 / 42	57 / 56 / 46
	Operating Step				Super-high / High / Low	
	Current	SH/H/L	А	0.70 / 0.60 / 0.42	1.05 / 0.90 / 0.50	1.65 / 1.56 / 0.80
Bypass Mode	Power Input	SH/H/L		97 / 87 /52	150 / 125 / 60	247 / 230 / 95
bypass ividue	Air Flow	SH/H/L	m³/h	250 / 250 / 150	350 / 350 / 210	500 / 500 / 320
	External Static Pressure	SH/H/L	Pa	100 / 70 / 50	150 / 100 / 50	150 / 100 / 50
	Sound Pressure Level	SH/H/L	dB(A)	29 / 29/ 25	35 / 33 / 26	37 / 37 / 28
Duct Work		Qty	EA		4	
Duct Work		Size (Φ)	mm		Ф200	
Supply Air Fan		Qty	EA		1	
Supply All Fall		Туре			Direct-Drive Sirocco	
Exhaust Air Fan		Qty	EA		1	
LAHaust All Fall		Туре			Direct-Drive Sirocco	
		Qty	EA		2	
Filters		Туре			Cleanable fibrous fleeces	·
		Size (W x H x D)			855 x 10 x 166	

Note : 1. ERV mode : Total Heat Recovery Ventilation mode 2. \* : Refer to dimensional drawings.

- 3. Noise level :
- The operating conditions are assumed to be standard
- The operating Conductors are assumed to be standard
   Sound measured at 1.5m below the center the body.
   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.
   The sound level at the air discharge port is about 8 dB(A) higher than the unit's operating sound.
  4. Temperature and Enthalpy Exchange Efficiency at cooling Indoor Temperature: 26.5°C DB, 64.5% RH, Outdoor Temperature: 34.5°C DB, 75% RH
  5. Temperature and Enthalpy Exchange Efficiency at heating Indoor Temperature: 20.5°C DB, 59.5% RH, Outdoor Temperature: 5°C DB, 65% RH
  6. Temperature Exchange efficiency is tested at heating condition.

#### Accessories

Chassis	LZ-H025GBA4	LZ-H035GBA5	LZ-H050GBA5				
Drain Pump	-						
Cassette Cover		-					
Refrigerant Leakage Detector		-					
EEV Kit		-					
Independent Power Module		-					
Robot Cleaner		-					
Pre Filter (washable / anti-fungus)	-						
Ion Generator	-						
CO <sub>2</sub> Sensor	0						
Ventilation Kit							
IR Receiver	-						
Zone Controller							
Dry Contact (with additional accessory)	PDRYCB000 (1 point contact) PDRYCB500 (Modbus)						
External Input (1 point)	-						
Wi-Fi	-						

※ ○ : Applied, - : Not applied Option : Refer to model name in table





LZ-H080GBA5 / LZ-H100GBA5 LZ-H150GBA5 / LZ-H200GBA5

	Model		Unit	LZ-H080GBA5	LZ-H100GBA5	LZ-H150GBA5	LZ-H200GBA5
Dimensions (W x H x D)				1,101 x 40	05 x 1,230	1,353 x 815 x 1,230	
Weight	Body		kg	6	63		30
Power Supply			Ø, V, Hz	1, 220-	240, 50	1, 220-	240, 50
Normal Air flow			m³/h	800	1,000	1,500	2,000
	Operating Step			Super-high	/ High / Low	Super-high .	/ High / Low
	Current	SH/H/L	А	2.13 / 1.75 / 1.00	2.92 / 2.38 / 1.40	4.26 / 3.50 / 2.00	5.92 / 4.76 / 2.80
	Power Input	SH/H/L	W	328 / 266 / 144	463 / 370 / 208	660 / 530 / 290	926 / 740 / 420
	Air Flow	SH/H/L	m³/h	800 / 800/ 660	1,000 / 1,000 / 800	1,500 / 1,500 / 1,200	2,000 / 2,000 / 1,600
	External Static Pressure	SH/H/L	Pa	160 / 100 / 50	160 / 100 / 50	160 / 100 / 50	160 / 100 / 50
ERV Mode	Temperature Exchange Efficiency			82 / 82 / 83	80 / 80 / 81	82 / 82 / 83	80 / 80 / 81
	Enthalpy Exchange	Heating (SH / H / L)	%	73 / 73 / 76	71 / 71/ 73	73 / 73 / 76	71 / 71/ 73
	Efficiency	Cooling (SH / H / L)	%	66 / 66 / 70	64 / 64 / 67	66 / 66 / 70	64 / 64 / 67
	Sound Pressure Level	SH/H/L	dB(A)	40 / 36 / 32	40 / 37 / 33	43 / 39 / 35	43 / 40 / 36
	Sound Power Level	SH/H/L	dB(A)	56 / 53 / 47	59 / 56 / 52	59 / 56 / 50	62 / 59 / 55
	Operating Step			Super-high	/ High / Low	Super-high	/ High / Low
	Current	SH/H/L	А	2.13 / 1.75 / 1.00	2.92 / 2.38 / 1.40	4.26 / 3.50 / 2.00	5.92 / 4.76 / 2.80
Bypass Mode	Power Input	SH/H/L	W	328 / 266 / 144	463 / 370 / 208	660 / 530 / 290	926 / 740 / 420
bypass ivioue	Air Flow	SH/H/L	m³/h	800 / 800/ 660	1,000 / 1,000 / 800	1,500 / 1,500 / 1,200	2,000 / 2,000 / 1,600
	External Static Pressure	SH/H/L	Pa	160 / 100 / 50	160 / 100 / 50	160 / 100 / 50	160 / 100 / 50
	Sound Pressure Level	SH/H/L	dB(A)	41 / 37 / 33	41 / 38 / 34	44 / 40 / 36	44/41/37
Duct Work		Qty	EA		4	4 + 2	
Duct Work		Size (Φ)	mm	Φ2	250	Ф250 -	+ Ф350
Supply Air Fan		Qty	EA		1		2
Supply All Fall		Туре		Direct-Dri	ive Sirocco	Direct-Dri	ve Sirocco
Exhaust Air Fan		Qty	EA		1		2
Exmaust All Fall		Туре		Direct-Dri	ive Sirocco	Direct-Dri	ve Sirocco
		Qty	EA	<u> </u>	2		1
Filters		Туре		Cleanable fil	orous fleeces	Cleanable fibrous fleeces	
		Size (W x H x D)	mm	1,148 x	6 x 245	1,148 x	6 x 245

Note: 1. ERV mode: Total Heat Recovery Ventilation mode
2. \*: Refer to dimensional drawings.
3. Noise level:
- The operating conditions are assumed to be standard

- The operating continuous are assumed to be standard
   Sound measured at 1.5m below the center the body,
   Sound measured at 1.5m below the center the body,
   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.
   The sound level at the air discharge port is about 8 dB(A) higher than the unit's operating sound.
  4. Temperature and Enthalpy Exchange Efficiency at cooling Indoor Temperature: 26.5°C DB, 64.5% RH, Outdoor Temperature: 34.5°C DB, 75% RH
  5. Temperature and Enthalpy Exchange Efficiency at heating Indoor Temperature: 20.5°C DB, 59.5% RH, Outdoor Temperature: 5°C DB, 65% RH
  6. Temperature Exchange efficiency is tested at heating condition.

#### Accessories

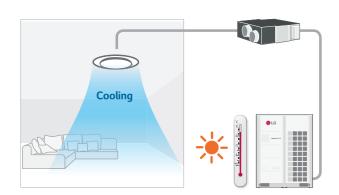
Chassis	LZ-H080GBA5	LZ-H100GBA5	LZ-H150GBA5	LZ-H200GBA5			
Drain Pump			-				
Cassette Cover			-				
Refrigerant Leakage Detector			-				
EEV Kit			-				
Independent Power Module			-				
Robot Cleaner			-				
Pre Filter (washable / anti-fungus)			-				
Ion Generator			-				
CO <sub>2</sub> Sensor		(	)				
Ventilation Kit			-				
IR Receiver			-				
Zone Controller			-				
Dry Contact (with additional accessory)	PDRYCB000 (1 point contact) PDRYCB500 (Modbus)						
External Input (1 point)			-				
Wi-Fi			-				

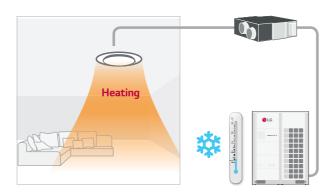
※ ○ : Applied, - : Not applied Option : Refer to model name in table

#### **ERV WITH DX COIL**

#### **Providing Cool & Warm Fresh Air**

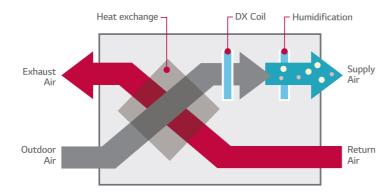
During the summer, ERV DX can transform outdoor warm air into cool air for indoors, and it can prevent cold draft during the winter by supplying warm air.





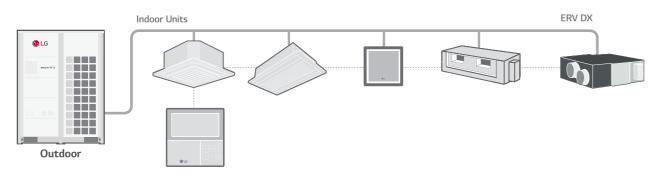
#### **Total Air Conditioning Solution**

LG ERV DX can be used as a Total Air Conditioning Solution. It can control condition of incoming air with the DX coil and humidifier for making comfortable indoor air. In the summer, LG ERV DX provides air conditioning by cooling and dehumidifying incoming air. In winter, It provides warm air by heating and humidifying the incoming air.



#### Interlocking with MULTI V

LG ERV DX can be interlocked with MULTI V. It can be controlled individually by a wired remote controller connected to MULTI V indoor units.



#### **ERV WITH DX COIL**



LZ-H050GXH4 / LZ-H080GXH4 / LZ-H100GXH4 LZ-H050GXN4 / LZ-H080GXN4 / LZ-H100GXN4

	Model		LZ-H050GXH4	LZ-H080GXH4	LZ-H100GXH4	LZ-H050GXN4	LZ-H080GXN4	LZ-H100GXN4	
Fresh Air	Cooling		4.93	7.46	9.12	4.93	7.46	9.12	
Conditioning Load	Heating	kW	6.73	9.80	11.72	6.73	9.80	11.72	
Temperature Exchange Efficiency	SH/H/L		86 / 86 / 87	80 / 80 / 81	76 / 76 / 78	86 / 86 / 87	80 / 80 / 81	76 / 76 / 78	
Enthalpy Exchange	Cooling (SH / H / L)	%	61 / 61 / 63	50 / 50 / 53	45 / 45 / 50	61 / 61 / 63	50 / 50 / 53	45 / 45 / 50	
Efficiency	Heating (SH / H / L)	%	76 / 76 / 77	67 / 67 / 69	64 / 64 / 66	76 / 76 / 77	67 / 67 / 69	64 / 64 / 66	
Operation Range	Outdoor air Temperature	°C	-15 ~ 45	-15 ~ 45	-15 ~ 45	-15 ~ 45	-15 ~ 45	-15 ~ 45	
	Heat Exchange Mode (SH / H / L)	CMH	500 / 500 / 440	800 / 800 / 640	1,000 / 1,000 / 820	500 / 500 / 440	800 / 800 / 640	1,000 / 1,000 / 820	
Air Flow Rate	Bypass Mode (SH / H / L)	CMH	500 / 500 / 440	800 / 800 / 640	1,000 / 1,000 / 820	500 / 500 / 440	800 / 800 / 640	1,000 / 1,000 / 820	
Fan	External Static Pressure (SH / H / L)	Pa	160 / 120 / 100	140 / 90 / 70	110 / 70 / 60	180 / 150 / 110	170 / 120 / 80	150 / 100 / 70	
	System			ural Evaporating			-		
	Amount	kg/h	2.70	4.00	5.40		-		
	Pressure Feed Water	Мра		0.02 ~ 0.49			_		
Sound Pressure	Heat Exchange Mode (SH / H / L)	dB(A)	38 / 36 / 33	39 / 37 / 34	40 / 38 / 35	39 / 37 / 35	41 / 38 / 36	41 / 39 / 36	
Journa Fressure	Bypass Mode (SH / H / L)	dB(A)	39 / 37 / 34	40 / 38 / 35	40 / 38 / 35	39 / 37 / 35	41 / 38 / 36	41 / 39 / 36	
Refrigerant					R41	0A			
Power Supply		$\emptyset/V/Hz$			1 / 220 ~ 2				
Power Input	Heat Exchange Mode (SH / H / L)	kW			0.48 / 0.42 / 0.27			0.48 / 0.42 / 0.27	
(Nominal)	Bypass Mode (SH / H / L)	kW	0.25 / 0.20 / 0.15	0.42 / 0.35 / 0.25	0.48 / 0.42 / 0.27	0.25 / 0.20 / 0.15	0.42 / 0.35 / 0.25	0.48 / 0.42 / 0.27	
Nominal Running	Heat Exchange Mode (SH / H / L)	Α	1.5 / 1.3 / 1.0	2.5 / 2.0 / 1.5	3.6 / 3.2 / 2.3	1.5 / 1.3 / 1.0	2.5 / 2.0 / 1.5	3.6 / 3.2 / 2.3	
Current (RLA)	Bypass Mode (SH / H / L)	Α	1.5 / 1.3 / 1.0	2.5 / 2.0 / 1.5	3.6 / 3.2 / 2.3	1.5 / 1.3 / 1.0	2.5 / 2.0 / 1.5	3.6 / 3.2 / 2.3	
Heat Exchange Syste	em			air cross flow tot e + latent heat) e		Air to air cross flow total heat (sensible + latent heat) exchange			
Heat Exchange Elem	ent		Specially pro	ocessed non-flam	nmable paper	Specially pro	ocessed non-flam	ımable paper	
Air Filter			Multidi	irectional fibrous	fleeces		irectional fibrous		
Dimensions	WxHxD	mm	1,	,667 x 365 x 1,14	10	1	,667 x 365 x 1,14	10	
Net Weight		kg		105			98		
	Liquid	mm		Ø6.35		Ø6.35			
Dining Connection	Gas	mm	Ø12.7			Ø12.7			
Piping Connection	Water	mm	Ø6.35			-			
	Drain Pipe (Internal Dia.)	mm (inch)		Ø25 (1)		Ø25 (1)			
Connection Duct Dia	meter	mm		Ø250			Ø250		

- Note: 1. Cooling Capacity Test condition Indoor temperature: 27°C DB, 19°C WB / Outdoor temperature: 35°C DB

  2. Heating Capacity Test condition Indoor temperature: 20°C DB / Outdoor temperature: 7°C DB, 6°C WB

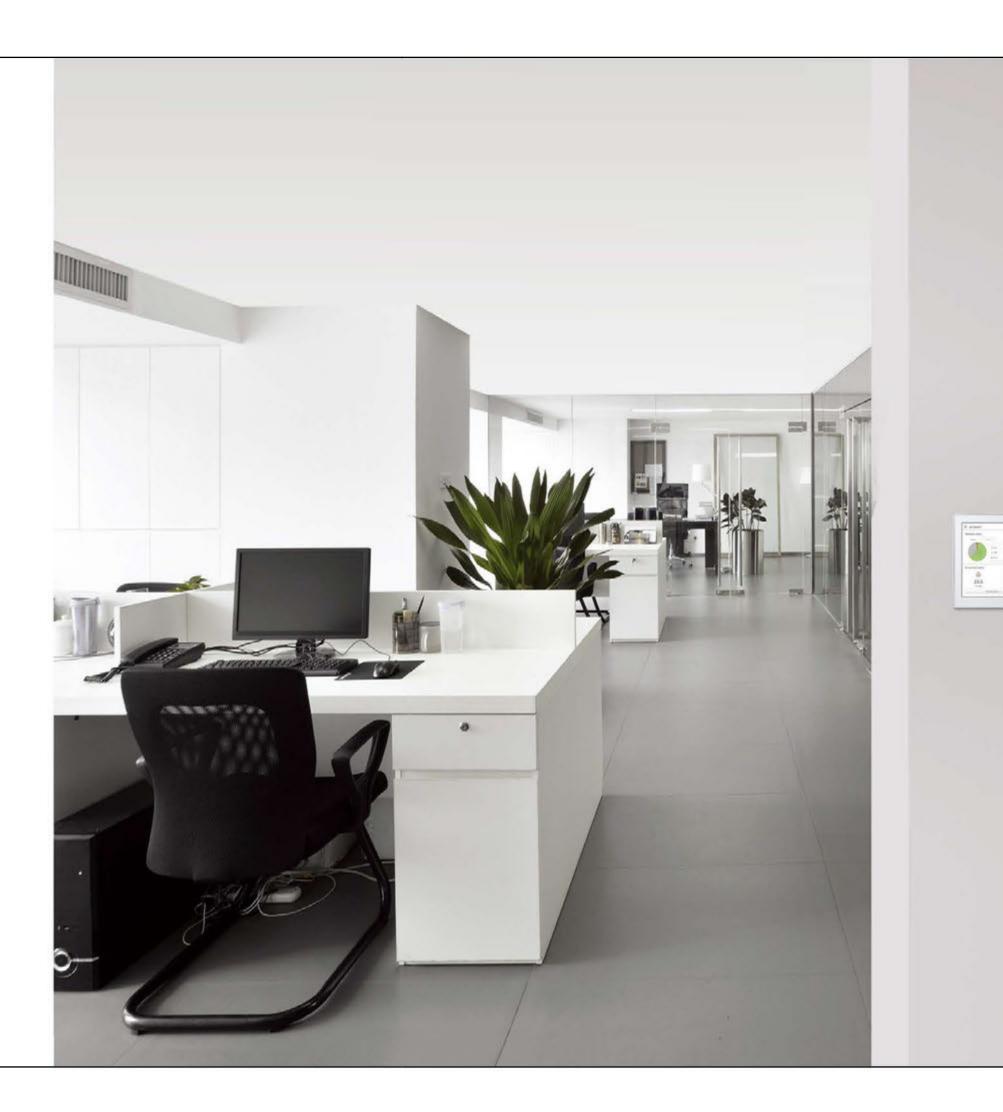
  3. Humidifying capacity is based on the following conditions Indoor temperature: 20°C DB, 15°C WB / Outdoor temperature: 7°C DB, 6°C WB

  - Cooling and heating capacities are based on the following conditions. Fan is based on High and Super-high.
     The operating sound measured at the point 1.5 m below the center of the unit is converted to that measured at an anechoic chamber.
     The specifications, designs and information here are subject to change without notice.

