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## 022 - 101 OUTDOOR UNITS

MULTI V 5	024
MULTI V S	052
MULTI V M	070
MULTI V WATER IV (HEAT PUMP / HEAT RECOVERY)	078



## 102 - 163 INDOOR UNITS

WALL MOUNTED	104
CEILING MOUNTED CASSETTE	114
CEILING MOUNTED ROUND CASSETTE	132
CEILING CONCEALED DUCT	136
FRESH AIR INTAKE	148
CEILING & FLOOR CONVERTIBLE CEILING SUSPENDED	150
CONSOLE & FLOOR STANDING	154
COMPATIBILITY	160
FEATURE FUNCTIONS	163



## 164 - 169 **HOT WATER** SOLUTION

HYDRO KIT



170 - 179 VENTILATION SOLUTIONS

ERV ERV WITH DX COIL



INDEX

166

172 178



## 180 - 235 CONTROL SOLUTIONS

INDIVIDUAL CONTROL	184
CENTRALIZED CONTROL	192
INTEGRATION DEVICE	204

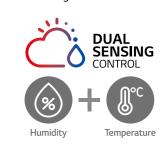
## 236 - 257 ACCESSORIES

MECHANICAL ACCESSORIES	238
PIPING ACCESSORIES	246

# **10** ADVANTAGES OF MULTI V

# ULTIMATE **3** SUPERIOR **DURABILITY**

Ultimate Energy Saving with Dual Sensing Control.



LG's exclusive "Ocean Black Fin" heat exchanger is designed to perform even in corrosive Environments.



# **INNOVATIVE TECHNOLOGIES**

Ultimate Inverter Compressor - MULTI V 5 Revolutionary Scroll R1 Compressor - MULTI V S R32, MULTI V M



Certified protection



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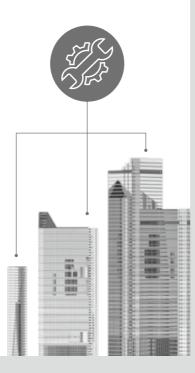
Declared by TUV Rheinland Test Method B of ISO21207 est condition : Salt contaminated condition + severe industrial/traffic environment(NO2/SO2)

# **4 DESIGN FLEXIBILITY**

Flexible Installation with Large Capacity Outdoor Unit.

MULTI V 5 enables easy type change-over to suit the purpose of any building.

MULTI V S allows versatile design with flexible piping locations.



# **5** SMART CONTROLS

MULTI V responds to diverse building environments with LG ThinQ-based AI control and individual/central integrated control solutions.



## DIVERSE PRODUCT LINEUP

9 **R32** 

LG offers a specialized product lineup suited for various business environments, perfectly responding to the unique conditions no matter the use case.

# **APPLICATION**

New line-up applying the industry-first mini VRF with R32 refrigerant to MULTI V S.



Integrated solution optimized for various business environments, including hot water, AHU, BMS, and EMS.



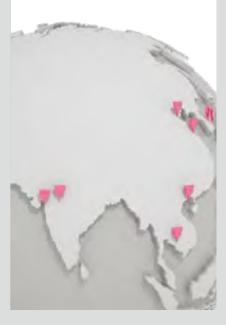


#### - Engineering Tools & Support

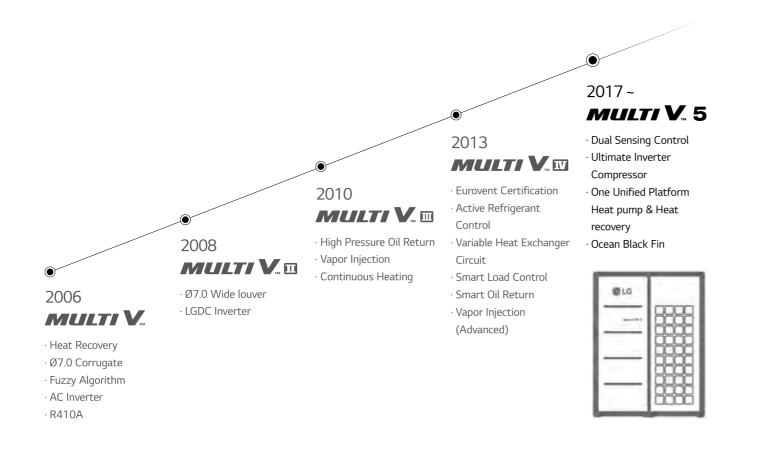
- LG Air Conditioning Academy
- European LG Energy Lab
- European Air Conditioning **Distribution Center**

# 10 BRAND RELIABILITY

Global production sites facilitate world-class customer service.



## **MULTI V BRAND HISTORY**



Since the time when LG launched Korea's first residential air conditioner in 1968, the company has worked to continuously enhance its technological innovation and reliability. As a result of sustained improvement, LG VRF launched the first generation of MULTI V in 2006 and achieved significant development. With the best-in-class compressor technology and innovation applied to every part and control solution, MULTI V has evolved to be on of the world's most efficient and reliable VRF solutions.

The first and second generations of MULTI V boasted inverter technology and non-ozone depleting technology, while MULTI V III was produced with cutting edge tech like oil return with HiPOR™ and double compression features with mid-pressure refrigerant allowed by Vapor Injection. The innovative technologies of MULTI V's fourth generation brought about product leadership in efficiency. Its smart load control adjusts with the outdoor temperature, while optimizing refrigeration management and heat exchange for both cooling and heating.

MULTI V's wide range of VRF solutions satisfies various building types and sizes. MULTI V S's size discharge was designed for small to mid-sized buildings while MULTI V Water is a water-cooled VRF solution with variable water flow control technology.

In 2017, the ultimate VRF solution was introduced with MULTI V 5. This generation has fully improved its technological potential with the powerful and reliable yet economical Ultimate Inverter Compressor, effective corrosion resistance with the Ocean Black Fin coating and enlarged fans. Dual Sensing Control offers the most pleasant indoor environment while minimizing unnecessary energy loss by sensing both temperature and humidity to efficiently manage cooling, heating and part load.

MULTI V 5 has been designed for the ultimate efficiency, performance, flexibility, comfort and control, ensuring the most pleasant indoor 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 equipment. 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.







#### 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. Among them, the LATS\* Program series has been developed to offer the best tool for LG HVAC systems, providing our customers with a solution that allows for faster, easier and more accurate model selection, draft energy estimations and more.

\* LATS : LG Air-conditioner Technical Solution



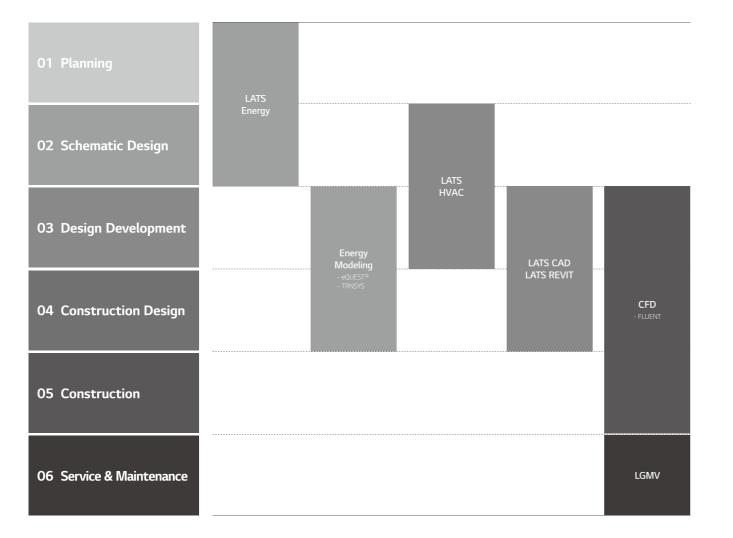
**Energy Estimation** & Energy Modeling



Model Selection

& Design

Installation Environment Simulation



#### 01 Draft Energy Estimation

#### LATS Energy

LATS Energy is a program developed by LG to estimate energy consumption and analyze the life cycle cost of LG commercial air conditioning systems during a project's early stages.

#### 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 savings for building standards or certifications, 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 a model selection program that accurately and quickly selects the most suitable LG commercial air conditioning systems for each design. 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 commercial air conditioning systems. It also enables modules for quotation and installation review that minimize inherent problems during installation and commissioning. \* AutoCAD program is required.

#### LATS REVIT

LATS REVIT allows BIM users to have an attractive 3D design of LG commercial air conditioning systems with embedded calculations for refrigerant and efficiency features.

\* AutoCAD Revit program is required.

#### 05 Environment Simulation

#### **CFD** Analysis

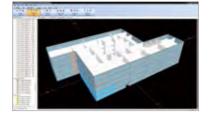
CFD Analysis is applied in areas of estimating : indoor airflow and temperature distribution while operating VRF products, outdoor airflow distribution, and noise level. By running a simulation before construction, engineers estimate possible issues and find optimal solutions for malfunctions that could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

#### 06 Service & Maintenance

#### LGMV

LGMV offers real-time MULTI V cycle monitoring. During start-up, LGMV can check for normal operation as well as troubleshoot any errors. Also it helps to find causes of errors and solve the problem faster.





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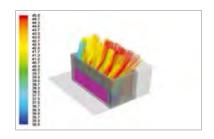
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## **BENEFITS OF LG MULTI V**

### 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 at Every Stage

- 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**



- Optimized for LEED/BREEAM certification Renewable energy solution provided through geothermal application



#### Maximizing Space Utilization

- Large capacity in compact size enhances space utilization



#### Smart Building Solutions

- Seamless integration with current Building Management Systems
- Wi-Fi control available for anytime, anywhere access (via the 'LG ThinQ' mobile app)
- 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 Design 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 Convenience with 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 guaranteed throughout product line-up
- Up to 31% cost savings with MULTI V's Smart Load Control\*



#### **Comfort Cooling & Heating**

- Smart Load Control maximizes indoor comfort level
- Dual Sensing Control 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 environment

 $\ast$  Dual Smart Load Control ESEER based, below 50% humidity, model ARUM260LTE5  $\ast\ast$  LG internal test result





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## **APPLICATION SOLUTIONS**

## Office

Supporting efficiency with flexibility

High Rise Office Building

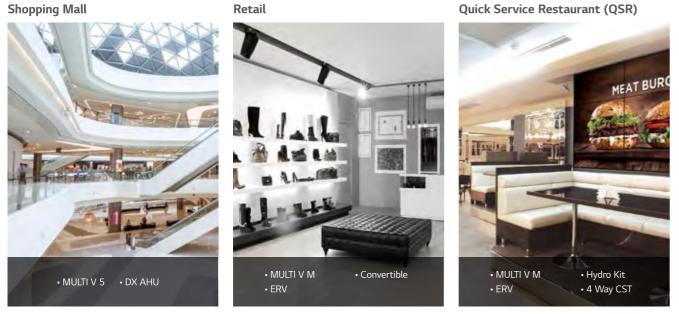


Small to Medium sized Office Building

The MULTI V series revitalizes the workspace by providing fresh air at all times. LG's intelligent control solutions add comfort to any space.

## Commercial

Maximizing business, minimizing cost



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

Creating a comfortable home

#### **Condominium & Apartments**



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



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

#### Single Family House & Villa

## **DIVERSE INTEGRATED SOLUTION**

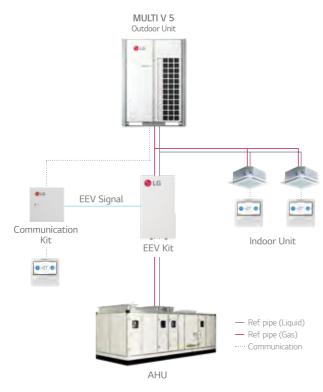
## Hot Water Solution

Water heating costs can be reduced with a heat pump, which provides higher efficiency than a boiler system. The Hydro Kit can be connected to MULTI V 5, providing temperatures up to 80C. Energy savings can be maximized with the combination of the Hydro Kit and the MULTI V 5 Heat Recovery system.



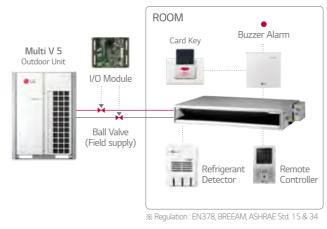
## Air Handling Unit (AHU) Solution

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 ensures a safe environment. When refrigerant concentration exceeds 6,000ppm for 5 seconds, the indoor unit will stop operation and alert users with a buzzer or light switch (Dry contact option).



## **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 of Any Device**

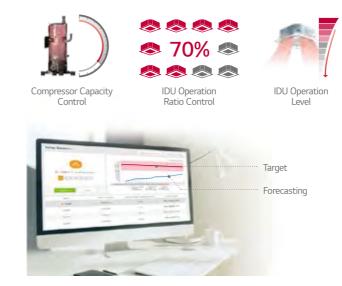
In order to manage multiple spaces and multiple buildings, the administrators should be able to control systems from wherever they are. The LG central controller can be controlled from any web browser that supports HTML5. Now through the implementation of HTML5, the interface will look great and perform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



## DIVERSE INTEGRATED SOLUTION

### **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 ACU Module

It is costly to introduce a BMS system to control multiple devices or systems in a small building. With the ACU 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<sup>rd</sup> 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**

Features	Appearance	4	5	6	8	10	12	14	16	18	20
					•	•	•				
• Dual Sensing Control	1 BOOMPATER							•	•	•	•
<ul> <li>Large capacity ODU (Up to 26HP)</li> <li>Continuous Heating</li> <li>Ocean Black Fin heat exchanger</li> <li>Heat pump or heat recovery function</li> </ul>											
<ul> <li>Flexible installation with heat recovery unit and large capacity</li> <li>For large space, high rise building and individual control building</li> </ul>											
MULTI V. S	0	0	0								
<ul> <li>Space saving</li> <li>Flexible design applications</li> <li>Slim, light, and broad range (4 - 12 HP)</li> <li>Large number of connectable indoor units</li> </ul>	0	•	0•	0•							
(Up to 20 Units) • For small / medium building	0				•	•	•				
Heat Recovery	0			0							
	0	0	0	0							
<ul> <li>High flexibility of installation</li> <li>Quiet operation</li> <li>Various indoor unit combinations &amp; long distance between modules</li> </ul>			•								
					•	•		•			•
Heat Pump / Heat Recovery  • High efficiency system regardless external conditions • Indoor installation									•	•	
<ul> <li>Low noise operation (No fan)</li> <li>For water-sourced system, high rise building and building with aesthetic requirements.</li> <li>Simultaneous cooling and heating</li> <li>Minimized energy cost by water sourced</li> </ul>											
<ul><li>heat recovery system</li><li>For individual control building</li></ul>	h h h h										

																											380V			Unit 220\	V, 1
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	12	74	76	/8	80		96
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# **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			•	•	•												
4 <sup>th</sup> generation Wall Mounted	Artcool Mirror		•	•	•	•	•	•		•								
	Standard		•	•	•	•	•	•		•		•	•					
	4 Way Cassette (570 x 570)		•	•	•	•	•	•	•									
	4 Way Cassette (840 x 840)									•	•	•	•	•	•			
4 <sup>th</sup> generation Ceiling	4 Way Cassette High Sensible (840 x 840)			•	•	•	•	•		•	•		•	•	•			
Mounted Cassette	Round Ceiling Cassette	0								•			•		•			
	2 Way Cassette	Ì			•	•		•		•								
	1 Way Cassette			•	•	•		•		•								
	Mid / High Statics			•	•	•	•	•		•	•		•	•	•	•	•	•
4 <sup>th</sup> generation <sup>•</sup> Ceiling Concealed Duct	Low Statics	a de la compañía de la	•	•	•	•	•	•	•	•								
	High Sensible			•	•	•	•	•		•	•		•	•	•			
4 <sup>th</sup> generation Fresh Air Intak	e														•		•	•
4 <sup>th</sup> generation Ceiling & Floor	Convertible				•	•												
4 <sup>th</sup> generation Ceiling Suspend	ded							•		•			•		•			
4 <sup>th</sup> generation Console				•	•	•	•											
	Floor Standing with Case	_		•	•	•	•	•		•								
Standing	Floor Standing without Case			•	•	•	•	•		•								
4 <sup>th</sup> generation	Low Temperature													•				•
HYDRO KIT	High Temperature	•												•			•	
Energy	with Humidifier						•			•		•						
Recovery /entilator with DX Coil	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)	External	Filter Sign (Remaining Time)	Auto Rerstart Function Disable / Enable	Wi-Fi Ready
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※ If 4<sup>th</sup> generation indoor units are connected to MULTI V WATER S, several functions are not available.
 ※ If 4<sup>th</sup> generation indoor units are combined to 2<sup>nd</sup> generation indoor units, several functions are not available.
 More detailed information, refer to the "MULTI V Indoor units Compatibility Table"

# LG HVAC CONTROL LINE-UP

Standard III (Black)       WFFI Controller       AC E2 Touch       AC Manager 5       (indoor Unit - 64)       Standard (2 port)       Standard (2 port)       Standard (2 port)       Standard (2 port)       PPWK0B0000       PPWK0B000       PPWK0B0000       PPWK0B0000       PPWK0B0000       PPWK0B0000       PPWK0B0000       PPWK0B0000       PWK0B0000       PWK0B0000       PWK0B0000	Standard andard II (White)     Single (Prover Distribution Inductor)     Commoler     Dotty M     Factor     ACP 5     ACP 1cmWorks     CPU Configuration     Factor     Factor <th< th=""><th>Standard (UNP)         Strandard (Seripe (P)         Strandard (Seripe (P)         Standard (Seripe (P)         Concoline (P)         Calcer (P)         ACE Fr.         ACE Fr.         ACP Fr.         ACP Invitation (P)         Concoline (P)         Policy (P)         Policy (P)</th><th>Standard     Simple     Controller     Display     Platform     Gateway     Gateway     Facility integrator       Standard III (White)     Image: Standard III (Black)     Image: Standard III (Black)</th></th<>	Standard (UNP)         Strandard (Seripe (P)         Strandard (Seripe (P)         Standard (Seripe (P)         Concoline (P)         Calcer (P)         ACE Fr.         ACE Fr.         ACP Fr.         ACP Invitation (P)         Concoline (P)         Policy (P)	Standard     Simple     Controller     Display     Platform     Gateway     Gateway     Facility integrator       Standard III (White)     Image: Standard III (Black)     Image: Standard III (Black)
Standard II (White)       Image: Propert Distribution Indicatory       Propert Distribution Indicatory       Propert Distribution Indicatory       Propert Distribution Indicatory         PREMTB100	and of II (Who) PRE-MIBIOD     CE     A.C. Er     A.C. Frage     A.C. P. Inflictor     Frage       IPRE-MIBIOD     P.RC.VLLOOW     IPRE-MIBIOD     IPRE-MIBIOD </th <th>sket II (White)       Image: Sket II (White)       Image: S</th> <th>Standard III (White)       Image: Point (Power Distribution Indicator)         PREMTB100       Image: Port Port Controller       Image: Port Port Controller       Image: Port Port Port Port Port Port Port Port</th>	sket II (White)       Image: S	Standard III (White)       Image: Point (Power Distribution Indicator)         PREMTB100       Image: Port Port Controller       Image: Port Port Controller       Image: Port Port Port Port Port Port Port Port
PREMTBIOD     PQRCVLLQQV     PWLSSB21H (H/P)     PQC5225030 (Indoor lunt - 32)     PQC79A000 (Indoor lunt - 64)     PULWKBDOO (Indoor lunt - 64)     PPULWKBDOO (Indoor l	PREMITION       PRECLOSING       PMASSE211 (NP)       Descussion (moder Unt-32)       PMASSE211 (NP)       PMA	PREMITION     PORCULADQV     PVRUSS021 (N UP)     PORCUS22030 (Indoor Unr-230)     PPREMITION BACK IF/P     PURUMENDOOD (Indoor Unr-230)     PURUMENDOOD (Indoor Unr-230)     PURUMENDOOD (Indoor Unr-230)     PURUMENDOOD (Indoor Unr-230)     PURUMENDOOD (Indoor Unr-44)	PREMTB100       PQRCVCL0QW       PWLSSB21H (H/P)       PQCSZ250S0 (Indoor Unit -32)       PACP5A000 (Indoor Unit -256) BACnet IP / Modbus TCP       PLNWKB000 (Indoor Unit -64)       Premium (8 port) PQNUD1S40 Standard (2 port) PPWRDB000         tandard III (Black)       Vi-Fi Controller       AC Ez Touch       AC Manager 5       Modbus RTU Gateway       ACS IO Module (Input / Output Module)         randard III (Black)       Image: PPRCVCL0Q       For Indoor Unit       PACEZA000       PACP5A000       PLNWKB000         PREMTB10       PORCVCL0Q       For Indoor Unit       PACEZA000       PACP5A000       PLNWKB000       Premium (8 port) PQNUD1S40         PREMTB10       PORCVCL0Q       For Indoor Unit       PAC Ez Touch       AC Manager 5       Modbus RTU Gateway       ACS IO Module         PREMTB10       PORCVCL0Q       For Indoor Unit       PACEZA000       PACM5A000       PMBUSB00A       PEXPMB000
adard II (Black)       LG Wi-Fi Modem       AC Ez Touch       AC Manager 5       Modbus RTU Gateway       (repart / Output Module)       Jessen Module         SREMTBB10       PORCVCLOQ       For Indoor Unit - 64       PACEZADOO       PACEZADOO       Jessen Module       Jessen Module <td>Addred III (Black) PRE-MTSB10     Image: Simple Control of the sector of t</td> <td>dard II (Black)     LG WFR Gottenber     AC Ex Tuch     AC Manager 5     Modules RTU Gateway     (input Controller (input Controller PERMB000)     PERPB000     PE</td> <td>Model       Model       Model       Model       Model       Model       Model         Image: Acc Manager 5       Model       Model<!--</td--></td>	Addred III (Black) PRE-MTSB10     Image: Simple Control of the sector of t	dard II (Black)     LG WFR Gottenber     AC Ex Tuch     AC Manager 5     Modules RTU Gateway     (input Controller (input Controller PERMB000)     PERPB000     PE	Model       Model       Model       Model       Model       Model       Model         Image: Acc Manager 5       Model       Model </td
Add II (White)       AC Smart 5       PI-485       Image: Comparison of the comp	andard II (White)       AC Smart 5       P1-485       Image: Comparison of the c	dard II (White)       AC Smart 5       PI-485       Image: Smart 5       Image: Smart 5 </td <td></td>	
Image: Presenting of the sector of the se	Indard II (Black)       U0	Image: Addred II (Black)       Image: AddredII (Black)       Image: AddredII	ndard II (White)AC Smart 5PI-485Image: PREMTB001PQRCHCA0QWPACS5A000PREMTB001PQRCHCA0QWPACS5A000
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	PREMTA000 PREMTA000A PREMTA000B	PREMTA000 REMTA000A REMTA000B	Premium

	Outdoor Unit	AHU Kit
ontrol Accessory	IO Module	
up Control Wire	(Input / Output Module)	Communication Kit
-		e Lo
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91	TERS	
PZCWRCG3	For MULTI V 5	Return / Room Air control
	PVDSMN000	PAHCMR000
Temperature Sensor	Variable Water Flow Control kit	
-		e La
		*
PQRSTA0	For MULTI V WATER IV	Discharge / Supply Air control
Profile Remote	PWFCKN000	PAHCMS000
ture Button Sensor	Low Ambient Kit	Controller Module
1	0	
ZRTBS01	For MULTI V IV, 5 PRVC2	Main module NEW PAHCMM000
ne Controller	Cool / Heat Selector	
	381. (2)	
All the first of the	The second secon	on the later of the later
4 Zones by	PRDSBM	Communication module
rmostat ABZCA		NEW PAHCMC000
	Water Communication Module	Control kit
	NEW PAHCMW000	(Max 3 Outdoor Units)
		EEV Kit
		(Electronic Expansion Valve)
		PRLK048A0 (~ 28 kW)
		PRLK096A0 (~ 56 kW)
		NEW PRLK396A0
		(~ 112 kW)
		<b>0</b> 10
		+
		NEW PRLK594A0
		(~ 168kW)

# OUTDOOR UNITS

MULTI V 5 / MULTI V S / MULTI V M MULTI V WATER IV (HEAT PUMP / HEAT RECOVERY)





- Air cooled VRF Heat Pump & Heat Recovery

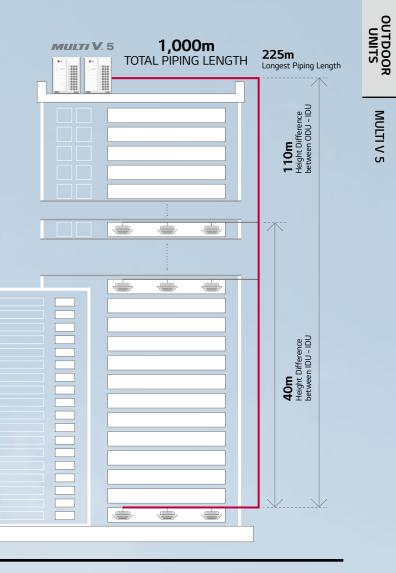
- 22.4kW ~ 268.8kW (Cooling capacity based)

- 3Ø, 380 ~ 415V, 50Hz

- Top discharge outdoor unit

- Ability to function as Heat Pump or Heat Recovery











Reliability



Low noise



Advanced performance

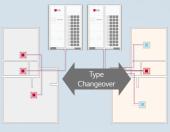
Dual Sensing



#### Partial Defrost



#### Interchangeable between heat pump and heat recovery



## **INNOVATIVE TECHNOLOGIES**

#### Dual Sensing Smart Load Control (SLC) Enhanced energy saving & increased indoor comfort

Cooling loads vary according to both temperature and humidity. With Dual Sensing SLC, work exerted to meet the load depends on both temperature and humidity. As a result, less capacity will be required in lower humidity conditions.

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 responds to :

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

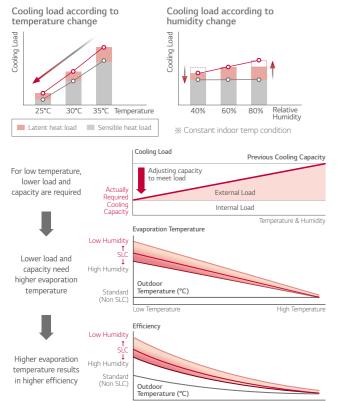
By raising the target low pressure during off-peak cooling operation, the compressor lift is reduced. This slows compressor's speed which leads to a decrease in compressor's power consumption.

#### - 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 changing conditions impact indoor comfort



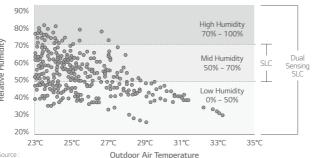
#### **Energy Savings with Dual Sensing Control** (Temperature & Humidity)

#### 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 ~ 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

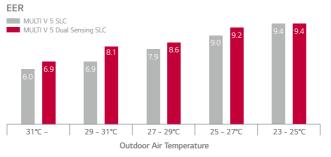


Time Portion of Relative Humidity in Summer (Warsaw, Poland)

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

/early Power Input (kWh) - ODU							
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

## **INNOVATIVE TECHNOLOGIES**

#### **Comfort Cooling**

#### Increased indoor comfort & enhanced operating efficiency

First reference use Indoor Unit (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

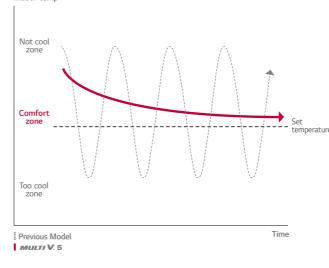
Raising superheat reduces refrigerant volume flowing through the coil. As flow decreases, demand on the compressor decreases and the compressor speed will be reduced, thus saving energy.



% Indoor unit set up available with Standard III Remote Controller

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

Indoor temp



## Intelligent Defrost

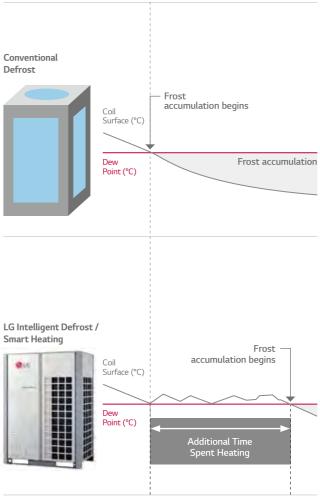
Increased heating run-hours

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 oot 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 during winter operation. MULTI V 5 makes continuous adjustments to the refrigeration cycle's 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's operating parameters can be adjusted no further without sacrificing heating comfort, further adjustment is stopped and frost is allowed to build on 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.



% Increased heating operation time per day : Up to 17%

- 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℃



## **INNOVATIVE TECHNOLOGIES**

#### Variable Path Heat Exchanger

Optimized system efficiency & continuous heating

MULTI V 5 outdoor units (ODU) 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 any time.

#### 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



 Upper & lower active Series circuited • High velocity refrigerant flow



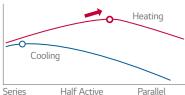
#### Heating - all conditions Upper & Lower active

 Parallel circuited Low velocity refrigerant flow



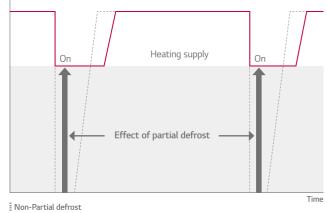
• Lower idle

Full load cooling



#### **Continuous Heating**

Heating performance



MULTI V. 5

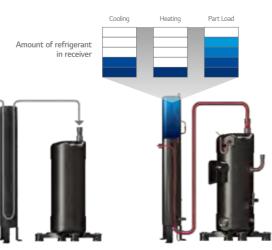
#### **Active Refrigerant Control**

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.

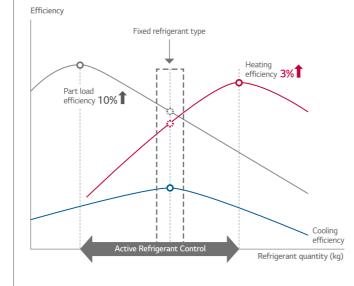
#### What are the benefits?

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.



Non-receiver tank Fixed refrigerant amount

*мицті* V. 5 Control optimized Refrigerant amount → Maximized efficiency



## INNOVATIVE TECHNOLOGIES

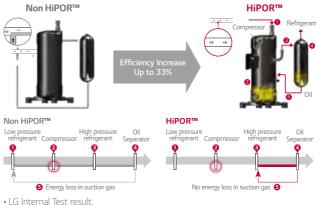
#### HiPOR™

#### Advanced compressor reliability & efficiency

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 prevents energy waste 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



- 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 : fewer oil return cycles eliminate unnecessary energy consumption.

Increases system heating run-time during winter operation. Increases compressor reliability

Heating Performance

without oil level sensor

non oil recovery operation

with oil level sensor

every 8 hour oil recovery operati



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



#### Sub-cooling & Vapor Injection Increased heating performance

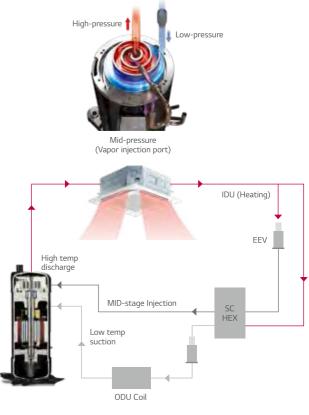
MULTI V 5 is equipped with advanced sub-cooler and vapor injection control system. The sub-cooler algorithm sub-cools liquid refrigerant just enough so that it can travel to the farthest IDU in the system operating in cooling mode without changing state. During low ambient operation down to -25°C (Heating 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?

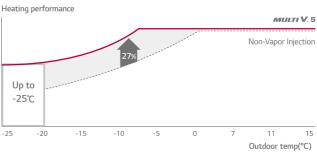
Provides stable refrigeration cycle operation over a wide range of outdoor ambient operating conditions.

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

#### Technology Mechanism



#### Performance Comparison



Improved heating performance by 27%.
 Comparison tested on 10HP model.

multi v

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## **INNOVATIVE TECHNOLOGIES**

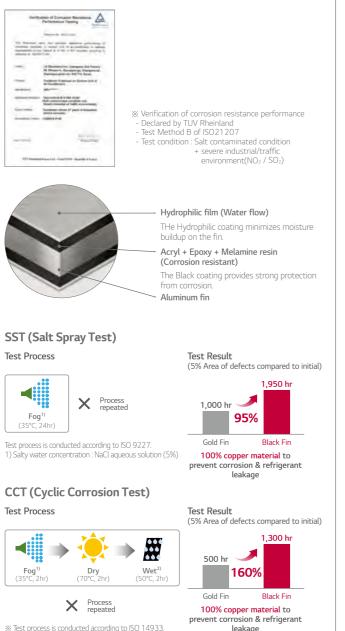
#### Corrosion Resistance Black Fin Improved durability

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, TUV.

#### What are the benefits?

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



※ Test process is conducted according to ISO 14933. 1) Salty water concentration : NaCl aqueous solution (5%) % Dry condition changed : 60°C, 4hr → 70°C, 2hr 2) Deionized water

#### **Biomimetic Fan** Maximized performance

The fans in Multi V 5's outdoor unit have been upgraded to feature a moire pattern similar to that of a clam shell's exterior that help with noise reduction. 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.



## DESIGN FLEXIBILITY

#### **One Unified Model**

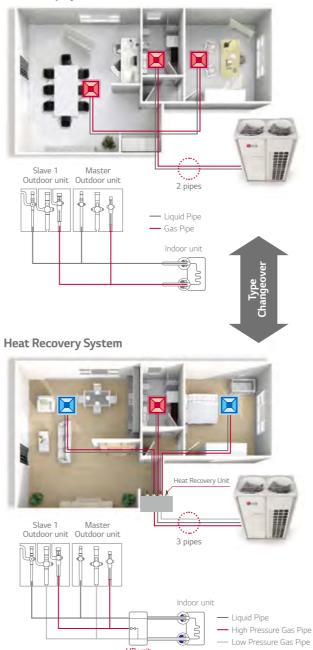
Heat pump / Heat recovery with one platform

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.

#### 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.

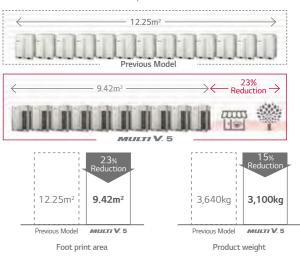
#### Heat Pump System





#### Flexible Installation with Large Capacity Outdoor Units More flexible design potential & space saving

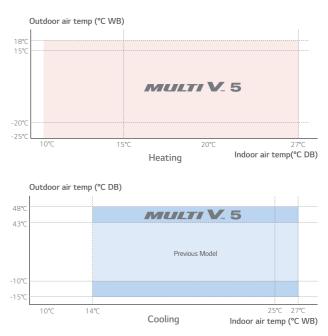
Large capacity outdoor units of MULTI V 5 minimize installation space that spares valuable floor space and significantly decreases total installed weight. This gives users more flexible design potential and better use of the saved space.



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

#### Wider Operation Range Able to operate at extreme conditions

With improved inverter cooling technology, sub-cooling and vapor injection, MULTI V 5 offers an extended range of heating and cooling operations. It can perform normal heating operations at temperatures as low as -25°C. Cooling operations function at temperatures as low as -15°C or as high as 48°C making it an adequate solution for specialized areas 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.



#### OUTDOOR UNITS \_ MULTI V 5 \_ TECHNICAL DATA

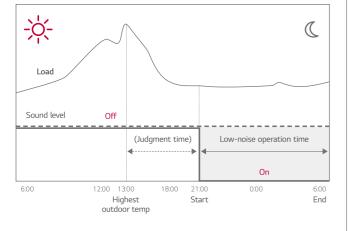
## **USER-FRIENDLY CONTROL**

#### **Low-Noise Operation**

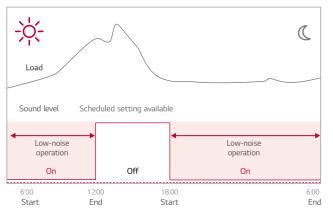
For noise sensitive environment

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



#### Simple Test Run via LGMV

Increased overall efficiency in installation

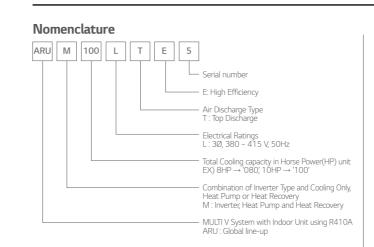
To make sure that the product functions properly, conducting a test run is recommended. For previous product, professional engineer who is wellaware of more than 40 different functional settings and more than 200 error codes had to check main parts in order to make sure that the test run had succeeded. 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.



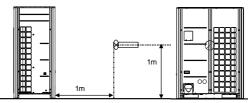


#### LGMV





#### Position of Sound Pressure Level Measuring



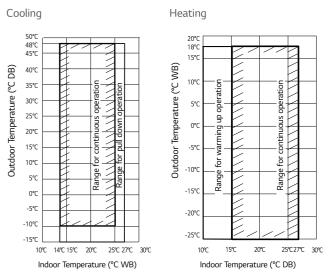
- Data is valid at free field condition
- Data is valid at nominal operating condition
- Sound level will vary depending on a range of factors such as the construction (Acoustic absorption coefficient) of particular room in which the equipment is installed
- Sound level can be increased in static pressure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

#### **Outdoor Units Function**

Category	Functions	MULTI V 5
	Variable Path of Outdoor Unit HEX	0
	HiPOR™ (High Pressure Oil Return)	0
Key Refrigerant Components	Humidity Sensor	0
components	Corrosion Resistance 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 Dust Removal of Outdoor Unit (Fan reverse rotation)	0
osciuti unccioni	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
Installation	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 O	Contact)	PVDSMN000
Cycle Monitoring	LGMV	PRCTILO
Device	Mobile LGMV	PLGMVW100

※ ○ : Applied, - : Not Applied

#### **Cooling / Heating Operation**



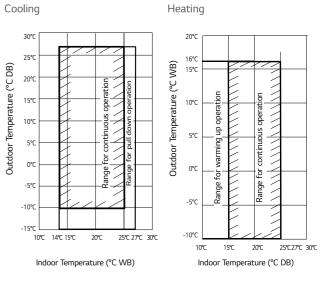
1. These figures assume the following operating conditions Equivalent piping length : 7.5m Level difference : Om

2. Range of pull down operation

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

 Warming up operation means that the outdoor unit operates to reach the range of continuous operating, however it may not operate continuously due to safety or protection logic.

#### Simultaneous 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

reduction

б

#### ARUM080LTE5 / ARUM100LTE5 / ARUM120LTE5

[Unit : mm]

3D View

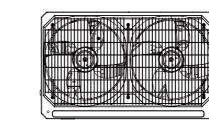
No.	Part Name	Description
1	Leakage test hole (Side)	Ø22.2
2	Wire routing hole (Bottom)	2-022.2
3	Power cord routing hole (Bottom)	2-Ø50
4	Pipe routing hole (Front)	-
5	Pipe routing hole (Bottom)	2-Ø66, Ø53.88
6	Power cord routing hole (Front)	2-Ø45
7	Wire routing hole (Front)	2-Ø30

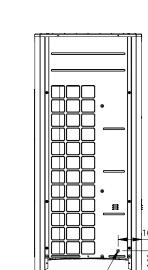
#### ARUM140LTE5 / ARUM160LTE5 / ARUM180LTE5 / ARUM200LTE5 ARUM220LTE5 / ARUM240LTE5 / ARUM260LTE5

[Unit : mm]

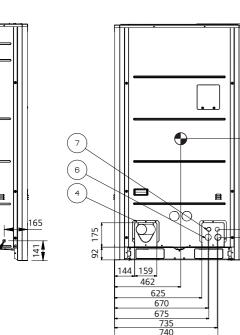
3D View

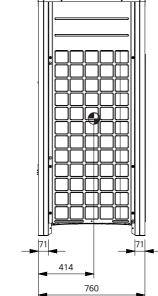
 $(\mathbf{1})$ 





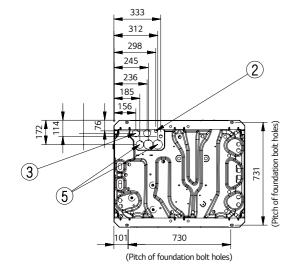
(1)

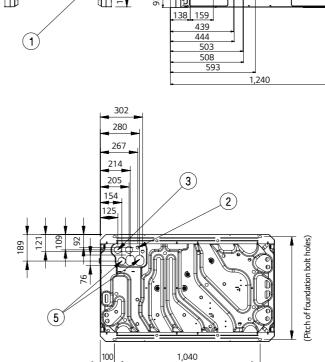




799

162 219





(7)

6

(4)

165

140

8

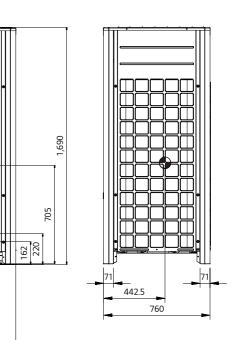
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OC

(Pitch of foundation bolt holes)

No.	Part Name	Description
1	Leakage test hole (Side)	Ø22.2
2	Wire routing hole (Bottom)	2-Ø22.2
3	Power cord routing hole (Bottom)	2-Ø50
4	Pipe routing hole (Front)	-
5	Pipe routing hole (Bottom)	2-Ø66, Ø53.88
6	Power cord routing hole (Front)	2-Ø45
7	Wire routing hole (Front)	2-Ø30







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

A

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

Categ	ory	MULTI V IV H/P (ARUN***LTE4)	MULTI V 5 H/P & H/R (ARUM***LTE5)	
Vapor Inj	ection	0	0	
HiPOR™		0	0	
Smart Oil Control (	Oil Level Sensor)	0	0	
Active Refriger	rant Control	0	0	
Variable Heat Exc	hanger Circuit	0	0	
Continuous	Heating	0	0	
Smart Load	l Control	0	0	
Dual sensing (Hu	midity Sensor)	-	0	
Comfort C	Cooling	0	0	
Ocean Bla	ack Fin	-	0	
Maximum Capacity	(1 Unit / 4 Unit)	20 HP / 80 HP	26 HP / 96 HP	
Height Difference (OD	U ~ IDU / IDU ~ IDU)	110m / 40m	110m / 40m	
Cooling Operating Ra	ange (OAT, °CDB)	-10 ~ 43	-15 ~ 48	
Heating Operating Ra	ange (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%	

※ ○ : 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

※ ○ : Applied, - : Not Applied

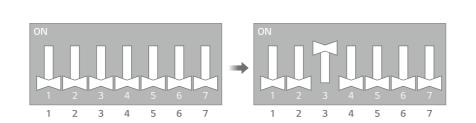
#### ODU dip switch setting procedure (No.3)

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.

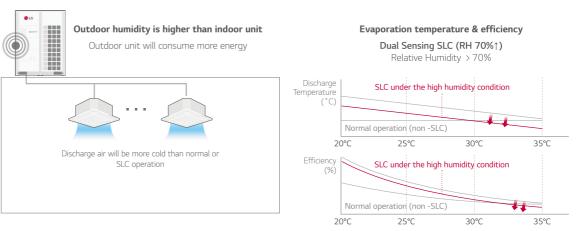
Dip Switch 7 Segment Reset butto



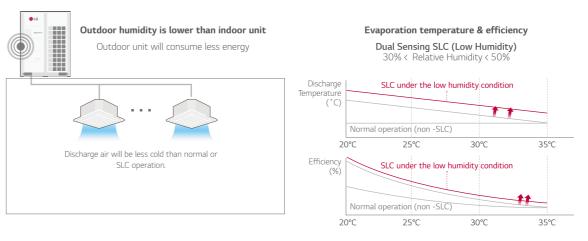
## **MULTI V 5 Q&A**

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

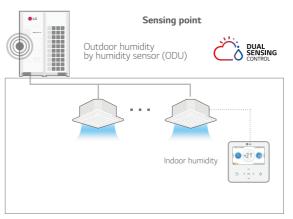
A3 During dual sensing SLC, outdoor unit changes target pressure of the system referring to temperature and humidity in cooling mode.



#### - When the humidity of outdoor side is 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.



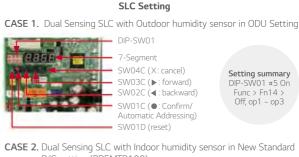
To maximize comfort and energy efficiency, the outdoor unit's humidity sensing can be turned off or a standard remote control can be installed to sense indoor humidity.





MULTI V 5

- 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



R/C setting (PREMTB100)

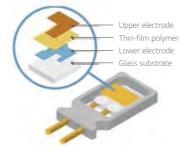
Function		
Comfort Cooling	6 Janji ( 3	Setting summar Function>
ODU Refrigerant Noise Redu	ction < march	Smart Load Contr
Defroist Mode	6 Sec.6 2	Off, op1 ~ op3
Smart Load Control	in 5	

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

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

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

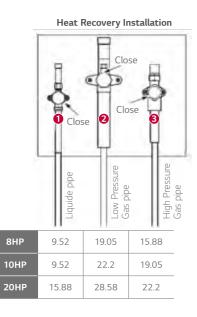
The capacitive measurement principle established and proved itself as a standard in the past. For this principle, the sensor element is built out of a capacitor. The dielectric is a polymer which absorbs or releases water proportional to the relative environmental humidity, and thus changes the capacitance 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.

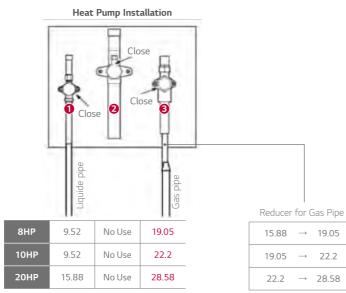


Model	Humidity Sensor of Outdoor	Humidity Sensor of R/Controller	
Size (mm)	3 x 3 x 1.1	2.5 x 2.5 x 0.9	
Supply voltage range	2.1 to 3.6 V	2.4 to 5.5 V	
RH operating range	0 ~ 100% RH	0 ~ 100% RH	
T operating range	-40 to +125°C (-40 to +257°F)	-40 to +125°C (-40 to +257°F)	
RH response time	8 sec (tau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

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

A5 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)





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

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

ltem	Question
Fan	The static pressure of MULTI V 5 is Max 8 mmAq as MULTI V IV??
Compressor	Is the limitation of Compressor max Hz applied by the capacity o outdoor unit?
4 Way V/V	The usage of main & sub 4 way valve for MULTI V 5 ?
VI	In case of vapor injection, how much is the middle pressure?
VI	By how much is heating capacity increased by vapor injection?
Humidity Sensor	Where is Indoor Humidity sensor?
Remote Controller	Does remote controller show the humidity information (Status) a well?
Remote Controller	Is it possible to connect the local humidity sensor with Remote controller (RS3)?
SLC	Does dual sensing SLC function control the humidity ratio?
SLC	Is SLC fully used on Eurovent? Isn't humidity fixed for the test? What about AHRI?
Comfort Cooling	Why is not the comfort heating applied in product?
Installation	Does the IDU – Central controller direct connection for communication cable is possible? (Flat connection)

multi v 5

#### Answer

Yes, the static pressure of MULTI V 5 is the same as MULTI V IV.

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).

MULTI V 5 has the function of both H/P and H/R by one unit. Main valve has a function to change the operation mode. (Cooling  $\leftrightarrow$  Heating) Sub. Valve has a functions to change the product type (H/P  $\leftrightarrow$  H/R)

The optimal middle pressure for vapor injection is  $1.2\,P_{s}.$   $P_{s}$  : Suction pressure of compressor

Generally, the heating capacity is increased up to 15 ~ 20%.

It is placed inside of the RS3 remote controller.

Yes. It shows the current humidity information on screen. (for RS3 Only) But has no function to control the humidity

No. All of RS3 remote controller can not be connected with local humidity sensor.

No. There is no control of humidity ratio.

Eurovent (RH 47%) and AHRI (RH 51%) have fixed humidity test condition.

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.

No, it is not possible.