#### Accessories

Chassis	LZ-H050GXH4 LZ-H080GXH4 LZ-H100GXH4 LZ-H050GXN4 LZ-H080GXN4 LZ-H100GXN4
Drain Pump	
Cassette Cover	-
Refrigerant Leakage Detector	PRLDNVS0
EEV Kit	-
Independent Power Module	-
Robot Cleaner	-
Pre Filter (washable / anti-fungus)	-
Ion Generator	-
CO <sub>2</sub> Sensor	AHCS100H0
Ventilation Kit	-
IR Receiver	-
Zone Controller	-
Dry Contact (with additional accessory)	PDRYCB000 (1 point contact) PDRYCB500 (Modbus)
External Input (1 point)	0
Wi-Fi	-

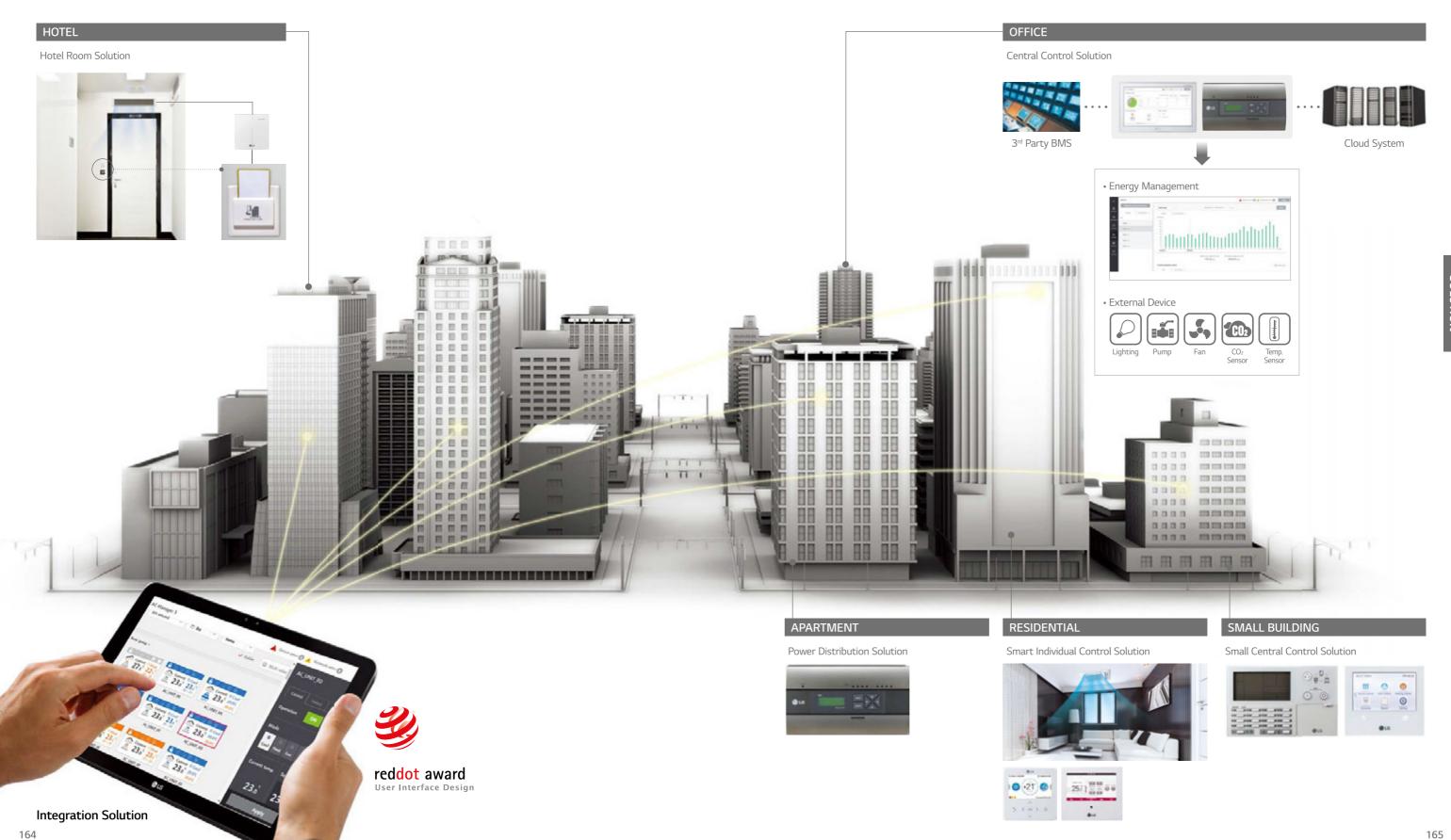
※ ○ : Applied, - : Not applied Option : Refer to model name in table



INDIVIDUAL CONTROL / CENTRALIZED CONTROL INTEGRATION DEVICE

### **LG CONTROL SOLUTIONS**

MULTI V 5 offers a diverse range of effective control solutions that satisfy specific needs of each building and its user scene. These controlling systems are equipped with user friendly interface, flexible interlocking environment, energy management and smart individual controller for optimized controlling conditions and smart building management.





### **FEATURE FUNCTIONS**

			Wire	Wireless	Wi-Fi			
Controlle	Controller Name		Standard III	Standard II	Simple	Simple(Hotel)	Remote Controller	Controller
Model Na	Model Name		000	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2				<b>*</b>
		PREMTA000 PREMTA000A PREMTA000B	PREMTB100 PREMTBB10	PREMTB001 PREMTBB01	PQRCVCL0Q PQRCVCL0QW	PQRCHCA0Q PQRCHCA0QW	PQWRHQ0FDB	PWFMDD200
	On / Off	0	0	0	0	0	0	0
	Fan Speed Control	0	0	0	0	0	0	0
	Temperature Setting	0	0	0	0	0	0	0
	Mode Change	0	0	0	0	-	0	0
		0	0	0	0	0	0	
Basic	Vane Control (Louver Angle)	0	0	0	0	0	0	0
	E.S.P (External Static Pressure)	0	0	0	0	0	-	-
	Electric Failure Compensation	0	0	0	0	0	-	0
	Indoor Temperature Display	0	0	0	0	0	0	
	ALL Button Lock (Child Lock)	0	0	0	0	0	-	-
	Schedule / Timer	Weekly~Yearly	Weekly~Yearly	Weekly	-	-	Sleep / On / Off	Weekly
	Additional Mode Setting 1)	0	0	0	-	-	-	-
	Time Display	0	0	0	-	-	0	-
	Humid. Display	0	0	-	-	-	-	-
	Advanced Lock (mode, set point, set point range, On / Off Lock)	Advanced Lock	Advanced Lock	Mode Lock	-	-	-	-
Advanced		0	0	0	-	-	-	-
	Energy Management 2)	0	0	0	-	-	-	-
	Dual Set Point	0	0	-	-	-	-	-
	Human Detection	-	0	-	-	-	-	-
	Temp, Humidity Compensation	0	0	-	-	-	-	-
	Wi-Fi AP Mode Setting	0	0	0	0	0	0	-
	Operation Status LED	0	0	0	0	0	-	-
	Wireless Remote Controller Receiver	○3)	-	○3)	○3)	○3)	-	-
ETC	Display	5 inch Color	4.3 inch Color	4.3 inch mono	2.6 inch mono	2.6 inch mono	2 inch mono	-
	Size (W x H x D, mm)	137 x 121 x 16.5	120 x 120 x 16	120 x 120 x 16	64 x 120 x 15	64 x 120 x 15	51 x 153 x 26	-
	Black Light Control for Screen Saver	0	0	-	-	-	-	-

 <sup>※ ○:</sup> Applied, -: Not Applied
 1) It might not be indicated or operated at the partial product
 2) Centralized control (PACEZA000 / PACSSA000 / PACPSA000 / PLNWKB000) and PDI (PQNUD1S40 / PPWRDB000) should be installed for this function
 3) For ceiling type duct
 Note: 1. Indoor unit should have functions requested by the controller
 2. If you need more detail, please refer to the manual of product. (http://partner.lge.com: Home> Doc.Library> Manual)

#### STANDARD III WIRED REMOTE CONTROLLER

4.3 inch Color screen with a modern design.





PREMTB100 (White)

PREMTBB10 (Black)

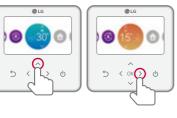
#### Features & Benefits

- ullet The optimized controller for MULTI V 5
- Humidity sensor embedded
- Comfort cooling setting
- Smart Load Control setting
- Outdoor unit low noise setting
- Defrost mode setting
- New modern design & easy interface
- Seamless design / Touch button
- 4.3 inch color LCD / Intuitive GUI
- · Energy saving functions
- Instantaneous power monitor
- Energy consumption check (power consumption, operation time)
- Temp. Setback timer, time limit control
- Target setting (ODU capacity, Instantaneous power---etc)
- Group control
- Up to 16 Indoor units can be controlled with one remote control
- External device On / Off (1 point)
- Customized interlocking control with indoor unit is possible without dry contact
- 2 set points control
- Increase convenience and comfort
- Auto changeover, Setback (home leave)

Model Name	PREMTB100 / PREMTBB10
On / Off	0
Fan Speed Control	0
Temperature Setting	0
Mode Change	Cooling / Heating / Auto / Dehumidification / Fan
Additional Mode Setting 1)	Energy-Saving Cooling / Robot Cleaning / Heater / Humidification / Comfort Cooling
Auto Swing	0
Vane Control (Louver direction)	0
E.S.P (External Static Pressure) 2)	0
Reservation	Simple / Sleep / On & Off timer / Weekly / Yearly / Holiday
Time Display	0
Electric Failure Compensation	0
Lock	All / On & Off / Mode / Set temperature range
Filter Sign	○ (Remain time + Alarm)
Energy Management	Check Energy Usage <sup>3)</sup> / Check Operation Time / Target Setting (Energy, Operation Time) / Time Limit Operation / Alarm Popup / Initialization Usage Data
Operation Status LED	0
Indoor Temperature Display	0
Indoor Humidity Display	0
Human Detection	0
Display	4.3 inch TFT color LCD (480 x 272)
Size (W x H x D, mm)	120 x 120 x 16
Black light for Screen saver	0
Home Leave	2 set points control

- ※ : Applied, : Not Applied1) It might not be indicated or operated at the partial product
- This function is available for duct type
   This function requires PDI (PQNUD1S40 / PPWRDB000) to be installed.
- Note: 1. Indoor unit needs to have functions requested by the controller 2. 2 set points control works normally with MULTI V Heat Recovery and Single Split
  - Heat Pump. But in case of MULTI V Heat Pump, It may not work properly















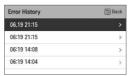






**Energy Contents** 

Comfort Level



Error History

#### **Energy Saving Function**

#### **Energy Management**

- Energy Monitoring & Alarm Real-time and day / week / month / year energy usage monitoring is possible. In addition, it can set target for energy usage and operation time, and alarm will be displayed when exceeded.
- \* PDI (PQNUD1S40 / PPWRDB000) is required.

#### **Time Limit Control**

- The time-limit operation controls product by amount of time. By setting the device operation time in advance, you can control for how long a device works and have it stop automatically.







**Energy Usage Target Setting** 



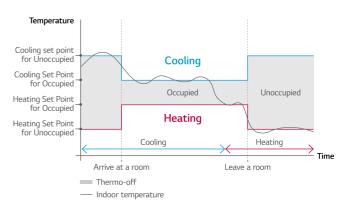
#### 2 Set Points Control

#### Auto Changeover (Convenience)

- The indoor unit automatically manages room temperature with heating and cooling with extended setting temperature ranges. With setting heating and cooling set temp. just one time, comfortable condition will continue at all times.

#### Setback (Home Leave) (Energy saving & Comfort)

- In the absence, room temperature can be kept in the range of 2 set points instead of power off. It provides comfortable indoor environment quickly when the mode is changed to occupied.
- \* This function is for Heat Recovery system or Single heat pump. Otherwise it is not



#### External Device On / Off



**External Equipment Control** User can turn on or off the external equipment through contact point output.

### **Customized Interlocking Control** Back Box Corr. Temp. 10° Under Heater C

### User can make control scenario.

For example when temperature is under 10 degree, turn on the external heater.

#### **Schedule Function**



Easy Checking Schedule Standard III remote controller provides clock type daily schedule.



**Exception Day settings** Possible to set up exceptional date on regular schedule.

#### PREMIUM WIRED REMOTE CONTROLLER

5 inch full touch screen with a premium design.



#### PREMTA000 1) / PREMTA000A 2) / PREMTA000B 3)

- 1) English / Portuguese / Spanish / French 2) English / Italian / Russian / Chinese 3) English / German / Polish / Czech

#### Features & Benefits

- Full Touch screen
- The optimized controller for MULTI V 5
- Comfort cooling setting
- Smart Load Control setting
- Outdoor unit low noise setting
- Defrost mode setting
- · Design with user's convenience
- Intuitive GUI
- Main display simple mode
- 5 inch color LCD
- Energy saving functions
- Instantaneous power monitor
- Energy consumption check (power consumption, operation time)
- Temp. Setback timer, Time limit control
- Target setting (ODU capacity, Instantaneous power--etc)
- Group control
- Up to 16 Indoor units can be controlled with one remote control
- 2 set points control
- Increase convenience and comfort
- Auto changeover, Setback (home leave)





#### Easy Energy Management

- Check the operation hour or electricity usage

※ ○ : Applied, - : Not Applied

4) For ceiling type ducted unit

It might not be indicated or operated at the partial product.

2) This function is available for duct type 3) This function requires PDI (PQNUD1S40 / PPWRDB000) to be installed.

2. 2 set points control works normally with MULT V Heat Recovery and Single Split Heat Pump. But in case of MULTI V Heat Pump, It may not work properly

Note: 1. Indoor unit needs to have functions requested by the controller

- Comparison of usage compared to last year
- Set the target usage and time

#### Easy Scheduling

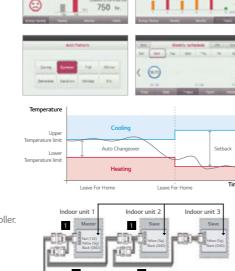
- Daily, Weekly, Yearly schedule function
- Schedule pattern setting
- Schedule copy

#### 2 Set points Control

- Auto changeover switching the operation mode automatically
- · Setback (Home Leave) Changing status by occupied / unoccupied
- \* This function is only for Heat Recovery system and Single heat pump.

#### Group Control

1. Max. 16 Indoor units by one remote controller.



PREMTA000 / PREMTA000A / PREMTA000B

Cooling / Heating / Auto / Dehumidification / Fan Energy-Saving Cooling / Robot Cleaning / Heater /

Humidification

Simple / Sleep / On / Off / Weekly / Yearly / Holiday

O (Remain time + Alarm)

Setting (Energy, Operation Time) / Time Limit Opera-tion / Alarm Popup / Initialization Usage Data

 $O^{4)}$ 5 Inch TFT color LCD (480 x 272)

137 x 121 x 16.5

2 Set Points Control

Check Energy Usage<sup>3)</sup> / Check Operation Time / Target

#### STANDARD II WIRED REMOTE CONTROLLER

Providing easy control of one or a group of indoor units with various functions.





PREMTB001 (White) PREMTBB01 (Black)

#### Features & Benefits

• Wired remote controller that can implement various functions such as schedule, filter sign.

Model Name	PREMTB001 / PREMTBB01
On / Off	0
Fan Speed Control	0
Temperature Setting	0
Mode Change	Cooling / Heating / Auto / Dehumidification / Fan
Additional Mode Setting	Energy-Saving Cooling / Robot Cleaning / Heater / Humidification
Auto Swing	0
Vane Control (Louver direction)	0
E.S.P (External Static Pressure)	0
Reservation	Simple / Sleep / On / Off / Weekly / Holiday
Time Display	0
Electric Failure Compensation	0
Child Lock	0
Filter Sign	○ (Remain time + Alarm)
Operation Status LED	0
Indoor Temperature Display	0
Wireless Remote Controller Receiver	O <sup>1)</sup>
Size (W x H x D, mm)	120 x 120 x 16
Blacklight	0
Power Consumption Monitoring	O <sup>2)</sup>
Check Model Information	O

- ※ : Applied, : Not Applied

   For ceiling type ducted unit
- 2)This function requires PDI (PQNUD1540 / PPWRDB000) to be installed.

  Note: Indoor unit needs to have functions requested by the controller

#### SIMPLE WIRED REMOTE CONTROLLER

A simple way to control office or hotel systems in a compact design





PQRCVCL0QW (White) / PQRCHCA0QW (White) / PQRCVCL0Q (Black) PQRCHCA0Q (Black)

#### **Features & Benefits**

· Small remote control with minimal functionality

Model Name	PQRCVCL0QW / PQRCVCL0Q	PQRCHCA0QW / PQRCHCA0Q
On / Off	0	0
Fan Speed Control	0	0
Temperature Setting	0	0
Mode Change	Cooling / Heating / Auto / Dehumidification / Fan	-
Auto Swing	0	0
Vane Control (Louver direction)	0	0
E.S.P (External Static Pressure)	0	0
Electric Failure Compensation	0	0
Child Lock	0	0
Indoor Temperature Display	0	0
Wireless Remote Controller Receiver	O <sup>1)</sup>	O <sup>1)</sup>
Size (W x H x D, mm)	70 x 121 x 16	70 x 121 x 16
Blacklight	0	0

- ※ : Applied. : Not Applied
- Note: Indoor unit needs to have functions requested by the controller

### WIRELESS REMOTE CONTROLLER



**PQWRHQ0FDB** 

#### Features & Benefits

• Easy to use while moving • Main functions are available

Model Name	PQWRHQ0FDB
On / Off	0
Fan Speed Control	0
Temperature Setting	0
Mode Change	Cooling / Heating / Auto / Dehumidification / Fan
Additional Mode Setting	Plasma Purification / Energy-Saving Cooling / Robot Cleaning / Auto Dry
Auto Swing	0
Vane Control (Louver direction)	0
Reservation	Sleep / On / Off
Time Display	0
Indoor Temperature Display	0
Sleep Mode Auto	Max. 7 hours
Size (W x H x D, mm)	51.4 x 153 x 26

※ ○ : Applied. - : Not Applied

#### **LG Wi-Fi MODEM**

Control LG air conditioners by using internet devices as Android or iOS smartphones.



PWFMDD200

#### Features & Benefits

• Access LG air conditioner anytime and from anywhere with Wi-Fi equipped device.

It is possible to check whether the air conditioner is turned off when the user goes out (energy saving), and can be operated in advance before entering the house (comfort improvement).

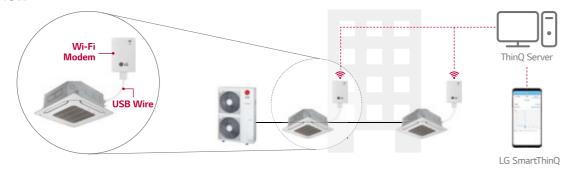
- LG's exclusive Home Appliances control app(SmartThinQ) is available
- Simple operation for various functions
- On / Off
- Operation Mode
- Current/Set Temperature
- Fan Speed
- Vane Control 1)
- Reservation (Sleep, Weekly On / Off)
- Energy Monitoring 2)
- Filter Management
- Error Check

Model Name	PWFMDD200
Size (W x H x D, mm)	48 x 68 x 14
Interfaceable Products	MULTI V Indoor unit 3)
Connection Type	Indoor unit 1:1
Communication Frequency	2.4 GHz
Wireless Standards	IEEE 802.11b/g/n
Mobile Application	LG SmartThinQ (Android v4.1(Jellybean) or higher, iPhone iOS 9.0 or higher)
Optional Extension Cable	PWYREW000 (10m extension)

- 1) Vane Control may not be possible according to the type of Indoor unit
  2) LG Centralized controller and PDI installation is required for this function
  3) For the compatibility with Indoor unit, please contact regional LG office
  Note: 1. Functionality may be different according to each IDU model
  2. User interface of application shall be revised for its design and contents improve
- - Application is optimized for smartphone use, so it may not be well functioning with tablet devices

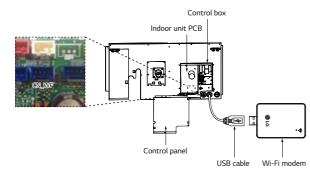


#### Overview



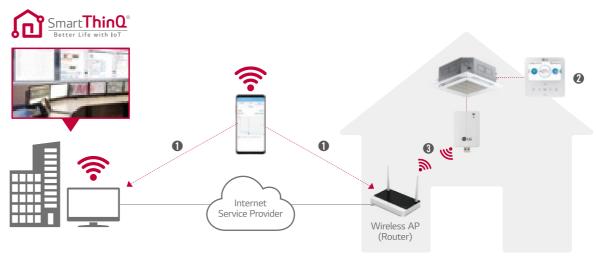
\* Search "LG SmartThinQ" on Google market or Appstore then download the app. \* Internet service with Wi-Fi connection has to be available.