038 / 039

#### ARUM080LTE5 / ARUM100LTE5 ARUM120LTE5 / ARUM140LTE5



CERTIFIED

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

	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)	kW	3.97	4.92	6.85	8.13
	Heating (Max)	kW	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
СОР	Max Capacity		5.27	5.32	4.58	4.54
SCOP			4.69	4.51	5.01	4.63
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 Fi
	Туре		Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scrol
	Combination x No.		(Inverter) x 1	(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	5,300 x 1
	Oil Type		FVC68D (PVE)	FVC68D (PVE)	FVC68D (PVE)	FVC68D (PVE)
	Oil Charge	СС	3,900	3,900	3,900	3,900
	Туре		Propeller fan	Propeller fan	Propeller fan	Propeller fan
	Motor Output x Number	W x No.	1,200 x 1	1,200 x 1	1,200 x 1	900 x 2
Fan	Air Flow Rate (High)	m³/min x No.	240 × 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
Pipe	Liquid Pipe	mm (inch)	Ø9.52 (3/8)	Ø9.52 (3/8)	Ø12.7 (1/2)	Ø12.7 (1/2)
Connections for Heat	Low Pressure Gas Pipe	mm (inch)	Ø19.05 (3/4)	Ø22.2 (7/8)	Ø28.58 (1-1/8)	Ø28.58 (1-1/8)
Recovery	High Pressure Gas Pipe	mm (inch)	Ø15.88 (5/8)	Ø19.05 (3/4)	Ø19.05 (3/4)	Ø22.2 (7/8)
Pipe	Liquid Pipe	mm (inch)	Ø9.52 (3/8)	Ø9.52 (3/8)	Ø12.7 (1/2)	Ø12.7 (1/2)
Connections for Heat Pump	Gas Pipe	mm (inch)	Ø19.05 (3/4)	Ø22.2 (7/8)	Ø28.58 (1-1/8)	Ø28.58 (1-1/8)
Dimensions (W	x H x D)	mm x No.	(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
Dimensions (W	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 Weigh	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	Cooling	dB(A)	84.0	85.0	86.0	89.0
Power 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	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	7.5	9.5	9.5	13.5
<b>,</b>	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 Valv
Power Supply		Ø, V, Hz	3, 380-415, 50	3, 380-415, 50	3, 380-415, 50	3, 380-415, 50
Number of Max	imum Connectable Indoo	or Units 1)	13 (20)	16 (25)	20 (30)	23 (35)

# **MULTI V 5**

#### ARUM160LTE5 / ARUM180LTE5 ARUM200LTE5 / ARUM220LTE5



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

	HP		16	18	20	22
	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)	kW	44.8	50.4	56.0	61.6
	Heating (Max)	kW	50.4	56.7	63.0	69.3
	Cooling (Rated)	kW	10.89	10.91	12.77	15.70
Input	Heating (Rated)	kW	10.28	10.12	12.20	14.15
-	Heating (Max)	kW	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
COP	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
Extorior	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 1	(Inverter) x 2	(Inverter) x 2	(Inverter) x 2
Compressor	Motor Output x Number	W x No.	5,300 x 1	(5,300 × 1) + (4,200 × 1)	(5,300 × 1) + (4,200 × 1)	(5,300 × 1) + (4,200 × 1)
	Oil Type		FVC68D (PVE)	FVC68D (PVE)	FVC68D (PVE)	FVC68D (PVE)
	Oil Charge	CC	3,900	5,200	5,200	5,200
	Туре		Propeller fan	Propeller fan	Propeller fan	Propeller fan
	Motor Output x Number	W x No.	900 x 2	900 x 2	900 x 2	900 x 2
Fan	Air Flow Rate (High)	m³/min x No.	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
Pipe	Liquid Pipe	mm (inch)	Ø12.7 (1/2)	Ø15.88 (5/8)	Ø15.88 (5/8)	Ø15.88 (5/8)
Connections for Heat	Low Pressure Gas Pipe	mm (inch)	Ø28.58 (1-1/8)	Ø28.58 (1-1/8)	Ø28.58 (1-1/8)	Ø28.58 (1-1/8)
Recovery	High Pressure Gas Pipe	mm (inch)	Ø22.2 (7/8)	Ø22.2 (7/8)	Ø22.2 (7/8)	Ø28.58 (1-1/8)
Pipe Connections	Liquid Pipe	mm (inch)	Ø12.7 (1/2)	Ø15.88 (5/8)	Ø15.88 (5/8)	Ø15.88 (5/8)
for Heat Pump	Gas Pipe	mm (inch)	Ø28.58 (1-1/8)	Ø28.58 (1-1/8)	Ø28.58 (1-1/8)	Ø28.58 (1-1/8)
Dimensions (W		mm x No.	(1,240 x 1,690 x 760) x 1			
Dimensions (W	/ x H x D) - Shipping	mm x No.	(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 Weigl	ht	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	Heating	dB(A)	61.5	62.0	64.5	65.5
Sound Power Level	Cooling	dB(A)	90.0	92.0	93.0	93.0
	Heating	dB(A)	94.0	95.0	96.0	97.0
Communication	n Cable	mm <sup>2</sup> x No. (VCTF-SB)	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 × 2C	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 × 2C
	Refrigerant Name		R410A	R410A	R410A	R410A
Refrigerant	Precharged Amount in Factory	kg	13.5	16.0	16.0	16.0
	t-CO <sub>2</sub> eq		28.2	33.4	33.4	33.4
	Control		Electronic Expansion Valve	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, 380-415, 50
	ximum Connectable Indo		26 (40)	29 (45)	32 (50)	35 (56)





#### ARUM240LTE5 / ARUM260LTE5 ARUM221LTE5 / ARUM241LTE5



## **MULTI V 5**

ARUM261LTE5 / ARUM280LTE5 ARUM300LTE5 / ARUM320LTE5



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

	HP		26'
	Combination Unit		ARUM261LTE5
Model Name	Independent Unit		ARUM140LTE5 ARUM120LTE5
	Cooling (Rated)	kW	72.8
Capacity	Heating (Rated)	kW	72.8
	Heating (Max)	kW	81.9
	Cooling (Rated)	kW	16.26
Input	Heating (Rated)	kW	14.98
•	Heating (Max)	kW	17.98
EER			4.48
SEER			
	Rated Capacity		4.86
COP	Max Capacity		4.56
SCOP	marcoupacity		-
5001	Color		Warm Gray / Dawn Gray
Exterior	RAL Code (Classic)		RAL 7044 / RAL 7037
Heat Exchanger			Wide Louver Plus / Black Fi
	Туре		Hermetically Sealed Scrol
	Combination x No.		(Inverter) x 2
-	Motor Output x		
Compressor	Number	W x No.	5,300 x 2
	Oil Type		FVC68D (PVE)
	Oil Charge	CC	7,800
	Туре		Propeller fan
	Motor Output x Number	W x No.	(900 × 2) + (1,200 × 1)
Fan	Air Flow Rate (High)	m³/min x No.	(320 x 1) + (240 x 1)
	Drive		DC INVERTER
	Discharge	Side / Top	TOP
Pipe	Liquid Pipe	mm (inch)	Ø19.05 (3/4)
Connections for Heat	Low Pressure Gas Pipe	mm (inch)	Ø34.9 (1-3/8)
Recovery	High Pressure Gas Pipe	mm (inch)	Ø28.58 (1-1/8)
Pipe	Liquid Pipe	mm (inch)	Ø19.05 (3/4)
Connections for Heat Pump	Gas Pipe	mm (inch)	Ø34.9 (1-3/8)
Dimensions (W	•	mm x No.	(1,240 x 1,690 x 760) x 1 (930 x 1,690 x 760) x 1
Dimensions (W	x H x D) - Shipping	mm x No.	(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)
Shipping Weigh	ıt	kg x No.	(250 x 1) + (225 x 1)
Sound	Cooling	dB(A)	62.5
Pressure Level	Heating	dB(A)	63.5
Sound Power	Cooling	dB(A)	90.8
Level	Heating	dB(A)	94.5
Communication	Cable	mm <sup>2</sup> x No. (VCTF-SB)	1.0 ~ 1.5 x 2C
	Refrigerant Name		R410A
Refrigerant	Precharged Amount in Factory	kg	23.0
	t-CO <sub>2</sub> eq		48.0
	Control		Electronic Expansion Valv
Power Supply		Ø, V, Hz	3, 380-415, 50



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

	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)	kW	17.40	20.20	13.38	15.16
Input	Heating (Rated)	kW	15.89	15.99	11.77	13.70
	Heating (Max)	kW	18.80	19.15	14.18	16.52
EER			3.86	3.60	4.60	4.43
SEER			7.88	7.55	-	-
COP	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	-	-
Exterior	Color		Warm Gray / Dawn Gray	Warm Gray / Dawn Gray	Warm Gray / Dawn Gray	Warm Gray / Dawn Gray
LALEHIU	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
	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	W x No.	5,300 x 2	5,300 x 2	5,300 × 2	5,300 x 2
	Oil Type		FVC68D (PVE)	FVC68D (PVE)	FVC68D (PVE)	FVC68D (PVE)
	Oil Charge	CC	5,200	5,200	7,800	7,800
	Туре		Propeller fan	Propeller fan	Propeller fan	Propeller fan
	Motor Output x Number	W x No.	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)	m <sup>3</sup> /min x No.	320 x 1	320 x 1	(240 × 1) + (240 × 1)	(240 × 1) + (240 × 1)
	Drive		DC INVERTER	DC INVERTER	DC INVERTER	DC INVERTER
	Discharge	Side / Top	TOP	TOP	TOP	TOP
Pipe	Liquid Pipe	mm (inch)	Ø15.88 (5/8)	Ø19.05 (3/4)	Ø15.88 (5/8)	Ø15.88 (5/8)
Connections for Heat	Low Pressure Gas Pipe	mm (inch)	Ø34.9 (1-3/8)	Ø34.9 (1-3/8)	Ø28.58 (1-1/8)	Ø34.9 (1-3/8)
Recovery	High Pressure Gas Pipe	mm (inch)	Ø28.58 (1-1/8)	Ø28.58 (1-1/8)	Ø28.58 (1-1/8)	Ø28.58 (1-1/8)
Pipe	Liquid Pipe	mm (inch)	Ø15.88 (5/8)	Ø19.05 (3/4)	Ø15.88 (5/8)	Ø15.88 (5/8)
Connections for Heat Pump	Gas Pipe	mm (inch)	Ø34.9 (1-3/8)	Ø34.9 (1-3/8)	Ø28.58 (1-1/8)	Ø34.9 (1-3/8)
Dimensions (W		mm x No.	(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	mm x No.	(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	ht	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
Communicatior	n 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	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		Ø, V, Hz	3, 380-415, 50	3, 380-415, 50	3, 380-415, 50	3, 380-415, 50
	ximum Connectable Indo		39 (61)	42 (64)	35 (44)	39 (48)

1) Maximum numbers are prepared based on assumption that all 2.2kW indoor units are connected. The numbers in parentheses means maximum connectable indoor units in accordance with outdoor units combination (160% ~ 200%). The recommended ratio is 130%.

1) Maximum numbers are prepared based on assumption that all 2.2kW indoor units are connected. The numbers in parentheses means maximum connectable indoor units in accordance with outdoor units combination (160% - 200%). The recommended ratio is 130%.

multi v 5



28	30	32
ARUM280LTE5	ARUM300LTE5	ARUM320LTE5
ARUM160LTE5 ARUM120LTE5	ARUM180LTE5 ARUM120LTE5	ARUM200LTE5 ARUM120LTE5
78.4	84.0	89.6
78.4	84.0	89.6
88.2	94.5	100.8
18.47	18.49	20.35
17.13	16.97	19.05
20.65	20.20	22.95
4.24	4.54	4.40
-	-	-
4.58	4.95	4.70
4.27	4.68	4.39
 Warm Gray / Dawn Gray		- Warm Gray / Dawn Gray
RAL 7044 / RAL 7037	RAL 7044 / RAL 7037	RAL 7044 / RAL 7037
Wide Louver Plus / Black Fin	Wide Louver Plus / Black Fin	Wide Louver Plus / Black Fin
Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll
(Inverter) x 2	(Inverter) x 3	(Inverter) x 3
5,300 x 2	(5,300 x 2) + (4,200 x 1)	(5,300 x 2) + (4,200 x 1)
FVC68D (PVE)	FVC68D (PVE)	FVC68D (PVE)
7,800	9,100	9,100
Propeller fan	Propeller fan	Propeller fan
(900 × 2) + (1,200 × 1)	(900 x 2) + (1,200 x 1)	(900 x 2) + (1,200 x 1)
(320 x 1) + (240 x 1)	(320 x 1) + (240 x 1)	(320 x 1) + (240 x 1)
DC INVERTER	DC INVERTER	DC INVERTER
TOP	TOP	TOP
Ø19.05 (3/4)	Ø19.05 (3/4)	Ø19.05 (3/4)
Ø34.9 (1-3/8)	Ø34.9 (1-3/8)	Ø34.9 (1-3/8)
Ø28.58 (1-1/8)	Ø28.58 (1-1/8)	Ø28.58 (1-1/8)
Ø19.05 (3/4)	Ø19.05 (3/4)	Ø19.05 (3/4)
Ø34.9 (1-3/8)	Ø34.9 (1-3/8)	Ø34.9 (1-3/8)
(1,240 x 1,690 x 760) x 1 + (930 x 1,690 x 760) x 1 (1,280 x 1,825 x 796) x 1 + (960 x 1,825 x 796) x 1 +	(1,240 x 1,690 x 760) x 1 + (930 x 1,690 x 760) x 1 (1,280 x 1,825 x 796) x 1 + (060 x 1,825 x 796) x 1 +	(1,240 x 1,690 x 760) x 1 + (930 x 1,690 x 760) x 1 (1,280 x 1,825 x 796) x 1 + (060 x 1,825 x 796) x 1 +
(960 x 1,825 x 796) x 1 (237 x 1) + (215 x 1)	<u>(960 x 1,825 x 796) x 1</u> (300 x 1) + (215 x 1)	<u>(960 x 1,825 x 796) x 1</u> (300 x 1) + (215 x 1)
(250 x 1) + (225 x 1)	(312 x 1) + (225 x 1)	(312 x 1) + (225 x 1)
62.8	63.1	63.8
63.8	64.1	65.8
91.5	93.0	93.8
95.2	96.0	96.8
1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C
R410A	R410A	R410A
23.0	25.5	25.5
48.0	53.2	53.2
Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve
3, 380-415, 50	3, 380-415, 50	3, 380-415, 50
45 (56)	49 (60)	52 (64)

ARUM340LTE5 / ARUM360LTE5 ARUM380LTE5 / ARUM400LTE5



	HP		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			-	-	-	-	
	Rated Capacity		4.53	4.43	4.43	4.28	
COP	Max Capacity		4.28	4.14	4.15	4.00	
SCOP	1 7		-	-	-	-	
Exterior	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 Fir	
	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	W x No.	(5,300 × 2) + (4,200 × 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	CC	9,100	9,100	9,100	9,100	
	Туре		Propeller fan	Propeller fan	Propeller fan	Propeller fan	
	Motor Output x Number	W x No.	(900 x 2) + (1,200 x 1)	(900 x 2) + (1,200 x 1)	900 × 4	900 × 4	
Fan	Air Flow Rate (High)	m <sup>3</sup> /min x No.	(320 × 1) + (240 × 1)	(320 × 1) + (240 × 1)	320 x 2	320 x 2	
	Drive		DC INVERTER	DC INVERTER	DC INVERTER	DC INVERTER	
	Discharge	Side / Top	TOP	TOP	TOP	TOP	
Pipe	Liquid Pipe	mm (inch)	Ø19.05 (3/4)	Ø19.05 (3/4)	Ø19.05 (3/4)	Ø19.05 (3/4)	
Connections for Heat	Low Pressure Gas Pipe	mm (inch)	Ø34.9 (1-3/8)	Ø41.3 (1-5/8)	Ø41.3 (1-5/8)	Ø41.3 (1-5/8)	
Recovery	High Pressure Gas Pipe	mm (inch)	Ø28.58 (1-1/8)	Ø28.58 (1-1/8)	Ø34.9 (1-3/8)	Ø34.9 (1-3/8)	
Pipe	Liquid Pipe	mm (inch)	Ø19.05 (3/4)	Ø19.05 (3/4)	Ø19.05 (3/4)	Ø19.05 (3/4)	
Connections for Heat Pump	Gas Pipe	mm (inch)	Ø34.9 (1-3/8)	Ø41.3 (1-5/8)	Ø41.3 (1-5/8)	Ø41.3 (1-5/8)	
Dimensions (W	/ x H x D)	mm x No.	(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	mm x No.	(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	ht	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	n Cable	mm <sup>2</sup> x No. (VCTF-SB)	1.0 ~ 1.5 × 2C	1.0 ~ 1.5 × 2C	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 × 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		Ø, V, Hz	3, 380-415, 50	3, 380-415, 50	3, 380-415, 50	3, 380-415, 50	
NI	ximum Connectable Indo	oor Units 1)	55 (64)	58 (64)	61 (64)	64	

# **MULTI V 5**

#### ARUM420LTE5 / ARUM440LTE5 ARUM460LTE5 / ARUM480LTE5

	HP		42	44	46	48
	Combination Unit		ARUM420LTE5	ARUM440LTE5	ARUM460LTE5	ARUM480LTE5
Model Name	Independent Unit		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
Exterior	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 Fin	Wide Louver Plus / Black F
	Туре		Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scro
	Combination x No.		(Inverter) x 4	(Inverter) x 4	(Inverter) x 4	(Inverter) x 4
Compressor	Motor Output x Number	W x No.	(5,300 × 3) + (4,200 × 1)	(5,300 x 3) + (4,200 x 1)	(5,300 × 3) + (4,200 × 1)	5,300 x 4
	Oil Type		FVC68D (PVE)	FVC68D (PVE)	FVC68D (PVE)	FVC68D (PVE)
	Oil Charge	CC	10,400	10,400	10,400	10,400
	Type		Propeller fan	Propeller fan	Propeller fan	Propeller fan
	Motor Output x Number	W x No.	900 x 4	900 x 4	900 x 4	900 x 4
Fan	Air Flow Rate (High)	m <sup>3</sup> /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	ТОР	ТОР	ТОР	TOP
Pipe	Liquid Pipe	mm (inch)	Ø19.05 (3/4)	Ø19.05 (3/4)	Ø19.05 (3/4)	Ø19.05 (3/4)
Connections	Low Pressure Gas Pipe	mm (inch)	Ø41.3 (1-5/8)	Ø41.3 (1-5/8)	Ø41.3 (1-5/8)	Ø41.3 (1-5/8)
for Heat Recovery	High Pressure Gas Pipe	mm (inch)	Ø34.9 (1-3/8)	Ø34.9 (1-3/8)	Ø34.9 (1-3/8)	Ø34.9 (1-3/8)
Pipe	Liquid Pipe	mm (inch)	Ø19.05 (3/4)	Ø19.05 (3/4)	Ø19.05 (3/4)	Ø19.05 (3/4)
Connections for Heat Pump	Gas Pipe	mm (inch)	Ø41.3 (1-5/8)	Ø41.3 (1-5/8)	Ø41.3 (1-5/8)	Ø41.3 (1-5/8)
Dimensions (W		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 ×1,690 × 760) × 2
	/ 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
Net Weight	in the second se	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 Weigl	ht	kg x No.	(320 x 1) + (312 x 1)	(320 x 1) + (312 x 1)	(320 x 1) + (312 x 1)	320 x 2
Sound	Cooling	dB(A)	66.5	66.8	67.8	68.0
Sound Pressure Level		dB(A)	68.2	68.9	69.3	70.0
Sound Power	Cooling	dB(A)	96.8	97.1	97.1	98.0
Level	Heating	dB(A)	100.5	100.8	101.1	102.0
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	(1001-30)	R410A	R410A	R410A	R410A
Refrigerant	Precharged Amount in Factory	kg	33.0	33.0	33.0	34.0
Nenigerani	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 Valv
Power Supply		Ø, V, Hz	3, 380-415, 50	3, 380-415, 50	3, 380-415, 50	3, 380-415, 50
		, ,	,,	,,	,,	,





#### 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	145.6	151.2	156.8
Capacity	Heating (Rated)	kW	140	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	41.74
EER	-		4.16	4.06	4.21	4.15
SEER			-	-	-	-
~~~	Rated Capacity		4.54	4.41	4.6	4.49
СОР	Max Capacity		4.25	4.12	4.33	4.19
SCOP	· · ·		-	-	-	-
Futerier	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
	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	W x No.	5,300 x 4	5,300 × 4	(5,300 x 4) + (4,200 x 1)	(5,300 × 4) + (4,200 × 1)
	Oil Type		FVC68D (PVE)	FVC68D (PVE)	FVC68D (PVE)	FVC68D (PVE)
	Oil Charge	CC	13,000	13,000	14,300	14,300
	Туре		Propeller fan	Propeller fan	Propeller fan	Propeller fan
_	Motor Output x Number	W x No.	(900 × 4) + (1,200 × 1)	(900 × 4) + (1,200 × 1)	(900 × 4) + (1,200 × 1)	(900 x 4) + (1,200 x 1)
Fan	Air Flow Rate (High)	m <sup>3</sup> /min x No.	(320 × 2) + (240 × 1)	(320 × 2) + (240 × 1)	(320 × 2) + (240 × 1)	(320 × 2) + (240 × 1)
	Drive		DC INVERTER	DC INVERTER	DC INVERTER	DC INVERTER
	Discharge	Side / Top	ТОР	TOP	TOP	TOP
Pipe Connections	Liquid Pipe	mm (inch)	Ø19.05 (3/4)	Ø19.05 (3/4)	Ø19.05 (3/4)	Ø19.05 (3/4)
for Heat	Low Pressure Gas Pipe	mm (inch)	Ø41.3 (1-5/8)	Ø41.3 (1-5/8)	Ø41.3 (1-5/8)	Ø41.3 (1-5/8)
Recovery	High Pressure Gas Pipe	mm (inch)	Ø34.9 (1-3/8)	Ø34.9 (1-3/8)	Ø34.9 (1-3/8)	Ø34.9 (1-3/8)
Pipe Connections	Liquid Pipe	mm (inch)	Ø19.05 (3/4)	Ø19.05 (3/4)	Ø19.05 (3/4)	Ø19.05 (3/4)
for Heat Pump	Gas Pipe	mm (inch)	Ø41.3 (1-5/8)	Ø41.3 (1-5/8)	Ø41.3 (1-5/8)	Ø41.3 (1-5/8)
Dimensions (W	x H x D)	mm x No.	(1,240 x 1,690 x 760) x 2 + (930 x 1,690 x 760) x 1	(1,240 x 1,690 x 760) x 2 + (930 x 1,690 x 760) x 1	(1,240 x 1,690 x 760) x 2 + (930 x 1,690 x 760) x 1	(1,240 x 1,690 x 760) x 2 + (930 x 1,690 x 760) x 1
Dimensions (W	x H x D) - Shipping	mm x No.	$(1,280 \times 1,825 \times 796) \times 2 +$ $(960 \times 1,825 \times 796) \times 1$	$(1,280 \times 1,825 \times 796) \times 2 + (960 \times 1,825 \times 796) \times 1$	$\frac{(1,280 \times 1,825 \times 796) \times 2}{(960 \times 1,825 \times 796) \times 1}$	(1,280 x 1,825 x 796) x 2 + (960 x 1,825 x 796) x 1
Net Weight		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 Weigh	ıt	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)	x 1)
Sound	Cooling	dB(A)	67	67.1	67.2	67.4
Pressure Level		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
Communicatior		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	40	40	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		Ø, V, Hz	3, 380-415, 50	3, 380-415, 50	3, 380-415, 50	3, 380-415, 50
NI	kimum Connectable Indo	or Units <sup>1)</sup>	64	64	64	64

1) Maximum numbers are prepared based on assumption that all 2.2kW indoor units are connected. The numbers in parentheses means maximum connectable indoor units in accordance with outdoor units combination (160% ~ 200%). The recommended ratio is 130%.

# **MULTI V 5**

ARUM580LTE5 / ARUM600LTE5 ARUM620LTE5 / ARUM640LTE5 ARUM660LTE5



	HP		58	60	62	64	66
	Combination Unit		ARUM580LTE5	ARUM600LTE5	ARUM620LTE5	ARUM640LTE5	ARUM660LTE5
Model Name	Independent Unit		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
Input	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			-	-	-	-	-
	Rated Capacity		4.40	4.35	4.35	4.26	4.41
COP	Max Capacity		4.14	4.06	4.07	3.98	4.14
SCOP			-	-	-	-	-
	Color		Warm Gray / Dawn Gray	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	RAL 7044 / RAL 703
Heat Exchanger	Туре		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
	Туре		Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll
-	Combination x No.		(Inverter) x 5	(Inverter) x 5	(Inverter) x 5	(Inverter) x 5	(Inverter) x 6
Compressor	Motor Output x Number	W x No.	(5,300 × 4) + (4,200 × 1)	5,300 x 5	5,300 x 5	5,300 x 5	(5,300 x 5) + (4,200 x 1
-	Oil Type		FVC68D (PVE)	FVC68D (PVE)	FVC68D (PVE)	FVC68D (PVE)	FVC68D (PVE)
-	Oil Charge	CC	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	W x No.	(900 × 4) + (1,200 × 1)	(900 × 4) + (1,200 × 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
Pipe	Liquid Pipe	mm (inch)	Ø19.05 (3/4)	Ø19.05 (3/4)	Ø22.2 (7/8)	Ø22.2 (7/8)	Ø22.2 (7/8)
Connections for Heat	Low Pressure Gas Pipe	mm (inch)	Ø41.3 (1-5/8)	Ø41.3 (1-5/8)	Ø44.5 (1-3/4)	Ø44.5 (1-3/4)	Ø53.98 (2-1/8)
Recovery	High Pressure Gas Pipe	mm (inch)	Ø34.9 (1-3/8)	Ø34.9 (1-3/8)	Ø41.3 (1-5/8)	Ø41.3 (1-5/8)	Ø44.5 (1-3/4)
Pipe	Liquid Pipe	mm (inch)	Ø19.05 (3/4)	Ø19.05 (3/4)	Ø22.2 (7/8)	Ø22.2 (7/8)	Ø22.2 (7/8)
Connections for Heat Pump	Gas Pipe	mm (inch)	Ø41.3 (1-5/8)	Ø41.3 (1-5/8)	Ø44.5 (1-3/4)	Ø44.5 (1-3/4)	Ø53.98 (2-1/8)
Dimensions (W	x H x D)	mm x No.	(1,240 x 1,690 x 760) x 2 + (930 x 1,690 x 760) x 1	(1,240 x 1,690 x 760) x 2 + (930 x 1,690 x 760) x 1	(1,240 x1,690 x 760) x 3	(1,240 x1,690 x 760) x 3	(1,240 x1,690 x 760) x 3
Dimensions (W	x H x D) - Shipping	mm x No.	$(1,280 \times 1,825 \times 796) \times 2$ + $(960 \times 1,825 \times 796) \times 1$	(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) x 3
Net Weight		kg x No.	(310 x 1) + (300 x 1) + (215 x 1)	(310 x 2) + (215 x 1)	(310 × 2) + (237 × 1)	(310 x 2) + (237 x 1)	(310 × 2) + (300 × 1)
Shipping Weigh	t	kg x No.	(320 x 1) + (312 x 1) + (225 x 1)	(320 x 2) + (225 x 1)	(320 x 2) + (250 x 1)	(320 × 2) + (250 × 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
Level	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
Refrigerant	Precharged Amount in Factory	kg	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 Expansion Valve
Power Supply		Ø, V, Hz	3, 380-415, 50	3, 380-415, 50	3, 380-415, 50	3, 380-415, 50	3, 380-415, 50

1) Maximum numbers are prepared based on assumption that all 2.2kW indoor units are connected. The numbers in parentheses means maximum connectable indoor units in accordance with outdoor units combination (160% - 200%). The recommended ratio is 130%.

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ARUM680LTE5 / ARUM700LTE5 ARUM720LTE5 / ARUM740LTE5 ARUM760LTE5



	HP		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
Capacity	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
0	Max Capacity		4.05	4.01	3.95	4.15	4.06
SCOP			-	-	-	-	-
Exterior	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			
Heat Exchanger	Туре		Wide Louver Plus / Black Fin	Wide Louver Plus / Black Fin			
	Туре		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	W x No.	(5.300 x 5) + (4.200 x 1)	(5,300 × 5) + (4,200 × 1)	5,300 x 6	5,300 x 6	5,300 x 6
	Number		FVC68D (PVE)	FVC68D (PVE)	FVC68D (PVE)	FVC68D (PVE)	FVC68D (PVE)
	Oil Type Oil Charge	сс	15,600	15,600	15,600	18,200	18,200
	Туре		Propeller fan	Propeller fan	Propeller fan	Propeller fan	Propeller fan
	Motor Output x	W x No.	· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·	
Fan	Number		900 x 6	900 x 6	900 x 6		$(900 \times 6) + (1,200 \times 1)$
i dii	Air Flow Rate (High)	m <sup>3</sup> /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	Cide / Terr	DC INVERTER	DC INVERTER	DC INVERTER TOP	DC INVERTER TOP	DC INVERTER
Dino	Discharge	Side / Top	TOP	TOP	Ø22.2 (7/8)		TOP
Pipe Connections	Liquid Pipe	mm (inch)	Ø22.2 (7/8)	Ø22.2 (7/8)		Ø22.2 (7/8)	Ø22.2 (7/8)
for Heat	Low Pressure Gas Pipe		Ø53.98 (2-1/8)	Ø53.98 (2-1/8)		Ø53.98 (2-1/8)	Ø53.98 (2-1/8)
Recovery Pipe	High Pressure Gas Pipe Liquid Pipe	mm (inch)			Ø22.2 (7/8)		
Connections			Ø53.98 (2-1/8)	Ø53.98 (2-1/8)	Ø53.98 (2-1/8)	Ø53.98 (2-1/8)	Ø53.98 (2-1/8)
for Heat Pump	Gas Pipe	mm (inch)	UJJ.90 (Z-1/0)	WJJ.90 (Z-1/0)		(1.240 x 1.690 x 760) x 3	(1.240 x 1.690 x 760) x 3
Dimensions (W		mm x No.	(1,240 ×1,690 × 760) × 3	(1,240 ×1,690 × 760) × 3	(1,240 ×1,690 × 760) × 3	$(1,240 \times 1,090 \times 700) \times 3$ + $(930 \times 1,690 \times 760) \times 1$ $(1,280 \times 1,825 \times 796) \times 3$	$(1,240 \times 1,690 \times 760) \times 3$ + $(930 \times 1,690 \times 760) \times 1$ $(1,280 \times 1,825 \times 796) \times 3$
	x H x D) - Shipping	mm x No.	(1,280 × 1,825 × 796) × 3			$\frac{+(960 \times 1,825 \times 796) \times 1}{(310 \times 2) + (237 \times 1) +}$	$+(960 \times 1,825 \times 796) \times 1$ (310 x 2) + (237 x 1) +
Net Weight		kg x No.	(310 × 2) + (300 × 1)	(310 × 2) + (300 × 1)	310 x 3	$\frac{(215 \times 1)}{(320 \times 2) + (250 \times 1) +}$	(215 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		dB(A)	71.1	71.3	71.8	70.9	70.9
Sound Power	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	1 Cable	mm <sup>2</sup> x No. (VCTF-SB)	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 × 2C			
	Refrigerant Name		R410A	R410A	R410A	R410A	R410A
Refrigerant	Precharged Amount in Factory	kg	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	Electronic Expansion Valve	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, 380-415, 50	3, 380-415, 50
Number of Max	kimum Connectable Indo	oor Units 1)	64	64	64	64	64

1) Maximum numbers are prepared based on assumption that all 2.2kW indoor units are connected. The numbers in parentheses means maximum connectable indoor units in accordance with outdoor units combination (160% ~ 200%). The recommended ratio is 130%.

# **MULTI V 5**

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 ARUM20LTE5	ARUM240LTE5 ARUM240LTE5 ARUM220LTE5 ARUM220LTE5 ARUM120LTE5	ARUM240LTE5 ARUM240LTE5 ARUM240LTE5 ARUM240LTE5 ARUM120LTE5	ARUM240LTE5 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			-	-	-	-	-
	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 703
Heat Exchanger	Туре		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
	Туре		Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll
	Combination x No.		(Inverter) x 7	(Inverter) x 7	(Inverter) x 7	(Inverter) x 7	(Inverter) x 7
Compressor	Motor Output x Number	W x No.		(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	CC	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	W x No.	(900 × 6) + (1,200 × 1)	(900 × 6) + (1,200 × 1)	(900 x 6) + (1,200 x 1)	(900 x 6) + (1,200 x 1)	900 x 8
Fan	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 × 3) + (240 × 1)	320 x 4
	Drive		DC INVERTER	DC INVERTER	DC INVERTER	DC INVERTER	DC INVERTER
	Discharge	Side / Top	TOP	TOP	TOP	TOP	TOP
Pipe	Liquid Pipe	mm (inch)	Ø22.2 (7/8)	Ø22.2 (7/8)	Ø22.2 (7/8)	Ø22.2 (7/8)	Ø22.2 (7/8)
Connections for Heat	Low Pressure Gas Pipe	mm (inch)	Ø53.98 (2-1/8)	Ø53.98 (2-1/8)	Ø53.98 (2-1/8)	Ø53.98 (2-1/8)	Ø53.98 (2-1/8)
Recovery	High Pressure Gas Pipe	mm (inch)	Ø44.5 (1-3/4)	Ø44.5 (1-3/4)	Ø44.5 (1-3/4)	Ø44.5 (1-3/4)	Ø44.5 (1-3/4)
Pipe	Liquid Pipe	mm (inch)	Ø22.2 (7/8)	Ø22.2 (7/8)	Ø22.2 (7/8)	Ø22.2 (7/8)	Ø22.2 (7/8)
Connections for Heat Pump	Gas Pipe	mm (inch)	Ø53.98 (2-1/8)	Ø53.98 (2-1/8)	Ø53.98 (2-1/8)	Ø53.98 (2-1/8)	Ø53.98 (2-1/8)
Dimensions (W		mm x No.	(1,240 x 1,690 x 760) x 3 + (930 x 1,690 x 760) x 1	(1,240 x 1,690 x 760) x 3 + (930 x 1,690 x 760) x 1	(1,240 x 1,690 x 760) x 3 + (930 x 1,690 x 760) x 1	(1,240 x 1,690 x 760) x 3 + (930 x 1,690 x 760) x 1	(1,240 x1,690 x 760) x 4
Dimensions (W	x H x D) - Shipping	mm x No.	$(1,280 \times 1,825 \times 796) \times 3$ + $(960 \times 1,825 \times 796) \times 1$	$(1,280 \times 1,825 \times 796) \times 3$ + $(960 \times 1,825 \times 796) \times 1$	$(1,280 \times 1,825 \times 796) \times 3$ + $(960 \times 1,825 \times 796) \times 1$	(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
Net Weight		kg x No.	$\frac{(310 \times 2) + (300 \times 1) +}{(215 \times 1)}$ $\frac{(215 \times 1)}{(320 \times 2) + (312 \times 1) +}$	$\frac{(310 \times 2) + (300 \times 1) +}{(215 \times 1)}$ $\frac{(320 \times 2) + (312 \times 1) +}{(320 \times 2) + (312 \times 1) +}$	(215 x 1)	(310 x 3) + (215 x 1)	(310 x 3) + (237 x 1)
Shipping Weigh	nt	kg x No.	(320 x 2) + (312 x 1) + (225 x 1)	$(320 \times 2) + (312 \times 1) + (225 \times 1)$	$(320 \times 2) + (312 \times 1) + (225 \times 1)$	(320 x 3) + (225 x 1)	(320 x 3) + (250 x 1)
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
Communicatior	n 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
Refrigerant	Precharged Amount in Factory	kg	59.5	59.5	59.5	60.5	64.5
gerane	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	Electronic Expansion Valve	Electronic Expansion Valve
Power Supply		Ø, V, Hz	3, 380-415, 50	3, 380-415, 50	3, 380-415, 50	3, 380-415, 50	3, 380-415, 50
Number of May	kimum Connectable Indo	or Units 1)	64	64	64	64	64

1) Maximum numbers are prepared based on assumption that all 2.2kW indoor units are connected. The numbers in parentheses means maximum connectable indoor units in accordance with outdoor units combination (160% - 200%). The recommended ratio is 130%.



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 ARUM240LTE5 ARUM160LTE5	ARUM900LTES ARUM240LTE5 ARUM240LTE5 ARUM240LTE5 ARUM180LTE5	ARUM240LTE5 ARUM240LTE5 ARUM240LTE5 ARUM240LTE5 ARUM200LTE5	ARUM940LTES ARUM240LTE5 ARUM240LTE5 ARUM240LTE5 ARUM220LTE5	ARUM960LTES 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
Input	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
EER			3.91	3.99	3.96	3.88	3.86
SEER			-	-	_	-	-
	Rated Capacity		4.25	4.36	4.30	4.26	4.23
COP	Max Capacity		3.97	4.09	4.02	3.99	3.95
SCOP			-	-	-	-	-
<b>F</b>	Color		Warm Gray / Dawn Gray				
Exterior	RAL Code (Classic)		RAL 7044 / RAL 7037	RAL 7044 / RAL 703			
Heat Exchanger	Туре		Wide Louver Plus / Black Fin				
	Туре		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	W x No.	5,300 x 7		(5,300 × 7) + (4,200 × 1)	(5,300 × 7) + (4,200 × 1)	5,300 x 8
	Oil Type		FVC68D (PVE)				
	Oil Charge	сс	19,500	20,800	20,800	20,800	20,800
	Туре		Propeller fan				
	Motor Output x Number	W x No.	900 x 8				
Fan	Air Flow Rate (High)	m <sup>3</sup> /min x No.	320 x 4	320 x 4	320 x 4	320 × 4	320 x 4
	Drive		DC INVERTER				
	Discharge	Side / Top	TOP	ТОР	TOP	ТОР	TOP
Pipe Connections	Liquid Pipe	mm (inch)	Ø22.2 (7/8)				
for Heat	Low Pressure Gas Pipe	mm (inch)	Ø53.98 (2-1/8)				
Recovery	High Pressure Gas Pipe	mm (inch)	Ø44.5 (1-3/4)				
Pipe Connections	Liquid Pipe	mm (inch)	Ø22.2 (7/8)				
for Heat Pump	Gas Pipe	mm (inch)	Ø53.98 (2-1/8)				
Dimensions (W		mm x No.	(1,240 ×1,690 × 760) × 4	(1,240 ×1,690 × 760) × 4	(1,240 ×1,690 × 760) × 4	(1,240 ×1,690 × 760) × 4	(1,240 ×1,690 × 760) × 4
Dimensions (W	/ x H x D) - Shipping	mm x No.	(1,280 x 1,825 x 796) x 4	(1,280 x 1,825 x 796) x 4	(1,280 x 1,825 x 796) x 4	(1,280 × 1,825 × 796) × 4	(1,280 × 1,825 × 796) × 4
Net Weight		kg x No.	(310 x 3) + (237 x 1)	(310 x 3) + (300 x 1)	(310 × 3) + (300 × 1)	(310 × 3) + (300 × 1)	310 × 4
Shipping Weig	ht	kg x No.	(320 x 3) + (250 x 1)	(320 × 3) + (312 × 1)	(320 x 3) + (312 x 1)	(320 x 3) + (312 x 1)	320 × 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
Level	Heating	dB(A)	104.2	104.3	104.4	104.6	105.0
Communication	n Cable	mm <sup>2</sup> x No. (VCTF-SB)	1.0 ~ 1.5 x 2C				
	Refrigerant Name		R410A	R410A	R410A	R410A	R410A
Refrigerant	Precharged Amount in Factory	kg	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				
Power Supply		Ø, V, Hz	3, 380-415, 50	3, 380-415, 50	3, 380-415, 50	3, 380-415, 50	3, 380-415, 50
Number of Ma	ximum Connectable Indo	oor Units <sup>1)</sup>	64	64	64	64	64

OUTDOOR UNIT \_ MULTI V 5 \_ NOTE

## NOTE

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
- 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 Om.

#### 3. Wiring cable size must comply with the applicable local and national code.

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. 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)

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

7. This product contains Fluorinated greenhouse gases.

Maximum numbers are prepared based on assumption that all 2.2kW indoor units are connected. The numbers in parentheses means maximum connectable indoor units in accordance with outdoor units combination (160% ~ 200%). The recommended ratio is 130%.



4. Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard.



TOTAL PIPING LENGTH

-

- Air cooled VRF Heat pump & Heat Recovery

- 12.1 ~ 33.6kW (Cooling capacity based)
- Both 1Ø, 220 ~ 240V, 50Hz and 3Ø, 380 ~ 415V, 50Hz

- Side discharge outdoor unit

- Includes the industry's first single phase Heat Recovery system

Compact yet powerful VRF For premium residences and small offices

14 AGAS

**50m** Height Difference between ODU ~ IDU

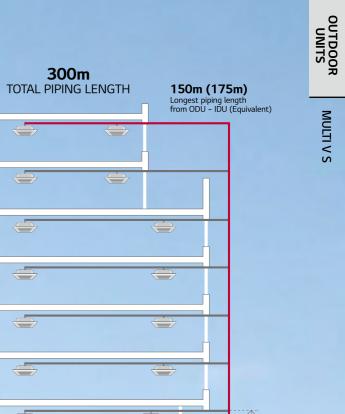


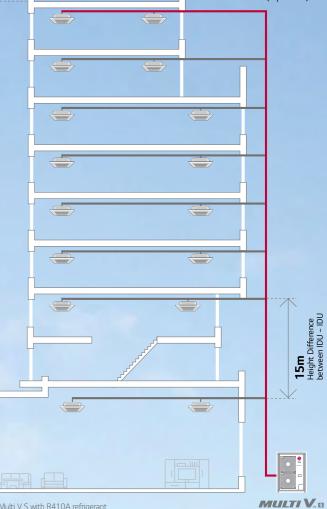






Convenience





% Only applies to Multi V S with R410A refrigerant

## How does it work? Available in Heat Pump and Heat Recovery Configurations Energy saving by heat recovery unit Combination of Cooling, Heating and Hot Water Solution INDOOR UNIT HYDRO KIT MULTI V S Heat Recovery % Heat Pump and Recovery are separated models.

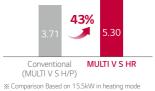
## **ENERGY SAVINGS**

#### EER / COP / Part Load

Cost savings with energy efficiency

#### Heat Pump





Heating Mode

5%

Heat Recovery

Cooling EER is 5% higher than conventional on average

\* Comparison Based on 15.5kW in cooling mode



Conventional MULTI V S HR (MULTI V S H/P)

Heating COP is 5% higher than

conventional on average.

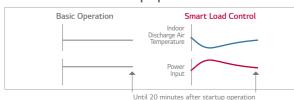
% Comparison Based on 15.5kW in heating mode

#### Smart Load Control Applied

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

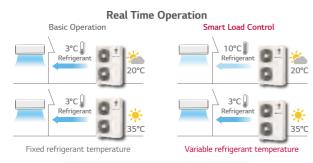
MULTI V S changes indoor discharge air temperature continuously according to load, to save energy.





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

Max 10% Energy saving



#### Max 13% Energy saving

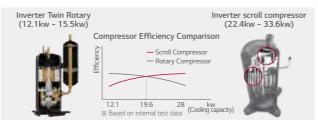
\* How to set up : By dip switch in outdoor unit (Referred to Product Data Book) Factory default setting is Off. \* ESEER (European seasonal energy efficiency Ratio) conditions based on 15.5kw unit

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

% Dual sensing (Temperature & humidity) smart load control is possible with Remote controller PTEMTB100 (White) /PREMTBB10 (Black)

#### **Inverter Twin Rotary &** Inverter Scroll Compressor

Adapted High Efficient Compressor according to Capacity



#### Inverter Twin Rotary

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

#### Twin Rotary Rotor

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

#### Surface Coating



#### Inverter scroll compressor

Best-in-class Compressor Speed

Rapid response capability

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

#### 6 Bypass Valve

Compressor reliability is maximized with 6 Bypass Valve Prevent compressor damage due to excessively compressed refrigerant r efficiently than 4 Bypass valve

#### Direct Oil Injection

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

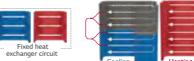
#### Scroll Profile

Efficiency increases by expanding 96% Bypass area and 17% improved volume ratio by nonuniform scroll thickness

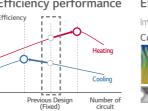
#### **Optimal Heat Exchanger**

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

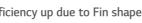
Variable Heat Exchanger Circuit intelligently selects the optimal path for both heating and cooling operations. With this smart path selection technology, an average of 6% increase in the efficiency of both operations has been achieved. The paths number and circuit velocity are adjusted to match temperatures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



#### Efficiency performance











## Efficiency up due to Fin shape



## RELIABILITY

#### **Reliable Refrigerant Components**

LG technology allows for superior performance and component durability

MULTI V S improved reliability with advanced technology - Oil separator Accumulator

## Smart Control

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

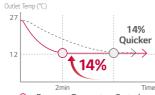
#### **Temperature + Pressure Control**

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



#### Quick Operating Response

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



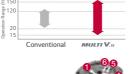
% Specifications may vary for each model.

#### O- Pressure +Temperature Control O— Temperature Control

## **Corrosion Resistance Black Fin**

Strong Durability against high salinity and heavily polluted air

Ocean Black Fin ensures continued operation of MULTI V S in highly corrosive environments like salt concentration in coastal towns or severe air pollution in industrial cities keeps. This improvement in durability prolongs the product's lifespan and lowers both the operational and maintenance costs.



- The enhanced reliability by Increased reliability with regulated oil supply.



- Sub-cooling





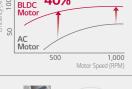
- The BLDC Fan motor is more efficient than a conventional AC motor, offering an additional 40% energy savings at low speeds and 20% at high speeds

#### 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)

 $\rightarrow$  Reduction of indoor refrigerant noise level

\* Based on equivalent pipe length





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

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

#### Certified protection



- ※ Verification of corrosion resistance performance Declared by TUV Rheinland
- Test Method B of ISO21207
- Test condition: Salt contaminated condition + severe industrial/traffic
  - environment(NO2/SO2)

#### 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. Acryl + Epoxy + Melamine resin (Corrosion resistant) The Black coating provides strong protection from corrosion. Aluminum fin

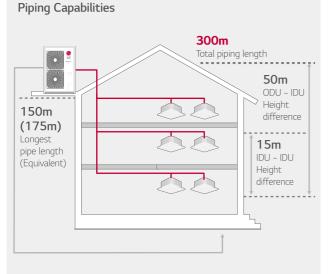
#### OUTDOOR UNIT \_ MULTI V S \_ TECHNICAL DATA

## **IMPROVED USER CONVENIENCE**

#### Sufficient Piping Length

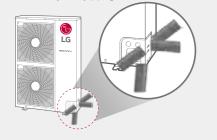
Increased piping length allows for flexible design and installation

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



4 Way Piping

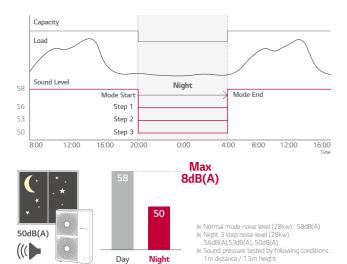
- Free design and installation by 4 way piping.



#### Low Noise Operation

Decreased noise during operation with low noise functionality

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



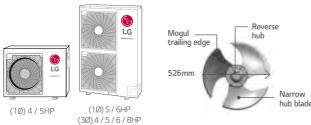
#### Fan Technology and RPM Control

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

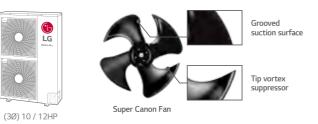
For enhanced efficiency, new axial fan boasts higher air volume, increased static pressure and decreased noise.

#### Fan Technology

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



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



#### Fan RPM control

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





- New shroud adopted - Performs high static pressure

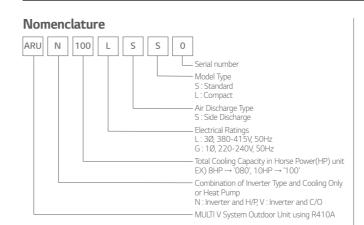
## Upgraded Fault Detection and Diagnosis

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

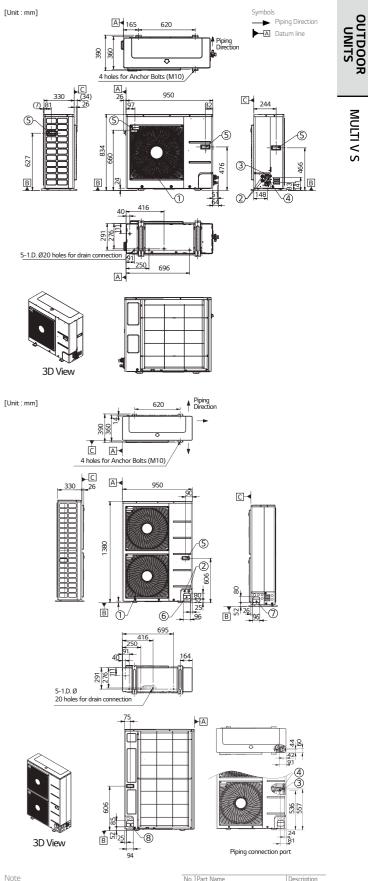




#### **Outdoor Units Function**

Category	Functions	MULTI V S
	Variable Path of Outdoor Unit HEX	-
	HiPOR™ (High Pressure Oil Return)	-
Key Refrigerant Components	Humidity Sensor	ARUB060GSS4 only
Componentes	Corrosion Resistance 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 Dust Removal of Outdoor Unit	-
Special Function	(Fan reverse rotation) Indoor Cooling Comfort Mode Based	
	Outdoor Temperature	0
	Smart Load Control (SLC) (Changing indoor discharge air	0
	temperature according to load)	
	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
Distribution Indicator)	Premium	PQNUD1S40
Cool / Heat Selector	,	PRDSBM
Cycle Monitoring	LGMV	PRCTILO
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	-

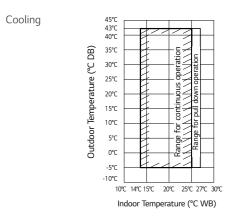
※ O : Applied, - : Not Applied

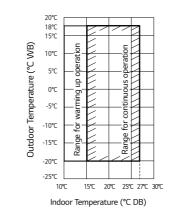


- Unit should be installed in compliance with the installation manual in the product box.
- 2. Unit should be grounded in accordance with the local regulation or applicable national codes.
- All electrical components and materials to be supplied from the site must comply with the local regulations or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

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

#### Heat Pump





20° 18°

15°

0°0

-5°I

-10°C

-15%

-25°C

20°C

16℃ 15℃

10°C

5°C

0°C

-5°(

-10°C

NB)

υ

ē -20°0

Simultaneous Heating

ō

10°C 15°C 20°C 25°C 27°C 30°C

Indoor Temperature (°C DB)

10°C 15°C 20°C 25°C 30°C

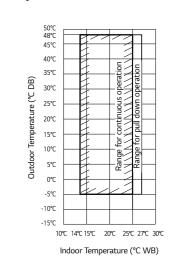
Indoor Temperature (°C DB)

Heating

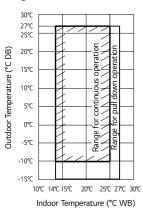
Heating

#### Heat Recovery

Cooling



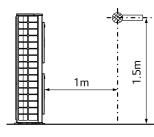
Simultaneous Cooling



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



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



## **MULTI V S** HEAT PUMP

ARUN040GSS0 / ARUN050GSL0



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

	HP		4	5
Model Name			ARUN040GSS0	ARUN050GSL0
· · · · ·	Cooling (Rated)	kW	12.1	14.0
Capacity	Heating (Rated)	kW	12.5	15.0
	Cooling (Rated)	kW	3.78	4.38
nput	Heating (Rated)	kW	2.10	2.65
EER			3.20	3.20
SEER			5.98	6.60
СОР	Rated Capacity		5.9	5.7
SCOP			5.15	4.96
	Color (General)		Warm Gray	Warm Gray
Exterior	RAL Code (Classic)		RAL 7044	RAL 7044
Heat Exchanger	Туре		Wide Louver Plus / Black Fin	Wide Louver Plus / Black Fin
	Туре		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 × 1	4,000 × 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	W x No.	124 x 1	124 x 1
Fan	Air Flow Rate (High)	m <sup>3</sup> /min x No.	60 x 1	60 x 1
	Drive		DC INVERTER	DC INVERTER
	Discharge	Side / Top	Side	Side
Pipe	Liquid Pipe	mm (inch)	Ø9.52 (3/8)	Ø9.52 (3/8)
Connection	Gas Pipe	mm (inch)	Ø15.88 (5/8)	Ø15.88 (5/8)
Dimensions (	W x H x D)	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 Wei	ght	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	Cooling	dB(A)	72.0	72.0
Power Level	Heating	dB(A)	76.0	75.0
Communicati		mm <sup>2</sup> 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
Power Supply	/	Ø, V, Hz	1, 220-240, 50	1, 220-240, 50
Number of M	aximum Connectable Ind	oorUnits	8	8*

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

Note

- Note

  Eurovent Test Condition 'Type of indoor unit connected is only Ceiling Concealed Duct.

  Refer to EUROVENT certification regulation for more detail test conditions.
  Refer to EUROVENT website for test values connected Ceiling Cassette type indoors.

  Performances are based on the following conditions:

  Cooling Temperature : Indoor 27°C (80.6°F) DB / 19°C (66.2°F) WB / Outdoor 35°C (95°F) DB / 24°C (75.2°F) WB
  Heating Temperature : Indoor 20°C (68°F) DB / 15°C (59°F) WB / Outdoor 7°C (44.6°F) DB / 6°C (42.8°F) WB

  The maximum combination ratio is 160%. (the maximum combination ratio of ARUN050GSL0 is 130%.)
  Wiring cable size must comply with the applicable local and national codes.
  Sourd pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard. Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard. Therefore, these values can be increased owing to ambient conditions during operation.
  Power factor could vary less than ±1% according to the operating conditions.
  This product contains Fluorinated greenhouse gases. (R410A, GWP(Global warming potential) = 2087.5)





## **MULTI V S** HEAT PUMP

#### ARUN050GSS0 / ARUN060GSS0





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

	HP		5	6
Model Name			ARUN050GSS0	ARUN060GSS0
<b>.</b>	Cooling (Rated)	kW	14.0	15.5
Capacity	Heating (Rated)	kW	16.0	18.0
	Cooling (Rated)	kW	3.33	3.97
nput	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
Exterior	RAL Code (Classic)		RAL 7044	RAL 7044
Heat Exchanger	Туре		Wide Louver Plus / Black Fin	Wide Louver Plus / Black Fin
	Туре		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 × 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	W x No.	124 x 2	124 x 2
Fan	Air Flow Rate (High)	m <sup>3</sup> /min x No.	110 x 1	110 x 1
	Drive		DC INVERTER	DC INVERTER
	Discharge	Side / Top	Side	Side
Pipe	Liquid Pipe	mm (inch)	Ø9.52 (3/8)	Ø9.52 (3/8)
Connection	Gas Pipe	mm (inch)	Ø15.88 (5/8)	Ø19.05 (3/4)
Dimensions (		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 × 1,462 × 461) × 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	Heating	dB(A)	53.0	54.0
Sound	Cooling	dB(A)	72.0	72.0
Power Level		dB(A)	76.0	77.0
Communicati		mm <sup>2</sup> x No. (VCTF-SB)	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C
	Refrigerant Name		R410A	
Dofrigorort	Precharged Amount in factory	kg	3.0	3.0
Refrigerant	t-CO <sub>2</sub> eq		6.3	6.3
	Control		Electronic Expansion Valve	Electronic Expansion Valve
Power Supply		Ø, V, Hz	1, 220-240, 50	1, 220-240, 50
	7	~, .,	1,220 210,00	1,220 210,00

Note

- Note
  1. Eurovent Test Condition : Type of indoor unit connected is only Ceiling Concealed Duct.

  Refer to EUROVENT certification regulation for more detail test conditions.
  Refer to EUROVENT website for test values connected Ceiling Cassette type indoors.

  2. Performances are based on the following conditions :

  Cooling Temperature : Indoor 27°C (80.6°F) DB / 19°C (66.2°F) WB / Outdoor 35°C (95°F) DB / 24°C (75.2°F) WB
  Heating Temperature : Indoor 20°C (68°F) DB / 15°C (59°F) WB / Outdoor 7°C (44.6°F) DB / 6°C (42.8°F) WB

  3. The maximum combination ratio is 160%. (the maximum combination ratio of ARUN050GSL0 is 130%.)
  4. Wiring cable size must comply with the applicable local and national codes.
  5. Due to our policy of innovation some specifications may be changed without notification.
  6. Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard. Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard. Therefore, these values can be increased owing to ambient conditions during operation.
  7. Power factor could vary less than ±1% according to the operating conditions.
  8. This product contains Fluorinated greenhouse gases. (R410A, GWP(Global warming potential) = 2087.5)

## **MULTI V S** HEAT PUMP

ARUN040LSS0 / ARUN050LSS0 ARUN060LSS0



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

	HP		4	5	6
Model Name			ARUN040LSS0	ARUN050LSS0	ARUN060LSS0
Capacity	Cooling (Rated)	kW	12.1	14.0	15.5
Lapacity	Heating (Rated)	kW	12.5	16.0	18.0
	Cooling (Rated)	kW	2.37	3.33	3.97
nput	Heating (Rated)	kW	1.93	2.77	3.40
EER			5.10	4.20	3.90
SEER			6.46	6.56	6.65
СОР	Rated Capacity		6.49	5.77	5.30
SCOP			5.02	5.23	5.19
Exterior	Color (General)		Warm Gray	Warm Gray	Warm Gray
Exterior	RAL Code (Classic)		RAL 7044	RAL 7044	RAL 7044
Heat Exchanger	Туре		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
Compressor	Motor Output x Number	W x No.	4,000 x 1	4,000 × 1	4,000 × 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 × 2
Fan	Air Flow Rate (High)	m³/min x No.	110 x 1	110 x 1	110 × 1
	Drive		DC INVERTER	DC INVERTER	DC INVERTER
	Discharge	Side / Top	Side	Side	Side
Pipe	Liquid Pipe	mm (inch)	Ø9.52 (3/8)	Ø9.52 (3/8)	Ø9.52 (3/8)
Connection	Gas Pipe	mm (inch)	Ø15.88 (5/8)	Ø15.88 (5/8)	Ø19.05 (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	(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	(1,140 x 1,462 x 461) x 1
Net Weight		kg x No.	96 x 1	96 x 1	96 x 1
Shipping Wei	ght	kg x No.	108 x 1	106 x 1	106 x 1
Sound	Cooling	dB(A)	50.0	51.0	52.0
Pressure Level	Heating	dB(A)	52.0	53.0	54.0
Sound	Cooling	dB(A)	72.0	72.0	72.0
Power Level	Heating	dB(A)	76.0	76.0	77.0
Communicati	5	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	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
Power Supply	/	Ø, V, Hz	3, 380-415, 50	3, 380-415, 50	3, 380-415, 50
Number of M	laximum Connectable Ind	oor Unite	8	10	13

Note

- 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 / 19°C (56.2°F) WB / Outdoor 7°C (44.6°F) DB / 6°C (42.8°F) WB

   3. The maximum combination ratio is 160%. (the maximum combination ratio of ARUN050GSL0 is 130%.)

   4. Wiring cable size must comply with the applicable local and national codes.

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

   6. Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard. Sound power level is measured on the rated condition in the anechoic rooms by ISO 3745 standard. Sound power 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 anechoic rooms by ISO 3745 standard. Therefore, these values can be increased

- Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard. Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard. Therefore, these values can be increased owing to ambient conditions during operation.
   Power factor could vary less than ±1% according to the operating conditions.
   This product contains Fluorinated greenhouse gases. (R410A, GWP(Global warming potential) = 2087.5)



## **MULTI V S** HEAT PUMP

ARUN080LSS0 / ARUN100LSS0 ARUN120LSS0



EUROVENT	LG part
	VRF pro
www.surgvent-certification.com	: www.e

rticipates in the ECP programme for EUROVENT rogram. Check ongoing validity of certification eurovent-certification.com

	HP		8	10	12
Model Name			ARUN080LSS0	ARUN100LSS0	ARUN120LSS0
Capacity	Cooling (Rated)	kW	22.4	28.0	33.6
Capacity	Heating (Rated)	kW	24.5	30.6	36.7
lamut	Cooling (Rated)	kW	8.30	8.75	14.00
Input	Heating (Rated)	kW	6.62	8.12	7.46
EER			2.70	3.20	2.40
SEER			6.03	6.59	5.72
СОР	Rated Capacity		3.70	3.77	4.92
SCOP			4.33	4.17	3.86
Exterior	Color (General)		Warm Gray	Warm Gray	Warm Gray
Exterior	RAL Code (Classic), Gene	ral	RAL 7044	RAL 7044	RAL 7044
Heat Exchanger	Туре		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 × 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)	m <sup>3</sup> /min x No.	140 x 1	190 x 1	190 x 1
	Drive		DC INVERTER	DC INVERTER	DC INVERTER
	Discharge	Side / Top	Side	Side	Side
Pipe	Liquid Pipe	mm (inch)	Ø9.52 (3/8)	Ø9.52 (3/8)	Ø12.7 (1/2)
Connection	Gas Pipe	mm (inch)	Ø19.05 (3/4)	Ø22.2 (7/8)	Ø28.58 (1-1/8)
Dimensions (	W x H x D)	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
Dimensions (	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		kg x No.	115 x 1	144 x 1	157 x 1
Shipping Wei	ght	kg x No.	127 x 1	160 x 1	173 x 1
Sound	Cooling	dB(A)	57.0	58.0	60.0
Pressure Level	Heating	dB(A)	57.0	58.0	60.0
Sound	Cooling	dB(A)	81.0	80.0	81.0
Power Level	Heating	dB(A)	84.0	84.0	85.0
Communicati	on 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	kg	3.5	4.5	6.0
<b>,</b>	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
Number of N	aximum Connectable Ind	or Units	13	16	20

Note

- Note

  Eurovent Test Condition : Type of indoor unit connected is only Ceiling Concealed Duct.

  Refer to EUROVENT certification regulation for more detail test conditions.
  Refer to EUROVENT website for test values connected Ceiling Cassette type indoors.

  Performances are based on the following conditions:

  Cooling Temperature : Indoor 27°C (80.6°F) DB / 19°C (66.2°F) WB / Outdoor 35°C (95°F) DB / 24°C (75.2°F) WB
  Heating Temperature : Indoor 27°C (68.0°F) DB / 19°C (66.2°F) WB / Outdoor 7°C (44.6°F) DB / 6°C (42.8°F) WB

  The maximum combination ratio is 160%. (the maximum combination ratio of ARUN050GSL0 is 130%.)
  Wiring cable size must comply with the applicable local and national codes.
  Sourd 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 3745 standard. Sound power level is measured on the rated condition in the operation conditions.
  Power factor could vary less than ±1% according to the operating conditions.
  This product contains Fluorinated greenhouse gases. (R410A, GWP(Global warming potential) = 2087.5)

## **MULTI V S** HEAT RECOVERY

ARUB060GSS4



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

	HP		6
Model Name			ARUB060GSS4
	Cooling (Rated)	kW	15.5
Capacity	Heating (Rated)	kW	18.0
	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
	Color		Warm Gray
Exterior	RAL Code (Classic)		
Heat Exchanger	Туре		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	CC	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)	Ø9.52 (3/8)
Connection	Low Pressure Gas Pipe	mm (inch)	Ø19.05 (3/4)
#1	High Pressure Gas Pipe	mm (inch)	Ø15.88 (5/8)
Dimensions (	W x H x D)	mm x No.	(950 x 1,380 x 330) x 1
Dimensions (	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	ight	kg x No.	132 x 1
Sound	Cooling	dB(A)	56.0
Pressure Level	Heating	dB(A)	58.0
Sound	Cooling	dB(A)	76.0
Power Level	Heating	dB(A)	78.0
Communicati		mm <sup>2</sup> x No. (VCTF-SB)	1.0 ~ 1.5 x 2C
	Refrigerant Name	/	R410A
Refrigerant	Precharged Amount in factory	kg	3.5
	t-CO <sub>2</sub> eq		7.3
	Control		Electronic Expansion Valve
Power Supply	у	Ø, V, Hz	1, 220-240, 50
Number of M	Iaximum Connectable Ind	oor Units	13

Note

- 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 / 19°C (56.2°F) WB / Outdoor 7°C (44.6°F) DB / 6°C (42.8°F) WB

   3. The maximum combination ratio is 160%. (the maximum combination ratio of ARUN050GSL0 is 130%.)

   4. Wiring cable size must comply with the applicable local and national codes.

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

   6. Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard. Sound power level is measured on the rated condition in the anechoic rooms by ISO 3745 standard. Sound power 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 anechoic rooms by ISO 3745 standard. Therefore, these values can be increased

- Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard. Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard. Therefore, these values can be increased owing to ambient conditions during operation.
   Power factor could vary less than ±1% according to the operating conditions.
   This product contains Fluorinated greenhouse gases. (R410A, GWP(Global warming potential) = 2087.5)



## **MULTI V S**

## **Energy Savings**

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

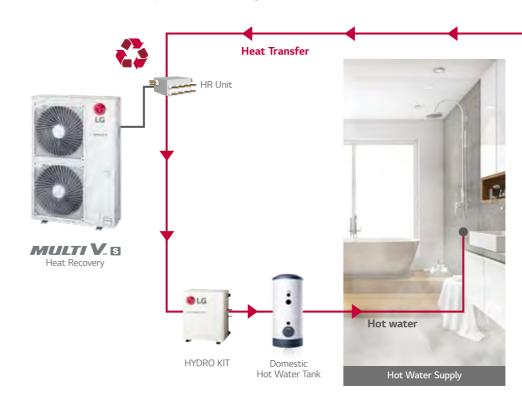


Energy consumption can be reduced as indoor heat is absorbed and transferred to hot water supply.



#### MULTI V S Heat Recovery with HYDRO KIT

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









## WHY R32 REFRIGERANT?

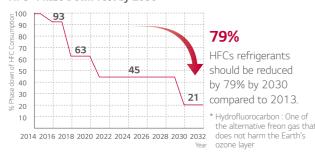
## Low global warming potential (GWP)

#### What is GWP?

Global warming potential is a measure that allows for an accurate comparison of the environmental impact of different gases. GWP measures how much energy the emission of 1 ton of a gas will absorb over a given period of time, relative to the emissions of 1 ton of carbon dioxide  $(CO_2)$ .



#### Global Trend and EU Regulation for F-Gas HFC\* Phase Down 79% by 2030



## Cost Savings with R32

**Higher Efficiency** Savings on cost of energy consumption.



Reduced Equipment Sizes

Savings on product purcahse and

labor cost for installation and

maintenance

#### Savings on cost of injecting & replacing refrigerant

Less Refrigerant Charge



#### **Reduced Refrigerant Volume** Savings on refrigerant purchase and recycling costs.



## WHY MULTI V S R32?

## **Higher Efficiency**

LG Multi V S achieved high efficiency through technology of biomimetic fan and revolutionary



% The values based on 5HP model

## **Compact Size & Light Weight**

Its compact size and light weight make it easy to install and optimize space. (5/6HP)



## Less Refrigerant Charge

LG reduced refrigerant charge by applying environment-friendly refrigerant R32.





Total amount : 4.3 kg 23%

Previous New % IDU (Wall Mounted Unit): 5 kBtu/h, 8 EA % This result can be different depending on actual envi

## **Corrosion Resistance Black Fin**

The black coating with enhanced epoxy resin is applied for strong protection from various corrosive external conditions.



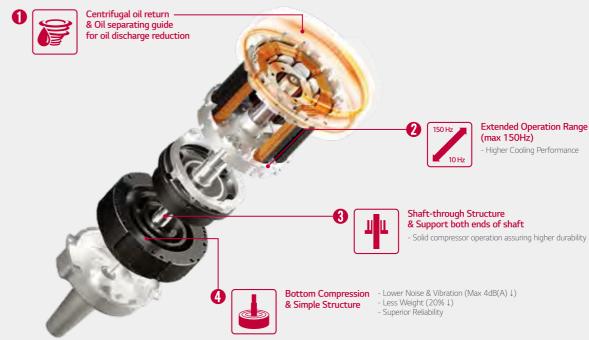
Hydrophilic film (Water flow) he Hydrophilic coating minimizes moisture buildup on the fin.

Acryl + Epoxy + Melamine resin (Corrosion resistant) he Black coating provides strong protection from corrosion. Aluminum fin

## INNOVATIVE TECHNOLOGIES

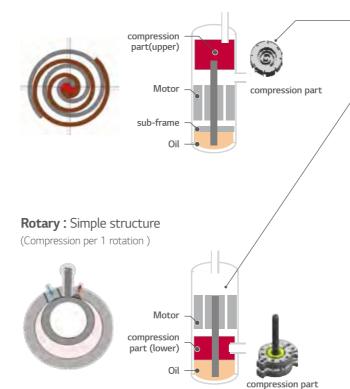
#### **R1**Compressor<sup>™</sup>

R1 Compressor is one that combines high-efficiency, low sound characteristics of the scroll and the simple compressing structure of the rotary compressor. This technology enables a highly efficient compact model.



#### **Conventional Compressor**

Scroll : High efficiency / Low sound (Continuous compression, but complex structure)





OUTDOOR UNITS

MULTI V S

R32

#### **R1**Compressor<sup>™</sup>

**Revolutionary Scroll :** High efficiency / Stable & Simple Structure

#### Hybrid Scroll Shape

(LG patent)\* \* Patent registration number (S.Korea : 10-1059880, USA RE46106)

#### Motor

#### Compression parts (upper $\rightarrow$ lower)

Scroll penetrated by shaft  $\rightarrow$  remove tilting moment