#### **Installation Scene**



<sup>\*</sup> Each indoor unit has a Wifi modem installation location inside the product, and it can be installed by exposure if necessary

#### **Connection Diagram**



#### Connection (Pairing) Order

- $\ensuremath{\mathbf{0}}$  Make LG account on LG Smart ThinQ and select the Router that will be used
- 2 Insert passwords of selected router and set AP(Access Point) by LG remote controller
- 3 Confirm the pairing between Wi-Fi Modem and Router

#### Smart ThinQ

#### Simple operation for various functions

On / Off, Current Temp Mode, Set Temp





Reservation

2 hours later

# Vane Control



#### Easy Management



#### **Energy Monitoring**



Smart Diagnosis



Filter Management





### **CENTRALIZED CONTROLLER FEATURE LIST**

Controller Name			AC Ez	AC Ez Touch	AC Smart 5 5)	ACP 5 5)	ACP Lonworks	AC Manager 5 3)
Model Name			# 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		- 100		- 1 50	
			PQCSZ250S0	PACEZA000	PACS5A000	PACP5A000	PLNWKB000	PACM5A000
	DO		-	-	2	4	2	-
	DI		-	1	2	10	2	-
		IDUs	32	64	128	256	64	8,192
Product	Max.	ERV	32	64	128	256	64	-
	Connectable	A/C + ERV	32	64	128	256	64	-
		AHU	-	-	16	16	16 <sup>4)</sup>	-
		Chiller	-	-	5 Optional 2)	10 Optional 2)	-	-
	Air Condition	ner	O 1)	0	0	0	0	0
		ERV / ERV DX)	O 2)	0	0	0	0	0
			-	0	0	0	0	0
Compatibility	AHU		-	-	0	0	0	0
	Chiller		-	-	O 4)	O 4)	-	0
	ACS IO		-	-	O 4)	O 4)	O 4)	0
	Add Drawing	]	-	-	O 4)	O 4)	O 4)	0
	Group Management		-	-	O 4)	O 4)	O 4)	0
	Auto Changer Over		-	0	O 4)	O 4)	O 4)	0
Additional	Set Back		-	0	O 4)	O 4)	O 4)	0
Function			-	0	0	0	O 4)	-
	Change Alarm		-	Filter	Filter	Filter	Filter	Filter
	Indoor Unit Lock		-	0	0	0	O 4)	-
	Cycle		-	-	0	0	O 4)	0
Schedule		0	0	O 4)	O 4)	O 4)	0	
	 Peak	Priority Control	-	0	0	0	O 4)	0
	Peak Control	Outdoor Unit Capacity Control	-	-	O 4)	O 4)	O 4)	0
	 Demand	Priority Control	-	-	-	-	O 4)	0
Auto Control	Control	Outdoor Unit Capacity Control	-	-	-	-	O 4)	0
			-	-	O 4)	O 4)	O 4)	0
	InterLocking		-	-	O 4)	O 4)	O 4)	0
Energy Navigat			-	-	O 4)	O 4)	-	0
			-	0	0	0	O 4)	0
			-	-	0	0	O 4)	0
Energy Report			-	-	O 4)	O 4)	O 4)	0
			-	-	O 4)	O 4)	O 4)	-
	PC / USB		-	-	O 4)	PC	PC	PC
Trend Reportin			-	-	-	-	-	0
	Report (Con	trol / Error)	-	Error	O 4)	O 4)	O 4)	0
History	Send Email		-	-	O 4)	O 4)	O 4)	0
	Save to PC / USB		-	-	O 4)	O 4)	O 4)	PC
	Summer Tim		-	0	O 4)	O 4)	O 4)	-
		t Oil-Return Operation	-	-	O 4)	O 4)	O 4)	_
	User Author	· · · · · · · · · · · · · · · · · · ·	_	Password	O 4)	O 4)	O 4)	0
	PC Access		-	0	O 4)	O 4)	O 4)	0

<sup>\*\*</sup> O : Applied, - : Not Applied
1) Except for some feature (individual lock, limit, temp., etc.)
2) Except for some feature (user mode, additional function, etc)
3) ACP 5 or AC Smart 5 is required
4) This function is possible to use in Web Only (BMS Point is not applied)
5) Without additional device, ACP 5 and AC Smart 5 provide BACnet IP and Modbus TCP interface for BMS

#### **AC EZ TOUCH**

Smart management with 5 inch touch screen for small site.



PACEZA000

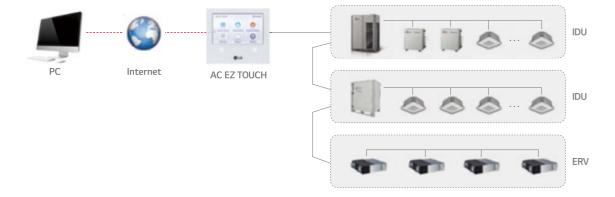
#### Features & Benefits

- User friendly control by graphical access
- Total 200 schedule events
- Energy saving mode
- Energy monitoring (with PDI)
- 2 set point function (Upper / Lower temperature setting)
- Temperature set points range limit
- Remote controller lock (All, Temp, Mode, Fan Speed)
- Operation history
- Filter cleansing or changing alarm
- Emergency stop

Model Name	PACEZA000
Size (W x H x D, mm)	137 x 121 x 25
Interfaceable Products	MULTI V / ERV / ERV DX / HYDRO KIT / THERMA V
Maximum number of units	64
Individual / Group Control	On & Off / Mode / Temperature / Fan speed
Individual Controller Lock	Temperature / Mode / Fan speed / All
Error Check	0
Slave Mode (Interlocking with higher level controller)	0
Schedule	Weekly / Monthly / Yearly / Exception day
Remote Access	By client S/W
Emergency Stop & Alarm Display	0
Power Consumption Monitoring (with PDI)	0
Auto Changeover / Setback	0
Temperature Limit	0
Operation History	Error record
ODU Low Noise 1)	0
Daylight Saving Time	0
External IO Port	DI 1
IPv6 Support	0

※ ○ : Applied, - : Not Applied1) It is only available in some products

#### Overview



#### **Feature**

#### **PC** Access

Users can control each space efficiently through PC access.



#### Energy Statistics (with PDI)

Statistics of operational status (time, power consumption) are provided to help make intelligent system operation decisions.



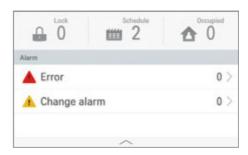
#### **Energy Mode**

When using energy mode function, operation mode changes from cooling to fan or heating to off mode by force. (It is available only for operating indoor unit)



#### **Alarm Indicator**

It shows errors and alarm information. Users can respond immediately according to alarm indicator therefore HVAC system is monitored consistently.



#### Schedule

Schedule control allows user to set the events in advance to maximize system performance. Also, by blocking unnecessary operation, it prevents a waste of energy.

⊕ Add					Schedule_Month •					
	Sat	Fri	Thu	Wed	Tue	Mon	Sun			
^	5	4	3	2	1	29				
	12	11	10	9	8	7	6			
03	19	18	17	16	15	14	13			
00	26	25	24	23	22	21	20			
	2	1	31	30	29	28	27			
~		8	7	6	5	4	3			

#### Group / Individual Control

By clicking each indoor units on screen, user controls them individually or by group. It is useful to monitor or control for the best fit of request.



#### **AC EZ**

Easy to manage up to 32 indoor units, including ERV with simple interface.



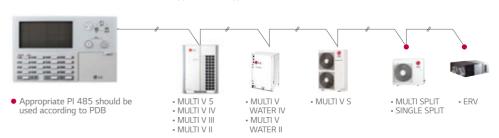
PQCSZ250S0

Model Name	PQCSZ250S0
Size (W x H x D, mm)	190 x 120 x 20
Interfaceable Products	MULTI V / ERV / ERV DX
Display	LED / LCD Display
Power	DC 12V
Maximum number of units	32
Individual / Group Control	On & Off / Mode / Temperature / Fan speed
Individual Controller Lock	All
Error Check	0
Slave Mode (Interlocking with higher level controller)	0
Schedule	Weekly

※ ○ : Applied, - : Not Applied

#### Features & Benefits

- 32 indoor units control
- Weekly Schedule
- Individual / Group Control



#### **AC SMART 5**

Control LG air conditioners by using the internet devices as Android or iOS bases smartphones.



#### PACS5A000

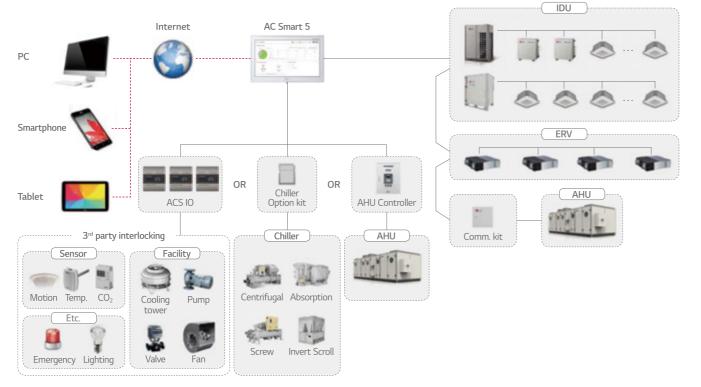
#### Features & Benefits

- The central controller allows control of the LG HVAC system to various platforms. (Touch screen, PC, Smartphone, Tablet)
- DI: 2 / DO: 2
- Max. 128 IDU control
- BACnet IP/Modbus TCP
- Schedule
- Map view (Visual navigation)
- Time limit control / Auto change over
- Energy monitoring
- History / Operation trend
- Interlock with 3<sup>rd</sup> party equipment (ACS IO, ACU IO Module is needed)
- Multi level grouping
- Emergency stop & alarm
- Error alarm by e-mail

Model Name	PACS5A000
Size (W x H x D, mm)	253.2 x 167.7 x 28.9
Interfaceable Products	MULTI V / ERV / ERV DX / HYDRO KIT / THERMA V / AHU kit / LG Chiller <sup>1)</sup>
Maximum number of units	128
Individual / Group Control	On & Off / Mode / Temperature / Fan speed
Individual Controller Lock	Temperature / Mode / Fan speed / All
Advanced Function Setting and Display <sup>2)</sup>	Comfort Cooling / ODU Low Noise / ODU Defrost Mode / Comfort Level display / CO <sub>2</sub> Level display (for ERV / ERV DX) / Night Time Free Cooling (for ERV / ERV DX)
Error Check	0
Slave Mode (Interlocking with higher level controller)	0
Schedule	Weekly / Monthly / Yearly / Exception day
Web Access	0
Emergency Stop & Alarm Display	0
Power Consumption Monitoring (with PDI)	0
Auto Changeover / Setback	0
Temperature Limit	0
Operation Time Limit	0
Visual Navigation	0
Operation Trend	0
Interlock Control	0
Virtual Group Control	0
ODU Capacity Control	0
Energy Navigation (with PDI)	0
Daylight Saving Time	0
External IO Port	DI 2 / DO 2
BMS Integration 3)	BACnet IP / Modbus TCP
IPv6 Support	0
W O : Applied : Not Applied	

- O: Applied, -: Not Applied
  Chiller Option Kit (PCHLLN000) is required
  It is only available in some products
  For the detail point list, please refer to the installation manual

#### Overview



#### **BMS** Integration

Without additional device, AC Smart 5 provides BACnet IP / Modbus TCP interface for BMS (Building Management System) integration as well as its own management function.



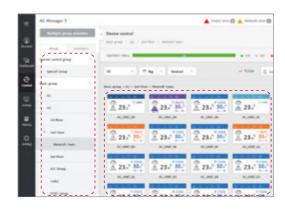
#### **Energy Management / Operation Trend**

Energy navigation function allows air conditioners operation to be managed under the monthly (Weekly / Yearly) plan of energy usage. By analyzing present energy consumption and comparing with the plan, overuse of system operational costs can be prevented.



#### Multi Level Group Composition

You can freely apply layer structure such as building, floor, zone, etc. and set the group as the same as the site composition to control and monitor the devices. If you have special control group, you can additionally compose frequently used groups such as VIP Room, executive room, etc. regardless of the building structure.



#### **Advanced Network Accessibility**

AC Smart 5 reflects the state of the art of network technology trend. IPv6 (Internet Protocol version 6), which is the most recent version of the Internet Protocol, provides accessibility to the IPv6 compatible network environment. In addition, HTML5 allows you to easily control LG HVAC system on a variety of platforms (PC, Mobile, Tablet), at any time and from any location, not just on the touch screen.



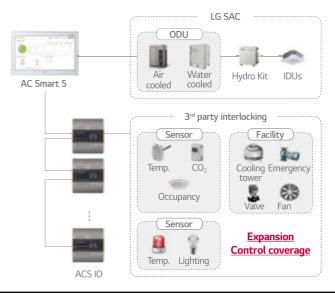
#### Visualized Control

Visual navigation enables controlling and monitoring the unit on floor plan view for the intuitive management.



#### Interlocking with 3<sup>rd</sup> party equipment

AC Smart 5 can make operation scenario with 3<sup>rd</sup> party equipment by ACS IO Module. Control coverage is expanded. (Air conditioner only → Sensors, Fans, Pumps, Switches...)



#### ACP 5

Advanced solution for BMS integration up to 256 units via BACnet and Modbus protocol as well as its own smart management function with web server interface.



#### PACP5A000

#### Features & Benefits

- The central controller allows control of the LG HVAC system by various platforms. (PC, Smartphone, Tablet)
- DI:10 / DO:4
- Max. 256 IDU control
- BACnet IP/Modbus TCP
- Schedule
- Map view (Visual navigation)
- Time limit control / Auto change over
- Energy monitoring
- History / Operation trend
- Interlock with 3rd party equipment (ACS IO, ACU IO Module is needed)
- Multi level grouping
- Emergency stop & alarm
- Error alarm by e-mail

Model Name	PACP5A000
Size (W x H x D, mm)	270 x 155 x 65
Interfaceable Products	MULTI V / ERV / ERV DX / HYDRO KIT / THERMA V / AHU kit / LG Chiller <sup>1)</sup>
Maximum number of units	256
Individual / Group Control	On & Off / Mode / Temperature / Fan speed
Individual Controller Lock	Temperature / Mode / Fan speed / All
Advanced Function Setting and Display <sup>2)</sup>	Comfort Cooling / ODU Low Noise / ODU Defrost Mode / Comfort Level display / CO <sub>2</sub> Level display (for ERV / ERV DX) / Night Time Free Cooling (for ERV / ERV DX)
Error Check	0
Schedule	Weekly / Monthly / Yearly / Exception day
Web Access	0
Emergency Stop & Alarm Display	0
Power Consumption Monitoring (with PDI)	0
Auto Changeover / Setback	0
Temperature Limit	0
Operation Time Limit	0
Visual Navigation	0
Operation Trend	0
Interlock Control	0
Virtual Group Control	0
ODU Capacity Control	0
Energy Navigation (with PDI)	0
Daylight Saving Time	0
External IO Port	DI 10 / DO 4
BMS Integration 3)	BACnet IP / Modbus TCP
IPv6 Support	0

#### Overview ACP 5 IDU OR ERV Chiller Option kit AHU Controller 3<sup>rd</sup> party interlocking Chiller AHU AHU ) Facility Comm. kit Centrifugal Absorption Motion Temp. CO<sub>2</sub> Cooling Pump Etc. Invert Scroll Emergency Lighting Multi level group / Advanced Network Accessibility **Energy Navigation** BACnet IP / Modbus TCP Special control group BMS BACnet

#### **ACP LONWORKS GATEWAY**

LonWorks easily link LG air conditioners and other existing building systems. By including ACP control function, the controlling continues even when error occurs with BMS.



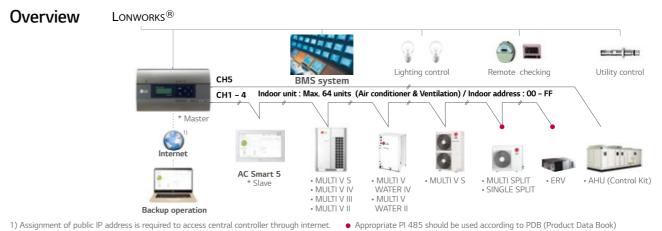
PLNWKB000

#### Features & Benefits

- Connect to use Lonworks® protocol and LG air conditioner protocol.
- Process ability (Max. connection): Indoor unit 64EA, AHU Control Kit: Max. 16EA
- Self installation verification using internet (Web Server Included) - Diagnosis of communication status on LG Air-conditioner network
- It offers a variety of functions as ACP which allows the customer to efficiently control various types of equipment from the customer's own Integration.

Control	Monitoring	
On / Off Command	On / Off	
Operation Mode Setting	Operation Mode	
Lock	Lock	
Temperature	Temperature	
Fan Level	Fan Level	
Fan Direction Auto	Fan Direction Auto	
Mode Lock	Mode Lock	
Fan Level Lock	Fan Level Lock	
Temperature Lock	Temperature Lock	
Temperature Lower Limit	Temperature Lower Limit	
Temperature Higher Limit	Temperature Higher Limit	
Peak Convert Cycle	Peak Convert Cycle	
Peak Setting	Peak Setting	
Temperature Unit	Temperature Unit	
Total Temperature Lock	-	
Total On / Off	-	
Total Temperature	-	
-	Product Type	
-	Product Address	
-	Current Temperature	
-	Alarm	
-	Power	
-	Error Code	
-	Peak Current Operating Percent	
-	Total Accumulate Power	

※ ○ : Applied, - : Not Applied



#### PI 485

PI 485 converts LG air conditioner's protocol to the RS485 protocol for the central controller



- Power: Connected with the Indoor Units
- 1 for Each Indoor Unit - Indoor Unit (ERV)

PHNFP14A0

#### **AC MANAGER 5**

Multiple ACP and AC Smart integration solution to manage multi sites up to 8,192 units as a single system.