#### Simple structure : without sub-frame Oil feeding structure better

than previous scroll

Oil

Extended operation (Max 150Hz) Low noise & Vibration (Max 4dB(A)↓) Less weight (20%↓)

**Compact model** 

(Size 40%↓, Weight 25%↓)



## MULTI V S HEAT PUMP R32

ZRUN040GSS0 / ZRUN050GSS0 ZRUN060GSS0





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

	HP		4	5	6
Model Name			ZRUN040GSS0	ZRUN050GSS0	ZRUN060GSS0
	Cooling (Rated)	kW	12.1	14.0	15.5
Capacity	Heating (Rated)	kW	12.1	14.0	15.5
	Heating (Max)	kW	14.2	16.0	18.0
	Cooling (Rated)	kW	3.43	3.33	3.97
Input	Heating (Rated)	kW	2.30	2.72	3.23
	Heating (Max)	kW	2.93	3.48	4.29
EER (Rated)			3.53	4.20	3.90
SEER			8.10	8.70	8.50
COP (Rated)			5.26	5.15	4.80
COP (Max)			4.84	4.60	4.20
SCOP			4.70	4.80	5.00
	Color		Warm Gray	Warm Gray	Warm Gray
Exterior	RAL Code		RAL 7044	RAL 7044	RAL 7044
Heat Exchanger		Wide Louver Plus / Black Fin	Wide Louver Plus / Black Fin	Wide Louver Plus / Black Fin	
	Туре		LG Inverter Scroll (R1)	LG Inverter Scroll (R1)	LG Inverter Scroll (R1)
	Combination x No.		(Inverter) x 1	(Inverter) x 1	(Inverter) x 1
Compressor	Motor Output x Numbe	er W x No.	3,198 x 1	3,198 x 1	3,198 x 1
	Oil Type		FW68D	FW68D	FW68D
	Oil Charge	сс	1,100	1,100	1,100
	Туре		Axial Flow Fan	Axial Flow Fan	Axial Flow Fan
	Motor Output x Numbe	er W x No.	124 x 1	200 × 1	200 x 1
Fan	Air Flow Rate (High)	m³/min x No.	60 x 1	80 x 1	80 x 1
	Drive		DC INVERTER	DC INVERTER	DC INVERTER
	Discharge	Side / Top	Side	Side	Side
Pipe	Liquid Pipe	mm (inch)	Ø9.52 (3/8)	Ø9.52 (3/8)	Ø9.52 (3/8)
Connection	Gas Pipe	mm (inch)	Ø15.88 (5/8)	Ø15.88 (5/8)	Ø19.05 (3/4)
Dimensions (W	x H x D)	mm x No.	(950 × 834 × 330) × 1	(950 × 834 × 330) × 1	(950 × 834 × 330) × 1
Dimensions (W	x H x D) - Shipping	mm x No.	(1,147 x 919 x 461) x 1	(1,147 x 919 x 461) x 1	(1,147 x 919 x 461) x 1
Net Weight		kg x No.	64.7 × 1	71.6 x 1	71.6 x 1
Shipping Weigh	t	kg x No.	73.7 x 1	79.6 x 1	79.6 x 1
Sound Pressure	Cooling	dB(A)	50	51	52
Level	Heating	dB(A)	52	53	54
Sound Power	Cooling	dB(A)	67	70	71
Level	Heating	dB(A)	71	74	75
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
	Refigerant name	<u> </u>	R32	R32	R32
D-6	Precharged Amount	kg	1.5	2.0	2.0
Refigerant	t-CO2eq		1.01	1.35	1.35
	Control		Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve
Power Supply		Ø, V, Hz	1, 220-240, 50	1, 220-240, 50	1, 220-240, 50
	mum connectable indoor		8	10	13

#### 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. 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.

- 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 is 7.5m and difference of Elevation (Outdoor Indoor Unit) is 0m.
- 5. EUROVENT Test Condition :
- Performance values on the this PDB are based on Ceiling mounted cassette combination. Refer to EUROVENT web site(www.eurovent-certification.com) for other indoor unit combination
- and more detail test conditions.
- 6. The maximum combination ratio is 160%.7. This product contains Fluorinated greenhouse gases.

## MULTI V S HEAT PUMP R32

ZRUN040LSS0 / ZRUN050LSS0 ZRUN060LSS0

Available from June 2020



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

	HP		4	5	6
Model Name			ZRUN040LSS0	ZRUN050LSS0	ZRUN060LSS0
	Cooling (Rated)	kW	12.1	14.0	15.5
Capacity	Heating (Rated)	kW	12.1	14.0	15.5
	Heating (Max)	kW	14.2	16.0	18.0
	Cooling (Rated)	kW	3.43	3.33	3.97
Input	Heating (Rated)	kW	2.30	2.72	3.23
	Heating (Max)	kW	2.93	3.48	4.29
EER (Rated)			3.53	4.20	3.90
SEER			8.10	8.70	8.50
COP (Rated)			5.26	5.15	4.80
COP (Max)			4.84	4.60	4.20
SCOP			4.70	4.80	5.00
Enterier	Color		Warm Gray	Warm Gray	Warm Gray
Exterior	RAL Code		RAL 7044	RAL 7044	RAL 7044
Heat Exchange	r		Wide Louver Plus / Black Fin	Wide Louver Plus / Black Fin	Wide Louver Plus / Black Fir
	Туре		LG Inverter Scroll (R1)	LG Inverter Scroll (R1)	LG Inverter Scroll (R1)
Compressor	Combination x No.		(Inverter) x 1	(Inverter) x 1	(Inverter) x 1
	Motor Output x Number	W x No.	3,198 x 1	3,198 x 1	3,198 x 1
	Oil Type		FW68D	FW68D	FW68D
	Oil Charge	сс	1,100	1,100	1,100
	Туре		Axial Flow Fan	Axial Flow Fan	Axial Flow Fan
	Motor Output x Number	W x No.	124 x 1	200 x 1	200 x 1
Fan	Air Flow Rate (High)	m³/min x No.	60 x 1	80 x 1	80 x 1
	Drive		DC INVERTER	DC INVERTER	DC INVERTER
	Discharge	Side / Top	Side	Side	Side
Pipe	Liquid Pipe	mm (inch)	Ø9.52 (3/8)	Ø9.52 (3/8)	Ø9.52 (3/8)
Connection	Gas Pipe	mm (inch)	Ø15.88 (5/8)	Ø15.88 (5/8)	Ø19.05 (3/4)
Dimensions (W	/ x H x D)	mm x No.	(950 × 834 × 330) × 1	(950 × 834 × 330) × 1	(950 × 834 × 330) × 1
Dimensions (W	/ x H x D) - Shipping	mm x No.	(1,147 x 919 x 461) x 1	(1,147 x 919 x 461) x 1	(1,147 x 919 x 461) x 1
Net Weight		kg x No.	64.7 × 1	71.6 x 1	71.6 × 1
Shipping Weigh	ht	kg x No.	73.7 × 1	79.6 × 1	79.6 × 1
Sound Pressure	e Cooling	dB(A)	50	51	52
Level	Heating	dB(A)	52	53	54
Sound Power	Cooling	dB(A)	67	70	71
Level	Heating	dB(A)	71	74	75
Communication	1 Cable	mm <sup>2</sup> x No. (VCTF-SB)	1.0 ~ 1.5 × 2C	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C
	Refigerant name		R32	R32	R32
	Precharged Amount	kg	1.5	2.0	2.0
Refigerant	t-CO <sub>2</sub> eq		1.01	1.35	1.35
	Control		Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve
Power Supply		Ø, V, Hz	3, 380-415, 50	3, 380-415, 50	3, 380-415, 50
Number of max	kmum connectable indoor i	unite	8	10	13

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.

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   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 is 7.5m and difference of Elevation (Outdoor Indoor Unit) is 0m.
- 5. EUROVENT Test Condition :
- Performance values on the this PDB are based on Ceiling mounted cassette combination. • Refer to EUROVENT web site(www.eurovent-certification.com) for other indoor unit combination and more detail test conditions.
- 6. The maximum combination ratio is 160%.
- 7. This product contains Fluorinated greenhouse gases."



- Air Cooled VRF Heat Pump

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

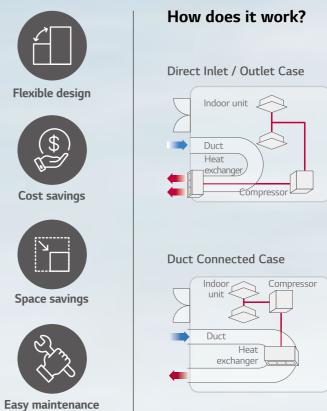
70m Longest piping length from Compressor Module to Indoor unit

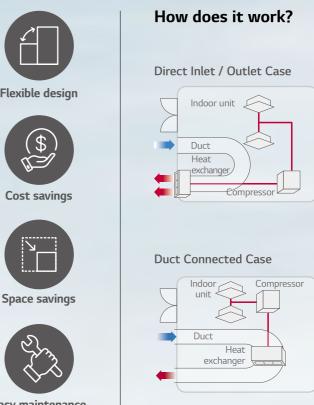


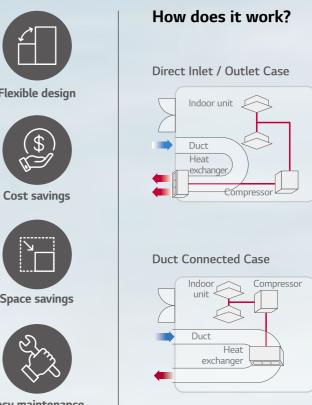
**Concealed VRF** technology for enhanced flexibility and aesthetic building requirements

-



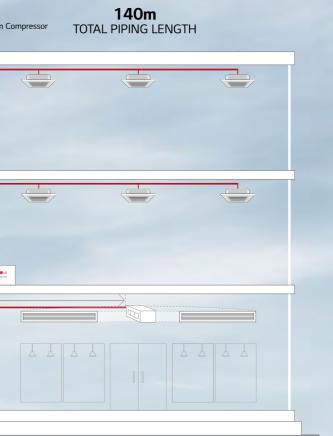








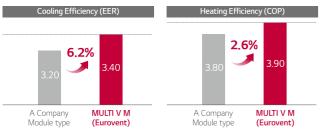
MULTI V M



# **HIGH CLASS EFFICIENCY**

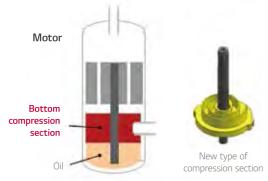
Best-in-class inverter compressor with smart load control and Wide Louver Plus fin technology

## **Energy Efficiency**



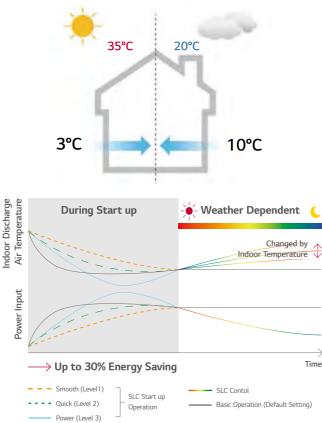
## **R1** Compressor

MULTI V M ensures world-class efficiency with innovative technology including R1 Compressor.



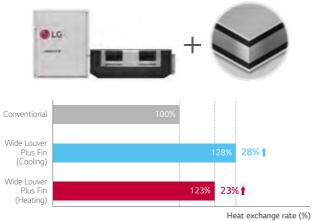
## Smart Load Control

To save operation energy consumption, automatically controls the refrigerant temperature according to outdoor 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**



• Can only be installed inside the building • Discharge air volume less than 60CMM

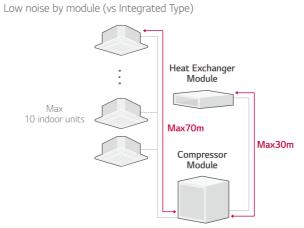
- Securing more than 5m distance between outdoor discharge grilles
- Securing at least 2.5m from the floor

• Securing more than 2.5m from surrounding windows

# **FLEXIBLE DESIGN & INSTALLATION**

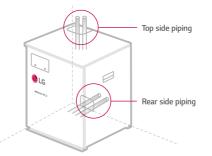
## Module Type

- Increased design freedom
- Additional structre installation and ceiling construction not required
- Ease of service compressor replacement
- Low noise with module
- Ease of service (Replacement of the comp)



## Flexible Piping Location

Tidy & simple installation with flexibile piping location.



## Increased design freedom

Additional structure installation nor ceiling construction not required, making compressor replacement and general maintenance easier. Split module provides low noise operation compared to integrated type.



Conventional Outdoor Unit

#### 

Heat exchanger module can be installed in false ceiling spaces



Compressor module can be installed anywhere indoors



## **SPACE SAVING & CONVENIENT INSTALLATION**

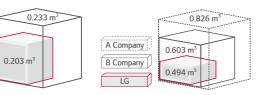
## Volume

A Company

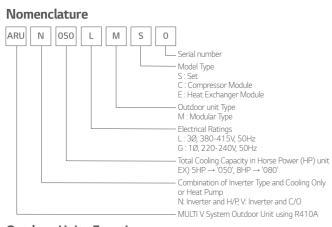
LG

**Compressor Module** 





ESP (External Static Pressure) Control up to 30 Pa up to 157 Pa (max) Normal Mode High Static Pressure Mode OUTDOOR UNITS

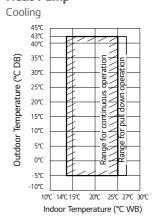


#### **Outdoor Units Function**

Category	Functions	Modular	
	Variable Path of Outdoor Unit HEX	-	
Ver Defrigerent	HiPOR™ (High Pressure Oil Return)	-	
Key Refrigerant Components	Humidity Sensor	-	
Lomponents	Corrosion Resistance Black Fin	0	
	Oil Sensor	-	
	Dual Sensing	-	
	Low Noise Operation	0	
	Hgih Static Mode of Outdoor Unit Fan	0	
	Partial Defrosting	-	
	Auto Dust Cleaning of Outdoor Unit		
Useful Function	(Fan reverse rotation)	-	
	Indoor Cooling Comfort Mode Based	0	
	Outdoor Temperature	~	
	Smart Load Control (SLC) (Changing indoor discharge air	0	
	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	
leadiney	Self Diagnosis	0	
	Soft Start	0	
	Test Run Function	-	
	AC Ez (Simple Controller)	POCSZ250S0	
	AC Ez (Simple Controller)	PACEZA000	
	AC Smart IV	PACE2A000 PACS4B000	
Central Controller	AC Smart 5	PACS5A000	
		PACP4B000	
	ACP (Advanced Control Platform) IV ACP (Advanced Control Platform) 5	PACP46000	
	AC Manager 5	PACM5A000	
3NU (Building Network Unit)	ACP Lonworks	PLNWKB000	
verwork offic)	ACP BACnet	PQNFB17C0	
nstallation	Refrigerant Charging Kit	-	
	Variable Water Flow Valve Control Kit	-	
PDI (Power	Standard	-	
Distribution Indicator)	Premium	-	
Cool / Heat Selector		PRDSBM	
Low Ambient Kit		-	
IO Module (ODU Dry Contact)		PVDSMN000	
Cycle Monitoring	LGMV	PRCTILO	
Device	Mobile LGMV	PLGMVW100	

※ O : Applied, - : Not Applied

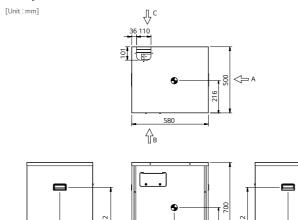
#### Heat Pump

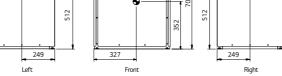


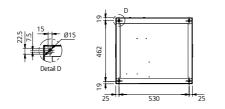
#### Heating 20°C 18°C 18°C 19°C 19°

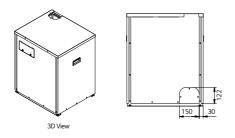
Indoor Temperature (°C DB)

#### Compressor Module



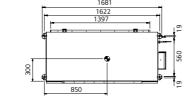


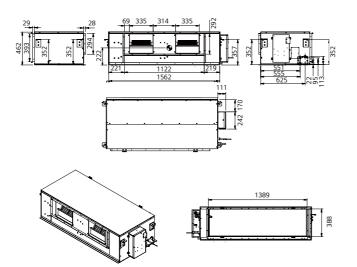




#### Heat Exchanger Module

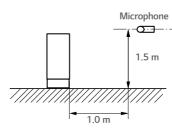
[Unit : mm]





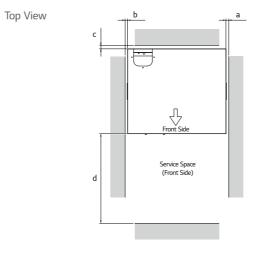
#### Position of Sound Pressure Level Measuring

Compressor Module



※ Measuring place : Anechoic chamber

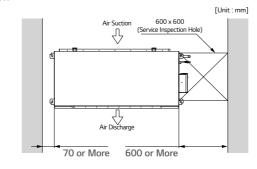
#### Installation Space for Compressor Module

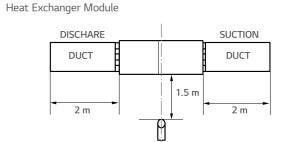


Category	Mark	Description	Installation Space (mm)
	a	Right	10 or More
	b	Left	10 or More
Compressor Module	C	Rear	10 or More
	d	Front	500 or More
	e	Тор	200 or More

#### Installation Space for Compressor Module

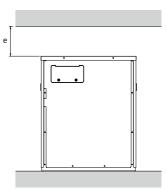
Top View



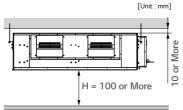


% Measuring place : Anechoic chamber

#### Front View



#### Front View



# **MULTI V M**

#### ARUN050LMC0 ARUN050GME0



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



#### System

	HP		5
	Set		ARUN050LMS0
Model Name	Compressor Module		ARUN050LMC0
	Heat Exchanger Modu	e	ARUN050GME0
	Cooling (Rated)	kW	14.0
Capacity	Heating (Rated)	kW	14.0
	Heating (Max)	kW	16.0
	Cooling (Rated)	kW	4.12
Input	Heating (Rated)	kW	3.59
	Heating (Max)	kW	4.32
EER	Based on Rated Capac	ity	3.40
SEER			7.03
60D	Based on Rated Capac	ity	3.90
СОР	Based on Max Capacit	y	3.70
SCOP			4.12
Number of Ma	kimum Connectable Indo	or Units	10

# **MULTI V M**

ARUN050LMC0 ARUN050GME0



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

#### Module

	HP			5
Madel News			Compressor Module	Heat Exchanger Module
Model Names			ARUN050LMC0	ARUN050GME0
Futuriou	Color		Morning Gray	
Exterior	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
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)	Ø9.52 (3/8) to IDU	Ø12.7 (1/2) to Comp Module
Pipe Connection	Gas	mm (inch)	Ø15.88 (5/8) to IDU	Ø19.05 (3/4) to Comp Module
	Drain	mm (inch)	-	Ø25(1)
Sound Pressure	Cooling (Rated)	dB(A)	45.0	45.0
Level	Heating (Rated)	dB(A)	45.0	45.0
Sound Power Lev	vel	dB(A)	59.0	72.0
Communication (	Cable	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
	Refigerant Name		R410A	R410A
Refrigerant	Precharged Amount	kg	2.0	
Reingerant	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

※ ○ : Applied, - : Not Applied

- Note

- Note
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  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 anechoic 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 27°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

- 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)

 $\otimes \bigcirc$  : Applied, - : Not Applied Note

- Note
  1. Due to our policy of innovation some specifications may be changed without notification.
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  Difference of Elevation (Heat Exchanger Module- Compressor Module Indo
- The maximum combination ratio is 130%.
   This product contains Fluorinated greenhouse gases. (R410A, GWP(Global warming potential) = 2,087.5)

OUTDOOR UNITS

multi v m





- Water Cooled VRF Heat Pump & Heat Recovery

- 22.4 ~ 201.6kW (Cooling capacity based)

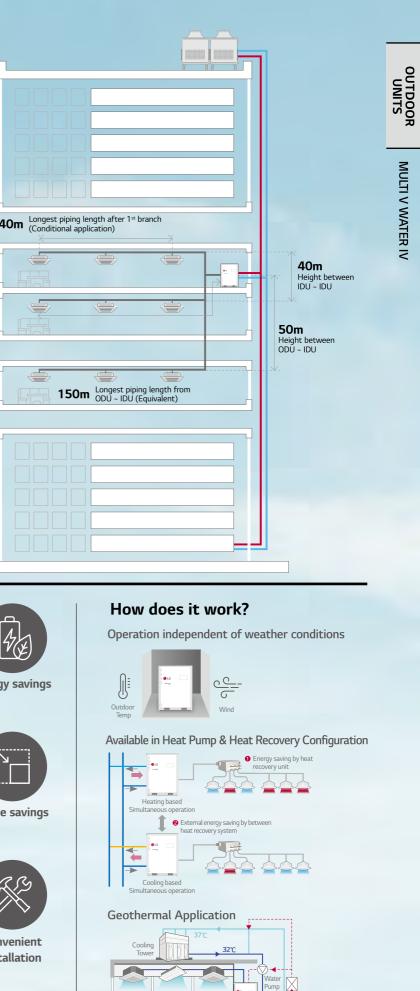
- 3Ø, 380 ~ 415V, 50Hz

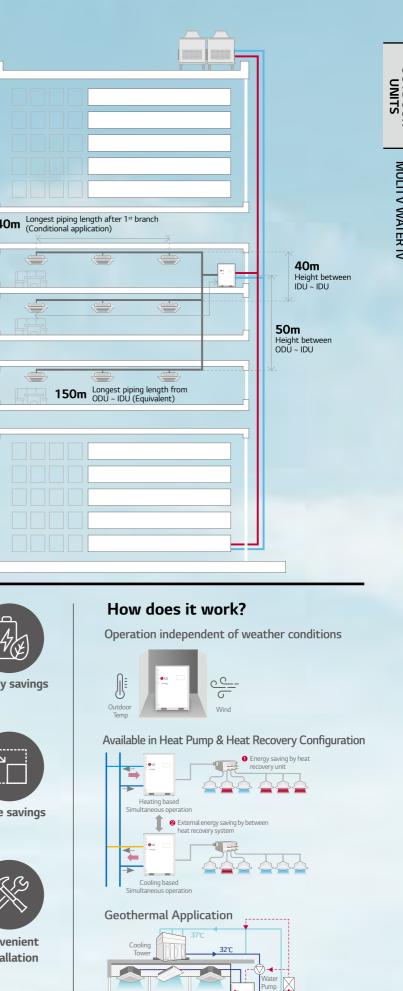
- Outdoor unit installed indoor

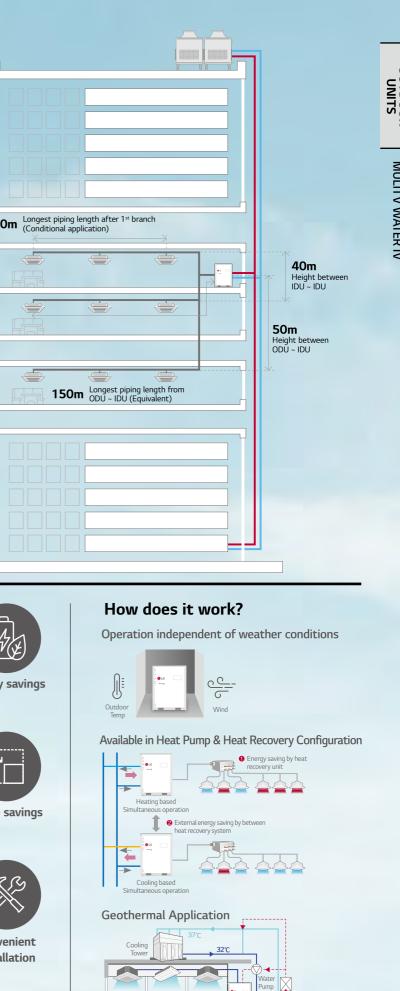


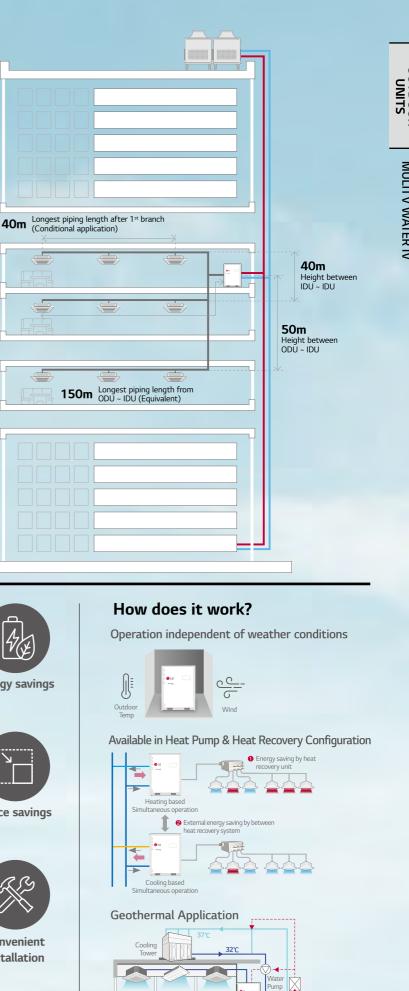
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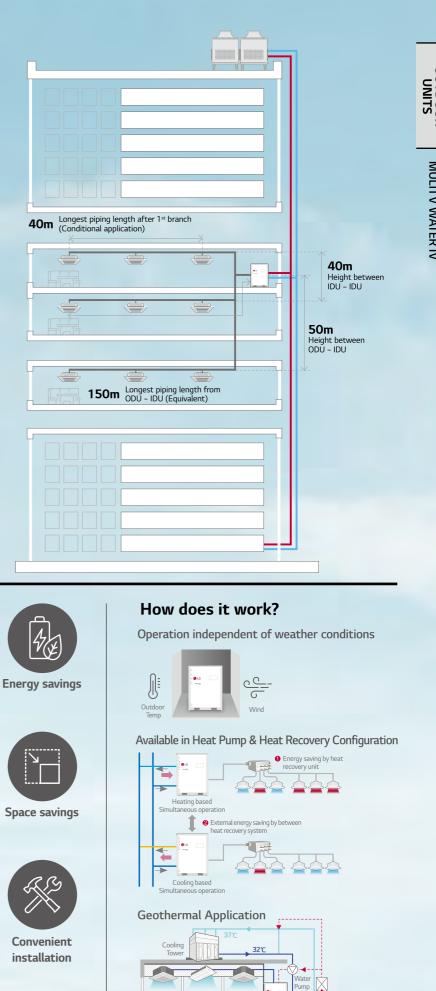






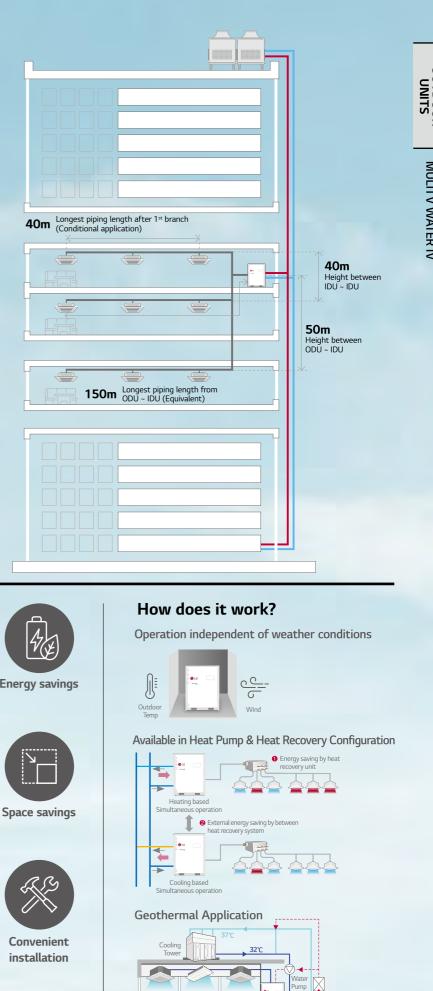


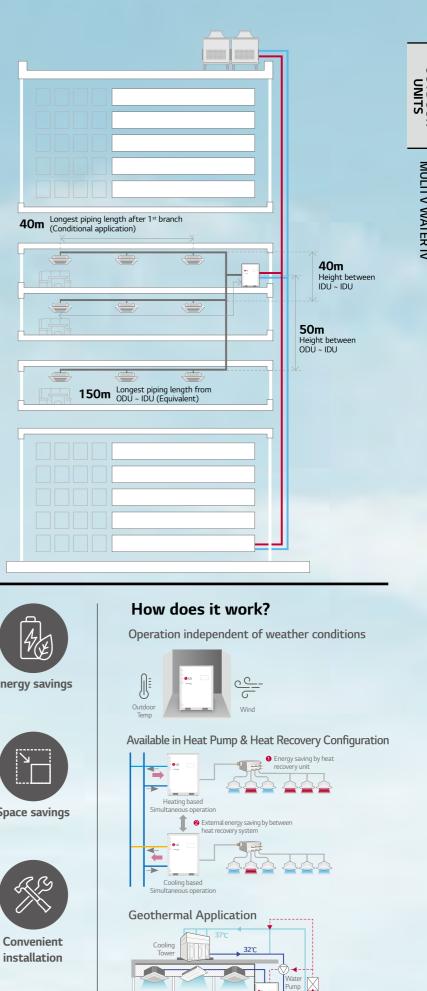




 Room 1
 Room 2
 Room 3

Under Ground HEX





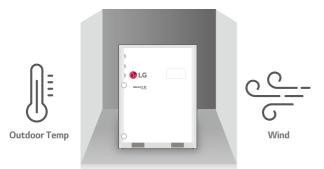
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# INNOVATIVE **TECHNOLOGIES**

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

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

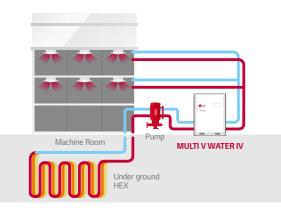


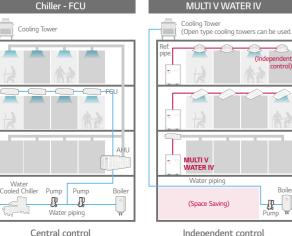
## **MULTI V WATER IV System for Geothermal Applications**

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

- The Circulating water temperature range is between -5°C ~ 45°C







# **ENERGY SAVING**

## Economical, Highly Efficient System

LG's key technologies are integrated to inverter compressor

With  $4^{\mbox{\tiny th}}$  generation inverter compressor, the MULTI V WATER IV boasts top-class energy efficiency.

Rapid operation response



Increase part load efficiency HiPOR™ (High Pressure Oil Return) Eliminating loss in suction gas by returning oil directly to compressor

Capable of reaching required temperature quickly

• Extended Compressor Speed 20Hz ~ 140Hz

Resolve compressor efficiency loss caused by oil return



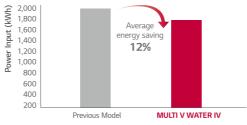
Active oil control (Oil level sensor) - Oil recovery operation occurs only when required Enhanced compressor reliability & continuous heating Oil distribution between compressors

#### Maximum COP

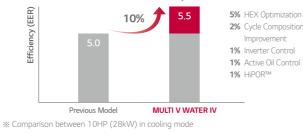


indoor temperature : 20°C DB / 15°C WB
 Maximum COP Condition : Cooling 40% + Heating 60% operation

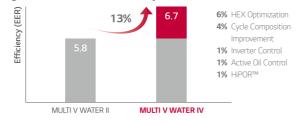
#### Economical, Highly Efficient System



#### LG's 4th Generation Inverter Compressor



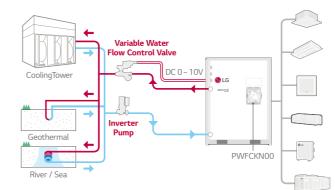
#### Integrated Part Load Efficiency

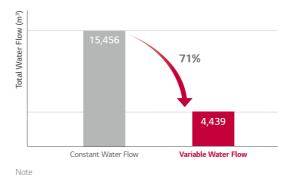


# WATER SAVINGS

#### Variable Water Flow Control (Option) In support of green building initiatives

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



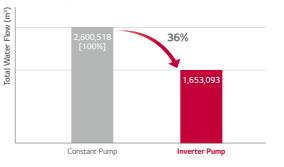


1. Location : Paris, France 2. Office. 68.000m 3. Operation time : 1,344 hours (Cooling period)

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

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

#### 10 years energy cost (\$)



	5 y	ears	10	years
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

Annual power consumption rate expected to increase by 5%

Independent control

# FLEXIBLE DESIGN & SPACE SAVINGS

## Largest Capacity

Sufficient pipe length limitation provides flexible design and installation

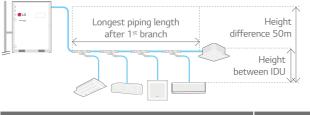
Providing 8 ~ 20HP (22.4 ~ 56kW) with single unit, and up to the world's largest capacity 80HP (224kW) by combination.

HP	8	10	14	20	22	24	28	30	34	40	42	2 ~ 60	62	2 ~ 80
kW	22.4	28	39.2	56	61.6	67.2	78.4	84	95.2	112	117	.6 ~ 168	173	.6 ~ 224
LG		1 U					2 U	-				Units		Units

## Longest Piping Length

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

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



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

## **Compact Size**

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

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

Conventional	MULTI V WATER IV
28kW x 4EA	<b>56kW x 2EA</b>
Per each	Per each
880 x 550 mm	<b>755 x 500 mm</b>

% 112kW, Floor area based

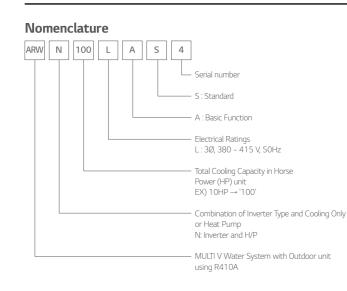
## Lightweight

Nothing or Decrease additional load reinforcement work at building

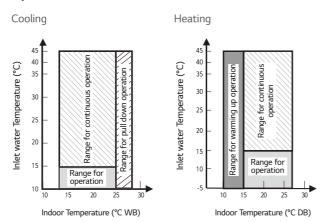
Easier to transport and install thanks to 18% reduction in overall weight.



OUTDOOR UNITS



#### **Operation Limits**



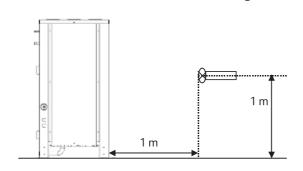
 These figures assume the following operating conditions: 2. Equivalent piping length :7.5m 3. Level difference : 0m

#### Category Functions MULTI V WATER IV

**Outdoor Units Function** 

Calegory	FULCIONS	WOLLI V WATER IV
	Variable Path of Outdoor unit HEX	-
	HiPOR™ (High Pressure Oil Return)	0
Key Refrigerant	Humidity Sensor	-
Components	Corrosion Resistance 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
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	PQCPC22A0
	ACP (Advanced Control Platform) 5	PACP5A000
	AC Manager 5	PACM5A000
BNU (Building	ACP Lonworks	PLNWKB000
Network Unit)	ACP BACnet	PQNFB17C0
Installation	Refrigerant Charging Kit	-
IIIStalldLIUII	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	Contact)	PVDSMN000
Cycle Monitoring	LGMV	PRCTILO
Device	Mobile LGMV	PLGMVW100

#### Position of Sound Pressure Level Measuring



1. Data is valid at free field condition

2. Data is valid at nominal operating condition

Sound level will vary depending controller 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			
		ARBLN01621			
	_	ARBLN03321			
1	Y branch pipe	ARBLN07121			
	_	ARBLN14521			
	_	ARBLN01621           ARBLN03321           ARBLN07121           ARBLN14521           ARBLN23220           ARBL054           ARBL057           ARBL104           ARBL107           ARBL1010           ARBL2010           ARCNN21			
		ARBL054			
	_	ARBL057			
2	Header —	ARBL104			
Z	Header –	ARBL107			
	_	ARBL1010			
	_	ARBL2010			
		ARCNN21			
3	Connection pipe of Outdoor Units	ARCNN31			
	-	ARCNN41			

#### MULTI V WATER IV Heating Dissipation Value by Model

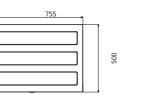
Model	HP	Heating Dissipation Value						
ARWN080LAS4	8	600 W	515.9 kcal/h	0.143 kcal/s				
ARWN100LAS4	10	630 W	541.7 kcal/h	0.150 kcal/s				
ARWN120LAS4	12	660 W	567.5 kcal/h	0.158 kcal/s				
ARWN140LAS4	14	690 W	593.3 kcal/h	0.165 kcal/s				
ARWN160LAS4	16	700 W	601.9 kcal/h	0.167 kcal/s				
ARWN180LAS4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

Test condition : Indoor air temperature : DB 40°C, WB : 32°C

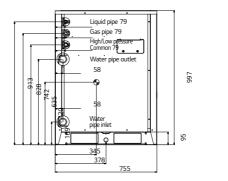
\* A design stage should be considered to ventilation in mechanical room.

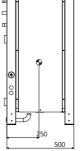
#### ARWN080LAS4 / ARWN100LAS4 / ARWN140LAS4 /ARWN200LAS4

[Unit : mm]

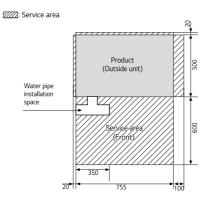




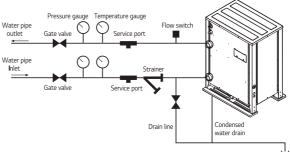




#### Individual Installation



#### Water Piping Installation



#### **Precaution of Installation**

- 1. Do not install the unit at the outdoors. (Installation of the unit outdoors could result in fire or electric shock.) Recommended ambient temperature of outdoor unit is between 0 ~ 40°C.
- 2. Keep the water temperature between **10 ~ 45°C**. 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**. Ensure water purity control to avoid breakdown due to water pipe corrosion. Refer to 'Standard Table for Water Purity Control' in PDB (Product Data Book).
- 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 paths.
  - 4) As the heating process progresses, the water paths can be partially frozen to lead to damage in plate type heat exchanger.
  - 5) As a result of the damage of the heat exchanger from the freezing, the 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 Bouygues Construction was officially opened for business. Named Challenger, the complex became a technological showcase for late 20th century architecture.

## LG Solution

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

# **MULTI V WATER IV** HEAT PUMP

ARWN080LAS4 / ARWN100LAS4 ARWN140LAS4

	HP		8	10	14
	Combination Unit		ARWN080LAS4	ARWN100LAS4	ARWN140LAS4
Model Name	Independent Unit		ARWN080LAS4	ARWN100LAS4	ARWN140LAS4
C	Cooling (Rated)	kW	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
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
= . ·	Color		Warm Gray / Morning Gray	Warm Gray / Morning Gray	Warm Gray / Morning 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/cm <sup>2</sup>	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	W x No.	4,200 × 1	4,200 × 1	4,200 × 1
	Oil Type		FVC68D (PVE)	FVC68D (PVE)	FVC68D (PVE)
	Oil Charge	CC	2,800	2,800	2,800
Refrigerant	Liquid Pipe	mm (inch)	Ø9.52 (3/8)	Ø9.52 (3/8)	Ø12.7 (1/2)
Connecting Pipes	Gas Pipe	mm (inch)	Ø22.2 (7/8)	Ø22.2 (7/8)	Ø25.4 (1)
	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
ripes	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 × 1,143 × 630) × 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	Cooling	dB(A)	47.0	50.0	58.0
Level	Heating	dB(A)	51.0	53.0	57.0
Sound Power Level	Cooling	dB(A)	59.0	62.0	70.0
Sound Power Level	Heating	dB(A)	63.0	65.0	69.0
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	kg	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
Number of Maximur	n Connectable Indoor U	nite	13 (20)	16 (25)	23 (35)

- Note
  1. Maximum numbers are prepared based on assumption that all 2.2kW indoor units are connected. The numbers in parentheses means maximum connectable indoor units in accordance with outdoor units combination (160% 200%). The recommended ratio is 130%.
  2. Due to our policy of innovation some specifications may be changed without notification
  3. Performances are based on the following conditions
   Cooling : Indoor temp 27°C (80.6°F) DB, Vlater inlet temp 30°C (86°F)
   Heating : Indoor temp 20°C (68°F) DB, Water inlet temp 20°C (68°F)
   Interconnected Pipe Length is 7.5m and difference of Elevation (Outdoor Indoor Unit) is 0m.
  4. Sound processing lawer l

- 5. This product contains Fluorinated Greenhouse Gases. (R410A) 6. Add an anti freeze to circulation water when outdoor unit is operating under 10°C (50°F), and change the DIP switch on main PCB. (For more information on installation section.)



OUTDOOR UNITS

MULTI V WATER IV

4. Sound pressure level is measured on the rated condition in the anectoic rooms by ISO 3745 standard. Sound power level is measured on the rated condition in the nectoic rooms by ISO 3745 standard. Sound power level is measured on the rated condition in the anectoic rooms by ISO 3741 standard. Therefore, these values can be increased owing to ambient conditions during operation.

#### ARWN200LAS4 / ARWN160LAS4 ARWN180LAS4



	HP		20	16	18
	Combination Unit		ARWN200LAS4	ARWN160LAS4	ARWN180LAS4
Model Name	Independent Unit		ARWN200LAS4	ARWN080LAS4 ARWN080LAS4	ARWN100LAS4 ARWN080LAS4
Capacity	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
Input	Heating (Rated)	kW	11.67	8.40	9.54
EER			5.00	5.80	5.63
СОР	Rated Capacity		5.40	6.00	5.94
	Color		Warm Gray / Morning Gray	Warm Gray / Morning Gray	Warm Gray / Morning 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/cm <sup>2</sup>	45	45	45
5	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
Combina	Combination x No.		(Inverter) x 1	(Inverter) x 2	(Inverter) x 2
Compressor	Motor Output x Number	W x No.	5,300 x 1	4,200 × 2	4,200 × 2
	Oil Type		FVC68D (PVE)	FVC68D (PVE)	FVC68D (PVE)
	Oil Charge	CC	3,000	5,600	5,600
Refrigerant	Liquid Pipe	mm (inch)	Ø12.7 (1/2)	Ø12.7 (1/2)	Ø12.7 (1/2)
Connecting Pipes	Gas Pipe	mm (inch)	Ø28.58 (1-1/8)	Ø28.58 (1-1/8)	Ø28.58 (1-1/8)
Water Connecting	Inlet	A (inch)	40A (PT 1-1/2) (Internal Thread)	40A (PT 1-1/2) + 40A (PT 1-1/2) (Internal Thread)	40A (PT 1-1/2) + 40A (PT 1-1/2 (Internal Thread)
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		mm x No.	(755 x 997 x 500) x 1	(755 x 997 x 500) x 2	(755 x 997 x 500) x 2
Dimensions (W x H	x D) - Shipping	mm x No.	(804 x 1,143 x 630) x 1	(804 x 1,143 x 630) x 2	(804 x 1,143 x 630) x 2
Net Weight		kg x No.	140 x 1	127 x 2	127 x 2
Shipping Weight		kg x No.	150 x 1	137 x 2	137 x 2
Sound Pressure	Cooling	dB(A)	54.0	50.0	51.8
Level	Heating	dB(A)	60.0	54.0	55.1
Sound Power Level	Cooling	dB(A)	66.0	62.0	63.8
	Heating	dB(A)	72.0	66.0	67.1
Communication Cable		mm <sup>2</sup> x No. (VCTF-SB)	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C
	Refrigerant Name		R410A	R410A	R410A
Refrigerant	Precharged Amount in Factory	kg	3.0	11.6	11.6
2	t-CO <sub>2</sub> eq		6.3	24.2	24.2
	Control		Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve
Power Supply		Ø, V, Hz	3, 380-415, 50	3, 380-415, 50	3, 380-415, 50
Number of Maximur	n Connectable Indoor Ui	nits	32 (50)	26 (40)	29 (45)

Note

Note
1. Maximum numbers are prepared based on assumption that all 2.2kW indoor units are connected. The numbers in parentheses means maximum connectable indoor units in accordance with outdoor units combination (160% - 200%). The recommended ratio is 130%.
2. Due to our policy of innovation some specifications may be changed without notification
3. Performances are based on the following conditions

cooling : Indoor temp 27°C (80.6°F) DB / 19°C (66.2°F) WB, Water inlet temp 30°C (86°F)
Heating : Indoor temp 20°C (68°F) DB, Water inlet temp 20°C (68°F)
Interconnected Pipe Length is 7.5m and difference of Elevation (Outdoor - Indoor Unit) is 0m.

4. Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard. Sound power level is measured on the rated condition in the reverberation rooms by ISO 3745 standard. Therefore, these values can be increased owing to ambient conditions during operation.
5. This product contains Fluorinated Greenhouse Gases. (R410A)
6. Add an anti freeze to circulation water when outdoor unit is operating under 10°C (50°F), and change the DIP switch on main PCB. (For more information on installation section.)

# **MULTI V WATER IV** HEAT PUMP

#### ARWN220LAS4 / ARWN240LAS4 ARWN280LAS4

	HP		22	24	28
	Combination Unit		ARWN220LAS4	ARWN240LAS4	ARWN280LAS4
Model Name	Independent Unit		ARWN140LAS4 ARWN080LAS4	ARWN140LAS4 ARWN100LAS4	ARWN140LAS4 ARWN140LAS4
<b>a</b> ::	Cooling (Rated)	kW	61.6	67.2	78.4
Capacity	Heating (Rated)	kW	69.3	75.6	88.2
Innet	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
СОР	Rated Capacity		5.60	5.60	5.40
Exterior	Color		Warm Gray / Morning Gray	Warm Gray / Morning Gray	Warm Gray / Morning Gray
EXCELLOI	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/cm <sup>2</sup>	45	45	45
5	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	W x No.	4,200 × 2	4,200 x 2	4,200 × 2
	Oil Type		FVC68D (PVE)	FVC68D (PVE)	FVC68D (PVE)
	Oil Charge	CC	5,600	5,600	5,600
Refrigerant	Liquid Pipe	mm (inch)	Ø19.05 (3/4)	Ø19.05 (3/4)	Ø19.05 (3/4)
Connecting Pipes	Gas Pipe	mm (inch)	Ø34.9 (1-3/8)	Ø34.9 (1-3/8)	Ø34.9 (1-3/8)
Water Connecting	Inlet	A (inch)	40A (PT 1-1/2) + 40A (PT 1-1/2) (Internal Thread)	40A (PT 1-1/2) + 40A (PT 1-1/2) (Internal Thread)	40A (PT 1-1/2) + 40A (PT 1-1/2 (Internal Thread)
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		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	Cooling	dB(A)	58.3	58.6	59.0
Level	Heating	dB(A)	58.0	58.5	58.0
Sound Power Level	Cooling	dB(A)	70.3	70.6	72.0
	Heating	dB(A)	70.0	70.5	71.0
Communication Cable		mm <sup>2</sup> x No. (VCTF-SB)	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C
	Refrigerant Name		R410A	R410A	R410A
Refrigerant	Precharged Amount in Factory	kg	11.6	11.6	11.6
2	t-CO <sub>2</sub> eq		24.2	24.2	24.2
	Control		Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve
Power Supply		Ø, V, Hz	3, 380-415, 50	3, 380-415, 50	3, 380-415, 50
Number of Maximur	n Connectable Indoor U	nits	35 (44)	39 (48)	45 (56)

Note
1. Maximum numbers are prepared based on assumption that all 2.2kW indoor units are connected. The numbers in parentheses means maximum connectable indoor units in accordance with outdoor units combination (160% - 200%). The recommended ratio is 130%.
2. Due to our policy of innovation some specifications may be changed without notification
3. Performances are based on the following conditions
- Cooling : Indoor temp 27°C (80.6°F) DB, Vlater inlet temp 30°C (86°F)
- Heating : Indoor temp 20°C (68°F) DB, Water inlet temp 20°C (68°F)
- Interconnected Pipe Length is 7.5m and difference of Elevation (Outdoor - Indoor Unit) is 0m.
4. Sound processing lawer l

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 necehoic rooms by ISO 3741 standard. Therefore, these values can be increased owing to ambient conditions during operation.

5. This product contains Fluorinated Greenhouse Gases. (R410A) 6. Add an anti freeze to circulation water when outdoor unit is operating under 10°C (50°F), and change the DIP switch on main PCB. (For more information on installation section.)



OUTDOOR UNITS

ARWN300LAS4 / ARWN340LAS4 ARWN400LAS4



	HP		30	34	40
	Combination Unit		ARWN300LAS4	ARWN340LAS4	ARWN400LAS4
Model Name	Independent Unit		ARWN200LAS4 ARWN100LAS4	ARWN200LAS4 ARWN140LAS4	ARWN200LAS4 ARWN200LAS4
Canaaita	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
nput	Heating (Rated)	kW	17.01	19.84	23.34
EER			5.16	5.00	5.00
СОР	Rated Capacity		5.56	5.40	5.40
Futurian	Color		Warm Gray / Morning Gray	Warm Gray / Morning Gray	Warm Gray / Morning 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/cm <sup>2</sup>	45	45	45
5	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
Compressor Notor ( Number Oil Type	Combination x No.		(Inverter) x 2	(Inverter) x 2	(Inverter) x 2
	Motor Output x Number	W x No.	5,300 x 1 + 4,200 x 1	5,300 x 1 + 4,200 x 1	5,300 x 2
	Oil Type		FVC68D (PVE)	FVC68D (PVE)	FVC68D (PVE)
	Oil Charge	СС	5,800	5,800	6,000
Refrigerant	Liquid Pipe	mm (inch)	Ø19.05 (3/4)	Ø19.05 (3/4)	Ø19.05 (3/4)
Connecting Pipes	Gas Pipe	mm (inch)	Ø34.9 (1-3/8)	Ø34.9 (1-3/8)	Ø41.3 (1-5/8)
Water Connecting	Inlet	A (inch)	40A (PT 1-1/2) + 40A (PT 1-1/2) (Internal Thread)	40A (PT 1-1/2) + 40A (PT 1-1/2) (Internal Thread)	40A (PT 1-1/2) + 40A (PT 1-1/2 (Internal Thread)
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		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 × 1) + (127 × 1)	(140 x 1) + (127 x 1)	140 x 2
Shipping Weight		kg x No.	(150 x 1) + (137 x 1)	(150 x 1) + (137 x 1)	150 x 2
Sound Pressure Level	Cooling	dB(A)	55.5	59.0	55.0
Level	Heating	dB(A)	60.8	61.0	61.0
Sound Power Level	Cooling	dB(A)	67.5	72.0	68.0
Communication	Heating	dB(A) mm <sup>2</sup> x No.	72.8	74.0	74.0
Cable		(VCTF-SB)	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 × 2C
	Refrigerant Name		R410A	R410A	R410A
Refrigerant	Precharged Amount in Factory	kg	8.8	8.8	6.0
<b>J</b> •••	t-CO <sub>2</sub> eq		18.4	18.4	12.5
	Control		Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve
Power Supply		Ø, V, Hz	3, 380-415, 50	3, 380-415, 50	3, 380-415, 50
Number of Maximur	n Connectable Indoor Ui	nits	49 (60)	55 (64)	64

Note

Note
1. Maximum numbers are prepared based on assumption that all 2.2kW indoor units are connected. The numbers in parentheses means maximum connectable indoor units in accordance with outdoor units combination (160% - 200%). The recommended ratio is 130%.
2. Due to our policy of innovation some specifications may be changed without notification
3. Performances are based on the following conditions

cooling : Indoor temp 27°C (80.6°F) DB / 19°C (66.2°F) WB, Water inlet temp 30°C (86°F)
Heating : Indoor temp 20°C (68°F) DB, Water inlet temp 20°C (68°F)
Interconnected Pipe Length is 7.5m and difference of Elevation (Outdoor - Indoor Unit) is 0m.

4. Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard. Sound power level is measured on the rated condition in the reverberation rooms by ISO 3745 standard. Therefore, these values can be increased owing to ambient conditions during operation.
5. This product contains Fluorinated Greenhouse Gases. (R410A)
6. Add an anti freeze to circulation water when outdoor unit is operating under 10°C (50°F), and change the DIP switch on main PCB. (For more information on installation section.)

# **MULTI V WATER IV** HEAT PUMP

ARWN420LAS4 / ARWN440LAS4 ARWN480LAS4

	HP		42	44	48
	Combination Unit		ARWN420LAS4	ARWN440LAS4	ARWN480LAS4
Model Name	Independent Unit		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
lanut	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
Futurion	Color		Warm Gray / Morning Gray	Warm Gray / Morning Gray	Warm Gray / Morning 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/cm <sup>2</sup>	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	W x No.	5,300 x 1 + 4,200 x 2	5,300 x 1 + 4,200 x 2	5,300 x 1 + 4,200 x 2
	Oil Type		FVC68D (PVE)	FVC68D (PVE)	FVC68D (PVE)
	Oil Charge	CC	8,600	8,600	8,600
Refrigerant	Liquid Pipe	mm (inch)	Ø19.05 (3/4)	Ø19.05 (3/4)	Ø19.05 (3/4)
Connecting Pipes	Gas Pipe	mm (inch)	Ø41.3 (1-5/8)	Ø41.3 (1-5/8)	Ø41.3 (1-5/8)
Watan Canadatina	Inlet	A (inch)	40A (PT 1-1/2) + 40A (PT 1-1/2) + 40A (PT 1-1/2) (Internal Thread)	40A (PT 1-1/2) + 40A (PT 1-1/2) + 40A (PT 1-1/2) (Internal Thread)	40A (PT 1-1/2) + 40A (PT 1-1/2) 40A (PT 1-1/2) (Internal Thread
Water Connecting 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 D)	mm x No.	(755 x 997 x 500) x 3	(755 x 997 x 500) x 3	(755 x 997 x 500) x 3
Dimensions (W x H	x D) - Shipping	mm x No.	(804 x 1,143 x 630) x 3	(804 x 1,143 x 630) x 3	(804 x 1,143 x 630) x 3
Net Weight		kg x No.	(140 x 1) + (127 x 2)	(140 x 1) + (127 x 2)	(140 x 1) + (127 x 2)
Shipping Weight		kg x No.	(150 x 1) + (137 x 2)	(150 x 1) + (137 x 2)	(150 x 1) + (137 x 2)
Sound Pressure	Cooling	dB(A)	59.7	59.9	60.0
Level	Heating	dB(A)	62.1	62.3	62.0
Sound Power Level	Cooling	dB(A)	71.7	71.9	74.0
	Heating	dB(A)	74.1	74.3	76.0
Communication Cable		mm <sup>2</sup> x No. (VCTF-SB)	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C
	Refrigerant Name		R410A	R410A	R410A
Refrigerant	Precharged Amount in Factory	kg	14.6	14.6	14.6
-	t-CO <sub>2</sub> eq		30.5	30.5	30.5
	Control		Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve
Power Supply		Ø, V, Hz	3, 380-415, 50	3, 380-415, 50	3, 380-415, 50
Number of Maximur	n Connectable Indoor Ui	nits	64	64	64

Note
1. Maximum numbers are prepared based on assumption that all 2.2kW indoor units are connected. The numbers in parentheses means maximum connectable indoor units in accordance with outdoor units combination (160% - 200%). The recommended ratio is 130%.
2. Due to our policy of innovation some specifications may be changed without notification
3. Performances are based on the following conditions
- Cooling : Indoor temp 27°C (80.6°F) DB, Vlater inlet temp 30°C (86°F)
- Heating : Indoor temp 20°C (68°F) DB, Water inlet temp 20°C (68°F)
- Interconnected Pipe Length is 7.5m and difference of Elevation (Outdoor - Indoor Unit) is 0m.
4. Sound processing lawer l

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 necehoic rooms by ISO 3741 standard. Therefore, these values can be increased owing to ambient conditions during operation.

5. This product contains Fluorinated Greenhouse Gases. (R410A) 6. Add an anti freeze to circulation water when outdoor unit is operating under 10°C (50°F), and change the DIP switch on main PCB. (For more information on installation section.)

OUTDOOR UNITS

MULTI V WATER IV



ARWN500LAS4 / ARWN540LAS4 ARWN600LAS4



	HP		50	54	60
	Combination Unit		ARWN500LAS4	ARWN540LAS4	ARWN600LAS4
Model Name	Independent Unit		ARWN200LAS4 ARWN200LAS4 ARWN100LAS4	ARWN200LAS4 ARWN200LAS4 ARWN140LAS4	ARWN200LAS4 ARWN200LAS4 ARWN200LAS4
C	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
nput	Heating (Rated)	kW	28.68	31.51	35.01
ER			5.09	5.00	5.00
COP	Rated Capacity		5.49	5.40	5.40
	Color		Warm Gray / Morning Gray	Warm Gray / Morning Gray	Warm Gray / Morning Gray
xterior	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/cm <sup>2</sup>	45	45	45
5	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	W x No.	5,300 x 2 + 4,200 x 1	5,300 x 2 + 4,200 x 1	5,300 x 3
	Oil Type		FVC68D (PVE)	FVC68D (PVE)	FVC68D (PVE)
	Oil Charge	CC	8,800	8,800	9,000
Refrigerant	Liquid Pipe	mm (inch)	Ø19.05 (3/4)	Ø19.05 (3/4)	Ø19.05 (3/4)
Connecting Pipes	Gas Pipe	mm (inch)	Ø41.3 (1-5/8)	Ø41.3 (1-5/8)	Ø41.3 (1-5/8)
Nater Connecting	Inlet	A (inch)	40A (PT 1-1/2) + 40A (PT 1-1/2) + 40A (PT 1-1/2) (Internal Thread)	40A (PT 1-1/2) + 40A (PT 1-1/2) + 40A (PT 1-1/2) (Internal Thread)	40A (PT 1-1/2) + 40A (PT 1-1/2) 40A (PT 1-1/2) (Internal Thread)
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 × 997 × 500) × 3
Dimensions (W x H x	к 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	Cooling	dB(A)	57.8	60.0	56.0
Level	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		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	kg	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
	n Connectable Indoor Ui	aite	64	64	64

Note

Note
1. Maximum numbers are prepared based on assumption that all 2.2kW indoor units are connected. The numbers in parentheses means maximum connectable indoor units in accordance with outdoor units combination (160% - 200%). The recommended ratio is 130%.
2. Due to our policy of innovation some specifications may be changed without notification
3. Performances are based on the following conditions

cooling : Indoor temp 27°C (80.6°F) DB / 19°C (66.2°F) WB, Water inlet temp 30°C (86°F)
Heating : Indoor temp 20°C (68°F) DB, Water inlet temp 20°C (68°F)
Interconnected Pipe Length is 7.5m and difference of Elevation (Outdoor - Indoor Unit) is 0m.

4. Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard. Sound power level is measured on the rated condition in the reverberation rooms by ISO 3745 standard. Therefore, these values can be increased owing to ambient conditions during operation.
5. This product contains Fluorinated Greenhouse Gases. (R410A)
6. Add an anti freeze to circulation water when outdoor unit is operating under 10°C (50°F), and change the DIP switch on main PCB. (For more information on installation section.)

# **MULTI V WATER IV** HEAT PUMP

#### ARWN620LAS4 / ARWN640LAS4 ARWN680LAS4

	HP		62	64	68
	Combination Unit		ARWN620LAS4	ARWN640LAS4	ARWN680LAS4
Model Name	Independent Unit		ARWN200LAS4 ARWN200LAS4 ARWN140LAS4 ARWN080LAS4	ARWN200LAS4 ARWN200LAS4 ARWN140LAS4 ARWN100LAS4	ARWN200LAS4 ARWN200LAS4 ARWN140LAS4 ARWN140LAS4
<b>.</b> .	Cooling (Rated)	kW	173.6	179.2	190.4
Capacity	Heating (Rated)	kW	195.3	201.6	214.2
	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
	Color		Warm Gray / Morning Gray	Warm Gray / Morning Gray	Warm Gray / Morning 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/cm <sup>2</sup>	45	45	45
5	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 Number Oil Type Oil Charge		W x No.	5,300 x 2 + 4,200 x 2	5,300 x 2 + 4,200 x 2	5,300 x 2 + 4,200 x 2
	Oil Type		FVC68D (PVE)	FVC68D (PVE)	FVC68D (PVE)
	Oil Charge	СС	11,600	11,600	11,600
Refrigerant	Liquid Pipe	mm (inch)	Ø22.2 (7/8)	Ø22.2 (7/8)	Ø22.2 (7/8)
Connecting Pipes	Gas Pipe	mm (inch)	Ø44.5 (1-3/4)	Ø44.5 (1-3/4)	Ø53.98 (2-1/8)
Water Connecting	Inlet	A (inch)	40A (PT 1-1/2) + 40A (PT 1-1/2) + 40A (PT 1-1/2) + PT40 (Internal Thread) 40A (PT 1-1/2) + 40A (PT 1-1/2)	40A (PT 1-1/2) + 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) + 40A (PT 1-1/2 + 40A (PT 1-1/2) + PT40 (Internal Thread) 40A (PT 1-1/2) + 40A (PT 1-1/2
Pipes	Outlet	A (inch)	+ 40A (PT 1-1/2) + PT40 (Internal Thread)	+ 40A (PT 1-1/2) + PT40 (Internal Thread)	+ 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	•	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 × 1,143 × 630) × 4	(804 × 1,143 × 630) × 4
Net Weight		kg x No.	(140 x 2) + (127 x 2)	(140 x 2) + (127 x 2)	(140 × 2) + (127 × 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)	60.7	60.9	61.0