#### PACM5A000

#### Features & Benefits

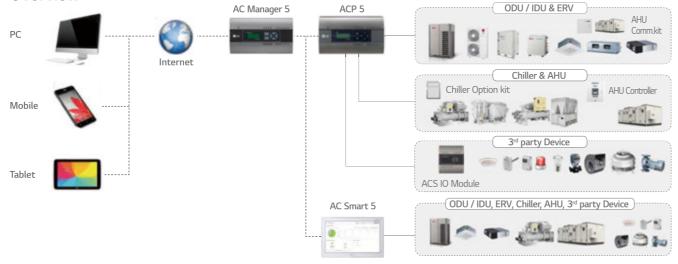
- · Consol Type: No needs software installation and lock-key
- Max 8,192 IDU Control
- Schedule
- Map View (Visual Navigation)
- Time limit control / Auto change over
- Energy Monitoring / Navigation
- History / Operation Trend
- Emergency stop & alarm
- Error alarm by E-mail
- Multi Language

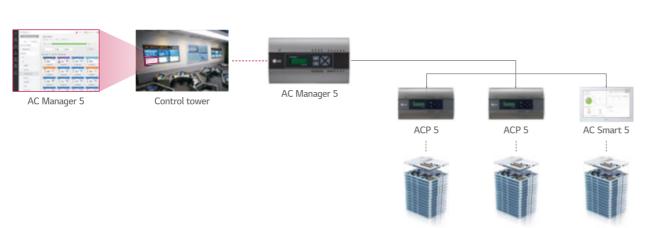
(Eng, Ita, Spa, Por, Rus, Fra, Ger, Tur, Pol, Chi, Kor)

Model Name	PACM5A000		
Size (W x H x D, mm)	270 x 155 x 65		
Interfaceable Products	MULTI V / ERV / ERV DX / HYDRO KIT / THERMA V / AHU kit / LG Chiller 1)		
Maximum number of units	8,192 (supports 32 ACP 5 or AC Smart 5)		
Individual / Group Control	On & Off / Mode / Temperature / Fan speed		
Individual Controller Lock	Temperature / Mode / Fan speed / All		
Error Check	0		
Schedule	Weekly / Monthly / Yearly / Exception day		
Web Access	0		
Emergency Alarm Display	0		
Power Consumption Monitoring (with PDI)	0		
Auto Changeover / Setback	0		
Temperature Limit	0		
Operation Time Limit	0		
Visual Navigation	0		
Operation Trend	0		
Interlock Control	0		
Virtual Group Control	0		
ODU Capacity Control	0		
Energy Navigation (with PDI)	0		

※ ○ : Applied, - : Not Applied 1) Chiller Option Kit (PCHLLN000) is required Note: AC Manager 5 requires ACP 5 or AC Smart 5

#### Overview





#### Stand-alone

Integrated with S/W program and Hardware platform, it is convenient to install since users no longer need to install program with lock-key on PC.



#### Up to 8,192 Connections for Indoor Units

Administrators can easily and conveniently manage a variety of LG HVAC equipment. Also, it is available to manage many buildings or areas at one place via AC Manager 5.



#### Advanced Network Accessibility & User Friendly GUI (reddot award)

As an advanced central controller, AC Manager 5 offers flexible interface for each user by assessing the device screen and automatically customizing the layout to provide the most optimized interface.









#### **Energy Navigation & Energy Usage Trend**

Energy navigation is the function to set the target usage amount to limit the monthly power consumption and to control so that the total accumulated power consumption does not exceed the target usage amount. It performs total of 7 control levels with the estimated/actual usage amount exceeding ratio compared to the monthly target usage amount. For the control method, there are indoor unit operation ratio, outdoor unit capacity control, and indoor unit operation control.



#### Peak Control

This function can reduce electricity use. There are two kinds of control logic. Energy saving effect by indoor unit operation rate control. Load management effect by outdoor unit capacity control.





9 Step Operation rate (%)

ODU Capacity Control

[ 0, 40, 45, 50, 60, 70, 80, 90, 100 ]

#### Multi Level Group Composition

You can freely apply layer structure such as building, floor, zone, etc. and set the group as the same as the site composition to control and monitor the devices. Special control group You can additionally compose frequently used groups such as VIP Room, executive room, etc. regardless of the building structure.





### CONTROL

#### KNX GATEWAY 1)

Specially designed to allow monitoring and bidirectional control of all the parameters and functionality of LG air conditioners from KNX protocol.



Model Name	Max. Connection Indoor Units		
LG-AC-KNX4	4		
LG-AC-KNX8	8		
LG-AC-KNX16	16		
LG-AC-KNX64	64		

LG-AC-KNX4 / LG-AC-KNX8 LG-AC-KNX16 / LG-AC-KNX64

#### **Features & Benefits**

- Easy installation, direct connection to all outdoor units (communication interface PMNFP14A1, when needed) and ERV units (communication interface PHNFP14A0, when needed) through the RS485 Bus.
- · Great integration flexibility. Using the supplied software LinkBoxEIB, a complete set of communication objects can be accessed.
- Direct connection to KNX bus
- Independent management of communications
- Power supply: 9 to 24V DC or 24V AC
- · Standard DIN-Rail 6 modules enclosure
- Maximum connection unit
- LG Central controller (for example, AC Smart) and PDI can be operated with KNX gateway.

#### Link BoxEIB Configuration Software for IntesisBox® KNX Serious

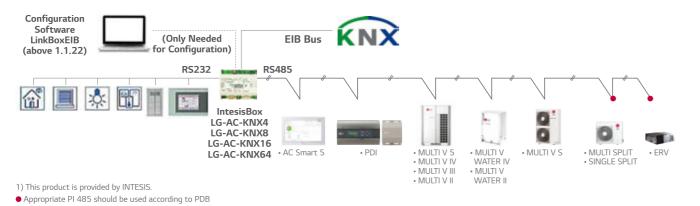
Easy to use tool for the configuration of intesisBox, in a fast and effective way.

It offers the maximum integration possibilities with a minimal knowledge required on the system to be integrated.



- Only needed during configuration.
- One single tool for the configuration of the whole range of IntesisBox KNX series gateways.
- Supplied with IntesisBox with no additional cost.
- Configuration examples for all systems that can be integrated.
- Mapping table editable using excel, allowing a simple and fast association of KNX Group Addresses, exported from ETS, to IntesisBox's datapoints.
- Includes powerful and useful features for configuration, setup and troubleshooting.

#### **Installation Scene**



#### **MODBUS RTU GATEWAY**

Providing Modbus RTU connection between LG Air conditioners and BMS.



PMBUSB00A

#### Features & Benefits

- Function
- MODBUS RTU communication with MODBUS master controller
- MODBUS RTU slave (RS485) / 9,600 bps
- Applicable for Multi V 5
- Size (W x H x D) : 53.6 x 89.7 x 60.7
- Max. 16 IDUs with single module / Max. 64 IDUs with 4 modules
- Power: DC 12V

#### Coil Register (0 x 01)

No	No. Data Bit		Function	
INO.	Air Conditioner	Ventilator	Function	
1	Operate (On / Off)	Operate (On / Off)	0 : Stop / 1 : Run	
2	Auto Swing	Aircon Operate (On / Off)	0 : Disable / 1 : Enable	
3	Filter Alarm Reset	Filter Alarm Reset	0 : Normal / 1 : Reset	
4	Lock Remote Controller	Lock Remote Controller	0 : UnLock / 1 : Lock	
5	Lock Operate Mode	Lock Operate Mode	0 : UnLock / 1 : Lock	
6	Lock Fan Speed	Lock Fan Speed	0 : UnLock / 1 : Lock	
7	Lock Target Temp.	Lock Target Temp.	0 : UnLock / 1 : Lock	
8	Lock IDU Address	Lock IDU Address	0 : UnLock / 1 : Lock	
9	Reserved	Quick Ventilate	0 : Disable / 1 : Enable	
10	Reserved	Energy Save	0 : Disable / 1 : Enable	

#### Discrete Register (0 x 02)

NI-	Data Bit		Function	
No.	Air Conditioner	Ventilator	Function	
10001	Connected IDU	Connected IDU	0 : Disconnected / 1 : Connected	
10002	Alarm	Alarm	0 : Normal / 1 : Alarm	
10002	Filter Alarm	Filter Alarm	0 : Normal / 1 : Filter Alarm	

#### Holding Register (0 x 03)

No. Data Bit		Function	
IVO.	Air Conditioner	Ventilator	Function
40001	Operate Mode	Operate Mode	0 : Cooling, 1 : Dehumidifying, 2 : Fan, 3 : Auto, 4 : Heating
40002	Fan Speed	Fan Speed	1 : Low, 2 : Mid, 3 : High, 4 : Auto
40003	Target Temp.	Target Temp.	16.0 ~ 30.0 [℃] x 10
40004	Target Temp. Limit (Upper)	Target Temp. Limit (Upper)	16.0 ~ 30.0 [℃] x 10
40005	Target Temp. Limit (Lower)	Target Temp. Limit (Lower)	16.0 ~ 30.0 [℃] x 10
40006	Reserved	Vent. Operate Mode	0 : HEX, 1 : Auto, 2 : Normal

#### Input Register (0 x 04)

Data Bit		e anta	
No.	Air Conditioner	Ventilator	Function
30001	Error Code	Error Code	0 ~ 255 % Please refer to the product error table.
30002	Room Temp.	RA Temp.	-99.0 ~ 99.0 [℃] x 10
30003	Pipe In Temp.	OA Temp.	-99.0 ~ 99.0 [°C] x 10
30004	Pipe Out Temp.	SA Temp.	-99.0 ~ 99.0 [°C] x 10
30005	Reserved	Pipe In Temp.	-99.0 ~ 99.0 [°C] x 10
30006	Reserved	Pipe Out Temp.	-99.0 ~ 99.0 [°C] x 10

#### Installation Scene

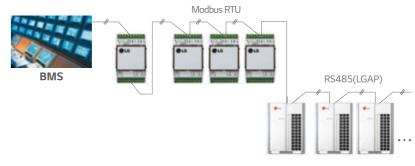
• Single module

Max. 16 indoor units with a single module

BMS RS485 (LGAP)

• Multiple module

Max. 64 indoor units with 4 modules in one Modbus communication line



Max. 16 outdoor units in one RS485(LGAP) line



### PDI (POWER DISTRIBUTION INDICATOR)

PDI shows distributed power consumption of up to 128 indoor units



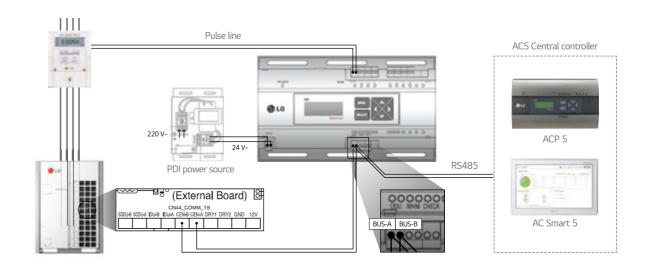
PQNUD1S40 (Premium, 8 port) PPWRDB000 (Standard, 2 port)

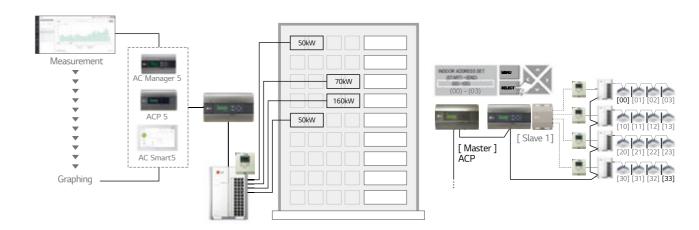
Model Name	PQNUD1S40	PPWRDB000
Size (W x H x D, mm)	270 x 155 x 65	
Interfaceable Products	Air conditioner, ERV DX	
Maximum Number of Power Meters	EHP : 8 Watt meter GHP : 4 Watt meter/ 4 Gas meter	EHP: 2 Watt meter GHP: 1 Watt meter/ 1 Gas meter
Maximum Number of Indoor Units	MULTI V : 128	
Data Backup When Power Outage	0	
Power Input	PDI : AC 24V, Trans	sformer: AC 220V

※ ○ : Applied, - : Not Applied

#### **Features & Benefits**

- Total and indoor power consumption monitoring is possible.
- When connected to the LG central controller, it is possible to expand functions such as energy monitoring, energy saving operation and target usage setting.
- It is also possible to distribute gas consumption in addition to electricity.





- Note: 1. Power cable and type could be different from this scene depending on the Outdoor unit's specification
  2. Measured power consumption could be different between PDI and Watt meter
  3. Applicable Central Controller: ACP 5, ACP Lonworks, AC Smart 5, AC Ez Touch
  (Combination: we recommend to connect separated watt meter for Outdoor units to have correct power distribution value)

# CONTROL

#### **ACS IO MODULE**

This module can be connected with ACP 5 or AC Smart 5 controller if additional I/O points such as DI/DO and AI/AO for 3<sup>rd</sup> party devices control and monitoring are needed.



PEXPMB000

Model Name		PEXPMB000	
Linkable Products		PACS4B000 PACP4B000 PACS5A000 PACP5A000	
Communication RS-485		1 ch.	
Digital Input		3 port	
1/0	Digital Output	3 port	
1/0	Universal Input 1)	4 port	
	Analog Output	4 port	

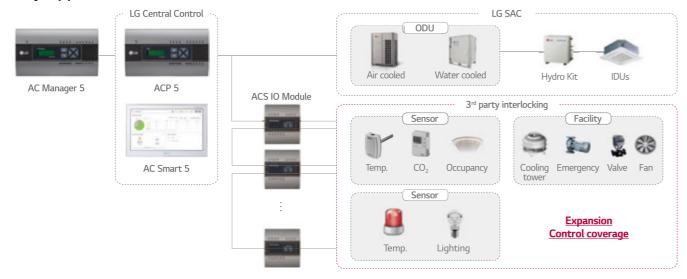
Val	lue Spec	Min.	Max.
	NTC 10k	0.68k Ω	177k Ω
	PT 1000	803 Ω	1,573 Ω
Analog Input	Ni 1000	871.7 Ω	1,675.2 Ω
	DC (Voltage)	OV	10V
	DC (Current)	0mA	20mA
Analog Output		OV	10V
Digital Input	Binary Input (Non Voltage)	-	-
Digital Output	Normal open	-	30VAC / 30VDC 2A

<sup>※ ○ :</sup> Applied, - : Not Applied

#### Features & Benefits

- Interlocking with 3rd party equipment LG Central controller can make operation scenario with 3rd party equipment by ACS IO Module.
- Control coverage is expanded. (Air conditioner only → Sensors, Fans, Pumps, Switches…)

#### **Key Application**



<sup>\*</sup> DI: Digital Input, DO: Digital Output, UI: Universal Input, AO: Analog Output / Please contact our regional office to have connectable relay specification for analog output

#### **ACU IO MODULE**

This module can be connected with ACP 5 or AC Smart 5 controller if additional I/O points such as UIO / UI / UO for 3<sup>rd</sup> party devices control and monitoring are needed.

ACU.UIO ACU.UO ACU.UI

EXPMB300	PEXPMB200	PEXPMB100

Module Name	PEXPMB300	PEXPMB200	PEXPMB100
Linkable Products	PACS5A000, PACP5A000		
Communication RS-485	2 ch. 1)	1 ch.	1 ch.
Digital Input	-	-	3port
Digital Output	2port	6port	-
Universal Input 2)	4port	-	6port
Analog Output	2port	4port	

Va	lue Spec	Min.	Max.
Analog Input	DC (Voltage)	OV	10V
Analog Output	DC (Voltage)	OV	10V
Digital Input	Binary Input (Non Voltage)	-	-
Digital Output	Normal Open	-	30VDC, 1A

- : O : Applied, : Not Applied
  1) 1ch is reserved for internal communication
  2) The type of UI (Universal Input) is selectable among Digital Input and Analog Input

#### Features & Benefits

- Interlocking with 3<sup>rd</sup> party equipment LG Central controller can make operation scenario with 3<sup>rd</sup> party equipment by ACU IO Module.
- Applicable devices are expanded. (Air conditioner only → Sensors, Fans, Pumps, Switches…)

#### **CHILLER OPTION KIT**

LG central controller 5 series with Chiller Option Kit can provide LG chiller remote control and cycle monitoring.



PCHLLN000

#### Cycle Display Example



Model Name	PCHLLN000
Monitoring Points	Evaporator status / Compressor status (Scroll, Screw, Centrifugal chiller only) / Condensor status / Generator status (Abs. chiller only)
On / Off	0
Target Temp. setting	0
Mode Change	Scroll chiller only
Schedule	0
Interfaceable Products	Scroll, Screw, Centrifugal, Absorption (LG Only)

※ ○ : Applied, - : Not Applied

#### Installation Scene

- Chiller Option Kit installation of LG HVAC Solution product should be conducted by a specialized installation service
- Chiller Option Kit installation can be achieved with a SD Card.
- The SD Card can install Chiller Option Kit in one LG HVAC Solution product.

Insert the SD Card in the LG HVAC Solution product. If a backup SD Card is inserted, replace it with a ChillerOption Kit SD Card.



<sup>1)</sup> The type of UI (Universal Input) is selectable among Digital Input and Analog Input

#### **DRY CONTACT**

Connection between an indoor unit and external devices to control various functions.

	Mod	el Name	PDRYCB000	PDRYCB400	PDRYCB300	PDRYCB500
			0			
Case			0	0	0	0
Input Port	:		1	2	8	-
Comm. Pr	otocol		-	-	-	Modbus RTU
Power			AC 220V	Со	nnect to Indoor unit PCB (CN_C	CC)
		On / Off	0	0	0	0
		Oper Mode	-	0	0	0
		Set Temp.	-	(Select & Fix)	(Select & Fix)	0
	Aircon	Fan Speed	-	-	0	0
		Thermo-Off -		(Select & Fix)	0	-
	Energy Saving		-	(Select & Fix)	-	-
		Lock/Unlock	-	(Select & Fix)	-	-
		On / Off	0	-	0	-
Control		DHW On / Off	-	-	0	-
Control	AWHP	Thermo-Off	-	-	0	-
	AVVHP	Oper Mode	-	-	0	-
		Silent Mode	-	-	0	-
		Emergency Mode	-	-	0	-
		On / Off	0	-	-	0
		Oper Mode	-	-	-	0
	Vent	Aircon Mode	-	-	-	0
		Additional Mode	-	-	-	0
		Fan Speed	-	-	-	0
		Operation Status	0	0	0	0
Output		Error	0	0	0	0
		Room Temp.	-	-	-	0

#### PDRYCB000

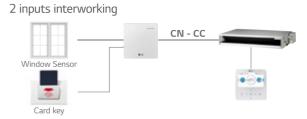




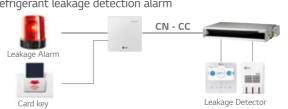
System Structure

#### PDRYCB400





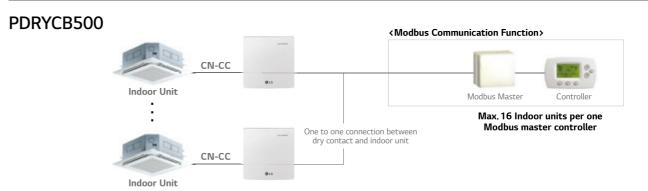
#### Refrigerant leakage detection alarm



#### PDRYCB300



 $<sup>\</sup>ensuremath{^{\star}}$  Please contact our regional office to have full compatible room controller list



 $<sup>^{\</sup>star}$  Please contact our regional office to check the compatibility with  $3^{\rm rd}$  party room controller

<sup>\*\*</sup> O : Applied, - : Not Applied
Note : 1. Compatibility of PDRYCB300

- Can use with all types of aircon indoor units after 2010 (Cassette, Ducted, Convertible, Applied PAC, Wall mounted, Console)

- Can not use with Single package models

- AWHP: 3 series split and monobloc models

<sup>-</sup> AWHP . 3 series split and monobloc models
2. Compatibility of PDRYCB400
- Can use with all types of aircon indoor units after 2010 (Cassette, Ducted, Convertible, Applied PAC, Wall mounted, Console)
- Can not use with single package models
- Can not use with AWHP, Hydrokit models
3. (Select & Fix): This function is preset by rotary switch.