Level	Heating	dB(A)	64.2	64.3	63.0
Sound Power Level	Cooling	dB(A)	72.7	72.9	75.0
Communication	Heating	dB(A)	76.2	76.3	77.0
Communication Cable		mm <sup>2</sup> x No. (VCTF-SB)	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C
	Refrigerant Name		R410A	R410A	R410A
Refrigerant	Precharged Amount in Factory	kg	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		Ø, V, Hz	3, 380-415, 50	3, 380-415, 50	3, 380-415, 50
Number of Maximum	n Connectable Indoor Ui	aita	64	64	64

Note
1. Maximum numbers are prepared based on assumption that all 2.2kW indoor units are connected. The numbers in parentheses means maximum connectable indoor units in accordance with outdoor units combination (160% - 200%). The recommended ratio is 130%.
2. Due to our policy of innovation some specifications may be changed without notification
3. Performances are based on the following conditions
- Cooling : Indoor temp 27°C (80.6°F) DB, Vlater inlet temp 30°C (86°F)
- Heating : Indoor temp 20°C (68°F) DB, Water inlet temp 20°C (68°F)
- Interconnected Pipe Length is 7.5m and difference of Elevation (Outdoor - Indoor Unit) is 0m.
4. Sound processing lawer l

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 necehoic rooms by ISO 3741 standard. Therefore, these values can be increased owing to ambient conditions during operation.

5. This product contains Fluorinated Greenhouse Gases. (R410A) 6. Add an anti freeze to circulation water when outdoor unit is operating under 10°C (50°F), and change the DIP switch on main PCB. (For more information on installation section.)

OUTDOOR UNITS



#### ARWN700LAS4 / ARWN740LAS4 ARWN800LAS4



	HP		70	74	80
	Combination Unit		ARWN700LAS4	ARWN740LAS4	ARWN800LAS4
Model Name	Independent Unit		ARWN200LAS4 ARWN200LAS4 ARWN200LAS4 ARWN100LAS4	ARWN200LAS4 ARWN200LAS4 ARWN200LAS4 ARWN140LAS4	ARWN200LAS4 ARWN200LAS4 ARWN200LAS4 ARWN200LAS4
C	Cooling (Rated)	kW	196.0	207.2	224.0
Capacity	Heating (Rated)	kW	220.5	233.1	252.0
Innut	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
СОР	Rated Capacity		5.46	5.40	5.40
Exterior	Color		Warm Gray / Morning Gray	Warm Gray / Morning Gray	Warm Gray / Morning 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/cm <sup>2</sup>	45	45	45
5	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	W x No.	5,300 x 3 + 4,200 x 1	5,300 x 3 + 4,200 x 1	5,300 × 4
	Oil Type		FVC68D (PVE)	FVC68D (PVE)	FVC68D (PVE)
	Oil Charge	СС	11,800	11,800	12,000
Refrigerant	Liquid Pipe	mm (inch)	Ø22.2 (7/8)	Ø22.2 (7/8)	Ø22.2 (7/8)
Connecting Pipes	Gas Pipe	mm (inch)	Ø53.98 (2-1/8)	Ø53.98 (2-1/8)	Ø53.98 (2-1/8)
	Inlet	A (inch)	40A (PT 1-1/2) + 40A (PT 1-1/2) + 40A (PT 1-1/2) + PT40 (Internal Thread)	40A (PT 1-1/2) + 40A (PT 1-1/2) + 40A (PT 1-1/2) + PT40 (Internal Thread)	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 × 1,143 × 630) × 4	(804 × 1,143 × 630) × 4	(804 × 1,143 × 630) × 4
Net Weight		kg x No.	(140 × 3) + (127 × 1)	(140 x 3) + (127 x 1)	140 × 4
Shipping Weight		kg x No.	(150 × 3) + (137 × 1)	(150 x 3) + (137 x 1)	150 x 4
Sound Pressure	Cooling	dB(A)	59.3	61.0	57.0
Level	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 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	kg	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		Ø, V, Hz	3, 380-415, 50	3, 380-415, 50	3, 380-415, 50
Number of Maximur	n Connectable Indoor U	nits 1)	64	64	64

Note

Note
1. Maximum numbers are prepared based on assumption that all 2.2kW indoor units are connected. The numbers in parentheses means maximum connectable indoor units in accordance with outdoor units combination (160% - 200%). The recommended ratio is 130%.
2. Due to our policy of innovation some specifications may be changed without notification
3. Performances are based on the following conditions

- Cooling : Indoor temp 27°C (80.6°F) DB / 19°C (66.2°F) WB, Water inlet temp 30°C (86°F)
- Heating : Indoor temp 27°C (68°F) DB, Water inlet temp 20°C (68°F)
- Interconnected Pipe Length is 7.5m and difference of Elevation (Outdoor - Indoor Unit) is 0m.

4. Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard. Sound power level is measured on the rated condition in the reverberation rooms by ISO 3745 standard. Sound power level is measured on the rated condition in the reverberation rooms by ISO 3745 standard. Sound power level is measured on the rated condition in the reverberation rooms by ISO 3745 standard. Therefore, these values can be increased owing to ambient conditions during operation.
5. This product contains Fluorinated Greenhouse Gases. (R410A)
6. Add an anti freeze to circulation water when outdoor unit is operating under 10°C (50°F), and change the DIP switch on main PCB. (For more information on installation section.)

# **MULTI V WATER IV** HEAT RECOVERY

#### ARWB080LAS4 / ARWB100LAS4 ARWB140LAS4

	HP		8	10	14
	Combination Unit		ARWB080LAS4	ARWB100LAS4	ARWB140LAS4
Model Name	Independent Unit		ARWB080LAS4	ARWB100LAS4	ARWB140LAS4
	Cooling (Rated)	kW	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
Input	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 / Morning Gray	Warm Gray / Morning Gray	Warm Gray / Morning 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/cm <sup>2</sup>	45	45	45
·····j-·	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	W x No.	4,200 × 1	4,200 × 1	4,200 × 1
	Oil Type		FVC68D (PVE)	FVC68D (PVE)	FVC68D (PVE)
	Oil Charge	СС	2,800	2,800	2,800
	Liquid Pipe	mm (inch)	Ø9.52 (3/8)	Ø9.52 (3/8)	Ø12.7 (1/2)
Refrigerant Connecting Pipes	Low Pressure Gas Pipe	mm (inch)	Ø22.2 (7/8)	Ø22.2 (7/8)	Ø25.4 (1)
	High Pressure Gas Pipe	mm (inch)	Ø19.05 (3/4)	Ø19.05 (3/4)	Ø19.05 (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	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 × 1,143 × 630) × 1	(804 × 1,143 × 630) × 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	Cooling	dB(A)	47.0	50.0	58.0
Level	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		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	kg	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
Number of Maximur	n Connectable Indoor U	nits <sup>1)</sup>	13 (20)	16 (25)	23 (35)

Note
1. Maximum numbers are prepared based on assumption that all 2.2kW indoor units are connected. The numbers in parentheses means maximum connectable indoor units in accordance with outdoor units combination (160% - 200%). The recommended ratio is 130%.
2. Due to our policy of innovation some specifications may be changed without notification
3. Performances are based on the following conditions
- Cooling : Indoor temp 27°C (80.6°F) DB, Vlater inlet temp 30°C (86°F)
- Heating : Indoor temp 20°C (68°F) DB, Water inlet temp 20°C (68°F)
- Interconnected Pipe Length is 7.5m and difference of Elevation (Outdoor - Indoor Unit) is 0m.
4. Sound processing lawer l

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 anechoic rooms by ISO 3741 standard. Therefore, these values can be increased owing to ambient conditions during operation.

5. This product contains Fluorinated Greenhouse Gases. (R410A) 6. Add an anti freeze to circulation water when outdoor unit is operating under 10°C (50°F), and change the DIP switch on main PCB. (For more information on installation section.)



OUTDOOR UNITS

MULTI V WATER IV

#### ARWB200LAS4 / ARWB160LAS4 ARWB180LAS4



	HP		20	16	18
	Combination Unit		ARWB200LAS4	ARWB160LAS4	ARWB180LAS4
Model Name	Independent Unit		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
nput	Heating (Rated)	kW	11.67	8.40	9.54
ER			5.00	5.80	5.63
COP	Rated Capacity		5.40	6.00	5.94
	Color		Warm Gray / Morning Gray	Warm Gray / Morning Gray	Warm Gray / Morning Gray
xterior	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/cm <sup>2</sup>	45	45	45
ione includinger	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
Compressor Num Oil Ty Oil C	Combination x No.		(Inverter) x 1	(Inverter) x 2	(Inverter) x 2
	Motor Output x Number	W x No.	5,300 x 1	4,200 x 2	4,200 x 2
	Oil Type		FVC68D(PVE)	FVC68D(PVE)	FVC68D(PVE)
	Oil Charge	CC	3,000	5,600	5,600
_	Liquid Pipe	mm (inch)	Ø12.7 (1/2)	Ø12.7 (1/2)	Ø12.7 (1/2)
Refrigerant Connecting Pipes	Low Pressure Gas Pipe	mm (inch)	Ø28.58 (1-1/8)	Ø28.58 (1-1/8)	Ø28.58 (1-1/8)
sourcearing rupes	High Pressure Gas Pipe	mm (inch)	Ø19.05 (3/4)	Ø19.05 (3/4)	Ø19.05 (3/4)
	Inlet	A (inch)	40A(PT 1-1/2) (Internal Thread)	40A(PT 1-1/2) + 40A(PT 1-1/2) (Internal Thread)	40A(PT 1-1/2) + 40A(PT 1-1/2) (Internal Thread)
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	x D)	mm x No.	(755 x 997 x 500) x 1	(755 x 997 x 500) x 2	(755 x 997 x 500) x 2
Dimensions (W x H	x D) - Shipping	mm x No.	(804 x 1,143 x 630) x 1	(804 × 1,143 × 630) × 2	(804 × 1,143 × 630) × 2
Vet 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	Cooling	dB(A)	54.0	50.0	52.0
_evel	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 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	kg	3.0	11.6	11.6
2	t-CO <sub>2</sub> eq		6.3	24.2	24.2
	Control		Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve
Power Supply		Ø, V, Hz	3, 380-415, 50	3, 380-415, 50	3, 380-415, 50
Number of Maximur	n Connectable Indoor Ur	nits	32(50)	26(40)	29(45)

Note

Note
1. Maximum numbers are prepared based on assumption that all 2.2kW indoor units are connected. The numbers in parentheses means maximum connectable indoor units in accordance with outdoor units combination (160% - 200%). The recommended ratio is 130%.
2. Due to our policy of innovation some specifications may be changed without notification
3. Performances are based on the following conditions

- Cooling : Indoor temp 27°C (80.6°F) DB / 19°C (66.2°F) WB, Water inlet temp 30°C (86°F)
- Heating : Indoor temp 27°C (68°F) DB, Water inlet temp 20°C (68°F)
- Interconnected Pipe Length is 7.5m and difference of Elevation (Outdoor - Indoor Unit) is 0m.

4. Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard. Sound power level is measured on the rated condition in the reverberation rooms by ISO 3745 standard. Sound power level is measured on the rated condition in the reverberation rooms by ISO 3745 standard. Sound power level is measured on the rated condition in the reverberation rooms by ISO 3745 standard. Therefore, these values can be increased owing to ambient conditions during operation.
5. This product contains Fluorinated Greenhouse Gases. (R410A)
6. Add an anti freeze to circulation water when outdoor unit is operating under 10°C (50°F), and change the DIP switch on main PCB. (For more information on installation section.)

# **MULTI V WATER IV** HEAT RECOVERY

#### ARWB220LAS4 / ARWB240LAS4 ARWB280LAS4

	HP		22	24	28
	Combination Unit		ARWB220LAS4	ARWB240LAS4	ARWB280LAS4
Model Name	Independent Unit		ARWB140LAS4 ARWB080LAS4	ARWB140LAS4 ARWB100LAS4	ARWB140LAS4 ARWB140LAS4
	Cooling (Rated)	kW	61.6	67.2	78.4
Capacity	Heating (Rated)	kW	69.3	75.6	88.2
I	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
СОР	Rated Capacity		5.60	5.60	5.40
Futurion	Color		Warm Gray / Morning Gray	Warm Gray / Morning Gray	Warm Gray / Morning 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/cm <sup>2</sup>	45	45	45
<b>3</b>	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	W x No.	4,200 × 2	4,200 × 2	4,200 × 2
	Oil Type		FVC68D (PVE)	FVC68D (PVE)	FVC68D (PVE)
	Oil Charge	СС	5,600	5,600	5,600
	Liquid Pipe	mm (inch)	Ø19.05 (3/4)	Ø19.05 (3/4)	Ø19.05 (3/4)
Refrigerant Connecting Pipes	Low Pressure Gas Pipe	mm (inch)	Ø34.9 (1-3/8)	Ø34.9 (1-3/8)	Ø34.9 (1-3/8)
	High Pressure Gas Pipe	mm (inch)	Ø28.58 (1-1/8)	Ø28.58 (1-1/8)	Ø28.58 (1-1/8)
Water Connecting	Inlet	A (inch)	40A (PT 1-1/2) + 40A (PT 1-1/2) (Internal Thread)	40A (PT 1-1/2) + 40A (PT 1-1/2) (Internal Thread)	40A (PT 1-1/2) + 40A (PT 1-1/2 (Internal Thread)
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		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	Cooling	dB(A)	58.0	59.0	59.0
Level	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	kg	11.6	11.6	11.6
-	t-CO <sub>2</sub> eq		24.2	24.2	24.2
	Control		Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve
Power Supply		Ø, V, Hz	3, 380-415, 50	3, 380-415, 50	3, 380-415, 50
Number of Maximu	n Connectable Indoor Ur	nits	35 (44)	39 (48)	45 (56)

Note
1. Maximum numbers are prepared based on assumption that all 2.2kW indoor units are connected. The numbers in parentheses means maximum connectable indoor units in accordance with outdoor units combination (160% - 200%). The recommended ratio is 130%.
2. Due to our policy of innovation some specifications may be changed without notification
3. Performances are based on the following conditions
- Cooling : Indoor temp 27°C (80.6°F) DB, Vlater inlet temp 30°C (86°F)
- Heating : Indoor temp 20°C (68°F) DB, Water inlet temp 20°C (68°F)
- Interconnected Pipe Length is 7.5m and difference of Elevation (Outdoor - Indoor Unit) is 0m.
4. Sound processing lawer l

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 necehoic rooms by ISO 3741 standard. Therefore, these values can be increased owing to ambient conditions during operation.

5. This product contains Fluorinated Greenhouse Gases. (R410A) 6. Add an anti freeze to circulation water when outdoor unit is operating under 10°C (50°F), and change the DIP switch on main PCB. (For more information on installation section.)



OUTDOOR UNITS

MULTI V WATER IV

ARWB300LAS4 / ARWB340LAS4 ARWB400LAS4



	HP		30	34	40
	Combination Unit		ARWB300LAS4	ARWB340LAS4	ARWB400LAS4
Nodel Name	Independent Unit		ARWB200LAS4 ARWB100LAS4	ARWB200LAS4 ARWB140LAS4	ARWB200LAS4 ARWB200LAS4
Compositor.	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
nput	Heating (Rated)	kW	17.01	19.84	23.34
ER			5.16	5.00	5.00
COP	Rated Capacity		5.56	5.40	5.40
	Color		Warm Gray / Morning Gray	Warm Gray / Morning Gray	Warm Gray / Morning Gray
xterior	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
leat Exchanger	Maximum Pressure Resistance	kgf/cm <sup>2</sup>	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	W x No.	5,300 x 1 + 4,200 x 1	5,300 x 1 + 4,200 x 1	5,300 x 2
	Oil Type		FVC68D (PVE)	FVC68D (PVE)	FVC68D (PVE)
	Oil Charge	СС	5,800	5,800	6,000
_	Liquid Pipe	mm (inch)	Ø19.05 (3/4)	Ø19.05 (3/4)	Ø19.05 (3/4)
Refrigerant Connecting Pipes	Low Pressure Gas Pipe	mm (inch)	Ø34.9 (1-3/8)	Ø34.9 (1-3/8)	Ø41.3 (1-5/8)
sonneeding ripes	High Pressure Gas Pipe	mm (inch)	Ø28.58 (1-1/8)	Ø28.58 (1-1/8)	Ø34.9 (1-3/8)
Natar Composition	Inlet	A (inch)	40A (PT 1-1/2) + 40A (PT 1-1/2) (Internal Thread)	40A (PT 1-1/2) + 40A (PT 1-1/2) (Internal Thread)	40A (PT 1-1/2) + 40A (PT 1-1/2 (Internal Thread)
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
Vet 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	Cooling	dB(A)	55.0	59.0	55.0
_evel	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		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	kg	8.8	8.8	6.0
	t-CO <sub>2</sub> eq		18.4	18.4	12.5
	Control		Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve
Power Supply		Ø, V, Hz	3, 380-415, 50	3, 380-415, 50	3, 380-415, 50
Number of Maximur	n Connectable Indoor Ur	nits	49 (60)	55 (64)	64

Note

Note
1. Maximum numbers are prepared based on assumption that all 2.2kW indoor units are connected. The numbers in parentheses means maximum connectable indoor units in accordance with outdoor units combination (160% - 200%). The recommended ratio is 130%.
2. Due to our policy of innovation some specifications may be changed without notification
3. Performances are based on the following conditions

- Cooling : Indoor temp 27°C (80.6°F) DB / 19°C (66.2°F) WB, Water inlet temp 30°C (86°F)
- Heating : Indoor temp 27°C (68°F) DB, Water inlet temp 20°C (68°F)
- Interconnected Pipe Length is 7.5m and difference of Elevation (Outdoor - Indoor Unit) is 0m.

4. Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard. Sound power level is measured on the rated condition in the reverberation rooms by ISO 3745 standard. Sound power level is measured on the rated condition in the reverberation rooms by ISO 3745 standard. Sound power level is measured on the rated condition in the reverberation rooms by ISO 3745 standard. Therefore, these values can be increased owing to ambient conditions during operation.
5. This product contains Fluorinated Greenhouse Gases. (R410A)
6. Add an anti freeze to circulation water when outdoor unit is operating under 10°C (50°F), and change the DIP switch on main PCB. (For more information on installation section.)

# **MULTI V WATER IV** HEAT RECOVERY

ARWB420LAS4 / ARWB440LAS4 ARWB480LAS4

	HP		42	44	48
	Combination Unit		ARWB420LAS4	ARWB440LAS4	ARWB480LAS4
Model Name	Independent Unit		ARWB200LAS4 ARWB140LAS4 ARWB080LAS4	ARWB200LAS4 ARWB140LAS4 ARWB100LAS4	ARWB200LAS4 ARWB140LAS4 ARWB140LAS4
	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
СОР	Rated Capacity		5.50	5.50	5.40
	Color		Warm Gray / Morning Gray	Warm Gray / Morning Gray	Warm Gray / Morning 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/cm <sup>2</sup>	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	W x No.	5,300 x 1 + 4,200 x 2	5,300 x 1 + 4,200 x 2	5,300 x 1 + 4,200 x 2
	Oil Type		FVC68D (PVE)	FVC68D (PVE)	FVC68D (PVE)
	Oil Charge	CC	8,600	8,600	8,600
	Liquid Pipe	mm (inch)	Ø19.05 (3/4)	Ø19.05 (3/4)	Ø19.05 (3/4)
Refrigerant Connecting Pipes	Low Pressure Gas Pipe	mm (inch)	Ø41.3 (1-5/8)	Ø41.3 (1-5/8)	Ø41.3 (1-5/8)
	High Pressure Gas Pipe	mm (inch)	Ø34.9 (1-3/8)	Ø34.9 (1-3/8)	Ø34.9 (1-3/8)
Water Connecting	Inlet	A (inch)	40A (PT 1-1/2) + 40A (PT 1-1/2) + 40A (PT 1-1/2) (Internal Thread)	40A (PT 1-1/2) + 40A (PT 1-1/2) + 40A (PT 1-1/2) (Internal Thread)	40A (PT 1-1/2) + 40A (PT 1-1/2) 40A (PT 1-1/2) (Internal Thread
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	-	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	Cooling	dB(A)	60.0	60.0	60.0
Level	Heating	dB(A)	62.0	62.0	62.0
Sound Power Level	Cooling	dB(A)	72.0	72.0	74.0
	Heating	dB(A)	74.0	74.0	76.0
Communication Cable		mm <sup>2</sup> x No. (VCTF-SB)	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C
	Refrigerant Name		R410A	R410A	R410A
Refrigerant	Precharged Amount in Factory	kg	14.6	14.6	14.6
-	t-CO <sub>2</sub> eq		30.5	30.5	30.5
	Control		Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve
Power Supply		Ø, V, Hz	3, 380-415, 50	3, 380-415, 50	3, 380-415, 50
Number of Maximu	m Connectable Indoor Ur	nits	64	64	64

Note
1. Maximum numbers are prepared based on assumption that all 2.2kW indoor units are connected. The numbers in parentheses means maximum connectable indoor units in accordance with outdoor units combination (160% - 200%). The recommended ratio is 130%.
2. Due to our policy of innovation some specifications may be changed without notification
3. Performances are based on the following conditions
- Cooling : Indoor temp 27°C (80.6°F) DB, Vlater inlet temp 30°C (86°F)
- Heating : Indoor temp 20°C (68°F) DB, Water inlet temp 20°C (68°F)
- Interconnected Pipe Length is 7.5m and difference of Elevation (Outdoor - Indoor Unit) is 0m.
4. Sound processing lawer l

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 necehoic rooms by ISO 3741 standard. Therefore, these values can be increased owing to ambient conditions during operation.

5. This product contains Fluorinated Greenhouse Gases. (R410A) 6. Add an anti freeze to circulation water when outdoor unit is operating under 10°C (50°F), and change the DIP switch on main PCB. (For more information on installation section.)



ARWB500LAS4 / ARWB540LAS4 ARWB600LAS4



	HP		50	54	60
	Combination Unit		ARWB500LAS4	ARWB540LAS4	ARWB600LAS4
Model Name	Independent Unit		ARWB200LAS4 ARWB200LAS4 ARWB100LAS4	ARWB200LAS4 ARWB200LAS4 ARWB140LAS4	ARWB200LAS4 ARWB200LAS4 ARWB200LAS4
apacity  aput ER OP xterior leat Exchanger compressor Refrigerant connecting Pipes Vater Connecting ipes Vater Connecting ipes Vater Veight hipping Weight ound Pressure evel communication able	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
Input	Heating (Rated)	kW	28.68	31.51	35.01
EER			5.09	5.00	5.00
СОР	Rated Capacity		5.49	5.40	5.40
r	Color		Warm Gray / Morning Gray	Warm Gray / Morning Gray	Warm Gray / Morning 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/cm <sup>2</sup>	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
Compressor Refrigerant Connecting Pipes	Combination x No.		(Inverter) x 3	(Inverter) x 3	(Inverter) x 3
	Motor Output x Number	W x No.	5,300 x 2 + 4,200 x 1	5,300 x 2 + 4,200 x 1	5,300 × 3
	Oil Type		FVC68D (PVE)	FVC68D (PVE)	FVC68D (PVE)
	Oil Charge	CC	8,800	8,800	9,000
	Liquid Pipe	mm (inch)	Ø19.05 (3/4)	Ø19.05 (3/4)	Ø19.05 (3/4)
	Low Pressure Gas Pipe	mm (inch)	Ø41.3 (1-5/8)	Ø41.3 (1-5/8)	Ø41.3 (1-5/8)
	High Pressure Gas Pipe mm (inch)		Ø34.9 (1-3/8)	Ø34.9 (1-3/8)	Ø34.9 (1-3/8)
Water Connecting	Inlet	A (inch)	40A (PT 1-1/2) + 40A (PT 1-1/2) + 40A (PT 1-1/2) (Internal Thread)	40A (PT 1-1/2) + 40A (PT 1-1/2) + 40A (PT 1-1/2) (Internal Thread)	40A (PT 1-1/2) + 40A (PT 1-1/2) + 40A (PT 1-1/2) (Internal Thread)
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		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 × 2) + (127 × 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	Cooling	dB(A)	58.0	60.0	56.0
Level	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		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	kg	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
Number of Maximur	n Connectable Indoor Ui	nits	64	64	64

Note

Note
1. Maximum numbers are prepared based on assumption that all 2.2kW indoor units are connected. The numbers in parentheses means maximum connectable indoor units in accordance with outdoor units combination (160% - 200%). The recommended ratio is 130%.
2. Due to our policy of innovation some specifications may be changed without notification
3. Performances are based on the following conditions

- Cooling : Indoor temp 27°C (80.6°F) DB / 19°C (66.2°F) WB, Water inlet temp 30°C (86°F)
- Heating : Indoor temp 27°C (68°F) DB, Water inlet temp 20°C (68°F)
- Interconnected Pipe Length is 7.5m and difference of Elevation (Outdoor - Indoor Unit) is 0m.

4. Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard. Sound power level is measured on the rated condition in the reverberation rooms by ISO 3745 standard. Sound power level is measured on the rated condition in the reverberation rooms by ISO 3745 standard. Sound power level is measured on the rated condition in the reverberation rooms by ISO 3745 standard. Therefore, these values can be increased owing to ambient conditions during operation.
5. This product contains Fluorinated Greenhouse Gases. (R410A)
6. Add an anti freeze to circulation water when outdoor unit is operating under 10°C (50°F), and change the DIP switch on main PCB. (For more information on installation section.)

# **MULTI V WATER IV** HEAT RECOVERY

ARWB620LAS4 / ARWB640LAS4 ARWB680LAS4

	HP		62	64	68
	Combination Unit		ARWB620LAS4	ARWB640LAS4	ARWB680LAS4
Model Name	Independent Unit		ARWB200LAS4 ARWB200LAS4 ARWB140LAS4 ARWB080LAS4	ARWB200LAS4 ARWB200LAS4 ARWB140LAS4 ARWB100LAS4	ARWB200LAS4 ARWB200LAS4 ARWB140LAS4 ARWB140LAS4
	Cooling (Rated)	kW	173.6	179.2	190.4
Capacity nput ER COP Exterior Heat Exchanger Compressor Refrigerant Connecting Pipes Nater Connecting Pipes Dimensions (W × H × Dimensions (W × H	Heating (Rated)	kW	195.3	201.6	214.2
	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
COP	Rated Capacity		5.47	5.47	5.40
	Color		Warm Gray / Morning Gray	Warm Gray / Morning Gray	Warm Gray / Morning 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/cm <sup>2</sup>	45	45	45
neat Exchanger	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	W x No.	5,300 x 2 + 4,200 x 2	5,300 x 2 + 4,200 x 2	5,300 x 2 + 4,200 x 2
	Oil Type		FVC68D (PVE)	FVC68D (PVE)	FVC68D (PVE)
	Oil Charge	CC	11,600	11,600	11,600
Defrigerant	Liquid Pipe	mm (inch)	Ø22.2 (7/8)	Ø22.2 (7/8)	Ø22.2 (7/8)
Connecting Pipes	Low Pressure Gas Pipe	. ,	Ø44.5 (1-3/4)	Ø44.5 (1-3/4)	Ø53.98 (2-1/8)
5 1	High Pressure Gas Pipe	mm (inch)	Ø41.3 (1-5/8)	Ø41.3 (1-5/8)	Ø44.5 (1-3/4)
	Inlet	A (inch)	40A (PT 1-1/2) + 40A (PT 1-1/2) + 40A (PT 1-1/2) + PT40 (Internal Thread)	40A (PT 1-1/2) + 40A (PT 1-1/2) + 40A (PT 1-1/2) + PT40 (Internal Thread)	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	Cooling	dB(A)	61.0	61.0	61.0
Level	Heating	dB(A)	64.0	64.0	63.0
Courd Down I	Cooling	dB(A)	73.0	73.0	75.0
Sound Power Level	Heating	dB(A)	76.0	76.0	77.0
Communication Cable		mm <sup>2</sup> x No. (VCTF-SB)	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C
	Refrigerant Name		R410A	R410A	R410A
Refrigerant	Precharged Amount in Factory	kg	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		Ø, V, Hz	3, 380-415, 50	3, 380-415, 50	3, 380-415, 50
Number of Maximur	n Connectable Indoor Ur	nits	64	64	64

Note

1. Maximum numbers are prepared based on assumption that all 2.2kW indoor units are connected. The numbers in parentheses means maximum connectable indoor units in accordance

Maximum numbers are prepared based on assumption that all 2.2kW indoor units are connected, with outdoor units combination (160% - 200%). The recommended ratio is 130%.
 Due to our policy of innovation some specifications may be changed without notification
 Performances are based on the following conditions

 Cooling : Indoor temp 27°C (80.6°F) DB / 19°C (66.2°F) WB, Water inlet temp 30°C (86°F)
 Heating : Indoor temp 20°C (68°F) DB, Water inlet temp 20°C (68°F)
 Interconnected Pipe Length is 7.5m and difference of Elevation (Outdoor – Indoor Unit) is 0m.

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 anechoic rooms by ISO 3741 standard. Therefore, these values can be increased owing to ambient conditions during operation.

5. This product contains Fluorinated Greenhouse Gases. (R410A) 6. Add an anti freeze to circulation water when outdoor unit is operating under 10°C (50°F), and change the DIP switch on main PCB. (For more information on installation section.)

MULTI V WATER IV



#### ARWB700LAS4 / ARWB740LAS4 ARWB800LAS4



	HP		70	74	80
	Combination Unit		ARWB700LAS4	ARWB740LAS4	ARWB800LAS4
Model Name	Independent Unit		ARWB200LAS4 ARWB200LAS4 ARWB200LAS4 ARWB100LAS4	ARWB200LAS4 ARWB200LAS4 ARWB200LAS4 ARWB140LAS4	ARWB200LAS4 ARWB200LAS4 ARWB200LAS4 ARWB200LAS4
C	Cooling (Rated)	kW	196.0	207.2	224.0
Combination U         Model Name       Independent U         Capacity       Cooling (Rated Heating (Rated Gooding (Rated Heating (Rated Cooling (Rated Heating Cooling (Rated Heating Cooling (Rated Heating Cooling (Rated	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
СОР	Rated Capacity		5.46	5.40	5.40
	Color		Warm Gray / Morning Gray	Warm Gray / Morning Gray	Warm Gray / Morning 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/cm <sup>2</sup>	45	45	45
Heat Exchanger	Head Loss	kPa	30.1 + 30.1 + 30.1 + 15.8	30.1 + 30.1 + 30.1 + 28.6	30.1 + 30.1 + 30.1 + 30.1
	Rated Water Flow	LPM	192 + 192 + 192 + 96	192 + 192 + 192 + 135	192 + 192 + 192 + 192
Compressor	Туре		Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll
	Combination x No.		(Inverter) x 4	(Inverter) x 4	(Inverter) x 4
	Motor Output x Number	W x No.	5,300 x 3 + 4,200 x 1	5,300 x 3 + 4,200 x 1	5,300 × 4
	Oil Type		FVC68D (PVE)	FVC68D (PVE)	FVC68D (PVE)
	Oil Charge	СС	11,800	11,800	12,000
D.C.	Liquid Pipe	mm (inch)	Ø22.2 (7/8)	Ø22.2 (7/8)	Ø22.2 (7/8)
	Low Pressure Gas Pipe	mm (inch)	Ø53.98 (2-1/8)	Ø53.98 (2-1/8)	Ø53.98 (2-1/8)
5 1	High Pressure Gas Pipe	mm (inch)	Ø44.5 (1-3/4)	Ø44.5 (1-3/4)	Ø44.5 (1-3/4)
	Inlet	A (inch)	40A (PT 1-1/2) + 40A (PT 1-1/2) + 40A (PT 1-1/2) + PT40 (Internal Thread)	40A (PT 1-1/2) + 40A (PT 1-1/2) + 40A (PT 1-1/2) + PT40 (Internal Thread)	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 × 1,143 × 630) × 4	(804 x 1,143 x 630) x 4
Net Weight		kg x No.	(140 x 3) + (127 x 1)	(140 × 3) + (127 × 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	Cooling	dB(A)	59.0	61.0	57.0
Level	Heating	dB(A)	65.0	63.0	63.0
Carriel Days 1 1	Cooling	dB(A)	71.0	75.0	71.0
Sound Power Level	Heating	dB(A)	77.0	77.0	77.0
Communication Cable		mm <sup>2</sup> x No. (VCTF-SB)	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C
	Refrigerant Name		R410A	R410A	R410A
Refrigerant	Precharged Amount in Factory	kg	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		Ø, V, Hz	3, 380-415, 50	3, 380-415, 50	3, 380-415, 50
11.7	n Connectable Indoor Ui		64	64	64

Note

Note
1. Maximum numbers are prepared based on assumption that all 2.2kW indoor units are connected. The numbers in parentheses means maximum connectable indoor units in accordance with outdoor units combination (160% ~ 200%). The recommended ratio is 130%.
2. Due to our policy of innovation some specifications may be changed without notification
3. Performances are based on the following conditions

Cooling : Indoor temp 27°C (80.6°F) DB / 19°C (66.2°F) WB, Water inlet temp 30°C (86°F)
Heating : Indoor temp 20°C (68°F) DB, Vater inlet temp 20°C (68°F)
Interconnected Pipe Length is 7.5m and difference of Elevation (Outdoor - Indoor Unit) is 0m.

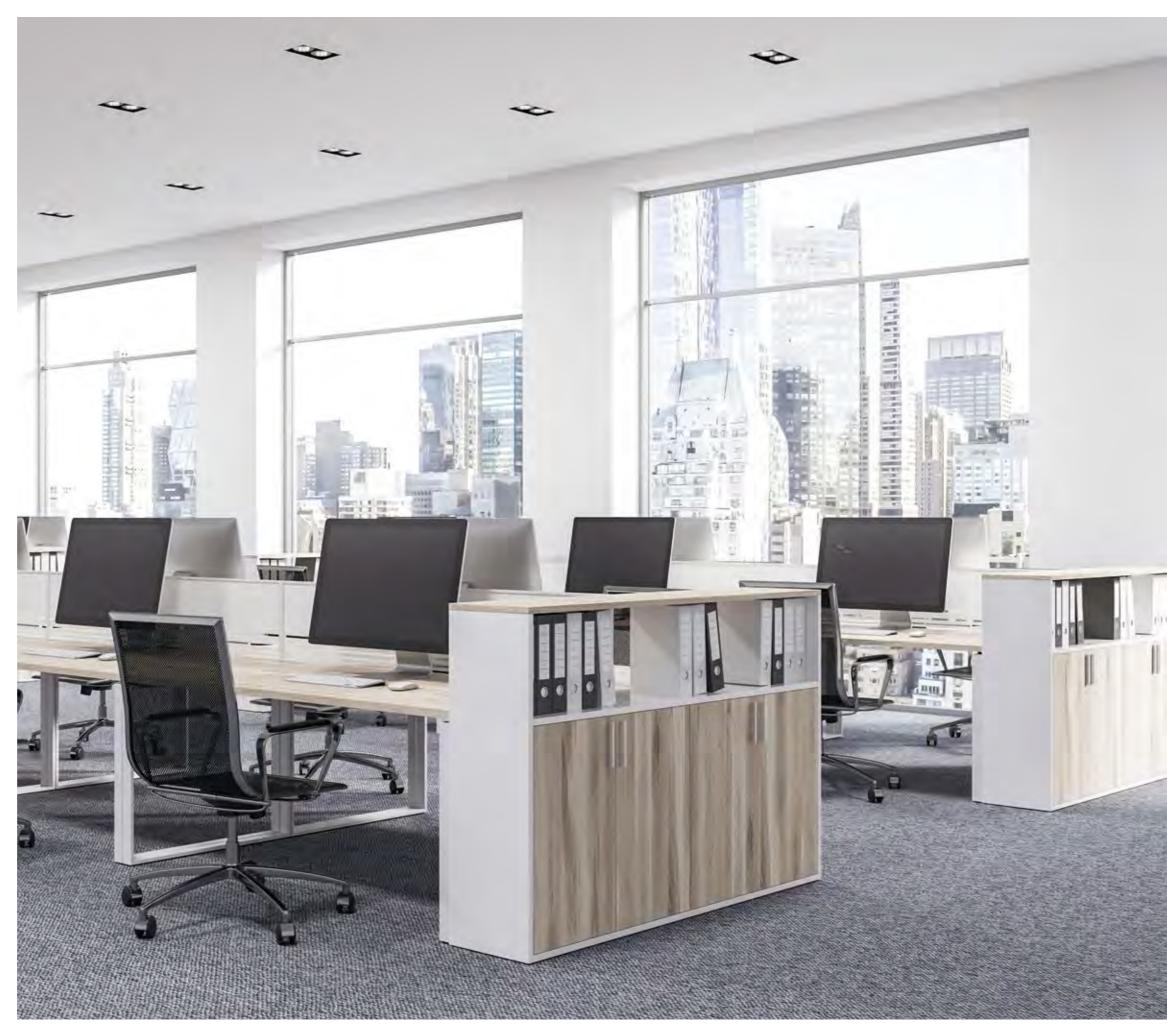
4. Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard. Sound power level is measured on the rated condition in the reverberation rooms by ISO 3745 standard. Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard. Therefore, these values can be increased owing to ambient conditions during operation.
5. This product contains Fluorinated Greenhouse Gases. (R410A)
6. Add an anti freeze to circulation water when outdoor unit is operating under 10°C (50°F), and change the DIP switch on main PCB. (For more information on installation section.)

## NOTE

UNITS	OUTDOOR

# INDOOR UNITS

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





#### **Features & Benefits**

- 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**

 Retail • Hotel Restaurant Multi-family Residence Office

	Wall Mounted	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
	lonizer	0	-	~7.1kW Only
Health	Pre Filter	0	0	0
	Auto Cleaning	0	0	0
	Sleep Mode	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

#### INDOOR UNITS \_ WALL MOUNTED \_ KEY FEATURES

# SMART

#### Wi-Fi Control

Anytime, anywhere access to the unit with Android & iOS-based smartphones.



Search "LG ThinQ" on Google market or the App Store to 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 LG ThinQ's user-friendly features.



#### Simple operation for various functions

181





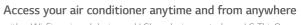
#### Straight forward Management



Filter

Monitoring

Management



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



#### Wi-Fi Connectivity

Each user can set and save temperature and fan speed preferences in the LG ThinQ app. If a household has more than one indoor unit, separate temperature settings can be set for each.

#### Multiple Devices



\* Can be controlled by multiple users, but not simultaneously

#### Multi-Control



INDOOR UNITS

# **FRESH AIR**

#### **lonizer**<sup>PLUS</sup>

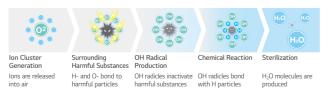
The powerful Ionizer protects you from bad odors and Escherichia coli and Staphylococcus in the surface with over 3 million ions to sterilize to make a safer, and cleaner environment.

#### environment.

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

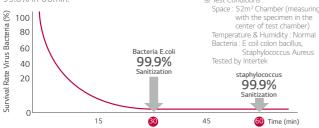
#### Sterilization and Deodorization (Utilizes Over 3 Million Ions)

Ionizer+ reduces E.coli and Staphylococcus in the surface with over 3 million ions.



#### Sterilization Performance Evaluations

Sterilize Bacteria E.coli over 99.9% in 30 min. and staphylococcus over 99.6% in 60min. \* Test Conditions :



#### 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.



※ Test conditions : Space: 8m<sup>3</sup> Chamber

- Temperature & Humidify : Normal Tested by Intertek
- Auto Cleaning

The unit has a self-cleaning function that dries the heat exchanger before sterilizing the interior.

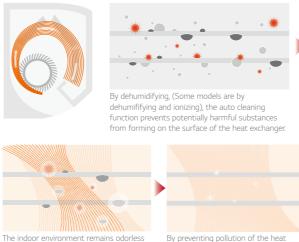
#### Pain Point

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.



The indoor environment remains odorless with the advanced deodorizing function.

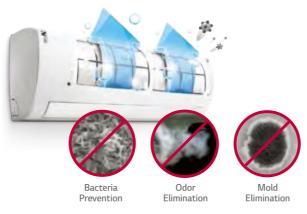
#### Auto cleaning

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

exchanger caused by various germs and

bacteria, performance and lifespan of the air

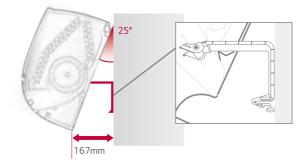
conditioner can be increased over 10 years.



# INSTALLATION

#### Installation Support Clip

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



# FAST COOLING & HEATING

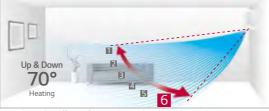
#### Auto Swing

Cool air extends to the entire room regardless of where the unit is situated.

% Specifications may vary for each model.

#### 6-Step Vane Control up to 70°

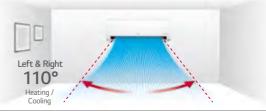
The vertical vane, which moves up and down, has 6 different settings including full-auto swing.



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

#### Control up to 110°

Louver can be adjusted manually to extend left and right swing to 110 degrees.



\* 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.

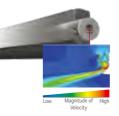
#### One Click "Jet Mode"

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.

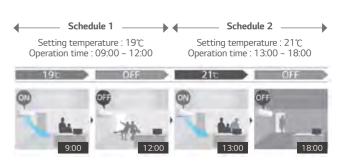


# COMFORT

## **Scheduled Operation**

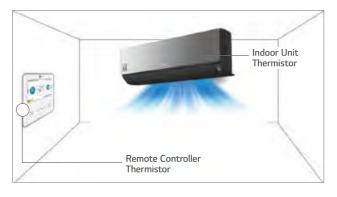
You can set the daily temperature, fan speed, the operation mode and automatic On / Off time for two weeks. It will keep running on that time until cancelled by the user.

% 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	kW	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)	Nominal	W	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 x H x D)	Shipping	mm	909 x 383 x 256				
-	Туре		Cross Flow Fan				
	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
Power Supply	1	Ø, V, Hz	1, 220-240, 50	1, 220-240, 50	1, 220-240, 50	1, 220-240, 50	1, 220-240, 50
Communicati	on Cable	mm <sup>2</sup> x No.	1.0 ~ 1.5 x 2C				

Note : 1. Performance tested under EN14511

#### Accessories

Chassis	ARNU05GSJR4 ARNU07GSJR4 ARNU09GSJR4 ARNU12GSJR4 ARNU15GSJR4
Drain Pump	
Cassette Cover	-
Refrigerant Leakage Detector	PRLDNVS0
EEV Kit	PRGK024A0
Independent Power Module	PRIPO
Robot Cleaner	-
Pre Filter (Washable)	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), PDRYCB320 (Universal input <sup>1)</sup> ), PDRYCB400 (2 points input), PDRYCB500 (Modbus)
External Input (1 point)	0
Wi-Fi	0

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

**ARTCOOL MIRROR** 

#### ARNU18GSKR4 / ARNU24GSKR4

Model		Unit	ARNU18GSKR4	ARNU24GSKR4
Cooling Capa	city	kW	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 x H x 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
Fan	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	13.4	13.4
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
Power Supply	1	Ø, V, Hz	1, 220-240, 50	1, 220-240, 50
		mm <sup>2</sup> x No.	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C

Note : 1. Performance tested under EN14511

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

#### Accessories

Chassis	ARNU18G
Drain Pump	
Cassette Cover	
Refrigerant Leakage Detector	
EEV Kit	
Independent Power Module	
Robot Cleaner	
Pre Filter (Washable)	
Ion Generator	
CO <sub>2</sub> Sensor	
Ventilation Kit	
IR Receiver	
Zone Controller	
Dry Contact (with additional accessory)	PDRYCB000 ( PDRYCB320 (U
External Input (1 point)	· · ·
Wi-Fi	

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

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SKR4 ARNU24GSKR4	
-	_
-	
PRLDNVSO	
PRGK024A0	
PRIPO	
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-	
-	
-	
-	
(1 point contact), PDRYCB300 (8 points for thermostat compatible), Universal input <sup>1)</sup> ), PDRYCB400 (2 points input), PDRYCB500 (Modbus)	
0	
$\bigcirc$	

# **ARTCOOL GALLERY**

ARNU07GSF14 / ARNU09GSF14 ARNU12GSF14



Model		Unit	ARNU07GSF14	ARNU09GSF14	ARNU12GSF14
Cooling Capa	city	kW	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 x H x 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
<b>F</b>	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)
CONTECTIONS	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	ire 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
Power Supply	1	Ø, V, Hz	1, 220-240, 50	1, 220-240, 50	1, 220-240, 50
Communicati	on Cable	mm <sup>2</sup> 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

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
 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)		0	
Ion Generator		-	
CO <sub>2</sub> Sensor		-	
Ventilation Kit		-	
IR Receiver		-	
Zone Controller		-	
Dry Contact (with additional accessory)		t contact), PDRYCB300 (8 points for the al input <sup>1)</sup> ), PDRYCB400 (2 points input), I	
External Input (1 point)		0	
Wi-Fi		PWFMDD200 <sup>2)</sup>	

C : Applied, - : Not applied
 Option : Refer to model name in table
 1) Available from April 2020
 2) 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 Capa	city	kW	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)	Nominal	W	11/10/9	12 / 11 / 9	13 / 12 / 9	15 / 13 / 11	23 / 18 / 11
Exterior Colo	or		White	White	White	White	White
RAL Code			RAL 9016				
Dimensions	Body	mm	818 x 316 x 189				
(W x H x D)	Shipping	mm	892 x 381 x 249				
	Туре		Cross Flow Fan				
Fan	Motor Output x Number	W x No.	30 x 1				
ran	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	8.4	8.4	8.4	8.4	8.4
Sound Pressu	ure Levels (H / M / L)	dB(A)	30 / 29 / 28	32 / 30 / 28	34 / 32 / 28	37 / 34 / 30	42 / 39 / 32
Sound Power	r Levels (H / M / L)	dB(A)	54 / 53 / 52	54 / 53 / 52	55 / 54 / 52	55 / 54 / 53	58 / 56 / 54
Power Supply	у	Ø, V, Hz	1, 220-240, 50	1, 220-240, 50	1, 220-240, 50	1, 220-240, 50	1, 220-240, 50
Communicati	ion Cable	mm <sup>2</sup> x No.	1.0 ~ 1.5 x 2C				

#### Accessories

Chassis	ARNU05GSJ*4	ARN
Drain Pump		
Cassette Cover		
Refrigerant Leakage Detector		
EEV Kit		
Independent Power Module		
Robot Cleaner		
Pre Filter (Washable)		
Ion Generator		
CO <sub>2</sub> Sensor		
Ventilation Kit		
IR Receiver		
Zone Controller		
Dry Contact (with additional accessory)		RYCB000 (CB320
External Input (1 point)		
Wi-Fi		

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

U07GSJ*4	ARNU09GSJ*4	ARNU12GSJ*4	ARNU15GSJ*4
	-		
	-		
	PRLDNVS0		
	PRGK024A0		
	PRIPO		
	-		
	0		
	0		
	-		
	-		
	=		
	-		
(1 point contac Universal input <sup>1)</sup>	tt), PDRYCB300 (8 point ), PDRYCB400 (2 points	s for thermostat compa input), PDRYCB500 (M	tible), odbus)
	0		
	0		

WALL MOUNTED

# **STANDARD**

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

# **STANDARD**

#### ARNU30GSVA4 / ARNU36GSVA4

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Model		Unit	ARNU18GSK*4	ARNU24GSK*4
Cooling Capa	city	kW	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		White	White
RAL Code			RAL 9016	RAL 9016
Dimensions	Body	mm	975 x 354 x 209	975 x 354 x 209
(W x H x D)	Shipping	mm	1,063 x 420 x 274	1,063 x 420 x 274
	Туре		Cross Flow Fan	Cross Flow Fan
	Motor Output x Number	W x No.	58 x 1	58 x 1
Fan	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)
CONTRECTIONS	Drain Pipe (Internal Dia.)	mm (inch)	Ø16 (5/8)	Ø16 (5/8)
Neight	Body	kg	12.2	12.2
Sound Pressu	ıre 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
Power Supply	/	Ø, V, Hz	1, 220-240, 50	1, 220-240, 50
Communicatio	on Cable	mm <sup>2</sup> x No.	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C

Accessories

Chassis	ARNU18GSK*4 ARNU24GSK*4
Drain Pump	-
Cassette Cover	-
Refrigerant Leakage Detector	PRLDNVSO
EEV Kit	PRGK024A0
Independent Power Module	PRIPO
Robot Cleaner	-
Pre Filter (Washable)	0
lon Generator	0
CO <sub>2</sub> Sensor	-
Ventilation Kit	-
R Receiver	-
Zone Controller	-
Dry Contact (with additional accessory)	PDRYCB000 (1 point contact), PDRYCB300 (8 points for thermostat compatible), PDRYCB320 (Universal input <sup>1)</sup> ), PDRYCB400 (2 points input), PDRYCB500 (Modbus)
External Input (1 point)	0
Wi-Fi	0

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

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)	Nominal	W	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 x H x D)	Shipping	mm	1,265 x 432 x 335	1,265 x 432 x 335
	Туре		Cross Flow Fan	Cross Flow Fan
F	Motor Output x Number	W x No.	113 x 1	113 x 1
Fan	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)
Connections	Drain Pipe (Internal Dia.)	mm (inch)	Ø16 (5/8)	Ø16 (5/8)
Weight	Body	kg	16.6	16.6
Sound Pressu	ire Levels (H / M / L)	dB(A)	49 / 44 / 42	52 / 47 / 43
Power Supply	/	Ø, V, Hz	1, 220-240, 50	1, 220-240, 50
Communicati	on Cable	mm <sup>2</sup> x No.	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C

#### Accessories

Chassis	ARNU30GS
Drain Pump	
Cassette Cover	
Refrigerant Leakage Detector	
EEV Kit	
Independent Power Module	
Robot Cleaner	
Pre Filter (Washable)	
Ion Generator	
CO <sub>2</sub> Sensor	
Ventilation Kit	
IR Receiver	
Zone Controller	
Dry Contact (with additional accessory)	PDRYCB000 ( PDRYCB320 (U
External Input (1 point)	
Wi-Fi	

C : Applied, - : Not applied
 Option : Refer to model name in table
 1) Available from April 2020
 2) External installation only



	INDOO
S	QR

SVA4 ARNU36GSVA4
-
-
PRLDNVS0
-
PRIPO
-
0
-
-
-
-
-
(1 point contact), PDRYCB300 (8 points for thermostat compatible), Universal input''), PDRYCB400 (2 points input), PDRYCB500 (Modbus)
0
PWFMDD200 <sup>2)</sup>

WALL MOUNTED

112 / 113

# **NEW DESIGN**

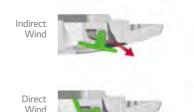
## 4 Way Air Flow with New Design

New Excellent Technology (NET) certifies new 4 way dual vane design that promotes comfortable and convienient airflow.



\*New types wind

Dual Vane





\*6 Airflows mode







Fast and Quick Power Mode

Fresh and Natural Up / Down Swing Auto Vane Control Smart Mode



Indirect Wind

-

®≓ Indirect cooling & Heating Suitable for High Ceiling Provide high concentration

Refresh Mode

## **Brighter Color**

Color enhancement allows cassette to blend in to most interior ceiling spaces.

Direct Wind



# **CEILING MOUNTED** CASSETTE

#### **Features & Benefits**

- New dual vane 4 way cassette allows comfortable air flow
- Full 3D Turbo fan decreases air resistance, providing high air flow and low sound levels.

#### **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	-	-
	Drain Pump	0	0	0
	Sleep Mode	0	0	0
Comfort	Timer (On / Off)	0	0	0
Comfort	Timer (Weekly)	0	0	0
	Two Thermistor Control	0	0	0
	Group Control	0	0	0

## Wide Design

Bigger inlet and outlet make faster cooling / heating airflow.



## Full 3D Turbo Fan

Full 3D Turbo fan decreases air resistance, so it makes High Efficient and reduces noise level.

Full 3D Turbo fan

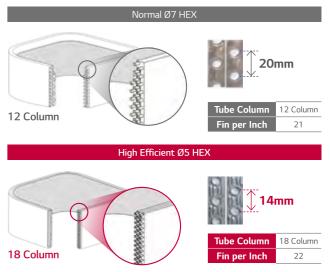
Power consumption 13W  $\downarrow$ , Noise 3dB(A)  $\downarrow$ 



Improved outlet flow rate

## High Efficiency Heat Exchanger (HEX)

Ø5 High Density Heat Exchanger increases cooling / heating efficiency by 10%.



# INDOOR UNITS

114 / 115

# **SMART**

## **Ceiling to Floor Temperature Sensing**

With a special sensor that sense both ceiling and floor temperature, dual vane 4 way cassette provides comfort air.



\* Available only for products with floor temperature sensor.

## Human-detection Air Flow

Human detection provides users with direct or indirect air flow preferences.

Indirect comfort Provides air flow that blows away from user for comfort

Direct cooling Provides air flow that blows directly onto user for cooling





## Human Detection for Optimized Efficiency

Indoor unit senses human presence to switch on or off for maximum power savings of 54%.



 Smart Dual Vane Indoor Unit '19 Line up.
 Data Based on actual test of LG, single product 2 hours measurement result. (Cooling 26 °C, strong wind)

## High-performance Air Cleaning

Air cleaning function provides fresh, filtered air.



## **Convenient & Powerful 4-Step** Air Cleaning

Easy-to-manage air cleaning system with one-touch air cleaning filter.



#### Cycle Management

Pre-filter	Dust Electrification	Ultra Fine Dust Kit	Deodorizing Filter
Easy removable pre-filter	-	6 months / Washable	6 months / Dry

# **SMART**

## Air Cleaning Status Display

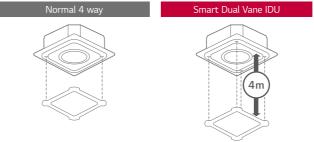
Wi-Fi functionality for anytime, anywhere indoor unit control and air cleaning status display.





## **Dual Elevating Grille**

Grille automatically detaches and re-attaches with 4 touchpoints for enhanced stability & convenient filter management.



① Horizontal Sensor ② Check Close grille ① Detect Obstacle ③ Set Stop Point ② Horizontal Sensor ④ Check Close grille

## LG ThinQ Connectivity

Anytime anywhere access to indoor units with LG ThinQ mobile app.



 Monitoring Air status Easy to check indoor air status • Ultra Fine / Extra Fine / Fine Dust Day / Week /Month / Yearly

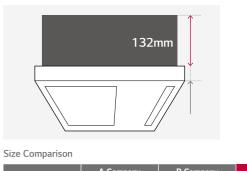
② Mobile Remote Control Remote control by using mobile phone Control Mode / Temperature / Air flow etc.

③ Display Power Consumption Check power consumption of A/C Check energy display Set target energy consumption level

# INSTALLATION

## Minimized Height

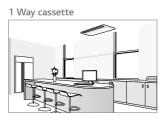
With a height of 132mm, the LG 1 Way cassette is the ideal solution for limited-space installations.

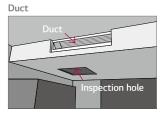


Unit:							
	A Company	B Company	LG				
1 Way Cassette	215	230	132				

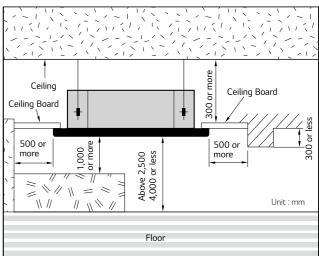
## Flexible Installation

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





## **Installation Standard**



# **DUAL VANE 4 WAY CASSETTE** (840 X 840)

ARNU24GTBB4 / ARNU28GTBB4 ARNU30GTBB4



#### Available from **JUNE 2020**

Model		Unit	ARNU24GTBB4	ARNU28GTBB4	ARNU30GTBB4
Cooling Capac	ity	kW	7.1	8.2	9.0
Heating Capao	tity	kW	8.0	9.2	10.0
Power Input (H / M / L)	Nominal	W	32/27/20	37/30/22	48 / 36 / 25
Dimensions	Body	mm	840 × 204 × 840	840 × 204 × 840	840 × 204 × 840
(W x H x D)	Shipping	mm	922 x 276 x 917	922 x 276 x 917	922 x 276 x 917
	Туре		Full 3D Turbo Fan	Full 3D Turbo Fan	Full 3D Turbo Fan
<b>F</b>	Motor Output x Number	W	51 x 1	51 x 1	51 x 1
Fan	Air Flow Rate (H / M /	L) m <sup>3</sup> /min	18/17/15	19/17/15	21/19/16
	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)
connections	Drain Pipe (Internal Dia	.) mm (inch)	Ø25(1)	Ø25(1)	Ø25(1)
Weight	Body	kg	21	21	21
Sound Pressu	re Level (H / M / L)	dB(A)	36 / 34 / 31	39 / 35 / 34	40 / 36 / 33
Sound Power	Level (H / M / L)	dB(A)	46/44/42	50/46/43	53 / 50 / 45
Power Supply		Ø, V, Hz	1, 220-240, 50	1, 220-240, 50	1, 220-240, 50
Communicatio	n Cable	mm <sup>2</sup> x No.	1.25 x 2C	1.25 x 2C	1.25 x 2C
	Model Name		PT-AAGW0 PT-AFGW0 PT-AEGW0	PT-AAGW0 PT-AFGW0 PT-AEGW0	PT-AAGW0 PT-AFGW0 PT-AEGW0
Decoration	Exterior Color		White	White	White
Panel (Accessory)	RAL Code		RAL 9003	RAL 9003	RAL 9003
(, (2003))	Net Dimensions (W x H x D)	mm	950 x 35 x 950	950 x 35 x 950	950 x 35 x 950
	Net Weight	kg	7.1 / 7.5 / 8.5	7.1 / 7.5 / 8.5	7.1 / 7.5 / 8.5

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

#### Accessories

Chassis	ARNU24GTBB4 ARNU28GTBB4 ARNU30GTBB4					
Drain Pump	0					
Cassette Cover	PTDCA					
Refrigerant Leakage Detector	PRLDNVS0					
EEV Kit	-					
Independent Power Module	PRIPO					
Robot Cleaner	-					
Pre Filter (Washable)	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), PDRYCB320 (Universal input <sup>1</sup> ), PDRYCB400 (2 points input), PDRYCB500 (Modbus)					
External Input (1 Point)	0					
Wi-Fi	PWFMDD200					
Human detection sensor	PTVSAA0					
Floor Temperature Sensor	PT-AFGW0 :0					
Air cleaning kit	PT-AFGW0 : PTAFMP0					
Elevation Grille	PT-AEGW0 :0					

1) Available from April 2020

# **DUAL VANE 4 WAY CASSETTE** (840 X 840)

ARNU36GTAB4 / ARNU42GTAB4 ARNU48GTAB4

#### Available from JUNE 2020

Model		Unit	ARNU36GTAB4	ARNU42GTAB4	ARNU48GTAB4
Cooling Capac	ity	kW	10.6	12.3	14.1
Heating Capa	city	kW	11.9	13.8	15.9
Power Input (H / M / L)	Nominal	W	69 / 49 / 37	97/69/49	110/76/61
Dimensions	Body	mm	840 x 288 x 840	840 x 288 x 840	840 x 288 x 840
(W x H x D)	Shipping	mm	922 x 360 x 917	922 x 360 x 917	922 x 360 x 917
	Туре		Full 3D Turbo Fan	Full 3D Turbo Fan	Full 3D Turbo Fan
Fan	Motor Output x Number	W	135×1	135 x 1	135×1
ran	Air Flow Rate (H / M / L)	m³/min	29/26/22	33/29/26	34 / 30 / 28
	Motor Type		BLDC	BLDC	BLDC
Air Filter			Pre Filter	Pre Filter	Pre Filter
Pipe Connections	Liquid Side	mm (inch)	Ø9.52 (3/8)	Ø9.52 (3/8)	Ø9.52 (3/8)
	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	26	26	26
Sound Pressu	re Level (H / M / L)	dB(A)	42 / 39 / 36	44 / 41 / 39	46 / 43 / 41
Sound Power	Level (H / M / L)	dB(A)	54 / 51 / 47	56 / 53 / 49	58 / 54 / 53
Power Supply		Ø, V, Hz	1, 220-240, 50	1, 220-240, 50	1, 220-240, 50
Communicatio	on Cable	mm <sup>2</sup> x No.	1.25 x 2C	1.25 x 2C	1.25 x 2C
	Model Name		PT-AAGW0 PT-AFGW0 PT-AEGW0	PT-AAGW0 PT-AFGW0 PT-AEGW0	PT-AAGWO PT-AFGWO PT-AEGWO
Decoration	Exterior Color		White	White	White
Panel (Accessory)	RAL Code		RAL 9003	RAL 9003	RAL 9003
	Net Dimensions $(W \times H \times D)$	mm	950 x 35 x 950	950 x 35 x 950	950 x 35 x 950
	Net Weight	kg	7.1 / 7.5 / 8.5	7.1 / 7.5 / 8.5	7.1 / 7.5 / 8.5

Note : 1. Performance tested under EN14511

Coparities are based on the following conditions

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 Consig : 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

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

#### Accessories

Chassis	ARNU36GTAB4
Drain Pump	
Cassette Cover	
Refrigerant Leakage Detector	
EEV Kit	
Independent Power Module	
Robot Cleaner	
Pre Filter (Washable)	
Ion Generator	
CO <sub>2</sub> Sensor	
Ventilation Kit	
IR Receiver	
Zone Controller	
Dry Contact (with additional accessory)	PDRYCB000 PDRYCB320 (I
External Input (1 Point)	
Wi-Fi	
Human detection sensor	
Floor Temperature Sensor	
Air cleaning kit	
Elevation Grille	

1) Available from April 2020



ARNU42GTAB4	ARNU48GTAB4
0	
PTDCA	
PRLDNVS0	
-	
PRIPO	
-	
0	
-	
-	
-	
-	
-	
(1 point contact), PDRYCB300 (8 points for the 'Universal input <sup>1)</sup> ), PDRYCB400 (2 points input), F	
0	
PWFMDD200	
PTVSAA0	
PT-AFGW0 :0	
PT-AFGW0 : PTAFMP0	
PT-AEGW0 :0	

# CEILING MOUNTED CASSETTE

# **DUAL VANE 4 WAY CASSETTE** (840 X 840) HIGH SENSIBLE

ARNU07GTAA4 / ARNU09GTAA4 ARNU12GTAA4 / ARNU15GTAA4 ARNU18GTAA4



#### Available from JUNE 2020

Model		Unit	ARNU07GTAA4	ARNU09GTAA4	ARNU12GTAA4	ARNU15GTAA4	ARNU18GTAA
Cooling Capac	ity	kW	2.2	2.8	3.6	4.5	5.6
Heating Capao	ity	kW	2.5	3.2	4.0	5.0	6.3
Power Input (H / M / L)	Nominal	W	23/16/11	25/18/11	26/19/13	29/20/15	31/23/16
Dimensions	Body	mm	840 x 288 x 840				
(W x H x D)	Shipping	mm	922 x 360 x 917				
	Туре		Full 3D Turbo Fan				
	Motor Output x Number	W	166×1	166 x 1	166 x 1	166 x 1	166 x 1
Fan	Running Cuurent	А	0.23	0.25	0.25	0.27	0.28
	Air Flow Rate (H / M / L)	) m³/min	19/16/13	19/16/13	20/17/15	20/17/15	21/19/16
	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)	Ø15.88 (5/8)
connections	Drain Pipe (Internal Dia.)	mm (inch)	Ø25(1)	Ø25(1)	Ø25(1)	Ø25(1)	Ø25(1)
Weight	Body	kg	26	26	26	26	26
Sound Pressu	e Level (H / M / L)	dB(A)	32/30/26	33/30/26	34/31/27	34/32/29	35/32/30
Sound Power	Level (H / M / L)	dB(A)	41/38/34	42/39/34	42 / 40 / 36	43/40/37	44/41/38
Power Supply		Ø, V, Hz	1, 220-240, 50	1, 220-240, 50	1, 220-240, 50	1, 220-240, 50	1, 220-240, 50
Communicatio	n Cable	mm <sup>2</sup> x No.	1.25 x 2C				
	Exterior Color		White	White	White	White	White
Decoration	RAL Code		RAL 9003				
Panel (Accessory)	Net Dimensions $(W \times H \times D)$	mm	950 x 35 x 950				
	Net Weight	kg	7.1 / 7.5 / 8.5	7.1 / 7.5 / 8.5	7.1 / 7.5 / 8.5	7.1 / 7.5 / 8.5	7.1 / 7.5 / 8.5

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	ARNU07GTAA4 ARNU09GTAA4 ARNU12GTAA4 ARNU15GTAA4 ARNU18GTAA4				
Drain Pump	0				
Cassette Cover	PTDCA				
Refrigerant Leakage Detector	PRLDNVSO				
EEV Kit	-				
Independent Power Module	PRIPO				
Robot Cleaner	-				
Pre Filter (Washable)	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), PDRYCB320 (Universal input <sup>1</sup> ), PDRYCB400 (2 points input), PDRYCB500 (Modbus)				
External Input (1 Point)	0				
Wi-Fi	PWFMDD200				
Human detection sensor	PTVSAAO				
Floor Temperature Sensor	PT-AFGW0 :0				
Air cleaning kit	PT-AFGWO : PTAFMPO				
Elevation Grille	PT-AEGW0 :O				

1) Available from April 2020

# **DUAL VANE 4WAY CASSETTE** (840 X 840) HIGH SENSIBLE

ARNU24GTAA4 / ARNU28GTAA4 ARNU36GTAA4 / ARNU42GTAA4 ARNU48GTAA4

#### Available from JUNE 2020

Model		Unit	ARNU24GTAA4	ARNU28GTAA4	ARNU36GTAA4	ARNU42GTAA4	ARNU48GTAA4
Cooling Capac	ity	kW	7.1	8.2	10.6	12.3	14.1
Heating Capa	city	kW	8.0	9.2	11.9	1 3.8	15.9
Power Input (H / M / L)	Nominal	W	35/29/20	40/31/25	65/43/31	86/65/43	100/67/53
Dimensions	Body	mm	840 x 288 x 840				
(W x H x D)	Shipping	mm	922 x 360 x 917				
	Туре		Full 3D Turbo Fan				
	Motor Output x Number	W	166 x 1				
Fan	Running Cuurent	A	0.38	0.46	0.60	0.80	0.88
	Air Flow Rate (H / M / L)	m³/min	23/21/19	24/22/20	28/24/21	31 / 28 / 24	33/28/26
	Motor Type		BLDC	BLDC	BLDC	BLDC	BLDC
Air Filter			Pre Filter				
Pipe Connections	Liquid Side	mm (inch)	Ø9.52 (3/8)				
	Gas Side	mm (inch)	Ø15.88 (5/8)				
	Drain Pipe (Internal Dia.)	mm (inch)	Ø25(1)	Ø25(1)	Ø25(1)	Ø25(1)	Ø25(1)
Weight	Body	kg	26	26	26	26	26
Sound Pressu	re Level (H / M / L)	dB(A)	39/36/33	40/37/34	42/39/35	46 / 42 / 39	47/43/41
Sound Power	Level (H / M / L)	dB(A)	47/45/42	48/46/42	51/48/44	54 / 51 / 48	56 / 52 / 50
Power Supply		Ø, V, Hz	1, 220-240, 50	1, 220-240, 50	1, 220-240, 50	1, 220-240, 50	1, 220-240, 50
Communicatio	on Cable	mm <sup>2</sup> x No.	1.25 x 2C				
	Model Name		PT-AAGW0 PT-AFGW0 PT-AEGW0	PT-AAGWO PT-AFGWO PT-AEGWO	PT-AAGW0 PT-AFGW0 PT-AEGW0	PT-AAGWO PT-AFGWO PT-AEGWO	PT-AAGWO PT-AFGWO PT-AEGWO
Decoration	Exterior Color		White	White	White	White	White
Panel (Accessorv)	RAL Code		RAL 9003				
(, (2003))	Net Dimensions (W x H x D)	mm	950 x 35 x 950				
	Net Weight	kg	7.1 / 7.5 / 8.5	7.1 / 7.5 / 8.5	7.1 / 7.5 / 8.5	7.1 / 7.5 / 8.5	7.1 / 7.5 / 8.5

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	ARNU24GTAA4 ARNU
Drain Pump	
Cassette Cover	
Refrigerant Leakage Detector	
EEV Kit	
Independent Power Module	
Robot Cleaner	
Pre Filter (Washable)	
Ion Generator	
CO <sub>2</sub> Sensor	
Ventilation Kit	
IR Receiver	
Zone Controller	
Dry Contact (with additional accessory)	PDRYCB000 PDRYCB320 (U
External Input (1 Point)	
Wi-Fi	
Human detection sensor	
Floor Temperature Sensor	
Air cleaning kit	
Elevation Grille	

1) Available from April 2020



U28GTAA4 ARNU	36GTAA4	ARNU42G	TAA4	ARNU48	GTAA4
	0				
F	PTDCA				
PR	LDNVS0				
	_				
	PRIPO				
	-				
	0				
	-				
	-				
	-				
	-				
	-				
) (1 point contact), PDRYC (Universal input <sup>1)</sup> ), PDRYCI	B300 (8 point 3400 (2 points	s for thermosta input), PDRYCE	it compatil 3500 (Mo	ole), dbus)	
	0				
PWI	MDD200				
PT	VSAA0				
PT-A	FGW0:0				
PT-AFGV	VO : PTAFMPC	)			
PT-A	EGW0:0				

# **4 WAY CASSETTE** (570 X 570)

#### ARNU05GTRB4 / ARNU07GTRB4 ARNU09GTRB4 / ARNU12GTRB4



Model		Unit	ARNU05GTRB4	ARNU07GTRB4	ARNU09GTRB4	ARNU12GTRB4
Cooling Capa	city	kW	1.6	2.2	2.8	3.6
Heating Capa	acity	kW	1.8	2.5	3.2	4.0
Power Input (H / M / L)	Nominal	W	13/12/11	13 / 12 / 11	14 / 13 / 12	17 / 15 / 13
Dimensions	Body	mm	570 x 214 x 570			
WxHxD)	Shipping	mm	667 x 285 x 646			
	Туре		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
an	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
	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)	Ø6.35 (1/4)
Pipe Connections	Gas Side	mm (inch)	Ø12.7 (1/2)	Ø12.7 (1/2)	Ø12.7 (1/2)	Ø12.7 (1/2)
	Drain Pipe (Internal Dia.)	mm (inch)	Ø25 (1)	Ø25 (1)	Ø25 (1)	Ø25 (1)
Neight	Body	kg	12.6	12.6	13.7	13.7
Sound Pressur	e Levels (H / M / L)	dB(A)	29 / 27 / 26	29 / 27 / 26	30 / 29 / 27	32 / 30 / 27
Sound Power I	Levels (H / M / L)	dB(A)	45 / 43 / 42	45 / 43 / 42	46 / 43 / 42	48 / 46 / 43
Power Supply		Ø, V, Hz	1, 220-240, 50	1, 220-240, 50	1, 220-240, 50	1, 220-240, 50
Communicatio	n Cable	mm <sup>2</sup> x No.	1.0 ~ 1.5 x 2C			
	Model Name		PT-UQC PT-QCHW0	PT-UQC PT-QCHW0	PT-UQC PT-QCHW0	PT-UQC PT-QCHW0
Decoration Panel (Accessory)	Exterior Color		Morning Fog	Morning Fog	Morning Fog	Morning Fog
	RAL Code		RAL 9001	RAL 9001	RAL 9001	RAL 9001
	Net Dimensions (W x H x D)	mm	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

Note : 1. Performance tested under EN14511

Performance tested under EW14511
 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
 But to our policy of innovation, some specifications may be changed without notification

#### Accessories

Chassis	ARNU05GTRB4 ARNU07GTRB4 ARNU09GTRB4 ARNU12GTRB4			
Drain Pump	0			
Cassette Cover	PTDCQ			
Refrigerant Leakage Detector	PRLDNVSO			
EEV Kit	PRGK024A0 (~4.5kW)			
Independent Power Module	PRIPO			
Robot Cleaner	-			
Pre Filter (Washable)	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), PDRYCB320 (Universal input <sup>1)</sup> ), 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
 1) Available from April 2020

# **4 WAY CASSETTE** (570 X 570)

ARNU15GTQB4 / ARNU18GTQB4 ARNU21GTQB4

Model		Unit	ARNU15GTQB4	ARNU18GTQB4	ARNU21GTQB4
Cooling Capa	acity	kW	4.5	5.6	6.0
Heating Capa	acity	kW	5.0	6.3	6.8
Power Input (H / M / L)	Nominal	W	24 / 21 / 18	25 / 22 / 19	28 / 23 / 20
Dimensions	Body	mm	570 x 256 x 570	570 x 256 x 570	570 x 256 x 570
(W x H x D)	Shipping	mm	667 x 327 x 646	667 x 327 x 646	667 x 327 x 646
	Туре		Turbo Fan	Turbo Fan	Turbo Fan
Fan	Motor Output x Number	W	43 x 1	43 x 1	43 x 1
ran	Air Flow Rate (H / M / L)	m³/min	11.0 / 10.0 / 9.3	11.2 / 11.0 / 10.0	12.0 / 11.1 / 9.4
	Motor Type		BLDC	BLDC	BLDC
Air Filter			Pre Filter	Pre Filter	Pre Filter
Pipe Connections	Liquid Side	mm (inch)	Ø6.35 (1/4)	Ø6.35 (1/4)	Ø9.52 (3/8)
	Gas Side	mm (inch)	Ø12.7 (1/2)	Ø12.7 (1/2)	Ø15.88 (5/8)
	Drain Pipe (Internal Dia.)	mm (inch)	Ø25 (1)	Ø25 (1)	Ø25(1)
Weight	Body	kg	15.0	15.0	15.0
Sound Pressur	re Levels (H / M / L)	dB(A)	36 / 34 / 32	37 / 35 / 34	40 / 38 / 34
Sound Power	Levels (H / M / L)	dB(A)	50 / 48 / 46	51 / 50 / 46	53 / 51 / 46
Power Supply		Ø, V, Hz	1, 220-240, 50	1, 220-240, 50	1, 220-240, 50
Communicatio	on Cable	mm <sup>2</sup> x No.	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
Decoration Panel (Accessory)	Exterior Color		Morning Fog	Morning Fog	Morning Fog
	RAL Code		RAL 9001	RAL 9001	RAL 9001
	Net Dimensions (W x H x D)	mm	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

Note : 1. Performance tested under EN14511

#### Accessories

Chassis	ARNU15GTQB4
Drain Pump	-
Cassette Cover	
Refrigerant Leakage Detector	
EEV Kit	
Independent Power Module	
Robot Cleaner	
Pre Filter (Washable)	
Ion Generator	
CO <sub>2</sub> Sensor	
Ventilation Kit	
IR Receiver	
Zone Controller	
Dry Contact (with additional accessory)	PDRYCB000 PDRYCB320 (
External Input (1 point)	
Wi-Fi	

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



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ARNU18GTQB4	ARNU21GTQB4
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PTDCQ	
PRLDNVSO	
PRGK024A0 (~4.5kW)	
PRIPO	
-	
0	
-	
-	
PTVK430	
-	
-	
(1 point contact), PDRYCB300 (8 points for th Universal input <sup>1)</sup> ), PDRYCB400 (2 points input),	ermostat compatible), PDRYCB500 (Modbus)
0	
PWFMDD200	

# **4 WAY CASSETTE** (840 X 840)

#### ARNU24GTPC4 / ARNU28GTPC4 ARNU30GTPC4 / ARNU36GTNC4



Model		Unit	ARNU24GTPC4	ARNU28GTPC4	ARNU30GTPC4	ARNU36GTNC4
Cooling Capa	city	kW	7.1	8.2	9.0	10.6
Heating Capa	acity	kW	8.0	9.2	10.0	11.9
Power Input (H / M / L)	Nominal	W	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 x H x 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
Pipe Connections	Liquid Side	mm (inch)	Ø9.52 (3/8)	Ø9.52 (3/8)	Ø9.52 (3/8)	Ø9.52 (3/8)
	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 Pressur	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
Power Supply		Ø, V, Hz	1, 220-240, 50	1, 220-240, 50	1, 220-240, 50	1, 220-240, 50
Communicatio	n Cable	mm <sup>2</sup> 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 (Accessory)	Exterior Color		Morning Fog	Morning Fog	Morning Fog	Morning Fog
	RAL Code		RAL 9001	RAL 9001	RAL 9001	RAL 9001
	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
	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

Performance tested under EW14511
 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
 But to our policy of innovation, some specifications may be changed without notification

#### Accessories

Chassis	ARNU24GTPC4 ARNU28GTPC4 ARNU30GTPC4 ARNU36GTNC4			
Drain Pump	0			
Cassette Cover	PTDCM			
Refrigerant Leakage Detector	PRLDNVS0			
EEV Kit	-			
Independent Power Module	PRIPO			
Robot Cleaner	-			
Pre Filter (Washable)	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), PDRYCB320 (Universal input <sup>1)</sup> ), 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
 1) Available from April 2020

# **4 WAY CASSETTE** (840 X 840)

#### ARNU42GTMC4 / C4ARNU48GTMC4 ARNU54GTMC4

Model		Unit	ARNU42GTMC4	ARNU48GTMC4	ARNU54GTMC4
Cooling Capa	icity	kW	12.3	14.1	15.8
Heating Capa	acity	kW	13.8	15.9	18
Power Input (H / M / L)	Nominal	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 x H x 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
Pipe Connections	Liquid Side	mm (inch)	Ø9.52 (3/8)	Ø9.52 (3/8)	Ø9.52 (3/8)
	Gas Side	mm (inch)	Ø15.88 (5/8)	Ø15.88 (5/8)	Ø15.88 (5/8)
conneccions	Drain Pipe (Internal Dia.)	mm (inch)	Ø25 (1)	Ø25 (1)	Ø25 (1)
Weight	Body	kg	25.6	25.6	26.5
Sound Pressur	re Levels (H / M / L)	dB(A)	44 / 41 / 38	46 / 43 / 41	50 / 48 / 44
Sound Power	Levels (H / M / L)	dB(A)	58 / 55 / 50	60 / 56 / 55	60 / 58 / 55
Power Supply		Ø, V, Hz	1, 220-240, 50	1, 220-240, 50	1, 220-240, 50
Communicatio	n Cable	mm <sup>2</sup> x No.	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 × 2C	1.0 ~ 1.5 x 2C
Decoration Panel (Accessory)	Model Name		PT-UMC1 PT-MCHW0	PT-UMC1 PT-MCHW0	PT-UMC1 PT-MCHW0
	Exterior Color		Morning Fog	Morning Fog	Morning Fog
	RAL Code		RAL 9001	RAL 9001	RAL 9001
	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
	Net Weight	kg	5.0 / 6.3	5.0 / 6.3	5.0 / 6.3

Note : 1. Performance tested under EN14511

#### Accessories

Chassis	ARNU42GTMC4
Drain Pump	_
Cassette Cover	
Refrigerant Leakage Detector	
EEV Kit	
Independent Power Module	
Robot Cleaner	
Pre Filter (Washable)	
Ion Generator	
CO <sub>2</sub> Sensor	
Ventilation Kit	
IR Receiver	
Zone Controller	
Dry Contact (with additional accessory)	PDRYCB000 PDRYCB320
External Input (1 point)	
Wi-Fi	

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



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ARNU48GTMC4	ARNU54GTMC4
0	
PTDCM	
PRLDNVSO	
-	
PRIPO	
-	
0	
-	
-	
PTVK430	
-	
-	
(1 point contact), PDRYCB300 (8 points for th Universal input <sup>1)</sup> ), PDRYCB400 (2 points input),	
0	
PWFMDD200	

# 4 WAY CASSETTE (840 X 840)

ARNU07GTNA4 / ARNU09GTNA4 ARNU12GTNA4 / ARNU15GTNA4 ARNU18GTNA4



Model		Unit	ARNU07GTNA4	ARNU09GTNA4	ARNU12GTNA4	ARNU15GTNA4	ARNU18GTNA4
Cooling Capa	city	kW	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)	Nominal	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				
F	Motor Output x Number	W	135 x 1				
Fan	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	Gas Side	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 Pressur	e Levels (H / M / L)	dB(A)	35 / 33 / 30	35 / 33 / 30	37 / 35 / 33	39 / 35 / 33	40 / 35 / 33
Sound Power I	Levels (H / M / L)	dB(A)	42 / 38 / 36	42 / 38 / 36	43 / 40 / 38	44 / 40 / 38	45 / 41 / 38
Power Supply		Ø, V, Hz	1, 220-240, 50	1, 220-240, 50	1, 220-240, 50	1, 220-240, 50	1, 220-240, 50
Communicatio	n Cable	mm <sup>2</sup> 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 Panel (Accessory)	Exterior Color		Morning Fog				
	RAL Code		RAL 9001				
	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	kg	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

Performance tested under EW14511
 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
 But to our policy of innovation, some specifications may be changed without notification

#### Accessories

Chassis	ARNU07GTNA4 ARNU09GTNA4 ARNU12GTNA4 ARNU15GTNA4 ARNU18GTNA4			
Drain Pump	0			
Cassette Cover	PTDCM			
Refrigerant Leakage Detector	PRLDNVSO			
EEV Kit				
Independent Power Module	PRIPO			
Robot Cleaner	-			
Pre Filter (Washable)	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), PDRYCB320 (Universal input <sup>1)</sup> ), 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
 1) Available from April 2020

# **4 WAY CASSETTE** (840 X 840)

ARNU24GTMA4 / ARNU28GTMA4 ARNU36GTMA4 / ARNU42GTMA4

Model		Unit	ARNU24GTMA4	ARNU28GTMA4	ARNU36GTMA4	ARNU42GTMA4
Cooling Capa	acity	kW	7.1	8.2	10.6	12.3
Heating Capa	acity	kW	8	9.2	11.9	13.8
Power Input (H / M / L)	Nominal	W	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
Fan	Motor Output x Number	W	135 x 1	135 x 1	135 x 1	135 x 1
ran	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)
connections	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 Pressur	re Levels (H / M / L)	dB(A)	42 / 40 / 38	43 / 41 / 38	46 / 42 / 39	49 / 45 / 42
Sound Power I	Levels (H / M / L)	dB(A)	48 / 45 / 43	49 / 47 / 43	52 / 48 / 44	55 / 51 / 48
Power Supply		Ø, V, Hz	1, 220 ~ 240, 50	1, 220 ~ 240, 50	1, 220 ~ 240, 50	1, 220 ~ 240, 50
Communicatio	on Cable	mm <sup>2</sup> 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)	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
	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

#### Accessories

Chassis	ARNU24GTMA4
Drain Pump	
Cassette Cover	
Refrigerant Leakage Detector	
EEV Kit	
Independent Power Module	
Robot Cleaner	
Pre Filter (Washable)	
lon Generator	
CO <sub>2</sub> Sensor	
Ventilation Kit	
IR Receiver	
Zone Controller	
Dry Contact (with additional accessory)	PDRYCB000 PDRYCB320 (
External Input (1 point)	
Wi-Fi	

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



ARNU28GTMA4 ARNU36GTMA4 ARNU42GTMA4
0
PTDCM
PRLDNVSO
-
PRIPO
-
0
-
-
PTVK430
-
-
) (1 point contact), PDRYCB300 (8 points for thermostat compatible), 'Universal input')), PDRYCB400 (2 points input), PDRYCB500 (Modbus)
0
PWFMDD200

INDOOR UNITS

# **2 WAY CASSETTE**

#### ARNU09GTSC4 / ARNU12GTSC4



#### Model Unit ARNU09GTSC4 ARNU12GTSC4 **Cooling Capacity** kW 3.6 2.8 Heating Capacity kW 3.2 4.0 Power Input (H / M / L) W 16/14/11 18/14/11 Nominal Body mm 830 x 225 x 600 830 x 225 x 600 Dimensions (W x H x D) 1,055 × 290 × 682 1,055 × 290 × 682 Shipping mm Turbo Fan Turbo Fan Туре Motor Output x Number W x No. 37 x 1 37 x 1 Fan Air Flow Rate (H / M / L) m<sup>3</sup>/min 10.8 / 9.8 / 9. 11.1 / 10.3 / 9.1 Motor Type BLDC BLDC Pre Filter Pre Filter Air Filter Ø6.35 (1/4) Ø6.35 (1/4) Liquid Side mm (inch) Pipe Gas Side mm (inch) Ø12.7 (1/2) Ø12.7 (1/2) Connections Drain Pipe (Internal Dia.) mm (inch) Ø25 (1) Ø25 (1) Weight Body 18.1 18.1 kg 33/31/29 34 / 32 / 29 Sound Pressure Levels (H / M / L) dB(A) 42 / 40 / 38 43/41/39 Sound Power Levels (H / M / L) dB(A) Ø, V, Hz 1, 220-240, 50 1, 220-240, 50 Power Supply **Communication Cable** mm<sup>2</sup> x No. 1.0 ~ 1.5 x 2C 1.0 ~ 1.5 x 2C Model Name PT-USC PT-USC Exterior Color Morning Fog Morning Fog Decoration RAL Code RAL 9001 RAL 9001 Panel Net Dimensions (W x H x D) (Accessory) 1,100 x 28 x 690 1,100 x 28 x 690 mm 4.7 4.7 Net Weight kg

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

#### Accessories

Chassis	ARNU09GTSC4	ARNU12GTSC4		
Drain Pump	0			
Cassette Cover	-			
Refrigerant Leakage Detector	PRLDNVSO			
EEV Kit	PRGK024A0 (~5.6kW)	PRGK024A0 (~5.6kW)		
Independent Power Module	PRIPO			
Robot Cleaner	-			
Pre Filter (Washable)	0			
lon Generator	-			
CO <sub>2</sub> Sensor				
Ventilation Kit	-			
IR Receiver	-			
Zone Controller	-			
Dry Contact (with additional accessory)	PDRYCB000 (1 point contact), PDRYCB300 (8 poin PDRYCB320 (Universal input <sup>1)</sup> ), PDRYCB400 (2 point			
External Input (1 point)	0			
Wi-Fi	PWFMDD200			

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

Model		Unit	ARNU18GTSC4	ARNU24GTSC4
Cooling Capa	city	kW	5.6	7.1
Heating Capa	city	kW	6.3	8.0
Power Input (H / M / L)	Nominal	W	19 / 16 / 14	31 / 22 / 14
Dimensions	Body	mm	830 x 225 x 600	830 x 225 x 600
(W x H x D)	Shipping	mm	1,055 × 290 × 682	1,055 × 290 × 682
	Туре		Turbo Fan	Turbo Fan
<b>-</b>	Motor Output x Number	W x No.	37 x 1	37 x 1
Fan	Air Flow Rate (H / M / L)	m³/min	11.8 / 10.8 / 9.8	14.5 / 12.4 / 10.3
	Motor Type		BLDC	BLDC
Air Filter			Pre Filter	Pre Filter
Liq	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)	Ø25 (1)
Weight	Body	kg	18.1	18.1
Sound Pressu	ire Levels (H / M / L)	dB(A)	35 / 33 / 31	40 / 37 / 33
Sound Power	Levels (H / M / L)	dB(A)	44 / 42 / 40	48 / 45 / 40
Power Supply	1	Ø, V, Hz	1, 220-240, 50	1, 220-240, 50
Communicati	on Cable	mm <sup>2</sup> x No.	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C
	Model Name		PT-USC	PT-USC
Decoration Panel	Exterior Color		Morning Fog	Morning Fog
	RAL Code		RAL 9001	RAL 9001
(Accessory)	Net Dimensions (W x H x D)	mm	1,100 x 28 x 690	1,100 x 28 x 690
	Net Weight	kg	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	ARNU180
Drain Pump	
Cassette Cover	
Refrigerant Leakage Detector	
EEV Kit	
Independent Power Module	
Robot Cleaner	
Pre Filter (Washable)	
lon Generator	
CO <sub>2</sub> Sensor	
Ventilation Kit	
IR Receiver	
Zone Controller	
Dry Contact (with additional accessory)	PDRYCB000 PDRYCB320 (
External Input (1 point)	
Wi-Fi	

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

1) Available from April 2020

**2 WAY CASSETTE** 

#### ARNU18GTSC4 / ARNU24GTSC4



GTSC4	ARNU24GTSC4
C	
-	
PRLDI	1VS0
PRGK024A	) (~5.6kW)
PRI	20
-	
C	)
-	
-	
-	
-	
-	
) (1 point contact), PDRYCB3 (Universal input <sup>1)</sup> ), PDRYCB40	0 (8 points for thermostat compatible), 0 (2 points input), PDRYCB500 (Modbus)
C	
PWFMI	)D200

# **1 WAY CASSETTE**

ARNU07GTUB4 / ARNU09GTUB4 ARNU12GTUB4



#### ARNU07GTUB4 ARNU09GTUB4 ARNU12GTUB4 Mode Unit **Cooling Capacity** kW 2.8 3.6 Heating Capacity kW 2.5 3.2 4.0 Power Input (H / M / L) W 20/18/16 22/20/18 24 / 22 / 20 Nominal Body mm 860 x 132 x 450 860 x 132 x 450 860 x 132 x 450 Dimensions (W x H x D) 1,129 x 259 x 538 1,129 x 259 x 538 1.129 x 259 x 538 Shipping mm Cross Flow Fan Cross Flow Fan Cross Flow Fan Туре Motor Output x Number W x No. 30 x 1 30 x 1 30 x 1 Fan 10.0 / 9.2 / 8.2 Air Flow Rate (H / M / L) m<sup>3</sup>/min 8.2 / 7.3 / 6.4 9.2 / 8.6 / 8.2 Motor Type BLDC BLDC BLDC Pre Filter Pre Filter Pre Filter Air Filter Ø6.35 (1/4) Ø6.35 (1/4) Ø6.35 (1/4) Liquid Side mm (inch) Pipe 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 13.6 13.6 13.6 kg 32/29/25 35 / 34 / 32 38 / 35 / 32 Sound Pressure Levels (H / M / L) dB(A) 47/44/41 50/48/47 52 / 50 / 47 Sound Power Levels (H / M / L) dB(A) 1, 220-240, 50 1, 220-240, 50 1, 220-240, 50 Power Supply Ø, V, Hz **Communication Cable** mm<sup>2</sup> 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 Exterior Color Noble White Noble White Noble White Decoration RAL Code RAL 9003 RAL 9003 RAL 9003 Panel Net Dimensions (W x H x D) (Accessory) 1,100 x 34 x 500 1,100 x 34 x 500 1,100 x 34 x 500 mm 4.6 / 5.3 4.6 / 5.3 4.6 / 5.3 Net Weight kg

 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	ARNU07GTUB4	ARNU09GTUB4	ARNU12GTUB4		
Drain Pump		0			
Cassette Cover		-			
Refrigerant Leakage Detector		PRLDNVS0			
EEV Kit	PRGK024A0				
Independent Power Module		PRIPO			
Robot Cleaner		-			
Pre Filter (Washable)	0				
Ion Generator	-				
CO <sub>2</sub> Sensor	-				
Ventilation Kit	-				
IR Receiver		-			
Zone Controller		-			
Dry Contact (with additional accessory)		contact), PDRYCB300 (8 points for th l input <sup>1)</sup> ), PDRYCB400 (2 points input),			
External Input (1 point)	0				
Wi-Fi	PWFMDD200				

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

# **1 WAY CASSETTE**

ARNU18GTTB4 / ARNU24GTTB4

Model		Unit	ARNU18GTTB4	ARNU24GTTB4
Cooling Capa	city	kW	5.6	7.1
Heating Capa	city	kW	6.3	7.1
Power Input (H / M / L)	Nominal	W	38 / 28 / 24	51 / 33 / 26
Dimensions	Body	mm	1,180 x 132 x 450	1,180 x 132 x 450
(W x H x D)	Shipping	mm	1,499 x 259 x 538	1,499 x 259 x 538
	Туре		Cross Flow Fan	Cross Flow Fan
Fan	Motor Output x Number	W x No.	30 x 1	30 x 1
an	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)
Pipe Connections	Gas Side	mm (inch)	Ø12.7 (1/2)	Ø15.88 (5/8)
connections	Drain Pipe (Internal Dia.)	mm (inch)	Ø25 (1)	Ø25 (1)
Weight	Body	kg	15.6	15.6
Sound Pressu	ıre Levels (H / M / L)	dB(A)	40 / 37 / 35	43 / 40 / 36
Sound Power	Levels (H / M / L)	dB(A)	56 / 51 / 48	59 / 53 / 50
Power Supply	1	Ø, V, Hz	1, 220-240, 50	1, 220-240, 50
Communicati	on Cable	mm <sup>2</sup> x No.	1.0 ~ 1.5 × 2C	1.0 ~ 1.5 x 2C
	Model Name		PT-UUC (Grill), PT-UUD (Panel)	PT-UUC (Grill), PT-UUD (Panel)
Decoration Panel (Accessory)	Exterior Color		Noble White	Noble White
	RAL Code		RAL 9003	RAL 9003
	Net Dimensions (W x H x D)	mm	1,420 × 34 × 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	ARNU18GTTB4 ARNU24GTTB4		
Drain Pump	0		
Cassette Cover	-		
Refrigerant Leakage Detector	PRLDNVS0		
EEV Kit	-		
Independent Power Module	PRIPO		
Robot Cleaner	-		
Pre Filter (Washable)	0		
lon Generator	-		
CO <sub>2</sub> Sensor	-		
Ventilation Kit	-		
IR Receiver	-		
Zone Controller	-		
Dry Contact (with additional accessory)	PDRYCB000 (1 point contact), PDRYCB300 (8 points for thermostat compatible), PDRYCB320 (Universal input <sup>1</sup> ), PDRYCB400 (2 points input), PDRYCB500 (Modbus)		
External Input (1 point)	0		
Wi-Fi	PWFMDD200		

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



# **CEILING MOUNTED ROUND CASSETTE**



#### **Features & Benefits**

- Luxury round design can make a luxurious space with a round design considering side view.
- Perfect round air flow without blind spots.

#### **Key Applications**

- Retail
- Restaurant
- Office
- Hotel

	Cassette	Round
Smart	Wi-Fi	0
Energy Efficiency	Human Detect Sensor	-
	Drain Pump	0
	Sleep Mode	0
Comfort	Timer (On / Off)	0
Comort	Timer (Weekly)	0
	Two Thermistor Control	0
	Group Control	0

INDOOR UNITS \_ CEILING MOUNTED ROUND CASSETTE \_ KEY FEATURES

# **NEW DESIGN**

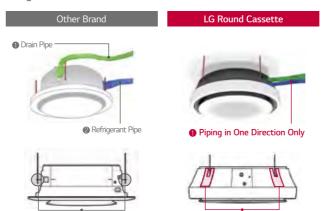
## Slim and Compact design

Reduce the height of the body by 15% save space and maximize the openness of the interior space.



## Minimal exposure design

Pipes are brought together in one place to minimize exposure. Hanger covers hide installations to add a clean look.



## Perfect round air flow

Exposed Hange
 Ange
 Ange

Perfect round flow without blind spots



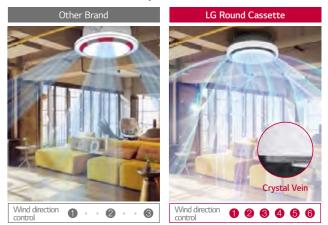


3 Way airflow with blind spot.

Perfect circular airflow without blind spots.

## Visible air flow

With crystal vein for 6-step precision control, you can send cool / heated air wherever you want.



## Powerful and Quiet air flow

3D fan increases airflow by 5% and noise reduction technology makes a quieter, more comfortable space.

Full 3D Fan, Air flow rate 5% ↑ Full 3D Fan, Low noise



## 30% Faster in cooling

Larger airflow rate, cooling rate is faster than 30%.



※ Based on test results from LG chamber, this image is designed to help customers understand. Experimental environment: height 3.2m, 48 kBtu, cooling mode, high flow rate, horizontal air flow direction



# **ROUND CEILING CASSETTE**

ARNU24GTYA4 / ARNU36GTYA4 ARNU48GTYA4

Available from JUNE 2020



Model		Unit	ARNU24GTYA4	ARNU36GTYA4	ARNU48GTYA4
Cooling Capa	city	kW	7.1	10.6	14.1
Heating Capa	icity	kW	8.0	11.9	15.9
Power Input (H / M / L)	Nominal	W	44 / 36 / 29	63 / 47 / 36	98 / 70 / 44
Dimensions	Body	mm	1,050 x 330 x 1,050	1,050 x 330 x 1,050	1,050 x 330 x 1,050
(W x H x D)	Shipping	mm	1,137 x 395 x 1,132	1,137 x 395 x 1,132	1,137 x 395 x 1,132
	Туре		3D Turbo Fan	3D Turbo Fan	3D Turbo Fan
Fee	Motor Output x Number	W	157 x 1	157 x 1	157 x 1
Fan	Air Flow Rate (H / M / L)	m³/min	22 / 21 / 19	27 / 24 / 21	32 / 28 / 23
	Motor Type		BLDC	BLDC	BLDC
Air Filter			Long life	Long life	Long life
	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)
connections	Drain Pipe(Internal Dia.)	mm (inch)	Ø25 (1)	Ø25 (1)	Ø25 (1)
Weight	Body	kg	30	30	30
Sound Pressu	ıre Level (H / M / L)	dB(A)	39 / 37 / 34	43 / 39 / 37	47 / 44 / 39
Sound Power	Level (H / M / L)	dB(A)	48 / 46 / 43	52 / 48 / 46	56 / 53 / 48
Power Supply	1	Ø, V, Hz	1, 220-240, 50	1, 220-240, 50	1, 220-240, 50
Communicati	on Cable	mm <sup>2</sup> x No.	1.0~1.5 x 2C	1.0~1.5 x 2C	1.0~1.5 × 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

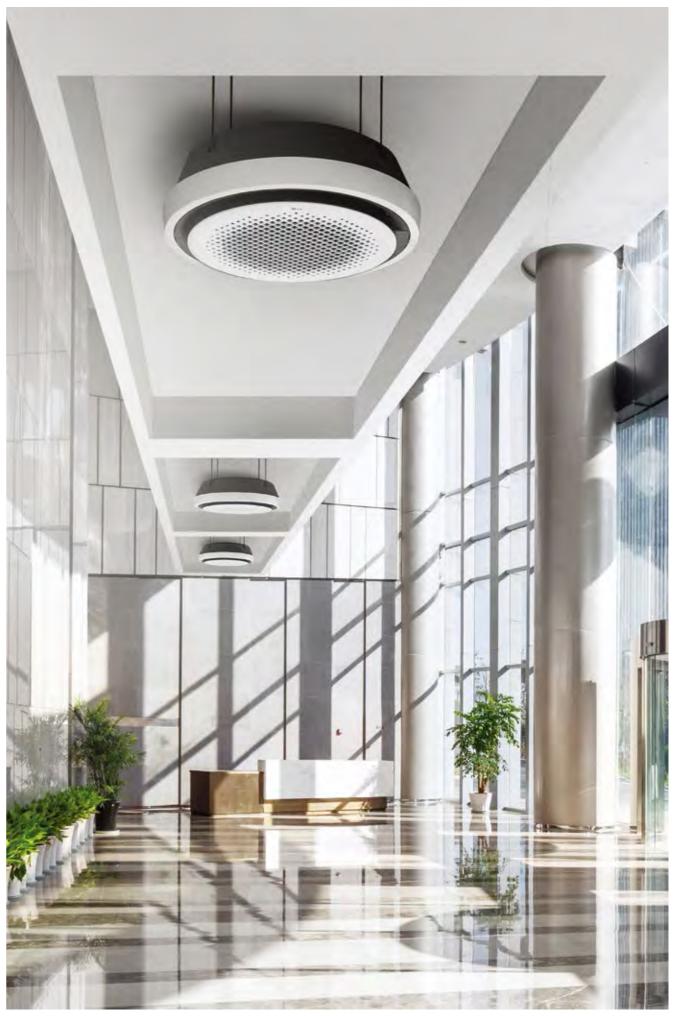
3. Due to our policy of innovation, some specifications may be changed without notification

### Accessories

Chassis	ARNU07GM1A4 ARNU09GM1A4 ARNU12GM1A4
Drain Pump	0
Cassette Cover	- -
Refrigerant Leakage Detector	PRLDNVSO
EEV Kit	- -
Independent Power Module	PRIPO
Robot Cleaner	- -
Pre Filter (Washable)	0
lon Generator	- -
CO2 Sensor	- -
Ventilation Kit	
IR Receiver	- -
Zone Controller	- -
Dry Contact (with additional accessory)	PDRYCB000 (1 point contact), PDRYCB300 (8 points for thermostat compatible), PDRYCB320 (Universal input <sup>1)</sup> ), PDRYCB400 (2 points input), PDRYCB500 (Modbus)
External Input (1 Point)	0
Wi-Fi	PWFMDD200
Human detection sensor	-
Floor Temperature Sensor	- -
Air cleaning kit	-
Elevation Grille	-

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





INDOOR UNITS

CEILING MOUNTED ROUND CASSETTE

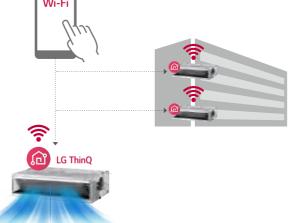
134 / 135

# **SMART**

#### Wi-Fi Control

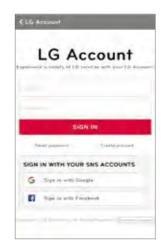
Anytime, anywhere access with LG ThinQ mobile app.





#### Easy Registration and Log-in

Follow the easy set-up steps that will activate LG ThinQ's user-friendly features.



#### Simple operation for various functions



On/Off, Current Temp

Vane Contro

CEILING **CONCEALED DUCT** 

#### Features & Benefits

• Easy and flexible duct adjusts air volume with External Static Pressure (ESP) control fuction.

• Minimalist visibility (Hidden within ceiling) to blend seamlessly into any interior

#### **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

# **ENERGY EFFICIENCY**

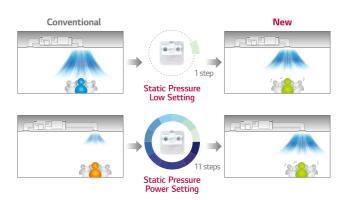
## **External Static Pressure (ESP) Control**

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.



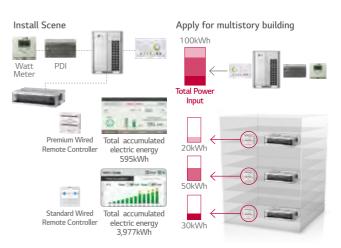
## Static Pressure 11- Step Control

Depending on the installation environment, LG's ceiling concealed duct controls the static pressure with 11steps to provide maximized comfort to any environment.



## **Energy Monitoring**

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.

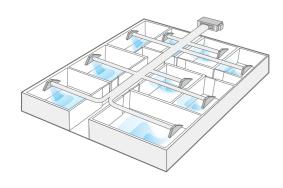


Outdoor unit's accumulated electric energy / using rate of individual indoor unit + indoor unit's accumulated electric energy is displayed in wired remote controller, only when central controller, digital integrating electricity meter and PDI are installed and PDI, outdoor unit and indoor unit are connected 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

## Multiple Room Operation

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



## Filter Alert

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 2,400hr.

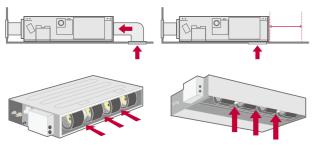


Remain time until indoor filter cleaning 1,729hr.

## Flexible Installation (Low Static Duct Only)

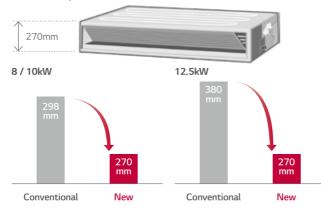
The low static duct allows the air intake at the rear or bottom under specific installation conditions.

Air intake at the rear or bottom



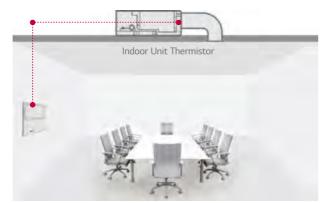
## Minimized Height

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 be controlled by external devices without dry contact, so customer can save cost of installation.

Connection between an indoor unit and external devices directly



% 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 Capa	city	kW	2.2	2.8	3.6	4.5	5.6	7.1
Heating Capa	icity	kW	2.5	3.2	4.0	5.0	6.3	8.0
Power Input (H / M / L)	Nominal	W	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 x H x D)	Shipping	mm	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				
	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)	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	ıre 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
Power 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
Communicati	on Cable	mm <sup>2</sup> x No.	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C				

Note : 1. Performance tested under EN14511

#### Accessories

Chassis	ARNU07GM1A4 ARNU09GM1A4 ARNU12GM1A4 ARNU15GM1A4 ARNU18GM1A4 ARNU24GM1A4					
Drain Pump	0					
Cassette Cover	-					
Refrigerant Leakage Detector	PRLDNVSO					
EEV Kit	PRGK024A0 (~5.6kW)					
Independent Power Module	PRIPO					
Robot Cleaner	-					