#### **GROUP CONTROL WIRE**

Cables used to connect a wired remote controller up to 16 indoor units.



Model Name	PZCWRCG3
Y-type Cable	0.25m Length
Long Cable	9.6m Length

P7CWRCG3

# Indoor 1 MAIN PCB Indoor 1 Indoor 2 Indoor 3 Indoor terminal block RED (12V) YL (SIGNAL) YL (SIGNAL) BK (GND) Note: 1 Y type Cable assembly is for connecting indoor unit and long cable. 2 Long Cable assembly is for connecting indoor to indoor.

#### REMOTE TEMPERATURE SENSOR

Sensor for detecting the room temperature.



**PQRSTA0** 

192

#### Features & Benefits

- It detects the exact room temperature instead of indoor unit's air temperature sensor
- Applied to Ceiling Mounted Cassette, Ceiling Concealed Duct, THERMA V and HYDRO KIT
- Extension cable (15m) is included

#### Installation Scene

- 1. Wire to the control box in the indoor unit by removing the existing thermistor and connect the extension cable its place.
- 2. Cut the extension cable to the appropriate length and connect the screw terminal of the remote sensor.



#### LOW PROFILE REMOTE TEMPERATURE BUTTON SENSOR

This installs easily and discreetly into a wall and then connects to indoor unit



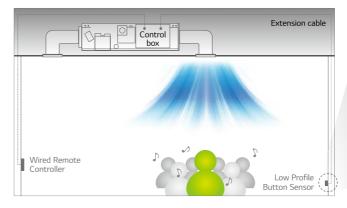
IVIOGE	el Ivame	ZRIBSUI			
Operation Ra	ange	-40℃ to 85℃ (0 to 100%RH, Non-condensing)			
Sensing Elen	nent	Thermistor			
Sensing Elen	nent Accuracy	0.2°C (0 to 70°C)			
		Etched Teflon			
Wire Leads		15m			
	Thickness	0.33mm <sup>2</sup>			
Mounting		10mm hole, push in plastic sheath with peel off tape strip			
Enclosure Ma	aterial Ratings	ngs Plastic, NEMA 1, UL94			

ZRTBS01

#### Features & Benefits

- Ideal for locations where aesthetics are as important as the temperature measurement.
- Inconspicuous wall sensor that mounts easily by pushing through a 10mm hole and secured with a peel off tape strip.
- · Small flush sensor mounting.
- · Accurate direct air measurement.
- · Paintable with latex or oil base.

#### **Key Application**

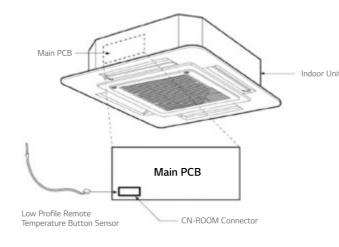


#### **Models Applied**

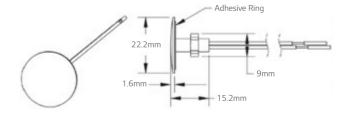
• LG indoor units excluding Wall-Mounted Type



#### Installation Scene



#### Drawing



#### **ZONE CONTROLLER**

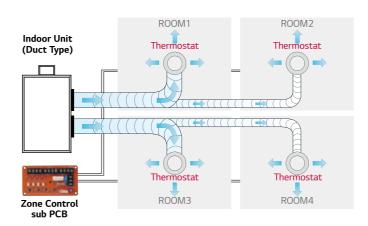
Controls air conditioning in up to 4 zones by external thermostat.



**ABZCA** 

#### Features & Benefits

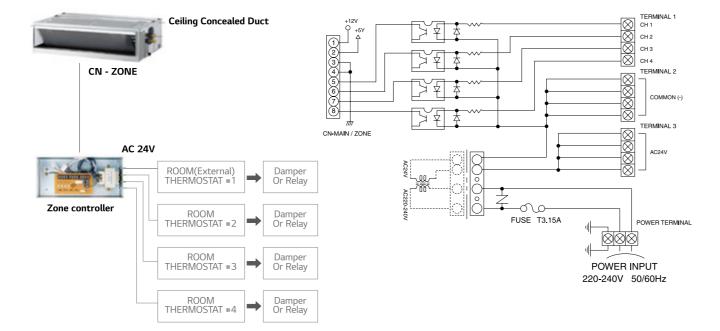
- Controls different zones (up to 4 zones) by external thermostat (AC 24V)
- Maintain proper air volume of each zone
- Auto variation of dampers
- Auto control of fan speed and On / Off operation



#### **Models Applied**

• Ceiling Concealed Duct (refer to Product Data Book for applicable models)

#### Wiring Diagram



#### **IO MODULE**

Interface module between system air conditioner's outdoor unit and external device.



PVDSMN000

#### **Features**

#### **Function**

- Demand control
- · Low noise operation
- Output outdoor or indoor unit operation status
- Output error status

#### Description

 IO Module is communication interface module for connection between MULTI V 5 and external IO (Input / Output Module) devices.

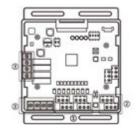
Note: IO Module is not compatible for MULTI V III

#### **Models Applied**

- MULTI V 5
- MULTI V WATER IV
- MULTI V S

#### Part Description

- 1) Digital Input Part (DI: Dry Contact Input)
- Demand control by contact input (3 Step)
- Low Noise Operation input
- Priority Setting input: Setting the priority of demand control command (Capacity control for external signal from DDC vs Peak control by LG Central controller)
- Open: External signal has priority to central controller (Default)
- Close : Central controller has priority to external signal
- 2) Analog Input Part (AI: DC 0 ~ 10V)
- Demand control by analog input (10 Step)
- 3) Digital Output Part (DO: AC 250V, Max. 1A)
- Error status relay output
- Operation status relay output
- Valve control

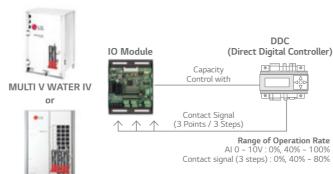


#### **Key Application**

#### Demand Control

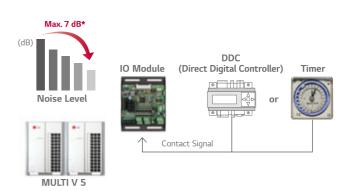
MULTI V 5

Provides variable setting for demand control according to input method to reduce power consumption. This function supports 2 types of input signal: Al  $(0 \sim 10V, 10 \text{ Step})$  and contact signal (3 Step).



#### Low Noise Operation

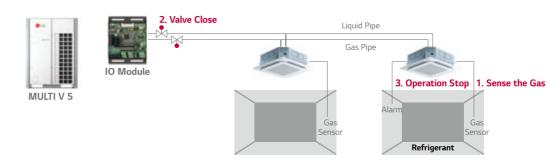
To reduce noise level, control outdoor unit's fan speed by dry contact input.



\* 8 HP (22.4kW) model, Sound power level can be changed by outdoor unit operation status and low noise operation input signal.

#### Refrigerant Leakage detection with Pump-down

For safety, IO module close refrigerant valve when Pump-down operation.



# SOLUTIO

#### **VARIABLE WATER FLOW CONTROL KIT**

Accessory developed for controlling the water flow.



PWFCKN000 (MULTI V WATER IV)

#### **Features**

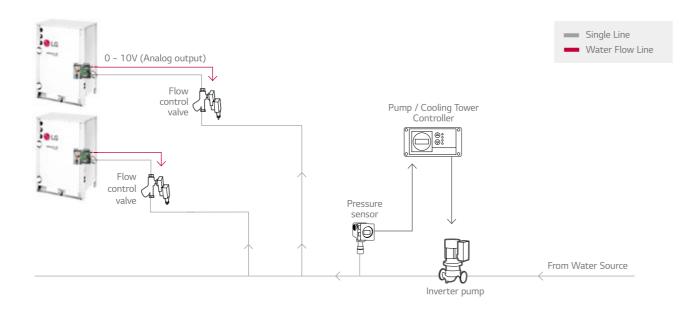
#### **Function**

- Water pump or valve control (0 ~ 10V)
- Minimum output voltage setting available
- Operation, error output (AC 250V, Max. 1A)
- Dry contact input and analog output for demand control
- Digital output for operation, error status (AC 250V, Max. 1A)

#### Advantage

- Water flow consumption reduction
- Pump electricity consumption reduction
- Including IO Module (Dry contact input, Analog input / output, Digital output)
- : Using Dry contact and variable water flow control function simultaneously

#### Wiring Diagram



- Flow control valve: Regulates the flow or pressure of a fluid, normally responding to signals generated by independent devices.
   Flow Meter: Measures mass flow rate of a fluid traveling through a tube. (The mass flow rate is the mass of the fluid traveling past a fixed point per unit time.)
- Pressure Sensor : Measures the pressure.

#### **LOW AMBIENT KIT**

External integration module for cooling operation with -25°C low ambient temperature.





PRVC2

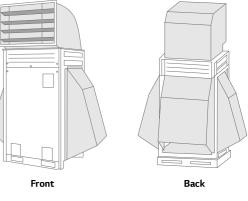
#### **Features**

#### Function

- 25°C Low ambient cooling operation by Low ambient kit and hood with damper (Analog output 0 ~ 10V)
- Demand control
- Low noise operation
- Output outdoor or indoor unit operation status (AC 250V, Max. 1A)
- Output error status (AC 250V, Max. 1A)

#### Description

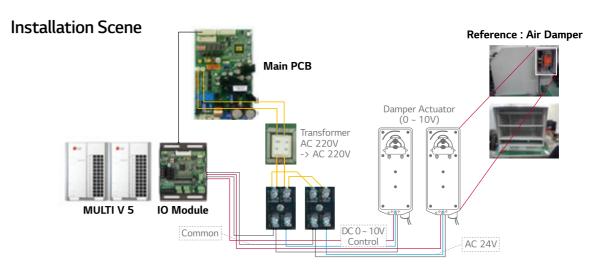
- Low ambient kit supports -25° C cooling operation by making stable condensing pressure with reducing air flow rate from hood and damper control given 0 ~ 10V proportional to condensing pressure.
- Low ambient kit provides IO Module function.
- External snow hood and air damper are required for this item.
- Transformer and terminal block are included.





#### **Models Applied**

- MULTI V 5
- MULTI V IV



Note: The IO Module can control maximum three actuators. Please, review damper actuator's installation manual

### OLUTION

#### **COOL / HEAT SELECTOR**

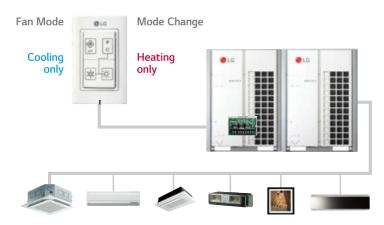
Cooling, heating, or fan mode can be selected to prevent cooling and heating mixing errors during seasonal changes.



**PRDSBM** 

#### **Features**

- Indoor unit mode control without central controller
- Select operation mode : Cooling, Heating, Fan mode
- Mode lock for cooling & heating mixing error-proof during the change of season



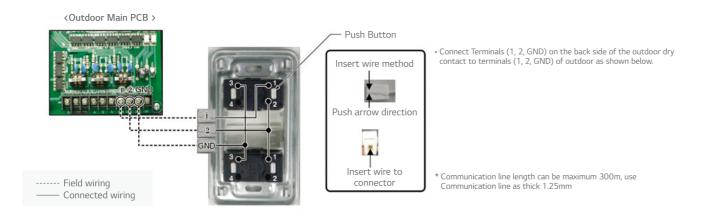
#### **Models Applied**

- MULTI V 5
- MULTI V IV • MULTI V WATER S

- MULTI V WATER II
- MULTI V S
- MUL TI V PLUS II, MULTI V PLUS

#### • MULTI V WATER IV

#### Wiring Diagram



#### **AHU KITS**

A solution to connect LG's high efficiency system to the DX coil of an air handling unit for the maximum energy savings.



COMMUNICATION KIT

PAHCMR000 PAHCMS000



PRCKD21E PRCKD41E



PRLK048A0 PRLK096A0



TXV Kit (Thermal Expansion Valve)

PATX13A0E / PATX20A0E PATX25A0E / PATX35A0E PATX50A0E

#### **Specifications**

#### **Communication & Control Kit**

_		Combination				Dimensions (mm)			
Туре	Model Outdo Unit		EEV Kit	TXV Kit	Centralized Controller	Description	w	н	D
	DALICMEDOOO	MULTI V	IV O O Return / Room air temperature control by DDC or		200	200	155		
Communication	PAHCMR000	Single Split	-	-	0	Return / Room air temperature control by DDC or LG individual / centralized controller	300	300	155
		MULTI V	0	0	0	Discharge air temperature control by DDC or LG individual / centralized controller		000	
	PAHCMS000	PAHCMS000 Single Split	-	-	0			300	155
	PRCKD21E	MULTI V	-	0	0	Max. capacity 1 ~ 4 master outdoor unit		750	285
Control kit	PRCKD41E	MULTI V	-	0	0	Max. capacity 5 ~ 8 master outdoor unit	600	750	285

<sup>※ ○ :</sup> Applied, - : Not Applied

#### **Expansion Valves**

	To Madel Consider			Pipe Diam	eter (mm)		Dime	ensions (	mm)
Туре	Model	Capacity Range	Liquid (ODU)	Liquid (AHU)	Gas (ODU)	Gas (AHU)	w	н	D
EEV Kit (Electronic	PRLK048A0	1.3 ~ 10 HP	12.7	12.7	-	-	217	404	83
Expansion Valve)	PRLK096A0	12 ~ 20HP	12.7	12.7	-	-	217	404	83
	PATX13A0E	8 ~ 16HP	15.88	15.88	22.22	22.22	491	238	174
T\0.11%	PATX20A0E	18 ~ 26HP	15.88	22.22	28.58	28.58	491	238	174
TXV Kit (Thermal Expansion Valve)	PATX25A0E	28 ~ 36HP	22.22	28.58	34.92	34.92	491	238	174
Expansion valve)	PATX35A0E	38 ~ 46HP	28.58	34.92	41.3	41.3	491	238	174
	PATX50A0E	48 ~ 56HP	28.58	34.92	41.3	41.3	561	291	192

<sup>※ ○ :</sup> Applied, - : Not Applied

#### **Communication Kit**

#### HIGH ENERGY EFFICIENCY

LG's DX AHU solutions are capable of performing all indoor air conditioning tasks with success under all operating conditions thanks to their superior performance with high efficiency heat source system.

Solution benefits offer the following advantages:

- High energy efficiency inverter system
- Large range of expansion valves
- : 1.3 ~ 20 HP EEV Kit, 8 ~ 56 HP TXV Kit
- Connected to various heat sources
- : MULTI V, MULTI V WATER, MULTI V S, SINGLE SPLIT

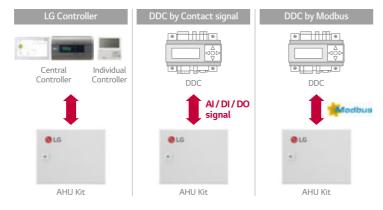


#### **DIVERSE OPTIONS FOR CONTROL**

AHU communication kit can be connected to various control system such as LG individual/central controller and DDC <sup>1)</sup>. It can be directly connected to DDC without separated controller, so DDC can receive product control and monitor information through contact signal or Modbus protocol.

- LG Individual/Central controller supported
- LG controller stand alone or combination with DDC
- Direct wiring between DDC and AHU communication kit
- Embedded Digital I/O and Analog Input
- Modbus RTU protocol supported

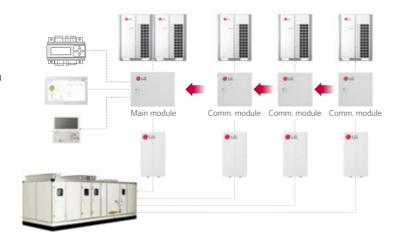
1) DDC : Direct Digital Controller



#### **EXPANDABLE SYSTEM DESIGN**

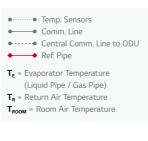
LG AHU system can be a suitable solution for various sites due to its application flexibility and wide range of line up with large capacity models. According to the required capacity, a single or multiple module combination is possible thanks to AHU communication kit's modular design.