Pre Filter (Washable)	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), PDRYCB320 (Universal input <sup>1</sup> ), 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
 1) Available from April 2020

# **MID STATIC**

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		kW	9.2	11.9	13.8	15.9	18.0
Power Input (H / M / L)	Nominal	W	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 x H x 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)
connections	Drain Pipe (Internal Dia.)	mm (inch)	Ø25(1)	Ø25 (1)	Ø25 (1)	Ø25 (1)	Ø25(1)
Weight	Body	kg	38.0	38.0	39.5	44.0	44.0
Sound Pressu	ıre 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
Power Supply	/	Ø, V, Hz	1, 220-240, 50	1, 220-240, 50	1, 220-240, 50	1, 220-240, 50	1, 220-240, 50
Communicati	on Cable	mm <sup>2</sup> 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
 Due to our policy of innovation, some specifications may be changed without notification

#### Accessories

Chassis	ARNU28GM2A4 ARN
Drain Pump	
Cassette Cover	
Refrigerant Leakage Detector	
EEV Kit	
Independent Power Module	
Robot Cleaner	
Pre Filter (Washable)	
Ion Generator	
CO <sub>2</sub> Sensor	
Ventilation Kit	
IR Receiver	
Zone Controller	
Dry Contact (with additional accessory)	PDRYCB000 PDRYCB320 (
External Input (1 point)	
Wi-Fi	

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



J36GM2A4	ARNU42GM2A4	ARNU48GM3A4	ARNU54GM3A4
030GWIZA-			
	0		
	-		
	<b>PRLDNVS0</b>		
	-		
	PRIPO		
	-		
	0		
	-		
	-		
	-		
	PWLRVN000		
	ABZCA		
(1 point contac Universal input <sup>1)</sup>	t), PDRYCB300 (8 point ), PDRYCB400 (2 points	s for thermostat compat input), PDRYCB500 (M	tible), odbus)
	0		
	PWFMDD200		

# CEILING CONCEALED DUCT

# **HIGH STATIC**

#### ARNU76GB8A4 / ARNU96GB8A4



Model		Unit	ARNU76GB8A4	ARNU96GB8A4
Cooling Capa	city	kW	22.4	28.0
Heating Capa	city	kW	25.2	31.5
Power Input (H / M / L)	Nominal	W	765 / 500 / 500	800 / 750 / 750
Dimensions	Body	mm	1,562 x 460 x 688	1,562 x 460 x 688
WxHxD)	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 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
ir Filter			Pre Filter	Pre Filter
	Liquid Side	mm (inch)	Ø9.52 (3/8)	Ø9.52 (3/8)
ipe onnections	Gas Side	mm (inch)	Ø19.05 (3/4)	Ø22.2 (7/8)
Connections -	Drain Pipe (Internal Dia.)	mm (inch)	Ø25 (1)	Ø25 (1)
Veight	Body	kg	87.0	87.0
ower Supply	1	Ø, V, Hz	1, 220-240, 50	1, 220-240, 50
Communicatio	on Cable	mm <sup>2</sup> x No.	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C

Note : 1. Performance tested under EN14511

#### Accessories

Chassis	ARNU76GB8A4 ARNU96GB8A4
Drain Pump	0
Cassette Cover	-
Refrigerant Leakage Detector	PRLDNVSO
EEV Kit	0
Independent Power Module	PRIPO
Robot Cleaner	-
Pre Filter (Washable)	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), PDRYCB320 (Universal input <sup>1)</sup> ), 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) Available from April 2020

# LOW STATIC

#### ARNU05GL1G4 / ARNU07GL1G4 ARNU09GL1G4

Model Cooling Capacity Heating Capacity		Unit kW	ARNU05GL1G4 1.7 1.9	ARNU07GL1G4	ARNU09GL1G4
		Power Input (H / M / L)			
Dimensions (W x H x D)	Body	mm	700 x 190 x 700	700 x 190 x 700	700 x 190 x 700
	Shipping	mm	862 x 255 x 781	862 x 255 x 781	862 x 255 x 781
Fan	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
Pipe Connections	Liquid Side	mm (inch)	Ø6.35 (1/4)	Ø6.35 (1/4)	Ø6.35 (1/4)
	Gas Side	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	Body	kg	17.5	17.5	17.5
Sound Pressure Levels (H / M / L) dB(A)		dB(A)	25 / 24 / 22	26 / 24 / 22	28 / 25 / 22
Sound Power Levels (H / M / L) dB(A)		dB(A)	48 / 46 / 45	50 / 47 / 45	53 / 49 / 45
Power Supply Ø, V, Hz			1, 220-240, 50	1, 220-240, 50	1, 220-240, 50
Communication Cable		mm <sup>2</sup> x No.	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 × 2C	1.0 ~ 1.5 x 2C

#### Accessories

Chassis	ARNU05GL1G4
Drain Pump	
Cassette Cover	
Refrigerant Leakage Detector	
EEV Kit	
Independent Power Module	
Robot Cleaner	
Pre Filter (Washable)	
Ion Generator	
CO <sub>2</sub> Sensor	
Ventilation Kit	
IR Receiver	
Zone Controller	
Dry Contact (with additional accessory)	PDRYCB000 PDRYCB320 (
External Input (1 point)	
Wi-Fi	

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

INDOOR UNITS

ARNU07GL1G4	ARNU09GL1G4
0	-
-	
PRLDNVSO	
PRGK024A0	
PRIPO	
-	
0	
-	
-	
-	
PWLRVN000	
ABZCA	
(1 point contact), PDRYCB300 (8 points for th Universal input <sup>1)</sup> ), PDRYCB400 (2 points input),	ermostat compatible), PDRYCB500 (Modbus)
0	
PWFMDD200	

### LOW STATIC

ARNU12GL2G4 / ARNU15GL2G4 ARNU18GL2G4



Model		Unit	ARNU12GL2G4	ARNU15GL2G4	ARNU18GL2G4
Cooling Capa	city	kW	3.6	4.5	5.6
Heating Capa	acity	kW	4.0	5.0	6.3
Power Input (H / M / L)	Nominal	W	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 x H x 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
an	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)
sonneccions	Drain Pipe (Internal Dia.)	mm (inch)	Ø25 (1)	Ø25 (1)	Ø25 (1)
Neight	Body	kg	23.0	23.0	23.0
Sound Pressu	ure 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
Power Supply	y	Ø, V, Hz	1, 220-240, 50	1, 220-240, 50	1, 220-240, 50
Communicati	on Cable	mm <sup>2</sup> x No.	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C

#### Accessories

Chassis	ARNU12GL2G4 ARNU15GL2G4 ARNU18GL2G4
Drain Pump	0
Cassette Cover	-
Refrigerant Leakage Detector	PRLDNVSO
EEV Kit	-
Independent Power Module	PRIPO
Robot Cleaner	-
Pre Filter (Washable)	0
on Generator	-
CO <sub>2</sub> Sensor	-
/entilation Kit	-
R Receiver	PWLRVN000
Zone Controller	ABZCA
Dry Contact (with additional accessory)	PDRYCB000 (1 point contact), PDRYCB300 (8 points for thermostat compatible), PDRYCB320 (Universal input1)), 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
 1) Available from April 2020

### LOW STATIC

#### ARNU21GL3G4 / ARNU24GL3G4

Model		Unit	ARNU21GL3G4	ARNU24GL3G4
Cooling Capa	city	kW 6.2		7.1
Heating Capa	acity	kW	7.0	8.0
Power Input (H / M / L)	Nominal	W	72 / 53 / 48	103 / 63 / 48
Dimensions	Body	mm	1,100 x 190 x 700	1,100 x 190 x 700
(W x H x D)	Shipping	mm	1,262 x 255 x 781	1,262 x 255 x 781
	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
Fan	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)
connections	Drain Pipe (Internal Dia.)	mm (inch)	Ø25 (1)	Ø25 (1)
Weight	Body	kg	27.0	27.0
Sound Pressure Levels (H / M / L) dB(A)		dB(A)	35 / 29 / 28	36 / 33 / 28
Sound Power	· Levels (H / M / L)	dB(A)	59 / 55 / 54	63 / 59 / 55
Power Supply	/	Ø, V, Hz	1, 220-240, 50	1, 220-240, 50
Communicati	on Cable	mm <sup>2</sup> x No.	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C

#### Accessories

Chassis	ARNU21GL3G4 ARNU24GL3G4
Drain Pump	0
Cassette Cover	-
Refrigerant Leakage Detector	PRLDNVSO
EEV Kit	PRGK024A0
Independent Power Module	PRIPO
Robot Cleaner	-
Pre Filter (Washable)	0
lon 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), PDRYCB320 (Universal input <sup>1)</sup> ), 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) Available from April 2020



### **HIGH SENSIBLE**

ARNU07GM2A4 / ARNU09GM2A4 ARNU12GM2A4 / ARNU15GM2A4 ARNU18GM3A4



Model		Unit	ARNU07GM2A4	ARNU09GM2A4	ARNU12GM2A4	ARNU15GM2A4	ARNU18GM3A4
Cooling Capa	city	kW	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)	Body	mm	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	ure 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
Power Supply	y	Ø, V, Hz	1, 220-240, 50	1, 220-240, 50	1, 220-240, 50	1, 220-240, 50	1, 220-240, 50
Transmission	cable	mm²	1.0 ~ 1.5 x 2C				

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 code. And "Electric characteristics" chapter should be considered for electrical work and design. Wiring cable size must comply with the applicable local and national code. And "Electric characteristics" chapter should be considered for electrical work and c Especially the power cable and circuit breaker should be selected in accordance with that.
 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 anechoic rooms by ISO 3745 standard. Sound power 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 anechoic rooms by ISO 3745 standard. Sound power level is measured on the rated condition in the anechoic rooms by ISO 3745 standard. Sound power level is measured on the rated 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	PRLDNVSO
EEV Kit	-
Independent Power Module	PRIPO
Robot Cleaner	-
Pre Filter (Washable)	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), PDRYCB320 (Universal input <sup>1)</sup> ), 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 1) Available from April 2020

### **HIGH SENSIBLE**

ARNU24GM3A4 / ARNU28GM3A4 ARNU36GB8A4 / ARNU42GB8A4 ARNU48GB8A4

Model		Unit	ARNU24GM3A4	ARNU28GM3A4	ARNU36GB8A4	ARNU42GB8A4	ARNU48GB8A4
Cooling Capa	icity	kW	7.1	8.2	10.6	12.3	14.1
Heating Capa	acity	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)	Body	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	ure Levels (H / M / L)	dB(A)	39 / 37 / 35	39 / 37 / 35	46 / 45 / 42	47 / 46 / 43	47 / 46 / 44
Sound Power	r Levels (H / M / L)	dB(A)	53 / 52 / 51	53 / 52 / 51	65 / 64 / 62	66 / 65 / 63	66 / 65 / 64
Power Supply	у	Ø, V, Hz	1, 220-240, 50	1, 220-240, 50	1, 220-240, 50	1, 220-240, 50	1, 220-240, 50
Transmission	cable	mm²	1.0 ~ 1.5 x 2C				

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 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 anechoic rooms by ISO 3745 standard. Sound power 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 anechoic rooms by ISO 3745 standard. Sound power 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 anechoic rooms by ISO 3745 standard. Sound power 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 anechoic rooms by ISO 3745 standard. Sound power 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 anechoic rooms by ISO 3745 standard. Sound power level is measured on the rated condition in the anechoic rooms by ISO 3745 standard.
4. Capacities are net capacities and based on the following conditions. Refer to the Outdoor Unit Specifications for calculating the real capacity.
4. Cooling : Indoor Ambient Temp. 27°CDB / 19°CWB, Outdoor Ambient Temp. 35°CDB / 24°CWB
4. Heating : Indoor Ambient Temp. 20°CDB / 15°CWB, Outdoor Ambient Temp. 7°CDB / 6°CWB
4. Interconnected Pipe is standard length and difference of Elevation (Outdoor - Indoor Unit) is Zero.
5. Sound levels are measured at 50Pa External Static Pressure ondition.
6. \* : Air flow rate could be dif

#### Accessories

Chassis	ARNU24GM3A4 ARNU28GM3A4 ARNU36GB8A4 ARNU42GB8A4 ARNU48GB8A4
Drain Pump	0
Cassette Cover	-
Refrigerant Leakage Detector	PRLDNVSO
EEV Kit	
Independent Power Module	PRIPO
Robot Cleaner	-
Pre Filter (Washable)	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), PDRYCB320 (Universal input <sup>1)</sup> ), 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
 1) Available from April 2020

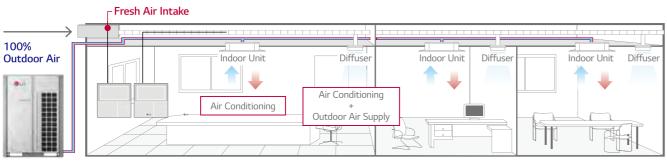


# CEILING CONCEALED DUCT

### **FRESH AIR INTAKE**

### Fresh Outdoor Air Supply

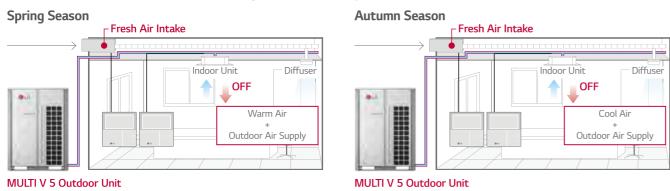
The LG Fresh Air Intake Unit (FAU) is the alternative solution for ventilation, which supplies the fresh outdoor air indoors as well as being able to cool and heat air inside simultaneously. It means the indoor space can have positive air pressure consistently, which can block cold, hot or contaminated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



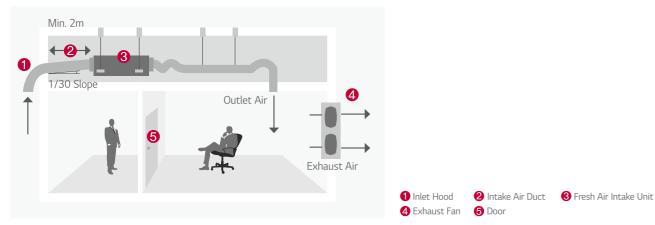
MULTI V 5 Outdoor Unit

### **Economic Operation**

Natural outdoor air is utilized as seasons change for cost efficiency.



### **Installation Scene**



### **FRESH AIR INTAKE**

ARNU76GB8Z4 / ARNU96GB8Z4

Model Unit		Unit	ARNU76GB8Z4	ARNU96GB8Z4
Cooling Capa	city	kW	22.4	28.0
Heating Capacity		kW	21.4	26.7
Power Input (H / M / L)	Nominal	W	230 / 200 / 200	360 / 230 / 230
Dimensions	Body	mm	1,562 x 460 x 688	1,562 x 460 x 688
(W x H x 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
Fan	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	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	73.0	73.0
Sound Pressure Levels (H / M / L) dB		dB(A)	45 / 43 / 43	47 / 45 / 45
Sound Power Levels (H / M / L) dB(A)		dB(A)	70 / 67 / 67	72 / 70 / 70
Power Supply	у	Ø, V, Hz	1, 220-240, 50	1, 220-240, 50
		mm <sup>2</sup> x No.	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C

Note : 1. Performance tested under EN14511

### 

	4011014		
1. Ope	eration range (Cooling : 5°C ~ 43°C, Heating :	:-5°C ~ 43°C)	2. Installation of
No	Connection Condition		
1	Fresh air intake units only are connected with outdoor units		city of fresh air in ntity of fresh air ir
2	Mixture connection with general indoor unit and fresh intake units		acity of indoor un acity of fresh air i

### Accessories

Chassis	ARNU76G
Drain Pump	
Cassette Cover	
Refrigerant Leakage Detector	
EEV Kit	
Independent Power Module	
Robot Cleaner	
Pre Filter (Washable)	
Ion Generator	
CO <sub>2</sub> Sensor	
Ventilation Kit	
IR Receiver	
Zone Controller	
Dry Contact (with additional accessory)	PDRYCB000 PDRYCB320 (U
External Input (1 point)	
Wi-Fi	

 $\otimes \bigcirc$  : Applied, - : Not applied Option : Refer to model name in table 1) Available from April 2020



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

of exhaust fan is recommended for a sealed room. 3. Indoor Unit Connection

Combination

- intak unit should be 50 ~ 100% of outdoor unit. intake is 4 units.
- nits (Standard Indoor Unit + Fresh Air Intake Unit) should be 50 ~ 100% of outdoor unit. intake unit should be less than 30% of the total capacity of indoor units

GB8Z4 ARNU96GB8Z4	
0	
-	
PRLDNVSO	
-	
PRIPO	
-	
0	
-	
-	
-	
PWLRVN000	
-	
(1 point contact), PDRYCB300 (8 points for thermostat compatible), Universal input <sup>1</sup> ), PDRYCB400 (2 points input), PDRYCB500 (Modbus)	
0	
PWFMDD200	

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

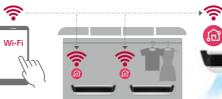
### **SMART**

### Wi-Fi Control

Access your air conditioner anytime and from anywhere.



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



LG ThinQ

**Easy Registration and Log-in** Follow the easy set-up steps that will activate LG ThinQ's impressive feature.



### COMFORT (CONVERTIBLE)

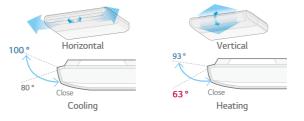
### Flexible

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 2,400 hours.



One Touch Filter

Filter Change Alarm

### Features & Benefits

Modern design with V-shape and black vane

Powerful air speed and volume can reach up to 15m

#### **Key Applications**

• Retail • Shop • Restaurant

 Ceilings
 Ceiling & Floor Convertible
 Ceiling Suspended

 Smart
 Wi-Fi
 O
 O

 Fast Cooling & Heating
 Jet Cool
 O
 O

 Comfort
 Timer (On / Off)
 O
 O
 O

 Comfort
 Timer (Weekly)
 O
 O
 O
 O

 Group control
 O
 O
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 $\otimes$   $\bigcirc$  : Applied, - : Not applied

### COMFORT (CEILING SUSPENDED)

### **Differentiated Design**

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



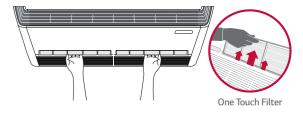
### Powerful Cooling & Heating

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**

#### ARNU09GVEA4 / ARNU12GVEA4



Model		Unit	ARNU09GVEA4	ARNU12GVEA4
Cooling Capacity		kW	2.8	3.6
Heating Capa	icity	kW	3.2	4.0
Power Input (H / M / L)	Nominal	W	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 x H x 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	Air Flow Rate (H / M / L)	m³/min	7.6 / 6.9 / 6.2	9.2 / 7.6 / 6.9
		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 Pressure 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
Power Supply	1	Ø, V, Hz	1, 220-240, 50	1, 220-240, 50
Communicati	on Cable	mm <sup>2</sup> x No.	1.0 ~ 1.5 × 2C	1.0 ~ 1.5 x 2C

Note : 1. Performance tested under EN14511

Accessories

Chassis	ARNU09GVEA4	ARNU12GVEA4		
Drain Pump	-			
Refrigerant Leakage Detector	-			
EEV Kit	PRLDN	VSO		
Independent Power Module	PRGK02	24A0		
Plasma Kit	PRIP	0		
Robot Cleaner	-			
Pre Filter (Washable)	0			
Ion Generator	-			
CO <sub>2</sub> Sensor	-			
Ventilation Kit	-			
IR Receiver	-			
Zone Controller	-			
Dry Contact (with additional accessory)	PDRYCB000 (1 point contact), PDRYCB30 PDRYCB320 (Universal input <sup>1)</sup> ), PDRYCB400			
External Input (1 point)	0			
Wi-Fi	PWFMDD	0200 <sup>1)</sup>		

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

### **CEILING SUSPENDED**

ARNU18GV1A4 / ARNU24GV1A4 ARNU36GV2A4 / ARNU48GV2A4

Model		Unit	ARNU18GV1A4	ARNU24GV1A4	ARNU36GV2A4	ARNU48GV2A4	
Cooling Capacity kW		kW	5.6	7.1	10.6	14.1	
Heating Capa	acity	kW	6.3	8.0	11.9	15.9	
Power Input (H / M / L)	Nominal	W	23 / 20 / 17	25 / 21 / 17	84 / 77 / 66	91 / 79 / 66	
Exterior Colo	or		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 x H x 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	
Fan	Motor Output x Number	W x No.	85.9 x 1	85.9 x 1	125 x 1	125 x 1	
ran	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)	
connections	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 Pressure Levels (H / M / L) dB(A)		dB(A)	36 / 34 / 33	37 / 35 / 33	48 / 46 / 44	49 / 47 / 44	
Sound Power Levels (H / M / L) dB(A)		dB(A)	61 / 59 / 56	62 / 59 / 56	68 / 66 / 64	68 / 67 / 66	
Power Supply	y	Ø, V, Hz	1, 220-240, 50	1, 220-240, 50	1, 220-240, 50	1, 220-240, 50	
Communication Cable mm <sup>2</sup> x No.		mm <sup>2</sup> x No.	1.0 ~ 1.5 x 2C				

Note : 1. Performance tested under EN14511

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
 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	PRLDNVSO					
EEV Kit	-					
Independent Power Module	PRIPO					
Robot Cleaner	-					
Pre Filter (Washable)	0					
lon Generator	-					
CO <sub>2</sub> Sensor	-					
Ventilation Kit	-					
R Receiver	-					
Zone Controller	-					
Dry Contact (with additional accessory)	PDRYCB000 (1 point contact), PDRYCB300 (8 points for thermostat compatible), PDRYCB320 (Universal input <sup>1)</sup> ), 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) Available from April 2020





#### Features & Benefits

- 6 way flexible piping
- Cold draft window protection
- Condensation protection

#### **Key Applications**

- Residential building
- Hotel
- Historical building

Flo	or standing	Console	Floor Standing
Smart		0	0
Energy Efficiency	Jet Cool	-	0
Health		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

#### INDOOR UNITS \_ CONSOLE & FLOOR STANDING \_ KEY FEATURES

### **SMART**

### Wi-Fi Control

Access your air conditioner anytime and from anywhere.



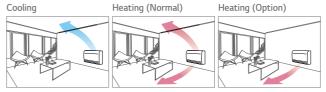
Search "LG ThinQ" on Google market or Appstore then download the app.



### **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.



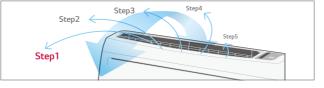
### **Cold Draft Protection**

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)

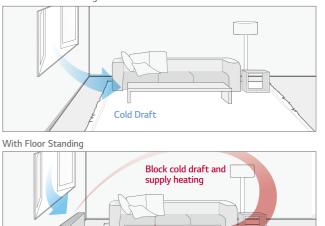


### COMFORT (FLOOR STANDING)

### Protect Cold Draft

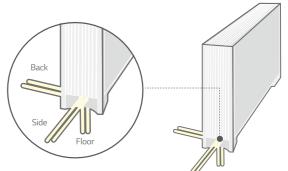
The floor standing unit protects cold draft coming from window and preventing condensation.

Without Floor Standing



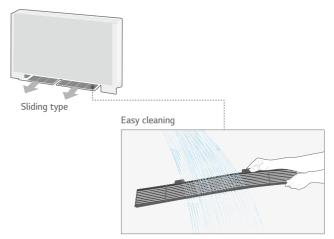
### **3 Way Flexible Piping**

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		kW	2.2	2.8
Heating Capa	icity	kW	2.5	3.2
Power Input (H / M / L)	Nominal	W	15 / 12 / 10	15 / 12 / 10
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 x H x D)	Shipping	mm	775 x 662 x 284	775 x 662 x 284
	Туре		Turbo fan	Turbo fan
Fan	Motor Output x Number	W x No.	48 x 1	48 x 1
ran	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 Pressure 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
Power Supply		Ø, V, Hz	1, 220-240, 50	1, 220-240, 50
Communicatio	on Cable	mm <sup>2</sup> x No.	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 × 2C

Note : 1. Performance tested under EN14511

#### Accessories

Chassis	ARNU07GQAA4 ARNU09GQAA4			
Drain Pump				
Cassette Cover	-			
Refrigerant Leakage Detector	PRLDNVSO			
EEV Kit	PRGK024A0			
Independent Power Module	PRIPO			
Robot Cleaner	-			
Pre Filter (Washable)	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), PDRYCB320 (Universal input <sup>1)</sup> ), 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) Available from April 2020

### **CONSOLE**

#### ARNU12GQAA4 / ARNU15GQAA4

Model		Unit	ARNU12GQAA4	ARNU15GQAA4
Cooling Capacity		kW	3.6	4.5
Heating Capa	city	kW	4.0	5.0
Power Input (H / M / L)	Nominal	W	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 x H x D)	Shipping	mm	775 x 662 x 284	775 x 662 x 284
	Туре		Turbo fan	Turbo fan
Fee	Motor Output x Number	W x No.	48 x 1	48 × 1
Fan	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)
connections	Drain Pipe (Internal Dia.)	mm (inch)	Ø12 (15/32)	Ø12 (15/32)
Weight	Body	kg	14.0	14.0
Sound Pressure 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
Power Supply	1	Ø, V, Hz	1, 220-240, 50	1, 220-240, 50
Communicati	on Cable	mm <sup>2</sup> x No.	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C

Note : 1. Performance tested under EN14511

Accessories

Chassis	ARNU12G
Drain Pump	
Cassette Cover	
Refrigerant Leakage Detector	
EEV Kit	
Independent Power Module	
Robot Cleaner	
Pre Filter (Washable)	
Ion Generator	
CO <sub>2</sub> Sensor	
Ventilation Kit	
IR Receiver	
Zone Controller	
Dry Contact (with additional accessory)	PDRYCB000 PDRYCB320 (
External Input (1 point)	· · · · · · · · · · · · · · · · · · ·
Wi-Fi	

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



iQAA4	ARNU15GQAA4
	-
	-
PRLE	NVS0
PRGK	024A0
PF	IPO
	-
	0
	0
	-
	-
	-
	-
(1 point contact), PDRYCB3 Universal input <sup>1)</sup> ), PDRYCB4	300 (8 points for thermostat compatible), 00 (2 points input), PDRYCB500 (Modbus)
	0
PWFN	IDD200

### **FLOOR STANDING**

ARNU07GCEA4 / ARNU09GCEA4 ARNU12GCEA4 / ARNU15GCEA4 ARNU18GCFA4 / ARNU24GCFA4



 $\ensuremath{\ll}$  A : Floor Standing with case

Model		Unit	ARNU07GCEA4	ARNU09GCEA4	ARNU12GCEA4	ARNU15GCEA4	ARNU18GCFA4	ARNU24GCFA4
Cooling Capa	city	kW	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)	Nominal	W	24 / 17 / 14	30 / 24 / 17	36 / 30 / 24	44 / 35 / 28	54 / 41 / 29	84 / 54 / 41
Exterior Colo	r		Morning Fog	Morning Fog				
RAL Code			RAL 9001	RAL 9001				
Dimensions	Body	mm	1,067 x 635 x 203	1,345 x 635 x 203	1,345 x 635 x 203			
(W x H x D)	Shipping	mm	1,154 x 705 x 289	1,432 x 705 x 289	1,432 x 705 x 289			
-	Туре		Sirocco Fan	Sirocco Fan				
	Motor Output x Number	W x No.	19 x 1, 5 x 1	19 x 2	19 x 2			
Fan	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)				
connections	Drain Pipe (Internal Dia.)	mm (inch)	Ø12 (15/32)	Ø12 (15/32)				
Weight	Body	kg	27.0	27.0	27.0	27.0	34.0	34.0
Sound Pressu	ıre 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
Power Supply	1	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
Communicati	on Cable	mm <sup>2</sup> x No.	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C				

Note : 1. Performance tested under EN14511

#### Accessories

Chassis	ARNU07GCEA4 ARNU09GCEA4 ARNU12GCEA4 ARNU15GCEA4	ARNU18GCFA4 ARNU24GCFA4
Drain Pump	-	-
Cassette Cover	-	-
Refrigerant Leakage Detector	PRLDNVSO	PRLDNVS0
EEV Kit	PRGK024A0	-
Independent Power Module	PRIPO	PRIPO
Robot Cleaner	-	-
Pre Filter (Washable)	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 the PDRYCB320 (Universal input <sup>1)</sup> ), PDRYCB400 (2 points input),	
External Input (1 point)	0	0
Wi-Fi	PWFMDD200	PWFMDD200

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

### **FLOOR STANDING**

ARNU07GCEU4 / ARNU09GCEU4 ARNU12GCEU4 / ARNU15GCEU4 ARNU18GCFU4 / ARNU24GCFU4

Model		Unit	ARNU07GCEU4	ARNU09GCEU4	ARNU12GCEU4	ARNU15GCEU4	ARNU18GCFU4	ARNU24GCFU4
Cooling Capa	city	kW	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)	Nominal	W	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			
ran	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)				
connections	Drain Pipe (Internal Dia.)	mm (inch)	Ø12 (15/32)	Ø12 (15/32)				
Weight	Body	kg	20.0	20.0	20.0	20.0	26.0	26.0
Sound Pressu	ıre 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
Power 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
Communicati	on Cable	mm <sup>2</sup> 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	ARNU07GCEU4 ARNU09GCEU4 ARNU12GCEU4 ARNU15GCEU4	ARNU18GCFU4 ARNU24GCFU4
Drain Pump	-	-
Cassette Cover	-	-
Refrigerant Leakage Detector	PRLDNVSO	PRLDNVS0
EEV Kit	PRGK024A0	-
Independent Power Module	PRIPO	PRIPO
Robot Cleaner	-	-
Pre Filter (Washable)	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 the PDRYCB320 (Universal input <sup>1)</sup> ), PDRYCB400 (2 points input),	
External Input (1 point)	0	0
Wi-Fi	PWFMDD200	PWFMDD200

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



※ U : Floor Standing without case

### COMPATIBILITY

	New		Required	Controller	
No.	Function Name (4 <sup>th</sup> generation indoor)	Function Description	Wired Remote Controller	Centralized Controller	Remarks
	Energy Monitoring	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.
1	(Accumulated Electric 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	<ol> <li>2 set point control by Indoor and central controller</li> <li>2) Synchronization function with remote control (Synchronization Setting and Monitoring)</li> </ol>	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)	<ol> <li>Synchronization according to occupied / unoccupied by Indoor and Central control</li> <li>Synchronization icon with remote controller (Synchronization Monitoring)</li> </ol>	0	0	* Centralized control is able to when you combine only 4 <sup>th</sup> generation indoor units (Use together with 2 <sup>nd</sup> generation and 4 <sup>th</sup> 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	roup Control Group Control can use Additional function		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 PRLDNVS0 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 Step)	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, 4 <sup>th</sup> generation Ceiling Concealed Duct can control the static pressure by 11 steps for providing comfortable environment	0	-	* Only applied in Ceiling Concealed Duct
					* Simple On/Off control by Dry Contact at Indoor [Example of Contact port by product type]
12	1 point External Input (On / Off control)	Indoor unit can be controlled by external devices without purchasing Dry contact as an accessory (All $4^{\rm th}$ generation indoors)	0	-	[Champe of COMSET (Del CP product Gpe] 2 Way Cassette : CN-CC Port (Wired remote controller installation function mode 41 is required) *1 Way / 4 Way Cassette / Celling Concealed Duct / Wall Mounted Unit Console / FAU / Floor Standing (with case / without case) : CN-EXT Port
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	* 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

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

	Wir	ed Remote Contro			Centralized Controller						
Premium (PREMTA000 PREMTA000A PREMTA000B)	Standard III (PREMTB100) (PREMTBB10)	Standard II (PREMTBB01) (PREMTB001)	Sim Simple for Hotel (PQRCHCAOQ / QW)	Simple	AC EZ (PQCSZ250S0)	AC EZ Touch (PACEZA000)	AC Smart 5 (PACS5A000)	ACP 5 (PACP5A000)	AC Manager (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	-		

 $\otimes \bigcirc$  : Applied, - : Not applied

INDOOR UNITS

COMPATIBILITY

### **COMPATIBILITY**

		Controll	er	Premium	Stand	lard III		dard ll	Sim		Simple f	or Hotel	Wireless		Dry Co	ontact			
	Produ			PREMITA000 PREMITA000A PREMITA000B	PREMTBB10	PREMTB100	PREMTBB01	PREMTB001		PQRCVC0QW		PQRCH- CA0QW	NEW PWLSSB21H (H/P)	Simple Dry Contact PDRYCB000	2 points Dry Contact PDRYCB400	Dry Contact for Thermostat PDRYCB300 (NEW) PDRYCB320*			
			ARNU-A4 ARNU-B4	0	(	)	(	)	(	)	0		0	0	0	0	0		
	Ceiling Mounted Cassette	2 Way / 1 Way	ARNU-B4 ARNU-C4	0	(	C	0		(	)	C	)	0	0	0	0	0		
		Round CST	ARNU-A4	0	(	0		C	(	)	C	)	0	0	0	0	0		
		High Sensible	ARNU-A4	0	(	C	(	0		)	C	)	Δ	0	0	0	0		
	Ceiling Concealed Duct	High / Mid Statics	ARNU-A4	0	(	0	(	0		)		)	Δ	0	0	0	0		
		Low Statics	ARNU-G4	0	(	C	(	0		)	0		Δ	0	0	0	0		
	FAU (Fresh Air intake)		ARNU-Z4	0	(	0	0		(	)	0		Δ	0	0	0	0		
	Convertible & Ceiling Suspended	_	ARNU-A4	0		C	(	C	(	0		)	0	0	0	0	0		
MULTIV	Console		ARNU-A4	0	(	C	0		0		0 0		0 0 0 0		0	0	0	0	0
	Floor Standing		ARNU-A4 ARNU-U4	0	(	D	(	D	0	0					0	0	0		
			ARNU-A4	0	(	D	(	C	(	)		)	0	0	0	0	0		
	Wall Mounted		ARNU-R4	0	(	D	(	D	(	)		)	0	0	0	0	0		
		-	ARNU-A4 ARNU-C4 ARNU-N4	0	(	D	(	C		)		)	0	0	0	0	0		
	HYDRO KIT 1)	ARNH-A4		-		-		- 0		-			-	0	-	0	-		
	Ventilation	Energy Recovery Ventilator		0	(	D	(			-			-	0	-	-	0		
		Energy Recovery Ventilator with DX coil		0		0	(	C		-			-	0	-	-	0		
	AHU Comm	unication Kit	•4 10	0	(	C	(	C					Δ	-	-	-	-		

% O : Compatible,  $\bigtriangleup$  : Need wired remote controller / IR receiver, - : Not compatible \* Available from April 2020 1) It has a separate remote controller

### **FEATURE FUNCTIONS**

Premiur		ed Remote Contr Standard II	Simple	Simple(Hotel)	Wireless Remote Controller	Wi-fi Controller
251 (100 40	0-0-0-0-0-0	10				7 210 81
PREMTAO PREMTAOO PREMTAOO	DOA PREIMIBIOU	PREMTB001 PREMTBB01	PQRCVCL0Q PQRCVCL0QW	PQRCHCA0Q PQRCHCA0QW	NEW PWLSSB21H (H/P)	PWFMDD20
Off O	0	0	0	0	0	0
peed Control O	0	0	0	0	0	0
erature Setting O	0	0	0	0	0	0
Change O	0	0	0	-	0	0
Swing O	0	0	0	0	0	
Control O er Angle)	0	0	0	0	0	0
mal Static Pressure)	0	0	0	0	-	-
ic Failure O	0	0	0	0	-	0
r Temperature Display O	0	0	0	0	0	
utton Lock O	0	0	0	0	-	-
lule / Timer Weekly - Ye	early Weekly - Yearly	Weekly	-	-	Sleep / On / Off	Weekly
onal Mode Setting 1) O	0	0	-	-	-	-
Display O	0	0	-	-	0	-
d. Display O	0	-	-	-	-	-
nced Lock e, set point, set point Advanced L , on/off Lock)	lock Advanced Lock	-	-	-	-	-
Sign O	0	0	-	-	-	-
y Management <sup>2)</sup> O	0	0	-	-	-	-
Set Point O	0	-	-	-	-	-
n Detection -	0	-	-	-	-	-
Humidity O	0	-	-	-	-	-
AP mode setting O	0	0	0	0	0	-
tion Status LED O	0	0	0	0	-	-
ess Remote Controller	-	O <sup>3)</sup>	O <sup>3)</sup>	O <sup>3)</sup>	-	-
y 5 inch Co	lor 4.3 inch Color	4.3 inch mono	2.6 inch mono	2.6 inch mono	2 inch mono	-
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	-
Light Control for O	0	-	-	-	-	-
n Saver		uct	uct	uct	uct	

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



Cost Savings with High Efficiency

**EFFICIENCY** 

### **HYDRO KIT**

### **Features & Benefits**

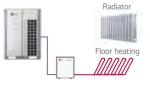
• Lower operation cost compared to fossil fuel-based systems such as boilers. More energy saving through MULTI V heat recovery system.

### **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.

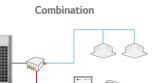


Radiant Heating / Cooling







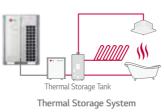


Heating

Fan Coil Unit Heating / Cooling

FCU

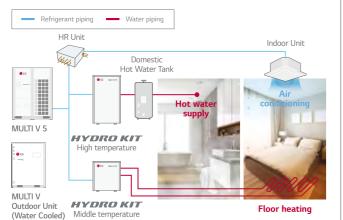




### **CONVENIENCE**

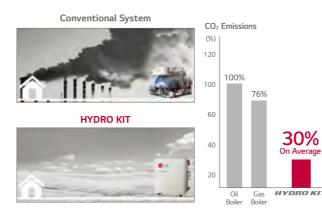
### **Total Solution**

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



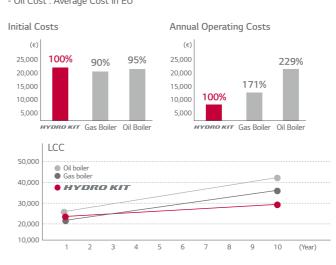
### **Eco-friendly Solution**

Green energy solution through the reduction of  $CO_2$ emmisions.





- 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

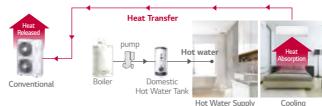


### **Energy Savings through** Heat Recovery

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

#### Conventional

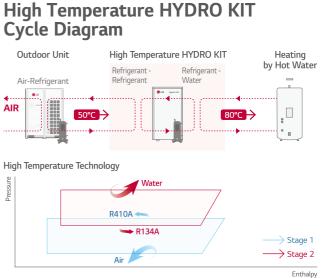
Absorbed heat is released to outdoor air.



HYDRO KIT

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





# HOT WATER SOLUTION

HYDRO KIT

### Various Applications

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



Fitness



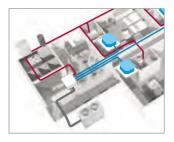




Residential

### Hotel Application

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



### Office Application

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



166 / 167

### **HYDRO KIT**

#### ARNH04GK2A4 / ARNH10GK2A4



Model		Unit	ARNH04GK2A4	ARNH10GK2A4
Cooling Capa	city	kW	12.3	28.0
Heating Capa	acity	kW	13.8	31.5
Power Input	Nominal <sup>1)</sup>	W	10	10
Exterior Colo	r		Morning Gray	Morning Gray
RAL Code			RAL 7030	RAL 7030
Dimensions	Body	mm	520 x 631 x 330	520 x 631 x 330
(W x H x 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	ıre Levels (H / M / L)	dB(A)	26	26
Power Supply	/	Ø, V, Hz	1, 220-240, 50	1, 220-240, 50
Communicati	on Cable	mm <sup>2</sup> x No.	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C

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)

 Piping Length : Interconnected Pipe Length = 7.5m
 Difference Limit of Elevation (Outdoor - Indoor Unit) is Zero.
 MULTI V S 4HP (ARUN040GSS0, ARUN040LSS0) cannot be connected to Hydro Kit.
 MULTI V Water S cannot be connected to Hydro Kit.
 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	PRL	DNVSO				
EEV Kit		-				
Independent Power Module		0				
Robot Cleaner		-				
Pre Filter (Washable)	-					
Ion Generator	-					
CO <sub>2</sub> Sensor		-				
Ventilation Kit		-				
IR Receiver		-				
Zone Controller		-				
Dry Contact (with additional accessory)	PDRYCB000 (1 point contact), PDRYCB300 (8 points for thermostat compatible) PDRYCB320 (Universal input <sup>1)</sup> )					
External Input (1 point)	0					
Wi-Fi	PWFMDD200					

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

### **HYDRO KIT**

#### ARNH04GK3A4 / ARNH08GK3A4

Model		Unit	ARNH04GK3A4	ARNH08GK3A4
Heating Capa	icity	kW	13.8	25.2
Power Input	Nominal <sup>1)</sup>	W	2,300	5,000
Exterior Colo	r		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
	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)
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	87.0	91.0
Sound Pressu	ire Levels (H / M / L)	dB(A)	43	46
Power Supply	/	Ø, V, Hz	1, 220-240, 50	1, 220-240, 50
Communicati	on Cable	mm <sup>2</sup> x No.	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C

1) Nominal : Performance tested under EN14511

Note: 1. Capacities are based on the following conditions:
Heating: Indoor 20°C (68°F) DB / 15°C (59°F) WB, Outdoor 7°C (44.6°F) DB / 6°C (42.8°F) WB, Water Inlet 55°C (131°F) / Outlet 65°C (149°F)
Piping Length: Interconnected Pipe Length = 7.5m
Difference Limit of Elevation (Outdoor ~ Indoor Unit) is Zero.
MULTI V S 4HP (ARUN040GSS0, ARUN040LSS0) cannot be connected to Hydro Kit.
MULTI V Water S cannot be connected to Hydro Kit.

#### Accessories

Chassis	ARNH04GK3A4 ARNH08GK3A4
Drain Pump	-
Cassette Cover	-
Refrigerant Leakage Detector	PRLDNVSO
EEV Kit	-
Independent Power Module	0
Robot Cleaner	-
Pre Filter (Washable)	-
lon Generator	-
CO <sub>2</sub> Sensor	-
Ventilation Kit	-
IR Receiver	-
Zone Controller	-
Dry Contact (with additional accessory)	PDRYCB000 (1 point contact), PDRYCB300 (8 points for thermostat compatible) PDRYCB320 (Universal input <sup>1)</sup> )
External Input (1 point)	0
Wi-Fi	PWFMDD200

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



HOT WATER SOLUTION

HYDRO KIT

## VENTILATION SOLUTIONS

ERV / ERV WITH DX COIL





1-3

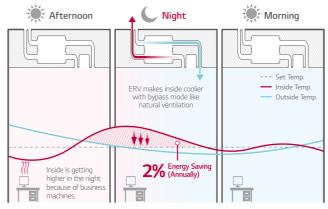
### **Exhaust System**

The exhaust system uses a high static sirocco fan to effectively remove contaminants from indoor air. Supply and exhaust air flows are completely separated in the heat exchanger, allowing the LG ERV to filter out impurities before supplying outdoor air to ensure indoor air is fresh and healthy.



### Night Time Free Cooling

During summer nights, indoor heat can be discharged outdoors and cool outdoor air can be brought indoors for energy savings.



% 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.

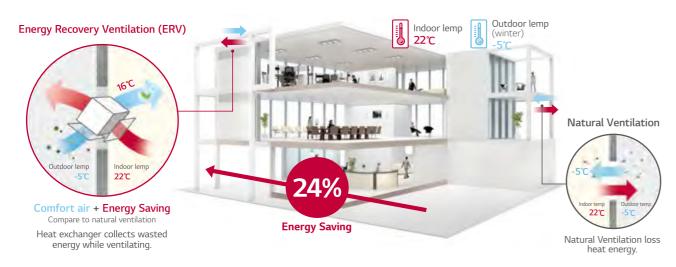
 Office (49,000ft<sup>2</sup>) / Occupancy: 30 / Area : London, UK
 ERV (1000 CMH) + MULTI V 4 (12HP) Unit Combination Other conditions are subject to BREEAM.

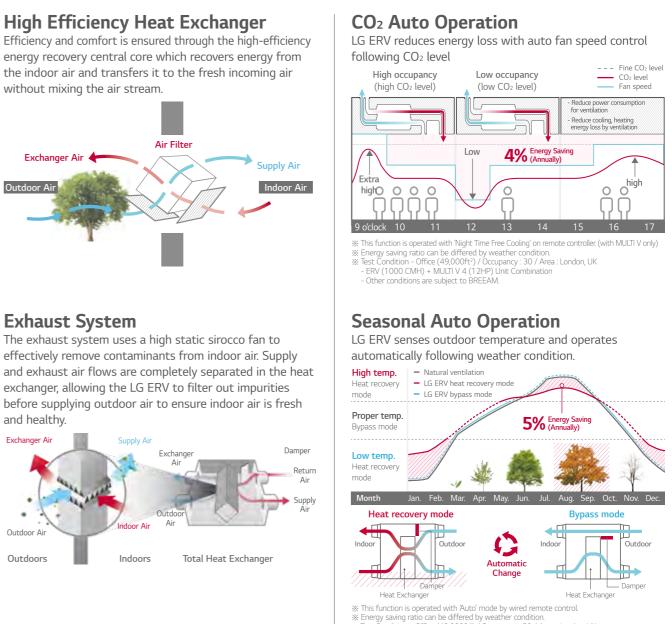
#### \* Test Condition

### **NECESSITY OF ERV**

126.57

North Party





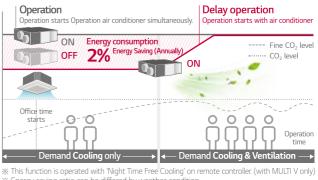
### INDOOR UNITS \_ VENTILATION SOLUTIONS ERV \_ KEY FEATURES

\* Test Condition: - Office (49,000ft<sup>2</sup>) / Occupancy: 30 / Area : London, UK - ERV (1,000 CMH) + MULTI V 4 (12HP) Unit Combination

Other conditions are subject to BREEAM.

### **Delay Operation**

When the air conditioner and ERV are switched on simultaneously, delay operation can reduce unnecessary heating and cooling energy loss by slowing down automatic ERV operation.



Energy saving ratio can be differed by weather con % 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.

VENTILATION SOLUTIONS

ERV

### **COMFORT & RELIABILITY**

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

 $CO_2$  sensor senses  $CO_2$  level in the room. Users can monitor  $CO_2$  level on new wired remote controller, and ERV controls the fan speed automatically following the level.

### CO2 Level Visualization

 $\mathsf{CO}_2$  sensor senses indoor  $\mathsf{CO}_2$  level and displays it on new wired remote controller.





CO<sub>2</sub> level and room condition are

**Main display** If the  $CO_2$  level is above 900ppm in the room, the red mark is on.

CO<sub>2</sub> CO<sub>2</sub> CO<sub>2</sub> Comfort level 20.5° CO2

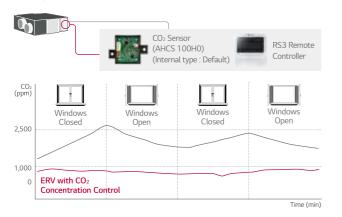
CO2

Further information

The remote controller screen image may change.
 Applicable to only Standard III, Premium remote controller.

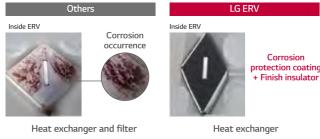
### CO<sub>2</sub> Concentration Control

Using  $CO_2$  sensor, LG ERV controls exhaust air flow automatically to keep indoor air fresh under settled  $CO_2$  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.



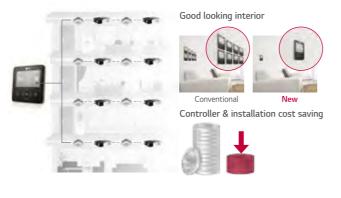
Indoor CO<sub>2</sub> level
 Alarm for filter change / Remained time to change filters

### Group Control

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

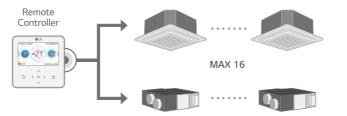
### Several units combination

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.

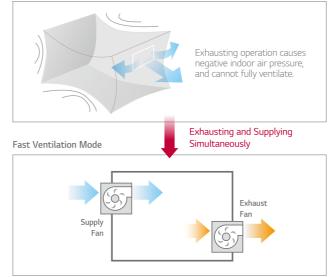


### CONVENIENCE

### Fast Ventilation Mode

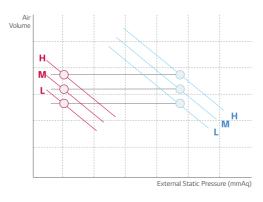
Fast ventilation mode prevents the spread of contaminants under negative indoor pressure, and makes indoor air fresh and comfortable quickly.

Only Exhausting



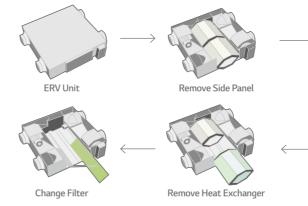
### External Static Pressure Control

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.



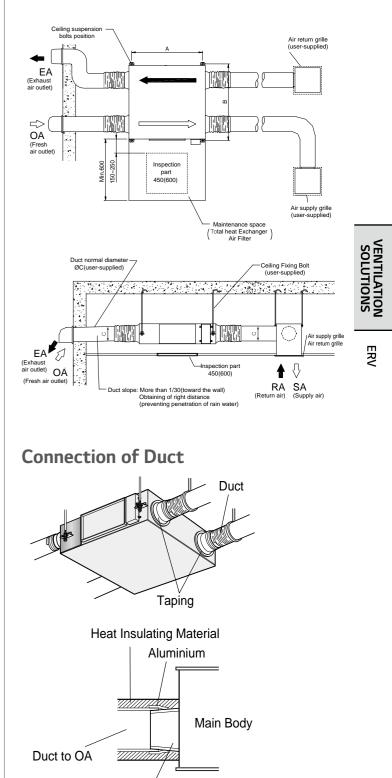
### Easy Cleaning and Filter Change

Filter can be conveniently changed and cleaned.



### **Installation Scene**

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



Duct Connection Flange

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



Model			Unit	LZ-H025GBA4	LZ-H035GBA5	LZ-H050GBA5
Dimensions (W x H x D)	Body		mm		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	A	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
	Energy Label	A+ to G Scale		A	В	В
	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	A	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	W	97 / 87 /52	150 / 125 / 60	247 / 230 / 95
sypass mode	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	
		Size (Ø)	mm		Ø200	
Supply Air Fan		Qty	EA		1	
		Туре			Direct-Drive Sirocco	
Exhaust Air Fan		Qty	EA		1	
Allaust All Fall		Туре			Direct-Drive Sirocco	
		Qty	EA		2	
ilters		Туре			Cleanable fibrous fleeces	
		Size (W x H x D)	mm		855 x 10 x 166	

Note : 1. ERV mode : Total Heat Recovery Ventilation mode

Refer to dimensional drawings.
 Noise level :

Noise level :

 The operating conditions 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.
 Temperature and Enthalpy Exchange Efficiency at cooling Indoor Temperature : 26.5°C DB, 65.5% RH, Outdoor Temperature : 34.5°C DB, 75% RH
 Temperature and Enthalpy Exchange Efficiency at heating Indoor Temperature : 20.5°C DB, 59.5% RH, Outdoor Temperature : 5°C DB, 65% RH
 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)		-	
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		-	

 $\otimes \bigcirc$  : Applied, - : Not applied

Option : Refer to model name in table

### **ERV**

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

Model			Unit	LZ-H080GBA5	LZ-H100GBA5	LZ-H150GBA5	LZ-H200GBA5	
Dimensions (W x H x D)	Body		mm		1,101 x 405 x 1,230		1,353 x 815 x 1,230	
Weight	Body		kg	6	53	1.	30	
Power Supply			Ø, V, Hz	1, 220-	-240, 50	1, 220-	240, 50	
Normal Air flow	1		m³/h	800	1,000	1,500	2,000	
	Operating Step			Super-high	Super-high / High / Low		Super-high / High / Low	
	Current	SH / H / L	A	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 / 1,60	
	External Static Pressure	SH / H / L	Pa	160 / 100 / 50	160 / 100 / 50	160 / 100 / 50	160 / 100 / 50	