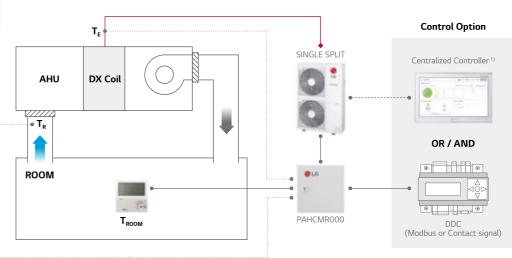
• Multiple module combination for large capacity AHU



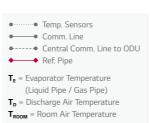
#### **Communication Kit Application**

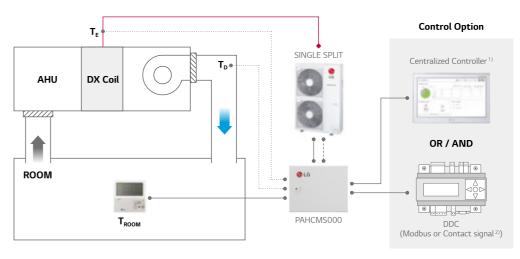
Small Capacity with Single Split + Return / Room Air Temperature Control





Small Capacity with Single Split + Discharge Air Temperature Control

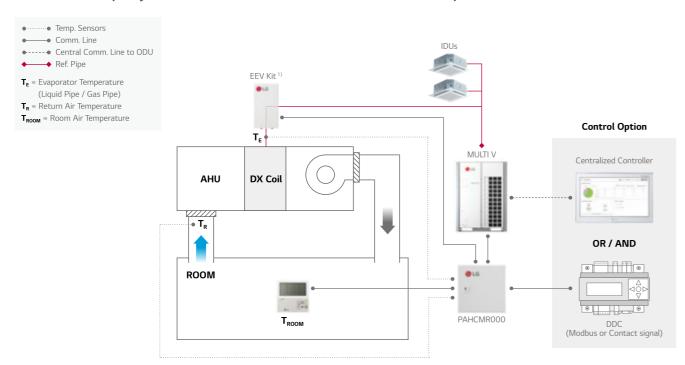




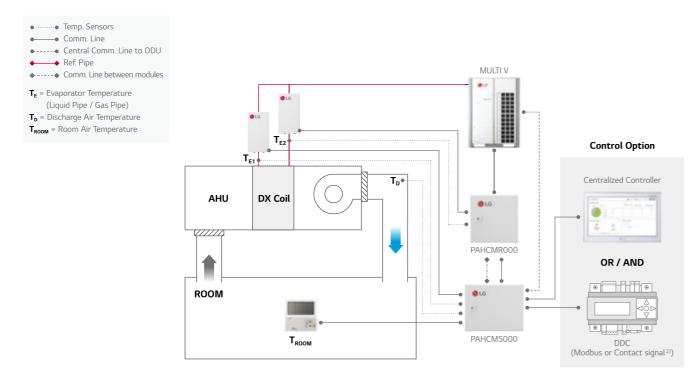
- 1) PI485 (PMNFP14A1) is required for centralized controller
- 2) In case of applying DDC with contact signal, discharge air temperature should be measured and controlled by DDC Note: For more detail, please refer to the PDB

#### **Communication Kit Application**

Small-Medium Capacity with Multi V + EEV Kit + IDU + Return / Room Air Temperature Control



Small-Medium Capacity with Multi V + EEV Kit + Discharge Air Temperature Control

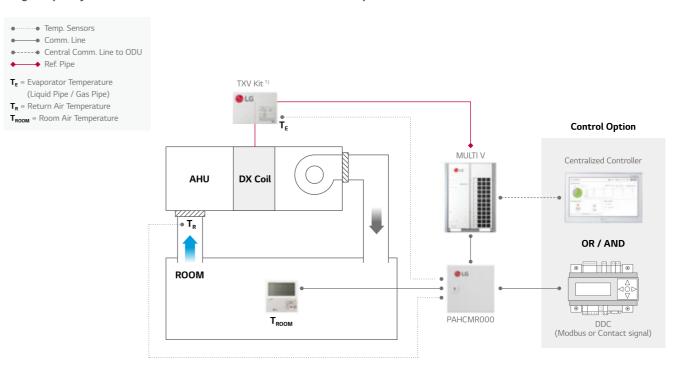


- Multiple EEV kits can be applicable with multiple DX Coils and PAHCMR000s
   In case of applying DDC with contact signal, discharge air temperature should be measured and controlled by DDC

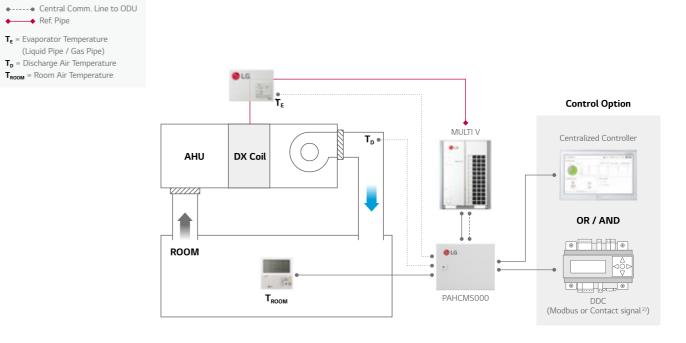
Note : For more detail, please refer to the PDB

#### **Communication Kit Application**

Large Capacity with Multi V + TXV Kit + Return / Room Air Temperature Control



Large Capacity with Multi V + TXV Kit + Discharge Air Temperature Control



1) TXV Kit should be connected with outdoor unit 1:1

• ·····• Temp. Sensors

 $T_E$  = Evaporator Temperature

(Liquid Pipe / Gas Pipe)

•—• Comm. Line

◆ Ref. Pipe

2) In case of applying DDC with contact signal, discharge air temperature should be measured and controlled by DDC Note: For more detail, please refer to the PDB

#### **Communication Kit Function**

Communication with DDC via Contact Signal

	Function List	PAHCMR000	PAHCMS000	Туре	Electric Spec.
	Comm. Kit Operation	On	/ Off	Digital Input	Non voltage
	Operation Mode 1)	Cooling	/ Heating	Digital Input	Non voltage
	Return (room) Air Temperature 2)	16 ~ 30°C	-	Analog Input	DC 0 ~ 10V / 20mA
Control	Discharge Air Temperature 3)		-	-	-
	Fan Speed <sup>4)</sup>	-	Low / Middle / High	Digital Input	Non voltage
	Forced Thermal On / Off	On / Off	-	Digital Input	Non voltage
	Capacity Control	-	0	Analog Input	DC 0 ~ 10V / 20mA
	Comm. Kit Operation 2)	On	/ Off	Digital Output	Max.: DC 12V / 1A, AC 250V / 3A
	Operation Mode		-	-	It needs to be checked through control signal
	Return (room) Air Temperature		-	-	-
Monitor	Discharge Air Temperature		-	-	-
Ivionitor	Fan Speed <sup>2)</sup>	Low / Middle / High		Digital Output	Max.: DC 12V / 1A, AC 250V / 3A
	Defrost Operation 2)	Defrost / Normal		Digital Output	Max.: DC 12V / 1A, AC 250V / 3A
		Error /	Normal	Digital Output	Relay C contact (Max. : DC 30V / 5A, AC 250V / 5A)
	Compressor On / Off	-	On / Off	Digital Output	Max. : DC 12V / 1A, AC 250V / 3A

- 3. On Applied, Not Applied
  1) Available operation mode can be varied depending on the setting of Communication Kit
  2) This function may not be possible depending on the setting of Communication Kit. For more details, please refer to the product data book
  3) Discharge air temperature should be controlled directly through DDC
  4) To control the fan speed using contact signal, DO ports for the status of fan speed needs to be connected with the fan unit

#### Communication with DDC via Modbus protocol

	Function List	PAHCMR000	PAHCMS000	Note
	Comm. Kit Operation	On /	/ Off	-
	Operation Mode 1)	Cooling /	/ Heating	-
	Return (room) Air Temperature	16 ~ 30°C	-	-
Control	Discharge Air Temperature	-	16 ~ 30°C	-
	Fan Speed <sup>2)</sup>	Low / Middle / High	-	-
	Forced Thermal On / Off		-	-
	Capacity Control	-	0	-
	Comm. Kit Operation	On /	/ Off	-
	Operation Mode 1)	Cooling /	/ Heating	-
	Return (room) Air Temperature	-50 ~ 100°C	-	Corresponding air temperature sensor connected to AHU
Monitor	Discharge Air Temperature	-	-50 ~ 100°C	comm. kit is required
IVIOTILO	Fan Speed	Low / Middle / High	-	-
	Defrost Operation	On / Off		-
	Error Alarm	Error Alar	m & Code	-
	Compressor On / Off	On /	/ Off	-

- 1) Available operation mode can be varied depending on the setting of Communication Kit
  2) To control the fan speed using Modbus, DO ports for the status of fan speed needs to be connected with the fan unit
  Note: For the Modbus memory map, pleases refer to the product data book

#### **Communication Kit Function**

With LG Control system (Individual & Centralized Controller)

	Function List	PAHCMR000	PAHCMS000	Note
	Comm. Kit Operation	On / Off	On / Off	-
	Operation Mode 1)	Cooling / Heating	Cooling / Heating	-
	Return (room) Air Temperature	16~30°C	-	-
Control*	Discharge Air Temperature <sup>2)</sup>	-	16 ~ 30°C	-
	Fan Speed <sup>3)</sup>	Low / Middle / High	-	-
	Forced Thermal On / Off	-	-	-
	Capacity Control	-	-	-
	Comm. Kit Operation	On / Off	On / Off	-
	Operation Mode 1)	Cooling / Heating	Cooling / Heating	-
	Return (room) Air Temperature	11~39.5°C / -50~100°C	-	By Individual controller : 11 ~ 39.5°C By Centralized controller : -50 ~ 100°C
Monitor	Discharge Air Temperature	-	-50 ~ 100°C	Only with Centralized Controller
	Fan Speed <sup>3)</sup>	Low / Middle / High	-	-
	Defrost Operation	On / Off	On / Off	Only with Individual Controller
	Error Alarm	Error Code	Error Code	-
	Compressor On / Off	On / Off	On / Off	Only with Individual Controller

- ※ ○: Applied, -: Not Applied
   1) Available operation mode can be varied depending on the setting of Communication Kit. For more details, please refer to the product data book
   2) This range may differ depending on the type of controller
   3) To control the fan speed using contact signal, DO ports for the status of fan speed needs to be connected with the fan unit
   Note: Control function is unavailable in case of using together with DDC via contact signal

#### Compatibility with LG HVAC Controllers

	Ind	ividual Contro	ller	Centralized Controller					BMS Gateway	PDI
	Premium	Standard III	Standard II	AC Ez	AC Ez Touch	AC Smart 5	ACP 5	AC Manager 5 1)	ACP Lonworks	Premium Standard
Controller	20) ********	0000			* 0 0 1 0 0	1 1	- 20	- 20	- 12788	- 100
Model no.	PREMTA000 PREMTA000A PREMTA000B	PREMTB100 PREMTBB10	PREMTB001	PQCSZ250S0	PACEZA000	PACS5A000	PACP5A000	PACM5A000	PLNWKB000	PQNUD1S40 PPWRDB000
PAHCMR000	0	0	0	0	0	0	0	0	0	0
PAHCMS000	-	-	O <sup>2)</sup>	-	-	0	0	0	-	-

- O: Applied, -: Not Applied
   AC Manager 5 is an integrator, so the installation with AC Smart 5 or ACP 5 is required
   Set temperature range of this model shall be extended in the future
   Dry contact for indoor unit (PDRYCB000 / 400 / 300 / 500) is not applied
   For more details, please refer to the product data book

#### **Communication Kit Function**

#### **Outdoor Unit Compatibility**

MULTI V

Model			MUI	TI V			MULTI V WATER	
Wiodet	5 IV III S IV II				II	S		
AHU Controller	PAHCMR000	0	0	0	0	0	0	0
	PAHCMS000	0	0	0	0	0	0	-

#### Single Split

	Standard Inverter (1-phase)										
Capacity	Cooling kW	4.7	7.7	8.0	10.0	12.5	13.9	14.6			
	Heating kW	5.5	8.0	9.0	11.0	14.0	15.4	16.9			
AHU Kit	PAHCMR000	0	0	0	0	0	0	0			
	PAHCMS000	0	0	0	-	-	-	-			

Standard Inverter (3-phase)										
Canaditu	Cooling kW	10.0	12.5	13.9	14.6	19.0	23.0			
Capacity		11.0	14.0	15.4	16.9	22.4	27.0			
AHU Kit	PAHCMR000	0	0	0	0	0	0			
AHU KIT	PAHCMS000	-	-	-	-	0	0			

O: Applied, -: Not Applied
 Note: 1. Table of the outdoor unit compatibility is based on European regional model.
 When connecting outdoor units in other areas, please check whether they are compatible or not.

#### Expansion valves for MULTI V system

EEV Kit													P	RLK096A	0	
EEV KIL	PRLK048A0															
HP	1.3	1.6	2	2.5	3	3.5	4	5	6	8	10	12	14	16	18	20
Cooling (kW)	3.6	4.5	5.6	7.1	8.2	10.6	12.3	14.1	15.8	22.4	28	33.6	39.2	44.8	50.4	56
Heating (kW)	4	5	6.3	8	9.2	11.9	13.8	15.9	18	25.2	31.5	37.8	44.1	50.4	56.7	63

TXV Kit					PATX50A0E
				PATX35A0E	
			PATX25A0E		
		PATX20A0E			
	PATX13A0E				
HP	8 ~ 16	18 ~ 26	28 ~ 36	38 ~ 46	48 ~ 56
Cooling (kW)	22.4 ~ 44.8	50.4 ~ 72.8	78.4 ~ 100.8	106.4 ~ 128.8	134.4 ~ 156.8
Heating (kW)	25.2 ~ 50.4	56.7 ~ 81.9	88.2 ~ 112.1	118.4 ~ 143.6	148.5 ~ 175.1

\* Capacities are based on the following conditions:

- Cooling: Indoor 27°C (80.6°F) DB / 19°C (66.2°F) WB Outdoor 35°C (95°F) DB / 24°C (75.2°F) WB

Condensing temperature (tc) 46°C, Evaporating temperature (te) 6°C

- Heating: Indoor 20°C (68°F) DB / 15°C (59°F) WB Outdoor 7°C (44.6°F) DB / 6°C (42.8°F) WB

Hot gas inlet temperature 70°C, Condensing temperature (tc) 46°C

- Piping Length: Interconnected Pipe Length = 7.5m

- Difference Limit of Elevation (Outdoor ~ Indoor Unit) is zero

#### Control Kit

List	Required Item
Heating / Cooling	SA / RA temperature sensor (or SA / RA temperature & humidity sensor)
Automatic Ventilation	SA / RA temperature, $CO_2$ sensor, Damper actuator (OA, EA, MA)
Energy Saving (Cooling Mode Only)	SA temperature, OA / RA temp&humidity sensor, Damper actuator (OA, EA, MA)
Humidification	SA temperature, RA temperature & humidity sensor, Humidifier
Inverter Fan Control	SA / RA temperature, Static pressure sensor, Inverter driver for fan control
Filter Alarm	Difference pressure sensor
Smoke Detecting	Smoke detection sensor

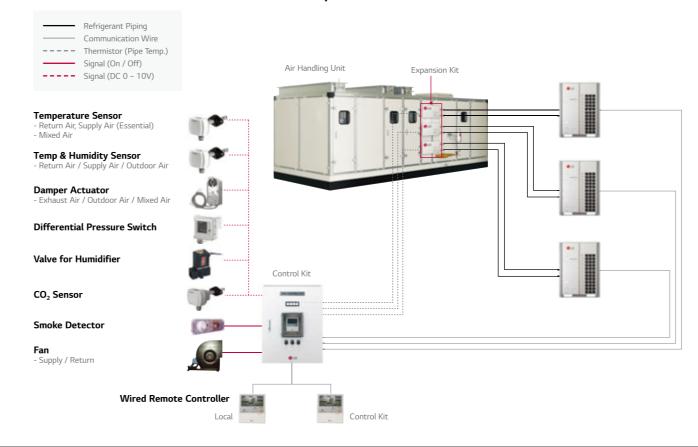
RA: Return Air, EA: Exhaust Air, OA: Outdoor Air, SA: Supply Air, MA: Mix air (RA + OA)

#### Field Supplied Item

List	Required Specification	Apply Location
	- Power : AC 24V, Output signal : DC 0 ~ 10V - Temperature boundary : -50 ~ 50°C	- Apply to MA, SA, RA
Temperature & Humidity Sensor	- Power : AC 24V, Output signal : DC 0 ~ 10V - Temperature boundary : -40 ~ 70°C - Humidity boundary : 0 ~ 95% RH	- Apply to SA, RA, OA - Can not be applied to MA
Damper Actuator	- Power : AC 24V, In/Output signal : DC 0 ~ 10V - Torque : 15 Nm, Operation time : 150sec. - Rotation angle : 90°	- Apply to OA, EA, MA damper
Difference Pressure Sensor (for Filter)	- Power : AC 24V, Output signal : DC 0 ~ 10V * Boundary : 0 ~ 1000Pa - Switch type : Relay Open / Close	- Apply to filter
	- Power : AC 24V, Output signal : DC 0 ~ 10V - Boundary : 0 ~ 1000pa	- Apply to SA (for inverter control)
CO <sub>2</sub> Sensor	- Power : AC 24V, Output signal : DC 0 ~ 10V - Boundary : 0 ~ 2000ppm	- Apply to RA duct
Smoke Detection Sensor	- Power : AC 24V, From : Contact point type	- Apply to RA duct

Note: Boundary of specification can be changed through LGAV software. However, please make a specification referring to the above table

#### Various Control with Control kit - Multiple MULTI V + TXV Kits



# CONTROL

#### HOTEL

#### **Hotel Control Solution**



#### Hotel Proposal / Design



#### PDRYCB400 2 contact point

#### Input

• Operation On / Off

#### Output

- Operation On / Off status
- Error alarm

#### Modbus RTU(9,600bps)

- Operation On / Off Operation • Indoor temperature • Thermo On / Off
- Error alarm • Operation mode • Set run mode

Function

- (Fan / Heat / Cool) Fan speed
- Set temperature (Low / Middle / High) Set fan speed

#### Output

• Operation On / Off status

8 contact point

• Error alarm

#### Refrigerant leakage detector

• 6000ppm



PREMTB100 Wired remote controller

- 4.3 inch color LCD
- Touch button

# PACS5A000

#### AC Smart 5

Air conditioner control

in conjunction with

check-in or check out

 BMS Integration (BACnet IP, Modbus TCP)



PACP5A000 ACP 5

 BMS Integration (BACnet IP, Modbus TCP)

#### **SHOPPING MALL**

#### **Shopping Mall Control Solution**



#### **Shopping Mall Reference**





PDI Standard (2 port)

• Max. 128 IDU



PQNUD1S40 PDI Premium (8 port)

• Max. 128 IDU



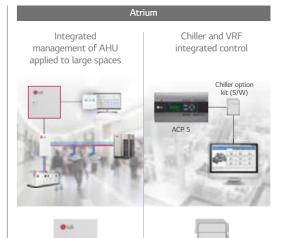


• BMS Integration (BACnet IP, Modbus TCP)



PACP5A000 ACP 5

 BMS Integration (BACnet IP, Modbus TCP)





PAHCMS000

AHU Comm. Kit

• Discharge air





ACP 5

PACS5A000 AC Smart 5

PCHLLN000

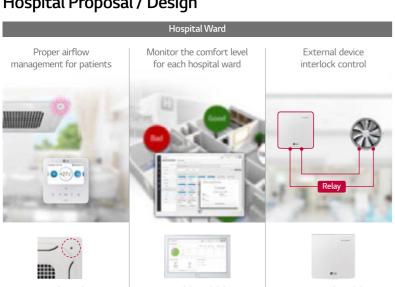
Chiller option kit

#### **HOSPITAL**

#### **Hospital Control Solution**



#### Hospital Proposal / Design





Human detection sensor



PREMTB100 Wired remote controller

- 4.3 inch color LCD
- Touch button

210



• Operation On / Off

• Operation On / Off status

Output

• Error alarm

 BMS Integration (BACnet IP, Modbus TCP)

PACP5A000 ACP 5

 BMS Integration (BACnet IP, Modbus TCP)







PACS5A000 AC Smart 5 BMS Integration (BACnet IP, Modbus TCP)



PACP5A000 ACP 5

 BMS Integration (BACnet IP, Modbus TCP)



PAHCMS000

AHU Comm, Kit

• Discharge air

#### **EDUCATION**

#### **Education Control Solution**



#### **Class Room**

Automatically save energy in the absence of students



Central controls prevent students from arbitrary control



#### **Lecture Room**

Schedule management according to academic plan



#### **Maintenance Office**

Integrated management of distributed buildings



Centralized management with multiple interfaces



#### Education Proposal / Design









Human detection sensor



PREMTB100 Wired remote controller

- 4.3 inch color LCD
- Touch button



PACS5A000 AC Smart 5

• BMS Integration (BACnet IP, Modbus TCP)



PACP5A000 ACP 5

 BMS Integration (BACnet IP, Modbus TCP)



PACM5A000 AC Manager 5



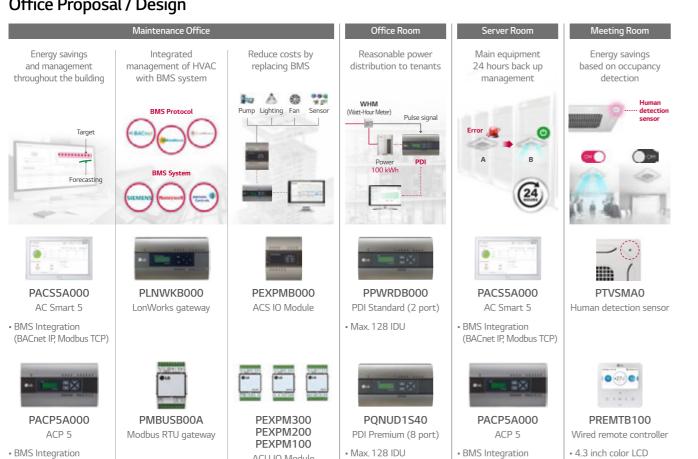
#### **OFFICE**

#### Office Control Solution



#### Office Proposal / Design

(BACnet IP, Modbus TCP)



ACU IO Module

#### **RESIDENTIAL**

#### **Residential Control Solution**



#### Residential Proposal / Design



#### PWFMDD200 LG Wi-Fi modem

#### Function

- · On / Off
- Fan speed
- Operation mode
- Vane control
- Reservation
- (Sleep, Weekly On / Off) Error check
- 4.3 inch color LCD

(BACnet IP, Modbus TCP) • Touch button





#### Modbus RTU (9,600bps)

#### Function

- Operation
- Indoor temperature
- Error alarm
- · Set operation mode
- Set temperature
- Set fan speed



PDRYCB300

8 contact point

• Operation On / Off

(Fan / Heat / Cool)

(Low / Middle / High)

• Operation On / Off status

• Thermo On / Off

Operation mode

Fan speed

Output

• Error alarm

Input



0 000

PREMTB100

Wired remote controller

• 4.3 inch color LCD

Touch button





Stable system

operation when indoor

unit power is lost

PRIP0 Independent power module

• EEV full close function



### **ACCESSORIES**

MECHANICAL ACCESSORIES / PIPING ACCESSORIES

#### **CASSETTE PANEL**

The Independent Vane Operation makes desired and comfortable air flow.



PT-UUC, PT-UUC-1, PT-UTC

#### Model Name & Applied Products

4 Way Cassette PT-MCHW0 PT-QCHW0 PT-UQC / PT-UMC1 2 Way Cassette PT-USC 1 Way Cassette (Grill Type) PT-UUC / PT-UUC1 / PT-UTC 1 way cassette (Panel Type) PT-UUD / PT-UTD

#### **Key Features**

• Independent vane operation uses separate motors, making it Possible to control all 1, 2, and 4 vanes independently.

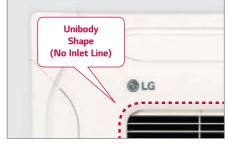
PT-UUD, PT-UTD

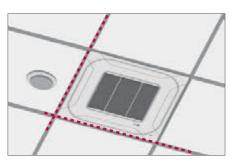
• The detachable corner design makes it easy to adjust the hanger during installation and to check for leakages in the drain pipe and refrigerant pipes.

#### Compact and Stylish Design

- New 4 way cassette panel adapted unibody shape and matching with into the ceiling
- Panel size is fit into the ceiling tile







#### Specification

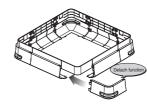
		Suction	Color		Weight	Dimension (mm)			Applied Model Capacity (kW)*				
	Model		(RAL)	Gloss	(kg)	w	н	D	Single	Split	MULT	l Split	MULTI V
			` '		` ' ' '	VV			R32	R410A	R32	R410A	R410A
	PT-QCHW0	Grill	Morning Fog (RAL 9001)	-	3.0	620	35	620	2.5 ~ 5.0	2.5 ~ 5.0	1.5 ~ 5.3	1.5 ~ 5.3	1.6 ~ 6.2
4.10/	PT-MCHW0	Grill	Morning Fog (RAL 9001)	-	6.3	950	35	950	6.8 ~ 14.6	6.8 ~ 14.6	6.7	-	7.1 ~ 15.8
4 Way	PT-UQC	Grill	Morning Fog (RAL 9001)	-	3.0	700	22	700	2.5 ~ 5.0	2.5 ~ 5.0	-	1.5 ~ 5.3	1.6 ~ 6.2
	PT-UMC1	Grill	Morning Fog (RAL 9001)	-	5.6	950	25	950	6.8 ~ 14.6	6.8 ~ 14.6	-	6.7	7.1 ~ 15.8
2 Way	PT-USC	Grill	Morning Fog (RAL 9001)	-	4.7	1,100	28	690	-	-	-	-	2.8 ~ 7.1
	PT-UUC	Grill	Noble White (RAL 9003)	0	4.6	1,100	34	500	-	-	-	-	2.2 ~ 3.6
	PT-UUC1	Grill	Noble White (RAL 9003)	-	4.4	1,100	34	500	-	-	2.6 ~ 3.5	2.6 ~ 3.5	-
1 Way	PT-UTC	Grill	Noble White (RAL 9003)	0	5.5	1,420	34	500	-	-	-	-	5.6 ~ 7.1
	PT-UUD	Panel	Noble White (RAL 9003)	0	4.6	1,100	34	500	-	-	-	-	2.2 ~ 3.6
	PT-UTD	Panel	Noble White (RAL 9003)	0	5.5	1,420	34	500	-	-	-	-	5.6 ~ 7.1

\* Based on cooling capacity ※ ○ : Applied, - : Not applied

#### **CASSETTE COVER**

Cover in case of exposed cassette installation.





#### **Model Name**

PTDCM / PTDCQ

#### **Applied Products**

4 Way Cassette (for chassis TP, TN, TM, TQ, TR)

#### **Key Features**

- Specially designed for indoor unit
- Covers the side area of cassette
- Gives elegant looks
- Light weight

#### **Included Parts**

- Cover A, Cover B
- Cover C, Cover D
- Screws
- Installation Manual











and a



Cover D (4 units)

Installation Manual

Specification

Model	Front Panel		Weigh	nt (kg)	Dimensions (mm)		
Model			NET	Gross	w	Н	D
DTDCM	PT-UMC / PT-UMC1	TP / TN	5.9	8.8	1,157	1,157	268
PTDCM		TM	5.9	8.8	1,157	1,157	310
DTDCO	DT LIOC	TR	5.0	7.2	907	907	268
PTDCQ	PT-UQC	TQ	5.0	7.2	907	907	310

#### CO<sub>2</sub> SENSOR

CO<sub>2</sub> sensor in ventilation system.



#### **Model Name**

AHCS100H0

#### Applied products

LZ-H025GBA4 LZ-H035GBA5 / LZ-H050GBA5 LZ-H080GBA5 / LZ-H100GBA5 LZ-H150GBA5 / LZ-H200GBA5

#### Applicable products

LZ-H050GXN0 / LZ-H080GXN0 LZ-H100GXN0 / LZ-H050GXH0 LZ-H080GXH0 / LZ-H100GXH0

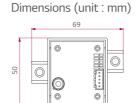
#### **Key Features**

#### Specification

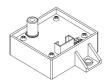
- Applied Model : ERV (Embeded), ERV DX (Option)
- Supply voltage : DV12V ± 5%
- Output : 0.6 ~ 4.4V (Linear output, 240 ~ 1,760 ppm CO<sub>2</sub>)
- Accuracy : ± 10% (2 days after installation)

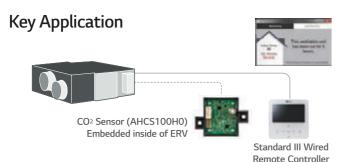
#### Description

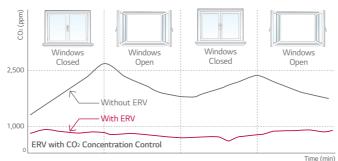
- The product is especially designed to detect CO<sub>2</sub>
- This model requires Standard III Wired Remote Controller for display





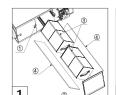


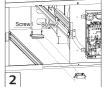


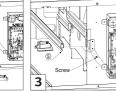


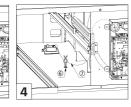
#### How to Intstall

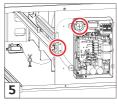
- 1. Remove a screw on the service cover. Pull the service cover fixing bracket((1)), then remove the service cover((2)). Remove two elements((3)) and two air filters((4)).
- 2. Install the sensor with two screws.
- 3. Remove a screw, then remove the right side of element rail(⑤).
- 4. Press the holder(6) into the hole to fix the CO<sub>2</sub> sensor cable(7).
- 5. Connect the wire terminal to the CN-CO<sub>2</sub> port of PCB.
- \* Airflow can be controlled by concentration of CO2, after setting automatic operation mode at remote controller.
- \* Use the screwdriver whose total length is less than 250mm.

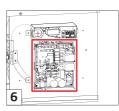












#### REFRIGERANT LEAKAGE DETECTOR

R410A refrigerant leakage detector ensures room safety.



#### **Key Features**

- This detector senses refrigerant leakage when the refrigerant concentration exceeds 6,000ppm. (The green and red LED lights blink simultaneously.)
- Alarm is "on" when refrigerant leaks out more than 6,000ppm for 5 seconds. If it is reduced less than 6,000ppm for 5 seconds, alarm is "off".
- When the alarm of the refrigerant leak detector is switched on the user must ventilate the room until the alarm is disabled.
- The detector has to be installed inside the room and it shuld be installed 300 ~ 500mm above the floor.

#### Model Name

PRLDNVS0

#### **Applied Products**

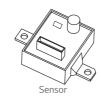
MULTI V 5 MULTI V IV Heat Pump & Heat Recovery MULTI V WATER IV

#### Specification

Parts	Specification			
	Rated Voltage (V)	DC 5.0 ± 5%		
	Dimensions (W x H x D, mm)	31 x 44 x 20		
	Weight (g)	22		
Canada	Detectable Refrigerant	R410A		
Sensor	Detected Concentration (ppm)	0 / 6,000 Alarm Off / On		
	Operating Temperature Range (°C)	-10 ~ 50		
	Preserved Temperature Range (°C)	-40 ~ 60		
	Average Power Consumption (mA)	35		
Connecting Cable	Cable Length (m)	10		
Sensor	Dimensions of Front Plate (W x H x D, mm)	80 x 110 x 44.6		
Protective Cover	Dimension of Backplate (W x H x D, mm)	80 x 110 x 6.5		
This for the second	-: - - - f A DI   ++++  ++F  4/84- +: \ / F   84- +: \ /	N/11/D11/D d-1\		

This function available for ARU\*\*\*\*L\*\*5 and 4(Multi V 5, Multi V IV H/P, H/R model)

#### **Included Parts**



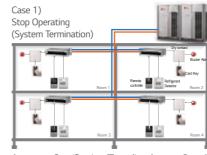


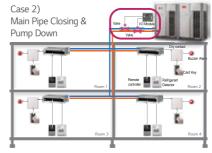


Sensor Protective Cover

#### **Key Application**

Refrigerant Leakage Detector has three application methods.







Accessory Specification (To realize the case 2 application)







[Optional / Field Supply] Ball Valve<sup>1)</sup>

(Dry contact)

PDRYCB400

[Optional / Field Supply] for central control room (Direct connection ~ DC 30V, ~ 1A)







[Field Supply]

Central Control Devices

# ACCESSORI

### **EEV KIT (FOR INDOOR UNIT)**

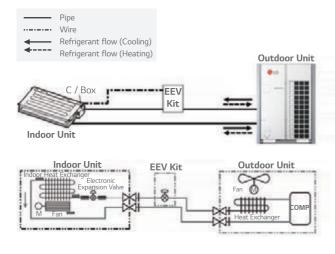
MULTI V EEV KIT is specially designed to reduce noise and make comfort environment.



#### **Key Features**

Decreasing noise level of Multi V Indoor units and easy installation

#### **Key Application**



#### **Model Name**

PRGK024A0

#### **Applied Products**

Indoor Unt	Model	Chassis	Applicable
	1 Way Cassette	TU	0
	2 Way Cassette	TT	N/A
	2 Way Cassette	TS	O(~5.6kW)
Cassette		TR	0 ( 4 5 1 ) 4 ()
	A May Cassatta	TQ TP	O(~4.5kW) N/A
	4 Way Cassette	TN	N/A
		TM	IN/A
		BG	_
	High Sensible	BR	-
		B8	-
	High Static	B8	-
Durate		M1	O(~5.6kW)
Duct	Middle Static	M2	-
		M3	-
		L1	0
	Low Static	L2 L3	-
		L3	-
	Floor Standing	CE	0
		CF	-
	Convertible	VE	0
	Ceiling Suspended	V1	-
	Centing Susperfueu	V2	-
Etc	344 1144	SJ	0
Ltt	Wall Mounted	SK	0
	1.0.1	SV	-
	Art Cool	SF	0
	Console	QA	0
	HYDRO KIT	K2	-
		K3	-

 $\times$   $\bigcirc$  : Applied, - : Not applied, N/A : Not Applicable

EEV Kit can be applied for the space which requires quiet environment and noise sensitive space.

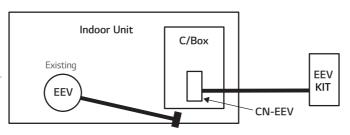


Note: If you don't use EEV of same specification, Cooling (Heating) capacity could be decreased.

#### How to Install

Open Indoor unit's control box cover.

- ① Open fully indoor unit's EEV through vacuum mode of ODU setting.
- ② Detach the Indoor unit's EEV connector from PCB and then push the reset button of Outdoor unit's PCB
- ③ After connecting indoor unit's EEV CONNECTOR, repeat the process
  ① & ②. Then, connect the EEV CONNECTOR of EEV KIT in PCB of indoor unit.
- Finally connect the lead wire of the EEV Kit to the indoor unit's PCB.
- (5) Assemble the control box cover.



#### IR RECEIVER

IR RECEIVER can be connected to ceiling concealed duct and floor standing unit which the customer wants to control by wireless remote controller.



#### **Model Name**

PWLRVN000

#### **Applied Products**

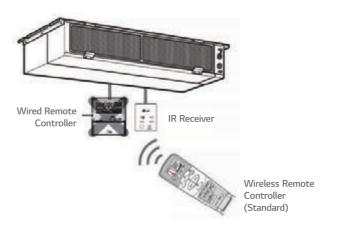
MULTI V Indoors (Ceiling Concealed Duct, Floor Standing Units)

#### **Key Features**

- Designed for wireless control
- Indication lamps (3 colors) and Self-diagnosis function

#### **Key Application**

Note: Do not install both the IR Receiver and Wired Remote Controller. This may cause malfunctions.





ON/OFF

Signal Receiver

○╚---3

#### Operation of Indication Lamps ① Emergency Operation button:

- Turns the indoor unit on or off when remote controller is not working.
- ② Signal Detector:
- Receives the signal from remote controler.

  ③ Timer lamp (Green):
- Lights up during the timer operation.
- ④ Hotstart lamp (Orange): Lights up during the pre-heating operation, defrost operation as well as latent heat removal operation in heat mode. Available only for the heat pump models, not cooling only models.
- System On/Off lamp (Red): Lights up during system controller operation.
- (6) Filter Sign lamp (Green):
   Lights up after 2,400 hours from the time of first power on operation.



#### Test Run Mode

After installing the product, you must run a Test Run mode. Press the Emergency Operation button for 5 seconds, until the LED flickers. Then the indoor unit, duct runs cooling mode for 18 minutes, where the setting temperature is 18°C and the fan speed is high.

#### INDEPENDENT POWER MODULE

It closes EEV in indoor unit when power cut.



#### **Model Name**

PRIP0

#### **Applied Products**

MULTI V Indoor Units

#### **Key Features**

- Independent Power Module is specially designed to close the Indoor EEV when power cut-off.
- Supply Voltage : DC 12V ± 50%

#### **Included Parts**

Model		PRIP0		(Others)	
ltem	Independent Power Kit	Screw	Clamp (Tie Wrap)	• Harness 1 (1m) • Harness 2 (1m) • Harness 3 (1m)	
Q,ty	1	2	4	• Installation Manual	
Figure		M4 x10	<i>&gt;</i>	• Insulation (PE)	

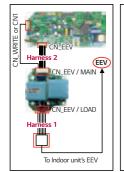
#### **Key Application**

If the EEV is opened due to power cut off, liquid refrigerant flows into compressor. It could damage the compressor in cooling mode. Also condensing might be happened for unclosed EEV's indoor unit due to flow of refrigerant.

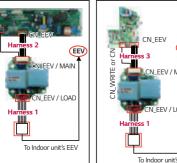


#### How to Install

DUCT/FS/CVT/FAU



CST / Console / Hydro Kit Gen2 Wall Mounted / ARTCOOL



- Gen4 Wall Mounted ① Turn the power off using circuit breaker. ② Disconnect the EEV cable of the indoor unit's PCB
  - 3 Connect the independent power module (CN-EEV/
  - LOAD) to the indoor unit's EEV, using harness 1.

    ④ Connect the independent power module (CN-EEV/ MAIN) to the indoor unit's PCB (CN-EEV/CN-WRITE), using harness 2 or 3.
  - (5) Supply the power.
  - \* FS : Floor Standing
  - \* CVT : Convertible \* FAU : Fresh Air Intake Unit
  - \* CST : Cassette

#### **AUXILIARY HEATER RELAY KIT**

Providing an efficient way to add auxiliary heat



#### **Key Features**

- Provides two stages of auxiliary heat for indoor unit
- Provides ability to use the two stage auxiliary heater as the primary or secondary heating source

#### **Included Parts**

Model		PRARH1		
ltem	Auxliary Heater Relay Kit	Screw	Insulation	Installation Manual
Q'ty	1	2	2	1
Figure		(		$\Diamond$

Model		PRARS1		
ltem	Auxliary Heater Relay Kit	Screw	Insulation	Installation Manual
Q'ty	1	2	2	1
Figure		<b>4</b> 0	<b>◇</b>	$\Diamond$

#### Model Name

PRARS1

#### **Applied Products**

Wall Mounted, Art Cool Mirror, Art Cool Gallery

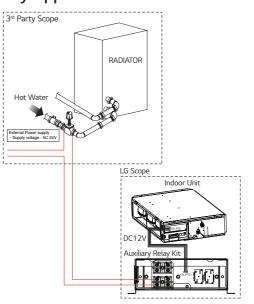
#### Model Name

PRARH1

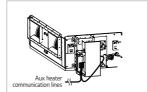
#### **Applied Products**

1,2,4 Way Ceiling Cassette, High Static Ducted, Low Static Ducted, Ceiling Suspended

#### **Key Application**



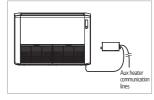
#### How to Install



High Static Ducted



Low Static Ducted





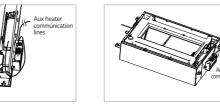


Wall Mounted

Ceiling Suspended



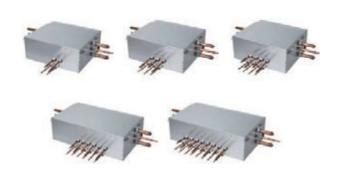
4 Way Cassette



2 Way Cassette

# ACCESSORI

#### **HEAT RECOVERY UNIT**



#### Model Name

PRHR023 (2 Branch Unit) PRHR033 (3 Branch Unit) PRHR043 (4 Branch Unit) PRHR063 (6 Branch Unit) PRHR083 (8 Branch Unit)

#### **Applied Products**

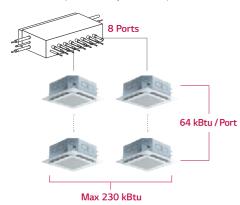
MULTI V 5 MULTI V IV MULTI V WATER IV

#### **Key Features**

- Max. 64 indoor units can be connected (Max. 8 indoor units per branch)
- It is easy to install due to the automatic search algorithm for piping detection
- Subcooling cycle in HR unit makes the system efficiency maximum

#### **Connection Capacity**

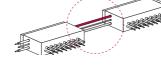
Maximum number of connectable indoor units: 64 IDUs/HR unit (in case of 8 ports model)



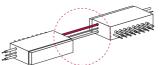
#### Flexible Connection

Series connection can be installed without pipes crossing.

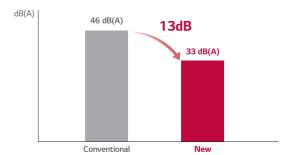




Considering the direction for Indoor units and SVC port, connection for reverse direction makes much easier



#### Reduce Noise



Test Condition (ISO Standard)

- Temp. : (Cooling) 27°C DB / 19°C WB, 35°C DB / 24°C WB (Heating) 20°C DB / 15°C WB, 7°C DB / 6°C WB
- Operating : cooling → heating switching operation

#### **Included Parts**

- HR unit (1EA)
- Hanging bolts M10 or M8 (4EA)
- Nut M8 or M10 (8EA)
- Washers M10 (8EA)
- Reducers

#### Specification

	Mod	el		PRHR023	PRHR033	PRHR043	PRHR063	PRHR083
Number of Branc	:h		EA	2	3	4	6	8
Maximum Connectable Capacity of Indoor Units (Per branch / unit)			17.5 / 35	17.5 / 52.5	17.5 / 69.5	17.5 / 69.5	17.5 / 69.5	
Maximum Number of Connectable Indoor Units Per Branch		EA	8	8	8	8	8	
Name allows	Cooling		kW	0.040	0.040	0.040	0.076	0.076
Nominal Input	Heating		kW	0.038	0.038	0.038	0.072	0.072
Net. Weight			kg	18.5	20.3	22.0	28.3	31.8
Dimensions (W x H x D)		mm	786 x 218 x 657	786 x 218 x 657	786 x 218 x 657	1,113 x 218 x 657	1,113 x 218 x 657	
		Liquid	mm (inch)	9.52 (3/8)	9.52 (3/8)	9.52 (3/8)	9.52 (3/8)	9.52 (3/8)
	Indoor Unit	Gas	mm (inch)	15.88 (5/8)	15.88 (5/8)	15.88 (5/8)	15.88 (5/8)	15.88 (5/8)
Piping Connections		Liquid	mm (inch)	9.52 (3/8)	12.7 (1/2)	15.88 (5/8)	15.88 (5/8)	15.88 (5/8)
Connections	Outdoor Unit	Low Pressure	mm (inch)	22.2 (7/8)	28.58 (11/8)	28.58 (11/8)	28.58 (11/8)	28.58 (11/8)
	——————————————————————————————————————	High Pressure	mm (inch)	19.05 (3/4)	22.2 (7/8)	22.2 (7/8)	22.2 (7/8)	22.2 (7/8)
Power Supply			Ø / V / Hz	1/220~240/50 1/220/60	1/220~240/50 1/220/60	1/220~240/50 1/220/60	1/220~240/50 1/220/60	1/220~240/50 1/220/60

#### Reducers for Indoor Unit and HR Unit

(Unit:mm)

	Model	Liquid	High Pressure	Low Pressure
Indoor Unit Reducer		OD9.52 Ø6.35		OD15.88 Ø12.7
	PRHR023	OD952 06.35	OD19.05 Ø15.88 Ø12.7	OD222 019.05 015.88
HR Unit Reducer	PRHR033 PRHR043 PRHR063 PRHR083	OD15.88 Ø12.7 Ø9.52	O015.88 Ø12.7	OD19.05 Ø15.88

# ACCESSORII

### Y BRANCH AND HEADER BRANCH

For refrigerant distribution of indoor units.



#### **Key Features**

- Various Y Branch pipe of different capacities make Multi V installation much easier
- Y Branch and header branch for both gas and liquid are provided.
- Insulation material is also provided for covering the branches

#### **Model Name**

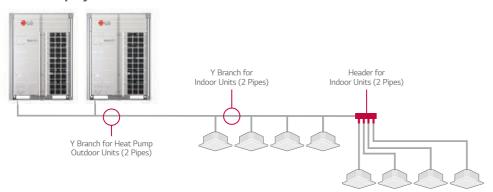
Refer to specifications

#### **Applied Products**

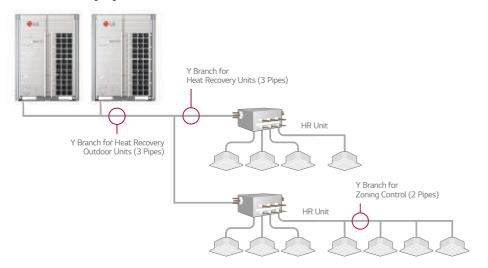
MULTI V 5
MULTI V IV
MULTI V III, MULTI V PLUS II, MULTI V PLUS
MULTI V S
MULTI V WATER IV
MULTI V WATER II
MULTI V WATER S

#### **Key Application**

#### **Heat Pump System**



#### **Heat Recovery System**



#### Specification

Header Branch
R410A

Model	Gas Pipe	(Unit:mm) <b>Liquid Pipe</b>
ARBL054 (4 Branch)	Ø12.7 Ø15.88 Ø15.88 Ø19.05	06.35 09.52 09.52 012.7 0D12.7 9.52
ARBL057 (7 Branch)	012.7 015.88 015.88 019.05 019.05 019.05	06.35 09.52 06.35 012.7 0D12.7 9.52
ARBL104 (4 Branch)	012.7 015.88 019.05 028.58 0028.58 22.2	06.35 09.52 012.7 0D12.7 9.52
ARBL107 (7 Branch)	015.88 015.88 019.05 028.58 0D28.58 22.2	06.35 09.52 012.7 0D12.7 9.52
ARBL1010 (10 Branch)	Ø15.88 Ø19.05 Ø28.58 Ø28.58 Ø28.58	06.35 09.52 012.7 0D12.7 9.52
ARBL2010 (10 Branch)	Ø15.88 Ø19.05 Ø31.8 Ø38.1 OD38.1 34.9 28.58	06.35 09.52 015.88 019.05 0D19.05 15.88

# ACCESSORIE

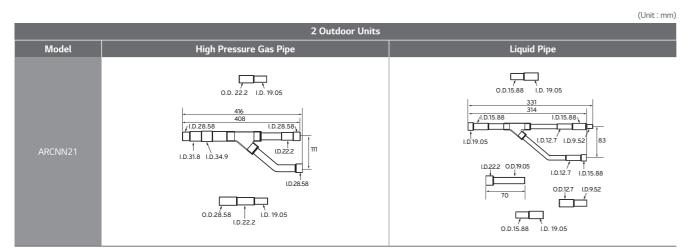
#### **PIPING ACCESSORIES**

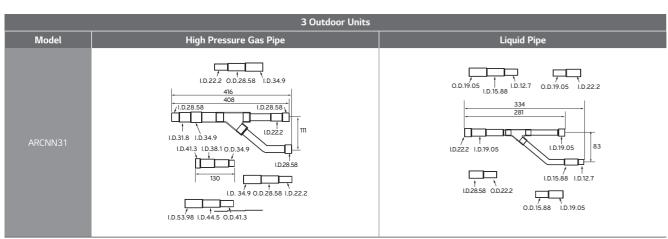
Y Branch pipe for connection of outdoor units.

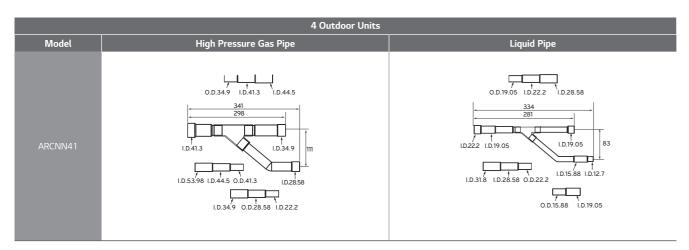
#### Specification

Heat Pump

R410A MULTI V 5, MULTI V IV, MULTI V III, MULTI V WATER IV, MULTI V WATER II







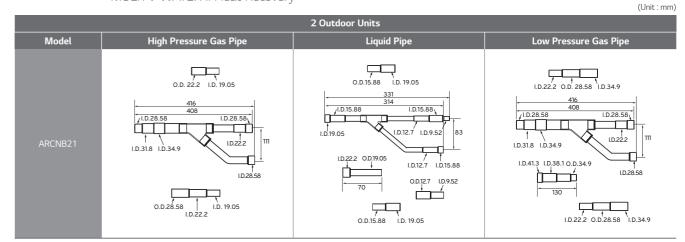
#### Specification

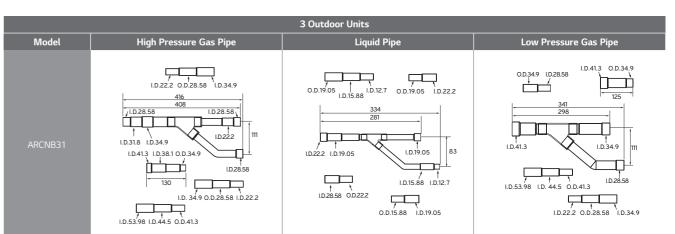
**Heat Recovery** 

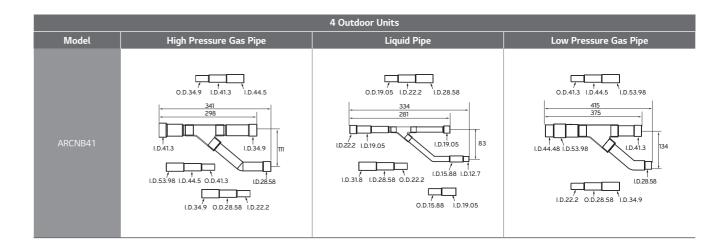
R410A

MULTI V 5, MULTI V IV Heat Recovery, MULTI V III Heat Recovery, MULTI V WATER IV Heat Recovery,

MULTI V WATER II Heat Recovery







### **PIPING ACCESSORIES**

Y Branch pipe for connection of outdoor units.

#### Specification

Heat Pump, Heat Recovery Zone Control

**R410A** 

MULTI V 5, MULTI V IV, MULTI V III, MULTI V PLUS II, MULTI V PLUS, MULTI V S, MULTI V MINI, MULTI V SPACE II, MULTI V WATER IV, MULTI V WATER S, MULTI V WATER II

		(Unit:mm)
Model	Gas Pipe	Liquid Pipe
ARBLN01621	ID1588 ID1588 ID1588 ID1588 ID1588	D952 D635  D952 D635  D952 D635
ARBLN03321	D15.88 D19.05 D15.88 D19.05 D12.7 D12.7 D12.7 D19.05 D19.0	DB52 D635 D635 D635 D527 D535

Model	Gas Pipe	Liquid Pipe
ARBLN07121	D1858 ID222 ID1588  D318 D222 ID1588  D318 D222 ID2858  D318 D222 ID2858  D222 ID2858  D222 ID2858	ID127 ID1588 ID1588 ID127 ID1905 ID1588 ID1905 OD127 ID635 ID1588 ID1905 OD127 ID952 ID952 OD127
ARBLN14521	1D349 1D413 1D381 1D2858 1D349 1D322 1D1588 1D127 0D15.88 1D127 0D15.88 1D19.05 1D19.05	LD15.88 LD19.05 LD222 LD15.88 LD222 LD15.88 LD222 LD15.88 LD19.05 LD222 LD15.88 LD12.7 LD15.88 LD19.05

Model	Gas Pipe	Liquid Pipe
ARBLN23220	1D4448 1D4448 1D4448 2 2 3 1D4448 1D2851 1D222 1D5588 1D222 1D15.88 1D1905	1D254 1D254 1D254 1D254 1D252 1D905 1D905 1D254 2 3 1D252 2 3 1D254 2 3 1D252 3 1D252 2 3 1D252 3 1D252 2 3 1D252 3 1D252 2 3

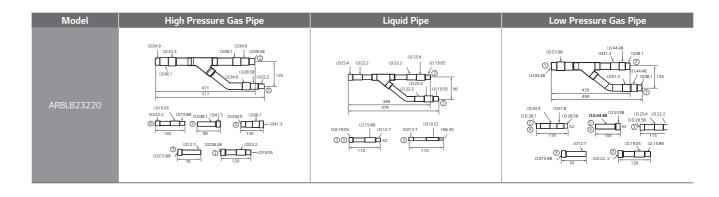
#### Specification

Heat Recovery

R410A

MULTI V 5, MULTI V IV Heat Recovery, MULTI V III Heat Recovery, MULTI V WATER IV Heat Recovery, MULTI V WATER II Heat Recovery

	WOLIT V VV/ (I LIV II T leat Necovery		(Unit : mm
Model	High Pressure Gas Pipe	Liquid Pipe	Low Pressure Gas Pipe
ARBLB01621	ID. 15.88 ID. 12.7 ID. 15.88 ID. 15.	D952 D635 D635 D635	D1588  D1588  D1588  D1588
ARBLB03321	ID. 15.88 ID. 15.88 ID. 19.05 ID. 19	10952 10635 10127 10635	(D222 (D1905 (D1588 (D1905 (D127 (D1905 (D19
ARBLB07121	ID. 1905 ID. 2858 ID. 2858 ID. 2858 ID. 1905 ID.	ID127 ID15.88 ID15.88 ID15.88 ID12.7  ID19.05 ID12.7  ID19.05 ID12.7  ID19.05	LD318 LD318 LD322 LD1588 LD322 LD1588 LD322 LD349 DD318 LD2858 LD222 LD2858 LD222 LD365 LD2858 LD365 LD
ARBLB14521	ID. 28.58 ID. 28.58 ID. 22.2 ID. 12.7	1019.05 1019.05 1019.05 1019.05 1019.05 1019.05 1019.05 1019.05 1019.05 1019.05 1019.05 1019.05 1019.05 1019.05	10349 10413 10381 10381 10222 10138 10127 001389 10222



# ACCESSORI

#### **REFRIGERANT CHARGING KIT**

Recharging refrigerant after a pump down or when refrigerant is either insufficient or excessive.



#### **Model Name**

PRAC1

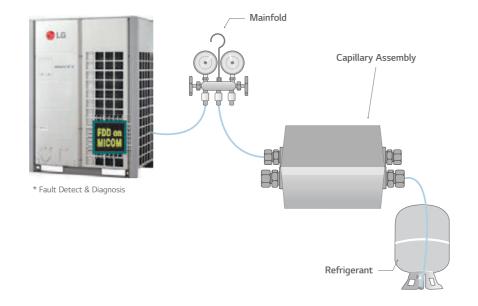
#### **Applied Products**

MULTI V 5
MULTI V IV Heat Pump
MULTI V IV Heat Recovery
MULTI V III Heat Pump
MULTI V III Heat Recovery
MULTI V PLUS II
MULTI V SYNC II

#### How to Use

- Arrange manifold, capillary assembly, refrigerant vessel and scale
- Connect manifold to the gas pipe service valve of outdoor uint as shown in the figure
- Connect manifold and capillary tube. Use designated capillary assembly only. If designated capillary assembly isn't used, the system may get damaged
- Connect capillary and refrigerant vessel
- Purge hose and manifold
- After "568" is displayed, open the valve and charge the refrigerant

#### **Key Application**



#### **DRAIN HOSE**

Easy drain installation



#### **Model Name**

PHDHA05T PHDHA07T PHDHA05B PHDHA07B

#### **Applied Products**

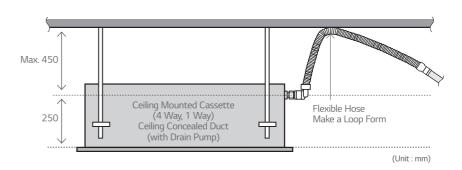
MULTI V Indoor units

#### **Key Features**

- It reduces the installation time by over 40% with elbow-less drain hose
- Drain pump covers maximum 700mm high, featuring easy piping installation

#### **Key Application**

• Ceiling Mounted Cassette and Ceiling Concealed Duct (refer to PDB for applicable model)



#### Specification

Model	Length	Quantity
PHDHA05T	500mm	30EA
PHDHA07T	700mm	30EA
PHDHA05B	500mm	5EA
PHDHA07B	700mm	5EA

# ACCESSORIES

#### **STOPPER VALVES**



#### Model Name

PRVT120 (Under 12.7mm) PMVT780 (Under 22.2mm) PMVT980 (Under 28.58mm)

#### **Key Features**

- This unit can be applied for the additional indoor unit's installation
- This unit can be applied for each indoor unit's service

#### Specification

Model	Specification	
PRVT120	Input → Output(Indoor unit)  106,36	
PRVT780	Input -> Output(indoor unit)  8015.86 8018.25 80222 8018.25 8015.86	
PRVT980	Input  Output(indoor unit)  Rosuss	

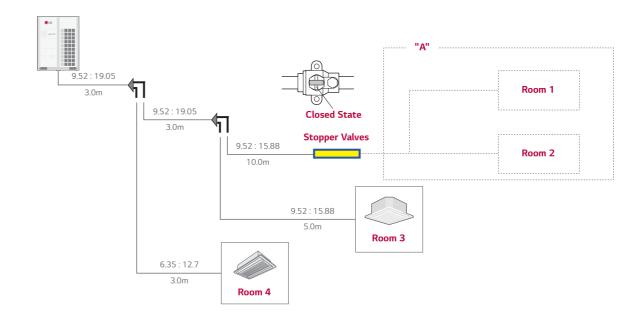
#### How to Install



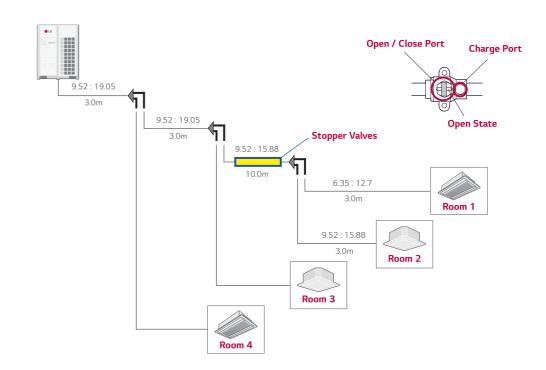
- 1. Cut the inlet side of the connector, and weld the pipe
- If installing additional indoor units, the outlet side connector should be cut according to installation pipe.
- 3. When installing a stopper valve, the flare part should be facing towards additional indoor unit.
- When installing anadditional indoor unit, the SVC valve should be in closed state.

#### **Application**

(Room 3 & 4: in use / Room 1 & 2: need to install indoor units)



- In case of installation of additional indoor unit, refrigerant of used indoor unit must be discharged. (Room 3 & Room 4)
- If stopper valve is already installed, you can install additional indoor unit without refrigerant loss from the entire system.
- After installation of additional indoor unit, you just need refrigerant charging for "A" section.
- Then, open the Stopper Valve.



<sup>\*</sup> When welding, service valve shoud be wrapped by wet cloth.