ERV Mode	Temperature Exchange Efficiency	SH / H / L	%	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	A	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 would	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 / 1,60	
	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		
DUCL WOIK		Size (Ø)	mm	Ø	250	Ø250 + Ø350		
Supply Air Fan		Qty	EA		1		2	
Supply Air Fan		Туре		Direct-Dr	ive Sirocco	Direct-Dr	ve Sirocco	
Exhaust Air Fan		Qty	EA		1		2	
EXIIdust Alf Fan		Туре		Direct-Dr	ive Sirocco	Direct-Dr	ve Sirocco	
		Qty	EA		2		4	
Filters		Туре		Cleanable fi	brous fleeces	Cleanable fil	prous 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 :

Noise level :

 The operating conditions 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.

 Temperature and Enthalpy Exchange Efficiency at cooling Indoor Temperature : 20.5°C DB, 64.5% RH, Outdoor Temperature : 34.5°C DB, 75% RH
 Temperature and Enthalpy Exchange Efficiency at heating Indoor Temperature : 20.5°C DB, 59.5% RH, Outdoor Temperature : 5°C DB, 65% RH
 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)	
Ion Generator	en e
CO <sub>2</sub> Sensor	O
Ventilation Kit	
IR Receiver	en e
Zone Controller	
Dry Contact (with additional accessory)	PDRYCB000 (1 point contact) PDRYCB500 (Modbus)
External Input (1 point)	
Wi-Fi	-

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



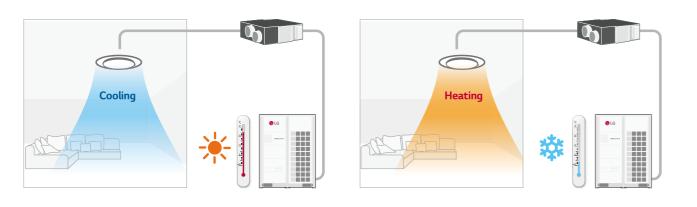
VENTILATION SOLUTIONS

ERV

### **ERV WITH DX COIL**

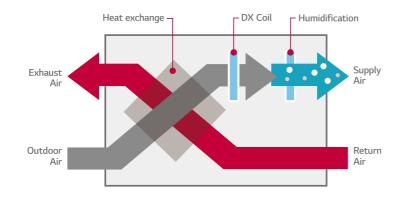
### **Providing Cool & Warm Fresh Air**

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.



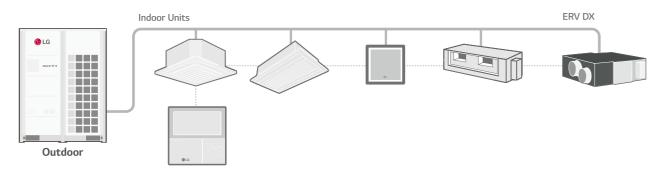
### **Total Air Conditioning Solution**

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. During winter, warm air is provided by heating and humidifying 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	kW	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
Air Flow Rate	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 / 82
All Flow Rale	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 / 82
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		Nat	ural Evaporating	Туре		-	
Humidifier	Amount	kg/h	2.70	4.00	5.40		-	
	Pressure Feed Water	Mpa		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
Sound Pressure	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			R410A					
Power Supply		Ø, V, Hz	1, 220-240, 50,60					
Power Input	Heat Exchange 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 / 0.2
(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 / 0.2
Nominal Running	Heat Exchange Mode (SH / H /	L) A	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)	A	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 Sys	tem		Air to air cross flow total heat (Sensible + Latent heat) exchange			Air to air cross flow total heat (Sensible + Latent heat) exchange		
Heat Exchange Eler	nent		Specially processed non-flammable paper		Specially processed non-flammable paper			
Air Filter			Multidirectional fibrous fleeces			Multidirectional fibrous fleeces		
Dimensions	W×H×D	mm	1	,667 x 365 x 1,14	0	1	,667 x 365 x 1,14	0
Net Weight		kg		105			98	
-	Liquid	mm		Ø6.35		Ø6.35		
	Gas	mm		Ø12.7			Ø12.7	
Piping Connection	Water	mm		Ø6.35			-	
	Drain Pipe (Internal Dia.)	mm (inch)		Ø25 (1)			Ø25 (1)	
Connection Duct D	iameter	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 4. 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.

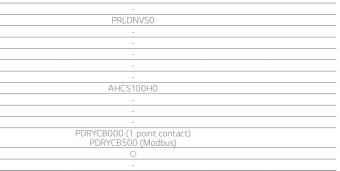
#### Accessories

Chassis	LZ-H050GXH4
Drain Pump	
Cassette Cover	
Refrigerant Leakage Detector	
EEV Kit	
Independent Power Module	
Robot Cleaner	
Pre Filter (Washable)	
Ion Generator	
CO <sub>2</sub> Sensor	
Ventilation Kit	
IR Receiver	
Zone Controller	
Dry Contact (with additional accessory)	
External Input (1 point)	
Wi-Fi	

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



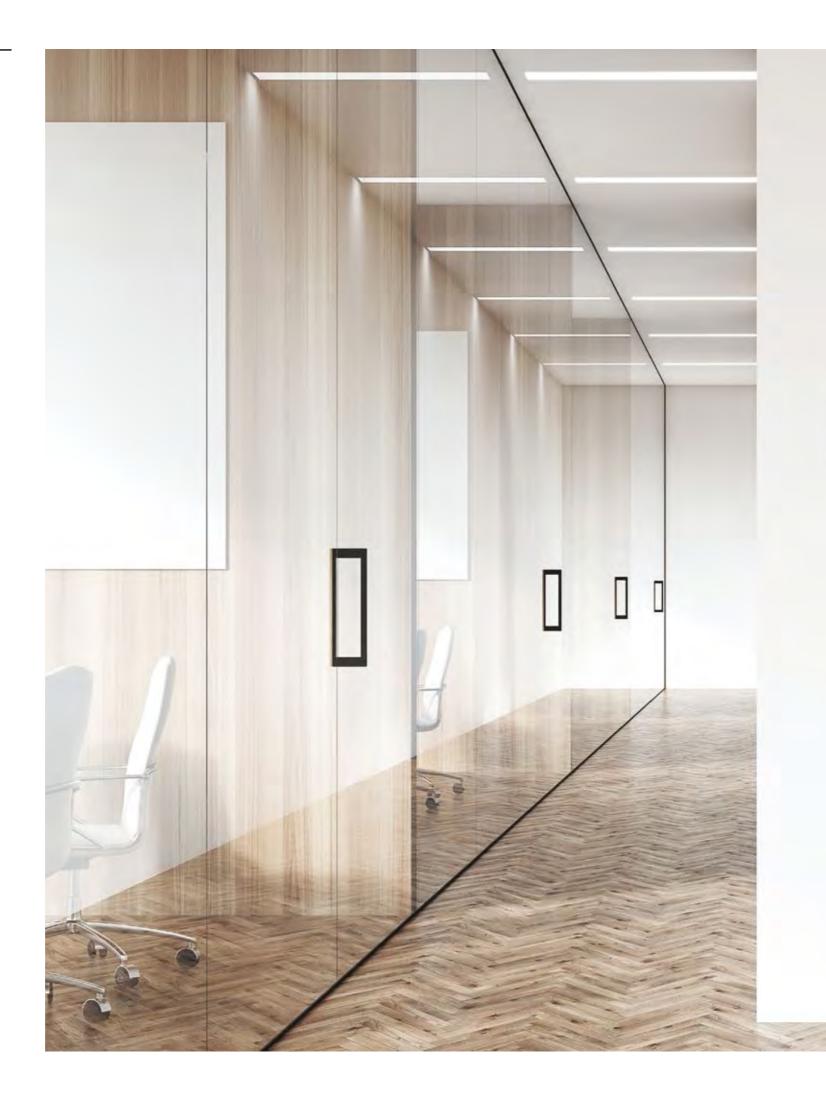
#### LZ-H080GXH4 LZ-H100GXH4 LZ-H050GXN4 LZ-H080GXN4 LZ-H100GXN4



ERV WITH DX COIL

# CONTROL SOLUTIONS

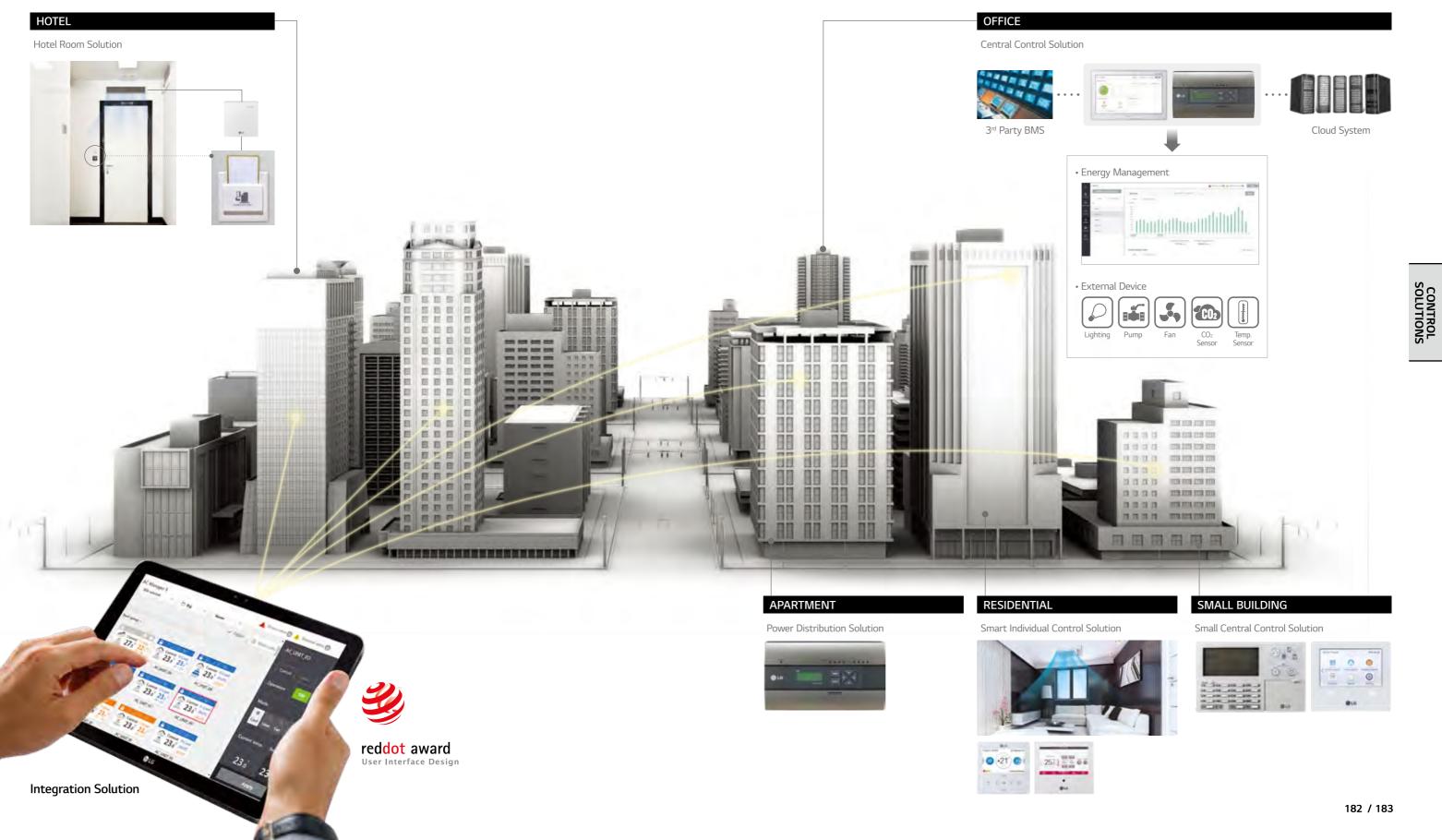
INDIVIDUAL CONTROL / CENTRALIZED CONTROL





### 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 control systems are equipped with user-friendly interface, flexible interlocking environment, energy management and smart individual controller for optimized controlling conditions and smart building management.



### **INDIVIDUAL** CONTROL





### **FEATURE FUNCTIONS**

Controller Name			Wire	ed Remote Contr	oller		Wireless	Wi-Fi
Controller	Name	Premium	Standard III	Standard II	Simple	Simple(Hotel)	Remote Controller	Controller
Nodel Name		28)(000 44)						2 810 15
		PREMTA000 PREMTA000A PREMTA000B	PREMTB100 PREMTBB10	PREMTB001 PREMTBB01	PQRCVCL0Q PQRCVCL0QW	PQRCHCA0Q PQRCHCA0QW	NEW PWLSSB21H (H/P)	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	-	-	-	-	-
Advanced	Filter Sign	0	0	0	-	-	-	-
	Energy Management <sup>2)</sup>	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	O <sup>3)</sup>		O 3)	O <sup>3)</sup>	O <sup>3)</sup>		-
TC	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	-	-	-	-	_

※ ○ : Applied, - : Not Applied
 1) It might not be indicated or operated at the partial product
 2) Centralized control (PACEZA000 / PACS5A000 / PACP5A000 / 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)

INDIVIDUAL CONTROL

### STANDARD III WIRED REMOTE CONTROLLER

4.3 inch colored screen with modern design



PREMTB100 (White)

PREMTBB10 (Black)

### Features & Benefits

- 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)
- 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) <sup>2)</sup>	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 Popur / 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 Applied

1) 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.
- 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 Savings**

- **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, users can control for how long a device works and have it stop automatically.

### 2 Set Points Control

#### Auto Changeover for convenience

- With 2 set points control function, indoor unit manages room temperature automatically.

#### Setback for energy savings and comfort

- In the user's absense, the room temperature will remain between two set points rather than switching off providing quick comfort when the mode is changed to occupied.
- % This function is for Heat Recovery system or Single heat pump. Otherwise it is not quaranteed

### External Device On / Off



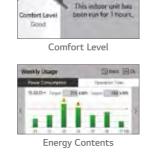
**External Equipment Control** User can turn the external equipment off or on through contact point output.

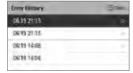
### Schedule Function



Simple Schedule Status Standard III remote controller provides clock type daily schedule.





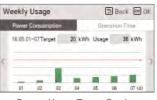


Error History



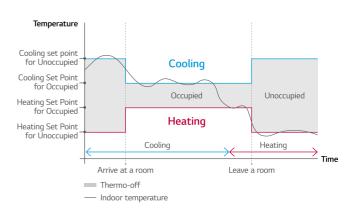


Instantaneous Power Check



Energy Usage Target Setting







Customized Interlocking Control User can create a control scenario where the external heater switches on when temperature drops below or rises above a certain temperature.

Exception Day	End er
2016.05.21	
2017.05.21	
2018.05.21	
2019,05,21	

Exception Day settings Possible to set up exceptional date on regular schedule.

CONTROL SOLUTIONS

### PREMIUM WIRED REMOTE CONTROLLER

5 inch full touch screen with a premium design.



PREMTA000<sup>1)</sup> / PREMTA000A<sup>2)</sup> / PREMTA000B<sup>3)</sup>

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)



103 103 25.0

### Easy Energy Management

- Check the operation hour or electricity usage - 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



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 Max. 16 Indoor units by one remote controller.

Model Name	PREMTA000 / PREMTA000A / PREMTA000B
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
Auto Swing	0
Vane Control (Louver direction)	0
E.S.P (External Static Pressure) <sup>2)</sup>	0
Reservation	Simple / Sleep / On / Off / Weekly / Yearly / Holiday
Time Display	0
Electric Failure Compensation	0
Child Lock	0
Filter Sign	○ (Remain time + Alarm)
Energy Management	Check Energy Usage <sup>3)</sup> / Check Operation Time / Target Setting (Energy, Operation Time) / Time Limit Opera- tion / Alarm Popup / Initialization Usage Data
Operation Status LED	O
Indoor Temperature Display	0
Wireless Remote Controller Receiver	O <sup>4</sup> )
Display	5 Inch TFT color LCD (480 x 272)
Size (W x H x D, mm)	137 x 121 x 16.5
Black Light for Screen Saver	0
Home Leave	2 Set Points Control

 $\otimes \bigcirc$  : Applied, - : Not Applied 1) 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.

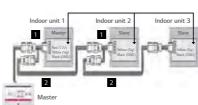
4) For ceiling type ducted unit

Note : 1. Indoor unit needs to have functions requested by the controller 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

### 1000 ā 750 m







### **STANDARD II WIRED REMOTE CONTROLLER**

#### Providing easy control of one or a group of indoor units with various functions.



PREMTB001 (White)

### Features & Benefits

• Wired remote controller that can implement various functions such as scheduling or filter alert.

### SIMPLE WIRED REMOTE CONTROLLER

A simple way to control office or hotel systems in a compact design.





PQRCVCL0QW (White) / PQRCVCL0Q (Black)

PQRCHCA0QW (White) / PQRCHCA0Q (Black)

### Features & Benefits

Small remote control with minimal functionality

### WIRELESS REMOTE CONTROLLER



PWLSSB21H (H/P)

### Features & Benefits





NEW

Model Name	PREMTB001 / PREMTBB01
On / Off	0
Fan Speed Control	0
Temperature Setting	0
Node Change	Cooling / Heating / Auto / Dehumidification / Fan
Additional Mode Setting	Energy-Saving Cooling / Robot Cleaning / Heater / Humidification
Auto Swing	0
/ane 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
ndoor 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	0

O: Applied, -: Not Applied1) For ceiling type ducted unit

2) This function requires PDI (PQNUD1S40 / PPWRDB000) to be installed. Note : Indoor unit needs to have functions requested by the controller

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

1) For ceiling type ducted unit

Note : Indoor unit needs to have functions requested by the controller

Model Name	PWLSSB21H (H/P)				
On / Off	0				
Fan Speed Control	O <sup>1)</sup>				
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				
ndoor 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

1) For some products, you can use "slow" fan speed function.

INDIVIDUAL CONTROL

### LG Wi-Fi MODEM

Control LG air conditioners by using internet devices as Android or iOS smartphones.



PWFMDD200

### Features & Benefits

- User can enjoy anytime, anywhere access with Wi-Fi equipped device through LG's ThinQ mobile app.
- This allows the user to access the unit remotely to switch unit on or off before or after leaving the vicinity.
- LG's exclusive Home Appliances control app (LG ThinQ) 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<sup>2)</sup>
- Filter Management
- Error Check

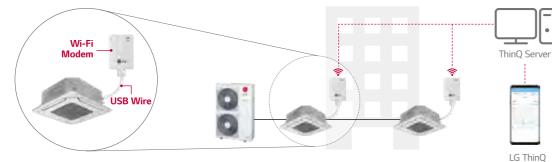
#### Model Name PWFMDD200 Size (W x H x D, mm) 48 x 68 x 14 MULTI V Indoor unit 3) Interfaceable Products Indoor unit 1:1 Connection Type Communication Frequency 2.4 GHz Wireless Standards IEEE 802.11b/g/n LG ThinQ (Android v4.1(Jellybean) or higher, iPhone iOS 9.0 or higher) Mobile Application PWYREW000 (10m extension) Optional Extension Cable

1) Vane Control may not be possible according to the type of Indoor unit Ide Control may not be possible according to the type of motor unit.
 Ide Centralized controller and PDI installation is required for this function
 For the compatibility with Indoor unit, please contact regional LG office
 Note : 1. Functionality may be different according to each IDU model
 User interface of application shall be revised for its design and contents improve
 Acclleration statistication in the provided for the day of the day

3. Application is optimized for smartphone use, so it may not be well functioning with tablet devices

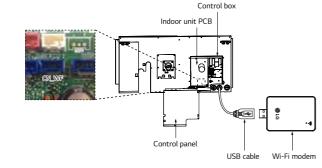






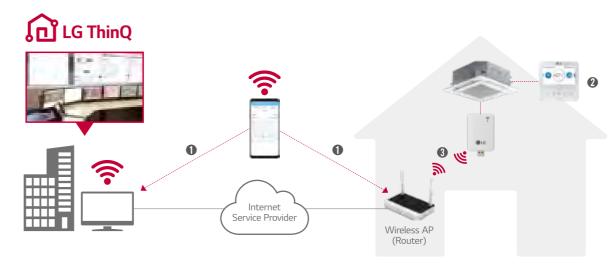
※ Search "LG ThinQ" on Google market or Appstore then download the app. ※ Internet service with Wi-Fi connection has to be available.

### Installation Scene



\* Each indoor unit has a Wifi modem installation location inside the product, and it can be installed by exposure if necessary.

### LG ThinQ Connectivity



Connection (Pairing) Order

1 Make LG account on LG 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

### ThinQ Mobile App

Simple operation for various functions

On / Off, Current Temp Mode, Set Temp



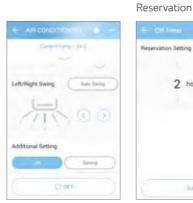


0

2 hours later

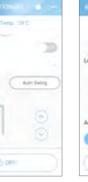
## Air Flow Mod a/Down Swine

#### Easy Management



	Pow	et		-	NY.
		3	017	03.2	0~1
	Consu	mptio	n.		
	Operat	ion ti	me		
		10	2 100	th minist	-73
	0		***	-	y ada
1					

#### Vane Control





#### Energy Monitoring



#### Smart Diagnosis

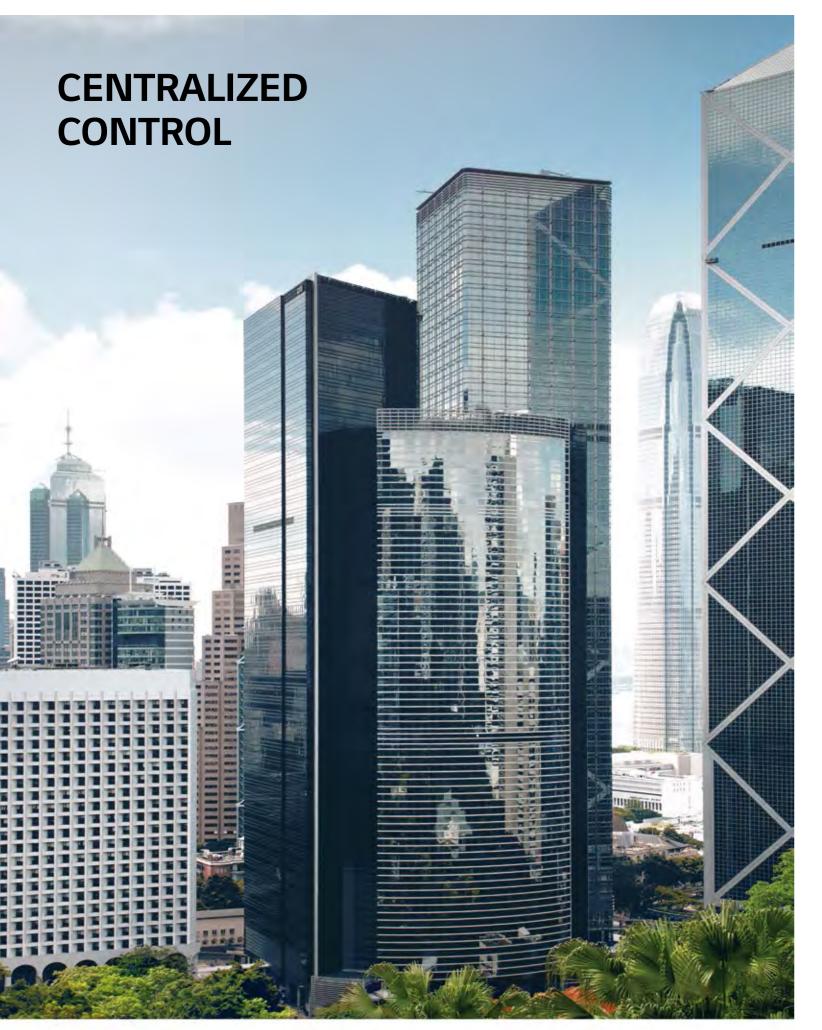


#### Filter Management



# CONTROL SOLUTIONS

INDIVIDUAL CONTROL



### **CENTRALIZED CONTROLLER FEATURE LIST**

Controller Na	ame		AC Ez	AC Ez Touch	AC Smart 5 <sup>5)</sup>	ACP 5 <sup>5)</sup>	ACP Lonworks	AC Manager 5
Model Name								
			PQCSZ250S0	PACEZA000	PACS5A000	PACP5A000	PLNWKB000	PACM5A000
	DO			-	2	4	2	-
	DI			1	2	10	2	-
		IDUs	32	64	128	256	64	8,192
Product	Mari	ERV	32	64	128	256	64	8,192
	Max. Connectable	A/C + ERV	32	64	128	256	64	8,192
	No.	AHU	_	-	16	16	16 4)	16 x 32
		Chiller		_	5 Optional <sup>2)</sup>	10 Optional <sup>2)</sup>		10 x 32
	Air Condition	er	O 1)	0	0	0	0	0
	Ventilation (	ERV / ERV DX)	O <sup>2)</sup>	0	0	0	0	0
C	Heating		-	0	0	0	0	0
Compatibility	AHU		_	_	0	0	0	0
	Chiller		-	-	O <sup>4)</sup>	O <sup>4</sup> )	-	0
	ACS IO			-	O <sup>4</sup> )	O <sup>4</sup> )	O 4)	0
	Add Drawing		-	-	O 4)	O <sup>4</sup> )	O <sup>4)</sup>	0
	Group Management		-	-	O 4)	O <sup>4</sup> )	O 4)	0
	Auto Changer Over			0	O <sup>4)</sup>	O <sup>4)</sup>	O <sup>4)</sup>	0
Additional	Set Back		-	0	O 4)	O <sup>4</sup> )	O <sup>4</sup> )	0
Function	2 Set			0	0	0	O <sup>4)</sup>	0
	Change Alarm			Filter	Filter	Filter	Filter	Filter
	Indoor Unit Lock			0	0	0	O <sup>4</sup> )	-
	Cycle			_	0	0	O <sup>4)</sup>	0
Schedule			0	0	O <sup>4)</sup>	O <sup>4)</sup>	O <sup>4)</sup>	0
	Peak	Priority Control		0	0	0	O <sup>4</sup> )	0
	Control	Outdoor Unit Capacity Control			O <sup>4)</sup>	O <sup>4</sup> )	O <sup>4</sup> )	0
Auto Control	Time limit co				O <sup>4)</sup>	O <sup>4</sup> )	O <sup>4</sup> )	0
	InterLocking				O <sup>4</sup> )	O 4)	O <sup>4</sup> )	0
Energy Naviga				-	O <sup>4)</sup>	O 4)		0
	Power			0	0	0	O <sup>4</sup> )	0
	Gas			-	0	0	O <sup>4)</sup>	0
Energy	Run time				O <sup>4)</sup>	O 4)	O <sup>4)</sup>	0
Report	Email						O <sup>4)</sup>	-
	PC / USB					PC	PC	PC
Trend Reporti						-	-	0
	Report (Cont	rrol / Error)		Error	O <sup>4)</sup>	O <sup>4)</sup>	O <sup>4)</sup>	0
History	Send Email			-	O <sup>4)</sup>	O <sup>4)</sup>	O <sup>4)</sup>	0
	Save to PC /	LISB <sup>6)</sup>					O <sup>4)</sup>	
	Summer Tim			0	- <u> </u>		O <sup>4)</sup>	0
		e : Oil-Return Operation		-		() <sup>4)</sup>	O <sup>4)</sup>	
etc	User Authori	· · · · · · · · · · · · · · · · · · ·		Password	O <sup>(4)</sup>	O 4)	O <sup>4</sup>	
	USEL MULLIOLI	- 7	-	i doovulu	0 /	0,	0 /	U

O: Applied, -: Not Applied
Except for some feature (individual lock, limit, temp., etc.)
Except for some feature (user mode, additional function, etc)
ACP 5 or AC Smart 5 is required
This function is possible to use in Web Only (BMS Point is not applied)
Without additional device, ACP 5 and AC Smart 5 provide BACnet IP and Modbus TCP interface for BMS
Save to PC / USB function will be available from 4Q 2020













### AC EZ TOUCH

Smart management with 5 inch touch screen for small site.



PACEZA000

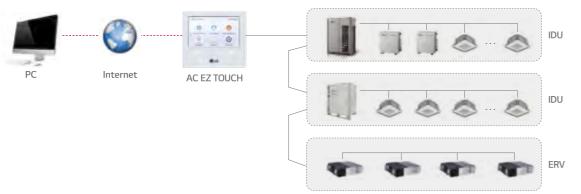
### Features & Benefits

- User-friendly control with iconographic interface
- 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
- Clean or change filter alert
- Emergency stop

Overview

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 64				
Maximum number of units					
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



### Feature

#### PC Access

Users can control each space efficiently through PC access.



\* Fix Public IP is mandatory \* Router's Configuration of NAT is mandatory. Open port 80 & 9300

#### Energy Statistics (with PDI)

Statistics of operational status (Time, Power consumption) are provided to help make intelligent system operation decisions.

Energy	+		
2016. 2.	8 - 2016, 3, 19	Today Week Mon	0
Name	Usage(kWh)	Accumulated(kWh)	
Group1	110	3021	
Group2	150	6186	1
Group3	130	4267	
Group4	120	7614	~

#### **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.



### AC EZ

Easy to manage up to 32 indoor units, including ERV with simple interface.



PQCSZ250S0

# ľ

### Features & Benefits

- 32 indoor units control
- Weekly Schedule
- Individual / Group Control



• Appropriate PI 485 should be used according to PDB

#### 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.

Ð			-	Month	edule_N	Sch
Sat	Fri	Thu	Wed	Tue	Mon	Sun
5	4	3	2	1		32
12	11	10	9	8	7	6
19	18	17	16	15	14	13
26	25	24	23	22	21	20
	8	31	30	29	28	27
	5 12 19	Fri         Sat           4         5           11         12           18         19	Thu         Fri         Sat           3         4         5           10         11         12           17         18         19           24         25         26	Wed         Thu         Fri         Sat           2         3         4         5           9         10         11         12           16         17         18         19           23         24         25         26	Tue         Wed         Thu         Fri         Sat           1         2         3         4         5           8         9         10         11         12           15         16         17         18         19           22         23         24         25         26	Mon         Tue         Wed         Thu         Fri         Sat           1         2         3         4         5           7         8         9         10         11         12           14         15         16         17         18         19           21         22         23         24         25         26

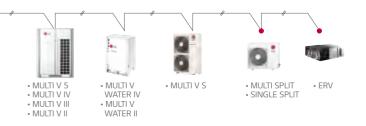
#### Group / Individual Control

User can control each indoor unit individually or by group by simply clicking each unit on control screen.



Model Name	PQCSZ250S0
Size (W x H x D, mm)	190 x 120 x 20
nterfaceable Products	MULTI V / ERV / ERV DX
Display	LED / LCD Display
Power	DC 12V
Maximum number of units	32
ndividual / Group Control	On & Off / Mode / Temperature / Fan speed
ndividual Controller Lock	All
Error Check	0
Slave Mode (Interlocking with higher level controller)	0
Schedule	Weekly

※ ○ : Applied, - : Not Applied



# CONTROL SOLUTIONS

### AC SMART 5

10-inch touch screen with HTML5 GUI (Graphic User Interface) for easy control.



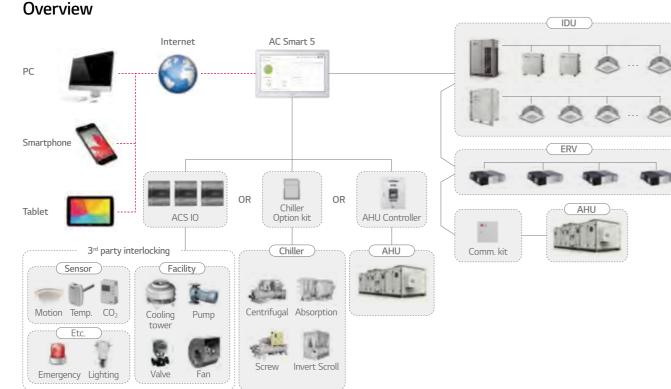
PACS5A000

### 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

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

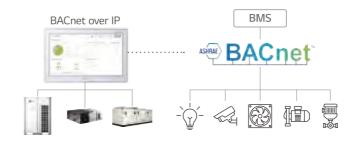


\* Fix Public IP is mandatory

\* Router's Configuration of NAT is mandatory. Open port 80 & 9300

### Building Management System (BMS) Integration

Without additional device, AC Smart 5 provides BACnet IP & Modbus TCP interface for BMS integration as well as its own management function.



### **Energy Management**

The energy navigation function allows the air conditioner's operational energy usage to be manged monthly, weekly and yearly. By analyzing present energy consumption and comparing with the plan, overuse of system operational costs can be prevented.



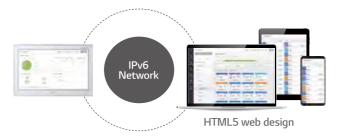
### Multi Level Group Composition

User can make frequent and multi level group to control and monitor the device easily.

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### 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.



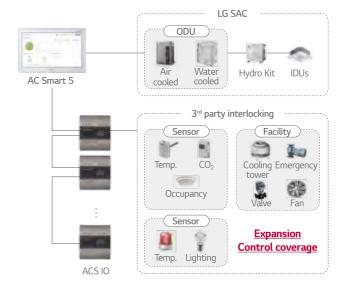
### Visualized Control

Visual navigation enables controlling and monitoring the unit on floor plan view for the intuitive management.



### Interlocking with 3rd party equipment

AC Smart 5 can make operation scenario with  $3^{\rm rd}$  party equipment by ACS IO Module. Control coverage is expanded. (Air conditioner only  $\rightarrow$  Sensors, Fans, Pumps, Switches…)



CONTROL SOLUTIONS

196 / 197

### 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

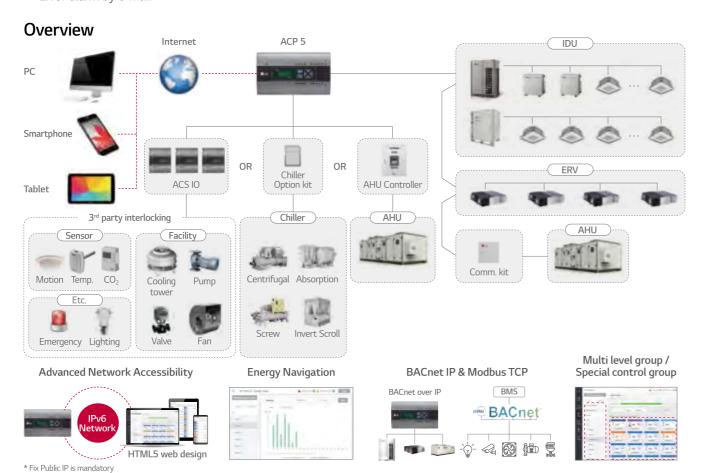
- The central controller allows control of the LG HVAC system by various platforms. (PC, Smartphone, Tablet)
- DI :10 / DO : 4
- Max. 256 IDU control
- BACnet IP/Modbus TCP
- Schedule
- Map view (Visual navigation)
- Time limit control / Auto change over
- Energy monitoring
- History / Operation trend
- Interlock with 3<sup>rd</sup> party equipment (ACS IO, ACU IO Module is needed)

\* Router's Configuration of NAT is mandatory. Open port 80 & 9300

- 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	

S : 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



### 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.

#### Overview LONWORKS®



\* Fix Public IP is mandatory \* Router's Configuration of NAT is mandatory. Open port 80 & 9300 1) Assignment of public IP address is required to access central controller through internet.

### 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 (FRV)

PHNFP14A0

Control On / Off Command	On / Off
Operation Mode Setting	Operation Mode
Lock	Operation Mode
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

### **AC MANAGER 5**

Multiple ACP and AC Smart integration solution to manage multi sites up to 8,192 units as a single system.



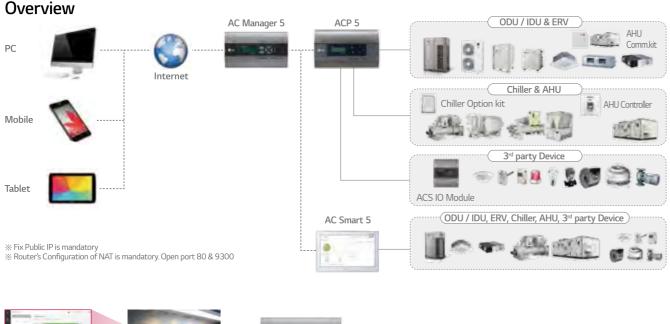
**PACM5A000** 

### 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 0 0 0		
Emergency Alarm Display			
Power Consumption Monitoring (with PDI)			
Auto Changeover / Setback			
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		

3 C : Applied, - : Not Applied
 1) Chiller Option Kit (PCHLLN000) is required
 Note : AC Manager 5 requires ACP 5 or AC Smart 5





### 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.

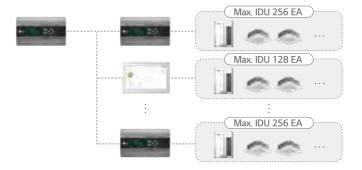
### Peak Control

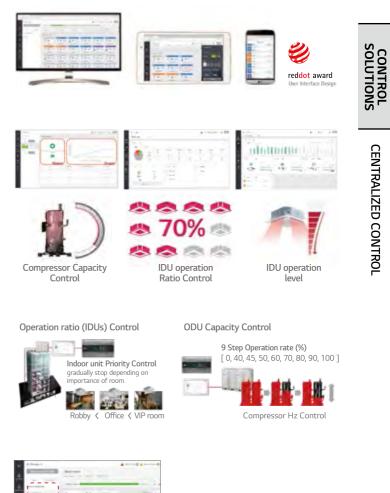
This function can reduce electricity use. There are two kinds of control logic. Energy saving effect by indoor unit operation rate control. Load management effect by outdoor unit capacity control.

### Multi Level Group Composition

User can make frequent and multi level group to control and monitor the device easily.







### **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, MULTI V S, ERV, THERMA V
- 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

### Modbus Gateway Memory Map

Baud Rate : 9,600 bps, Stop Bit : 1 stop bit, Parity : None Parity, Byte size : 8 bits

#### Coil Register (0 x 01)

No.		Data Bit	Evention	Desistor	
NO.	Air Conditioner	ERV / DX ERV	HydroKit & THERMA V	- Function	Register
1	Operate (On / Off)	Operate (On / Off)	Operate (On / Off)	0 : Stop / 1 : Run	
2	Auto Swing	Aircon Operate (On / Off)	Hot Water Mode (On / Off)	0 : Disable / 1 : Enable	-
3	Filter Alarm Release	Filter Alarm Release 1)	Reserved	0 : Normal / 1 : Alarm Release	-
4	Lock Remote Controller	Lock Remote Controller	Lock Remote Controller	0 : UnLock / 1 : Lock	
5	Lock Operate Mode	Lock Operate Mode 1)	Reserved	0 : UnLock / 1 : Lock	- Register = N X 16 + ①
6	Lock Fan Speed	Lock Fan Speed 1)	Reserved	0 : UnLock / 1 : Lock	(N = Indoor Unit Central Address)
7	Lock Target Temp.	Lock Target Temp. 1)	Reserved	0 : UnLock / 1 : Lock	
8	Lock IDU Address	Lock IDU Address 1)	Reserved	0 : UnLock / 1 : Lock	
9	Reserved	Quick Ventilate	Reserved	0 : Disable / 1 : Enable	_
10	Reserved	EnergySave	Reserved	0 : Disable / 1 : Enable	_

Note 1) : This register value is applied 'DX Ventilator' ONLY.

#### Discrete Register (0 x 02)

No		Data Bit		Function Registe		
No.	Air Conditioner	ERV / DX ERV	HydroKit & THERMA V	Function	Register	
1	Connected IDU	Connected IDU	Connected IDU	0 : Disconnected / 1 : Connected		
2	Alarm	Alarm	Alarm	0 : Normal / 1 : Alarm		
3	Filter Alarm	Filter Alarm 1)	Hot Water Only <sup>2)</sup>	0 : Normal / 1 : Alarm Hydrokit – 0 : Normal / 1 : Hot Water Only	Register = N X 16 + ① (N = Indoor Unit Central Address)	
4	Reserved	Reserved	Target Temp Select	0 : Air / 1 : Water		
5	Reserved	Reserved	Error Division 2)	0 : CH type error / 1 : BC type error		

Note 1) : This register value is applied 'DX Ventilator' ONLY. Note 2) : This register value is applied 'Hydrokit' ONLY.

### **MODBUS RTU GATEWAY**

Holding Register (0 x 03)

<b>N</b> I-		Data Bit	<b>F</b>	D. J.	
No.	Air Conditioner	ERV / DX ERV	HYDROKIT & THERMA V	- Function	Register
1	Operate Mode	Operate Mode	Connected IDU	0 : Cooling, 1 : Dehumidifying, 2 : Fan, 3 : Auto, 4 : Heating Hydrokit (Middle Temp, DHW) / AWHP – 0 : Cooling, 3 : Auto, 4 : Heating Hydrokit(High Temp, DHW)	
2	Fan Speed	Fan Speed	Target Temp. DHW 2)	1 : Low, 2 : Mid, 3 : High, 4 : Auto	Register = N X 20 + ①
3	Target Temp.	Target Temp. 1)	Target Temp. <sup>2)</sup>	16.0 ~ 30.0 [°C] x 10	(N = Indoor Unit Central Address)
4	Target Temp. Limit (Upper)	Target Temp. Limit <sup>1)</sup> (Upper)	Reserved	16.0 ~ 30.0 [°C] x 10	
5	Target Temp. Limit (Lower)	Target Temp. Limit <sup>1)</sup> (Lower)	Reserved	16.0 ~ 30.0 [°C] x 10	
6	Reserved	Vent. Operate Mode	Reserved	0 : HEX, 1 : Auto, 2 : Normal	

Note 1) : This register value is applied 'DX Ventilator' ONLY. 2) : This value range can be between 0 ~ 127 [°C]. And it would be limited by upper & lower value according to the setting of remote controller.

#### Input Register (0 x 04)

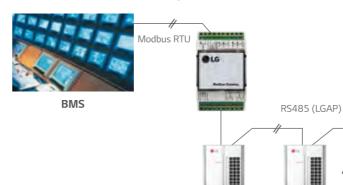
		Data Bit	<b>-</b>		
No. –	Air Conditioner	ERV / DX ERV	HYDROKIT & THERMA V	Function	Register
1	Error Code	Error Code	Error Code	0 ~ 255 % Please refer to the product error table.	
2	Room Temp.	RA Temp.	Room Temp.	-99.0 ~ 99.0 [°C] x 10	
3	Pipe In Temp.	OA Temp. 1)	Water Inlet Temp.	-99.0 ~ 99.0 [°C] x 10	– Register = N X 20 + ①
4	Pipe Out Temp.	SA Temp. 1)	Water Outlet Temp.	-99.0 ~ 99.0 [°C] x 10	<ul> <li>(N = Indoor Unit Central Address)</li> </ul>
5	Reserved	Pipe In Temp. 1)	Sanitary Tank Temp.	-99.0 ~ 99.0 [°C] x 10	_
6	Reserved	Pipe Out Temp. 1)	Solar Temp. 2)	-99.0 ~ 99.0 [°C] x 10	_

Note 1) : This register value is applied 'DX Ventilator' ONLY. 2) : This register value is applied 'AWHP' ONLY.

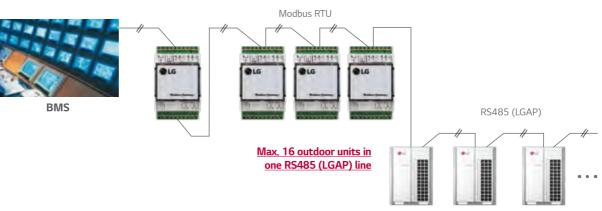
### Installation Scene

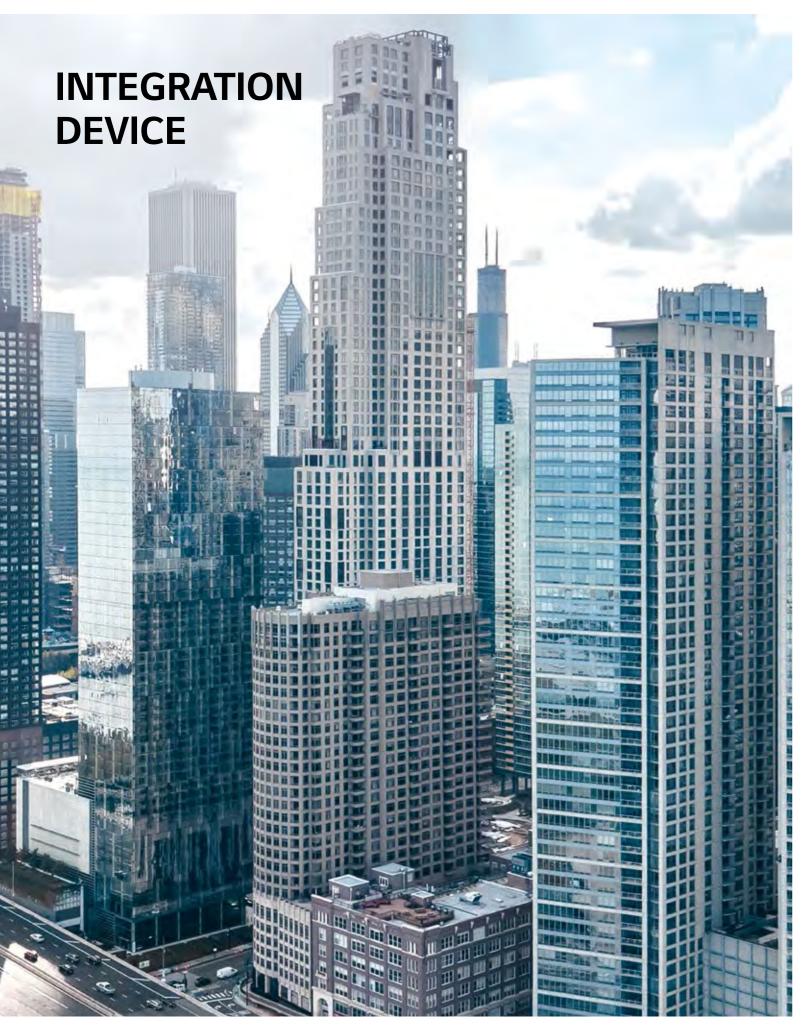
• Single module

Max. 16 indoor units with a single module



- Multiple module
- Max. 64 indoor units with 4 modules in one Modbus communication line





### PDI (POWER DISTRIBUTION INDICATOR)

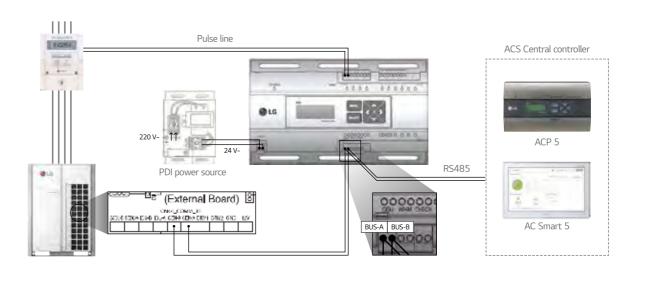
PDI shows distributed power consumption of up to 128 indoor units.

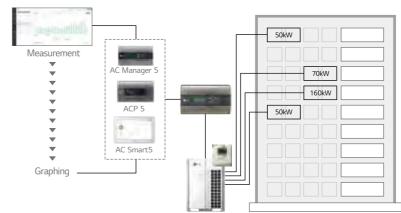


PQNUD1S40 (Premium, 8 port) PPWRDB000 (Standard, 2 port)

### Features & Benefits

- Enables total and indoor power consumption monitoring
- Enables gas consumption and electricity distribution



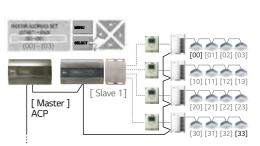


Note : 1. Power cable and type could be different from this scene depending on the Outdoor unit's specification.
2. Measured power consumption could be different between PDI and Watt meter.
3. Applicable Central Controller : ACP 5, ACP Lonworks, AC Smart 5, AC Ez Touch (Combination : we recommend to connect separated watt meter for Outdoor units to have correct power distribution value)

Model Name	PQNUD1S40	PPWRDB000	
Size (W x H x D, mm)	270 x 155 x 65		
nterfaceable Products	Air conditio	ner, 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, Transformer : AC 220V		
🗧 🔿 : Applied, - : Not Applied			

• With LG central control connectivity, energy montioring, energy savings operations and target usage setting functions are enabled





### 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	ue Spec	Min.	Max.	
	NTC 10k	0.68kΩ	177kΩ	
	PT 1000	803kΩ	1,573kΩ	
Analog Input	Ni 1000	871.7kΩ	1,675.2kΩ	
	DC (Voltage)	OV	10V	
	DC (Current)	0mA	20mA	
Analog Output	-	OV	10V	
Digital Input	Binary Input (Non Voltage)	-	-	
Digital Output	Normal open	-	30VAC / 30VDC, 2	

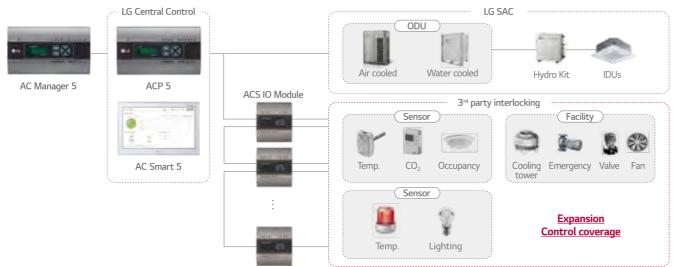
O : Applied, - : Not Applied
 The type of UI (Universal Input) is selectable among Digital Input and Analog Input

### 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 ACS IO Module.

• Control coverage is expanded. (Air conditioner only  $\rightarrow$  Sensors, Fans, Pumps, Switches…)

### **Key Application**



\* 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**

for 3<sup>rd</sup> party devices control and monitoring are needed.



### Features & Benefits

• Interlocking with 3rd party equipment LG Central controller can make operation scenario with 3rd party equipment by ACU IO Module. • Applicable devices are expanded. (Air conditioner only  $\rightarrow$  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

Contraction of Arrists	Results Finding	410 360	-
-	Row Galax	Purp Interlock	The point
1	0.00000 Temp 13.3	Total Running current 0.0	Starring detay 0,0
	Demand control 0,0	Land water confect times 38.7	Load water olde Tamp 38.5

### This module can be connected with ACP 5 or AC Smart 5 controller if additional I/O points such as UIO / UI / UO

Module Name	PEXPMB300	PEXPMB200	PEXPMB100
Linkable Products	PA	ACS5A000, PACP5A0	00
Communication RS-485	2 ch. 1)	1 ch.	1 ch.
Digital Input	-	-	3 port
Digital Output	2 port	6 port	-
Universal Input <sup>2)</sup>	4 port	-	6 port
Analog Output	2 port	4 port	
Valu	e Spec	Min.	Max.
Analog Input	DC (Voltage)	OV	10V
Analog Output	DC (Voltage)	0V	10V
Digital Input	Binary Input (Non Voltage)	-	-
Digital Output	Normal Open	-	30VDC, 1A

O : Applied, - : Not Applied
1 th is reserved for internal communication
2) The type of UI (Universal Input) is selectable among Digital Input and Analog Input

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 engineer.
- 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 Chiller Option Kit SD Card.



CONTROL SOLUTIONS

INTEGRATION DEVICE

206 / 207

### **DRY CONTACT**

Connection between an indoor unit and external devices to control various functions.

	Mod	el Name	PDRYCB000	PDRYCB400	PDRYCB300	PDRYCB320*	PDRYCB500
							-
Case			0	0	0	0	0
nput Port	t		1	2	8	8	-
Jniversal	Input port					1	-
Comm. Pr	otocol		_				Modbus RTU
ower			AC 220V		Connect to Indoor	unit PCB (CN_CC)	
		On / Off	0	0	0	0	0
		Oper Mode	-	0	0	0	0
		Set Temp.		(Select & Fix)	(Select & Fix)	(Select & Fix)	0
	Aircon	Fan Speed		-	0	0	0
		Thermo-Off	-	(Select & Fix)	0	0	-
		Energy Saving		(Select & Fix)			-
		Lock/Unlock	-	(Select & Fix)	-	-	-
		On / Off	0	-	0	0	-
		DHW On / Off	-	-	0	0	-
Control		Thermo-Off	-	-	0	0	-
	AWHP	Oper Mode	-	-	0	0	-
		Silent Mode	-	-	0	0	-
		Emergency Mode	-	-	0	0	-
		On / Off	0	-	-	-	0
		Oper Mode	-	-	-	-	0
	Vent	Aircon Mode	-	-	-	-	0
		Additional Mode	-	-	-	-	0
		Fan Speed	-	-	-	-	0
		Operation Status	0	0	0	0	0
Dutput		Error	0	0	0	0	0
		Room Temp.	-	-	-	-	0

C : Applied, - : Not Applied
 \*Available from April 2020
 Note : 1. Compatibility of PDRYCB300 / PDRYCB320

 Can use with all types of aircon indoor units after 2010 (Cassette, Ducted, Convertible, Applied PAC, Wall mounted, Console)
 Can use with new single package AK-W model after 2020. 1Q (The previous version Single package is not compatible)
 AWHP : 3 series split and monobloc models
 Cempatibility of PDRYCB400

AWHP: 3 Series Split and Monobolic Hodels
 Compatibility of PDRYCB400
 Can use with all types of aircon indoor units after 2010 (Cassette, Ducted, Convertible, Applied PAC, Wall mounted, Console)
 Can use with new single package AK-W model after 2020. 1Q (The previous version Single package is not compatible)
 Can not use with AWHP, Hydrokit models
 (Select & Fix) : This function is preset by rotary switch.

#### PDRYCB000



#### PDRYCB400



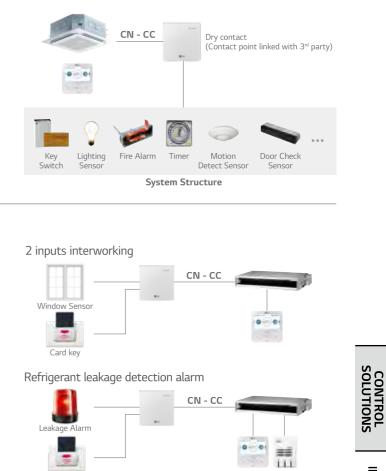
### PDRYCB300 / PDRYCB320



PDRYCB500



\* Please contact our regional office to check the compatibility with 3rd party room controller.



 $\otimes$  Please contact our regional office to have full compatible room controller list

<Modbus Communication Function> 1.1 RRR Modbus Master Controller Max. 16 Indoor units per one Modbus master controller

One to one connection between dry contact and indoor unit

Card key

Leakage Detector

### **GROUP CONTROL WIRE**

Cables used to connect a wired remote controller up to 16 indoor units.

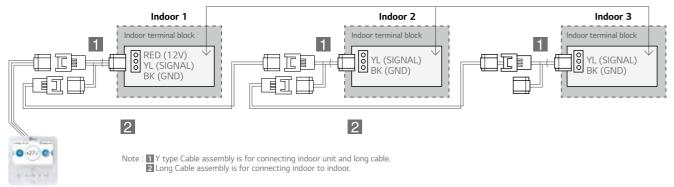


Model Name	PZCWRCG3
Y-type Cable	0.25m Length
Long Cable	9.6m Length

Indoor 1 MAIN PCB

PZCWRCG3

### Installation Scene



### **REMOTE TEMPERATURE SENSOR**

Sensor for detecting the room temperature.



**PQRSTA0** 

### 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

Allows for easy and discreet installation as well as connection to an indoor unit.

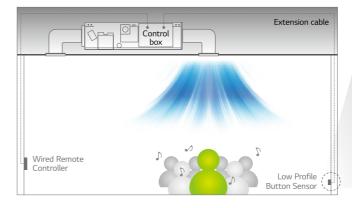


ZRTBS01

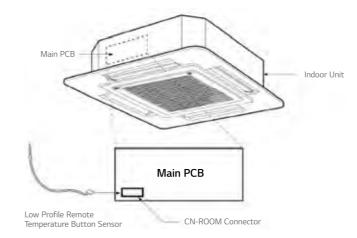
### Features & Benefits

- 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**



### Installation Scene



Model Name		ZRTBS01
Operation Range		-40 °C to 85 °C (0 to 100%RH, Non-condensing)
Sensing Element		Thermistor
Sensing Element Accuracy		0.2 °C (0 to 70 °C)
	Material	Etched Teflon
Wire Leads	Length	15m
	Thickness	0.33mm <sup>2</sup>
Mounting		10mm hole, push in plastic sheath with peel off tape strip
Enclosure Material Ratings		Plastic, NEMA 1, UL94

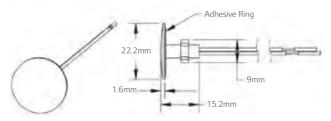
emperature measurement. Jugh a 10mm hole and secured with a peel off tape strip.

### **Models Applied**

• LG indoor units excluding Wall-Mounted Type



### Drawing



### **ZONE CONTROLLER**

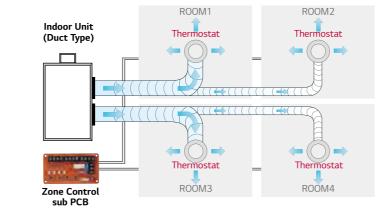
Controls air conditioning in up to 4 zones by external thermostat.



ABZCA

### Features & Benefits

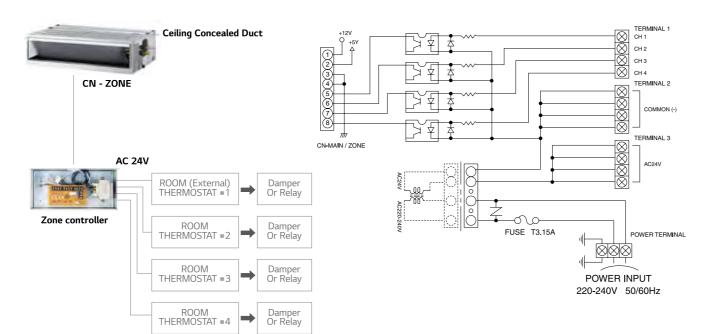
- Controls different zones (up to 4 zones) by external thermostat (AC 24V)
- Maintain proper air volume of each zone
- Auto variation of dampers
- Auto control of fan speed and On / Off operation



### **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.

	Мос
	• MUI • MUI
	Note : IC
PVDSMN000	1) Digit • De
Features	• Lo • Pri
Function	(Ca Ce
Demand control	- C
Low noise operation	- C

- Low noise operation
- Output outdoor or indoor unit operation status
- Output error status

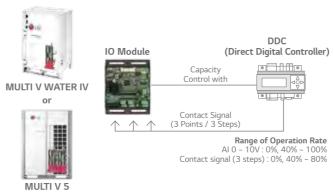
#### Description

 IO Module is communication interface module for connection between MULTI V 5 and external IO (Input / Output Module) devices.

### **Key Application**

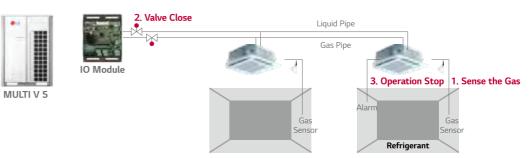
#### Demand Control

Provides variable setting for demand control according to input method to reduce power consumption. This function supports 2 types of input signal : Al (0 ~ 10V, 10 Step) and contact signal (3 Step).



Refrigerant Leakage detection with Pump-down

For safety, IO module close refrigerant valve when Pump-down operation.



### Iodels Applied

MULTI V 5 MULTI V S\*

#### • MULTI V WATER IV

te : IO Module is not compatible for Multi V III and Multi V S R32

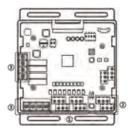
#### rt Description

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

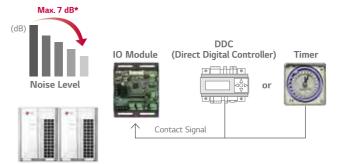


CONTROL SOLUTIONS

INTEGRATION DEVICE

#### Low Noise Operation

To reduce noise level, control outdoor unit's fan speed by dry contact input.



MULTI V 5

% 8 HP (22.4kW) model, Sound power level can be changed by outdoor unit operation status and low noise operation input signal.

### WATER COMMUNICATION MODULE

This module is intended to connect 3<sup>rd</sup> party plate heat exchanger to LG outdoor unit with the ability to control water temperature from 3<sup>rd</sup> party DDC or LG remote controller.



PAHCMW000

Contents	C	Connection Port	Function
	CH1 (A+/B-)	Module Comm. Port	Communication Port Modbus
RS485	CH2 (A+/B-)	IDU Comm. Port	Communication with MULTI V Outdoor
UNIVERSAL	UI1	Flow Switch	Flow Switch Input by 3 <sup>rd</sup> party
INPUT	UI2	0 ~ 10V Set Temp	Target Temp. Setting
(Cooling/ Heating	UI3	Cooling Thermostat Signal	Thermostat Cooling Signal
Setting)	UI4	Heating Thermostat Signal	Thermostat Heating Signal
21	UI1	Flow Switch	Flow Switch Input by 3rd party
UNIVERSAL	UI2	0-10V Set Temp	Target Temp. Setting
INPUT (DHW Only)	UI3	DHVV Temperature Transmitter 0 ~ 10V	Measured Water Temp Input by 3 <sup>rd</sup> party 0 ~ 10 V sensor
	UI4	DHW Thermostat Signal	DHW Heating Signal
NTC	RI1	Water Inlet Sensor	PHEX Water Inlet Sensor
NIC	RI2	Water Outlet Sensor	PHEX Water Outlet Sensor
REMO	+12V/SIG/ GND	LG Remote Controller	-
SINGLE	Reserved	-	-
	DO1	Defrost / Mode	Output for defrost signal and/or cool mode
DIGITAL	DO2	Pump	Output signal for pump on/off
001101	DO3	Bypass	Output signal for PHEX Bypass Valve
NTC	RI3	Thermistor Pipe In	PHEX Ref. Inlet Pipe Sensor
NIC	RI4	Thermistor Pipe Out	PHEX Ref. Outlet Pipe Sensor
EEV	+12V/1/2 /3/4	Expansion Valve	EEV Control

### Compatibility & Accessory

EEV (LG MODEL)

Model	Capacit	PAHCMW000	
	Min	Мах	PARCMW000
PAEEVC000	3.6	28	HP/HR
PRLK048A0	3.6	28	HP/HR
PRLK096A0	28.1	56	HP

Note: Water communication module can accept plate heat exchangers from 3, 6 to 112 kW for combination with MULTI V Outdoor units.

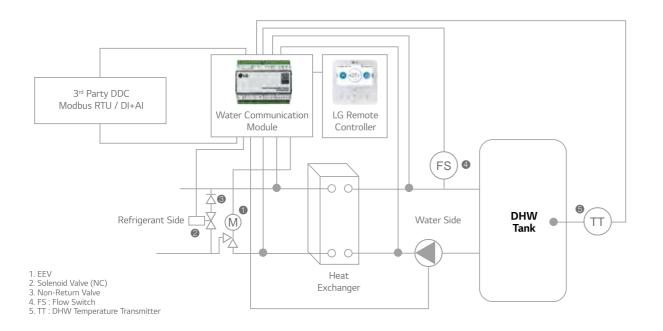
#### LG Controllers

	Individual Controller	Centralized	l Controller	Dury Comboot
Controller	Standard III	AC EZ touch	AC smart 5	Dry Contact
	PREMTW101	PACEZA000	PACS5A000	PDRYCB000

### Features & Benefits

Interlocking with 3<sup>rd</sup> parties can make various solution with LG MULTI V outdoor unit.

### Overview



• 3rd party solenoid, non-return valve, heat exchanger, flow switch and DHW temperature transmitter (Optional) must be purchased separately (Field supplied items)

### Specification for Field supply item

 $\bullet$  The  $3^{\mbox{\tiny rd}}$  party can select the for best usable version

#### Solenoid valve for Bypass

Capacity	/ (kW)		Curtan	Kv Value of solenoid and	Dia a sina
Min	Max	EEV type	System	Non-Return Valve	Pipe size
3.6 28	20	PAEEVC000	- HP/HR	0.95	3/8" / 9.52mm
	28	PRLK048A0			
28	56	PRLK096A0	HP	1.9	1/2" / 12.7mm

#### Flow switch

• The nominal flow and cut of flow can be calculated using the values below.

Controller L/min\*kW

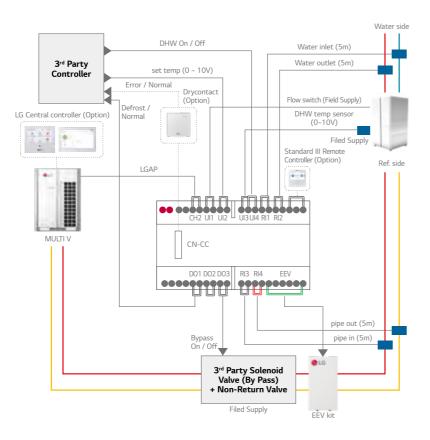
\* Example : ODU nominal Cooling Capacity 28 kW 28 x 3.29 = 92.12 L/min nominal flow 28 x 1.23 = 34.44 L/min flow switch cut off INTEGRATION DEVICE

Nominal Flow	Flow switch Cut off
3.29	1.23

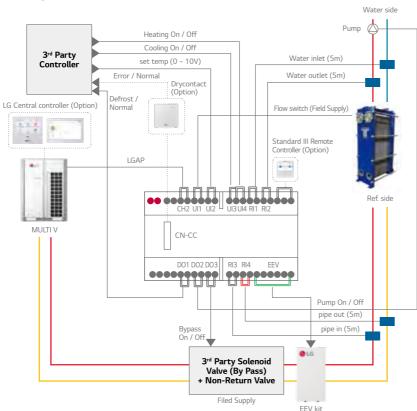
## WATER COMMUNICATION MODULE APPLICATION

#### Installation scene with Contact connection

Contact signal + DHW Only Setting

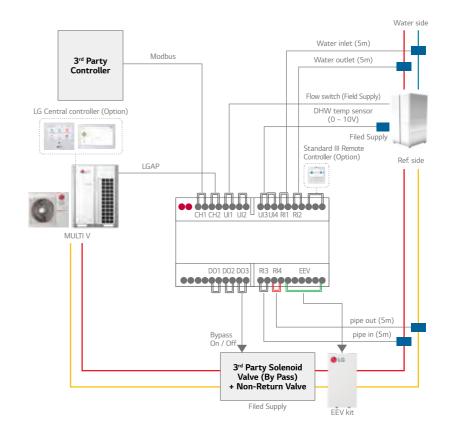


#### Contact signal + Heating / Cooling Setting

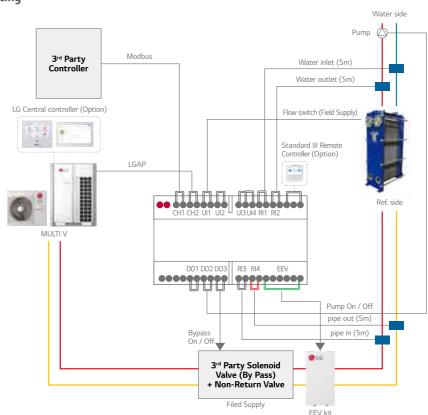


## Installation scene with Modbus / LG Control (Optional) connection

Modbus+ DHW Only Setting



Modbus+ Heating / Cooling Setting





INTEGRATION DEVICE

## VARIABLE WATER FLOW CONTROL KIT

Accessory developed for controlling the water flow.



PWFCKN000 (MULTI V WATER IV)

#### Features

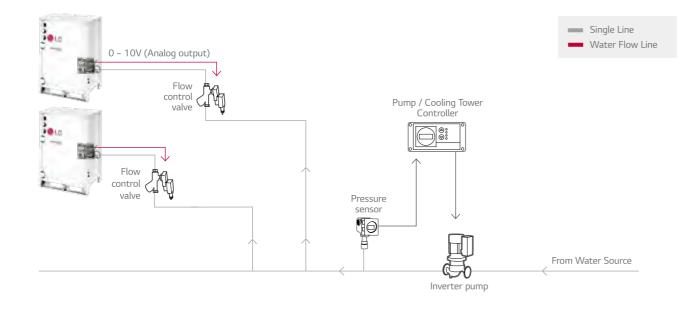
#### Function

- 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

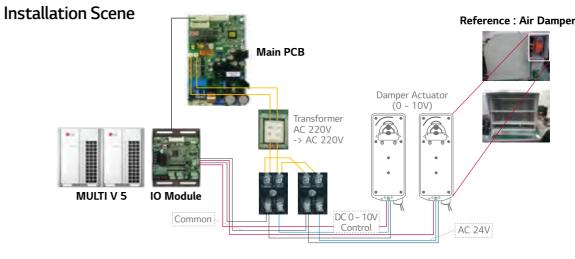
- 25 °C Low ambient cooling operation by Low ambient kit and hood with damper (Analog output 0 ~ 10V)
- Demand control
- Low noise operation
- Output outdoor or indoor unit operation status (AC 250V, Max. 1A)
- Output error status (AC 250V, Max. 1A)

#### Description

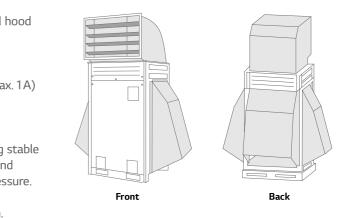
- Low ambient kit supports -25 °C cooling operation by making stable condensing pressure with reducing air flow rate from hood and damper control given 0 ~ 10V proportional to condensing pressure.
- Low ambient kit provides IO Module function.
- External snow hood and air damper are required for this 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



: Field Supply item

CONTROL

INTEGRATION DEVICE

## **COOL / HEAT SELECTOR**

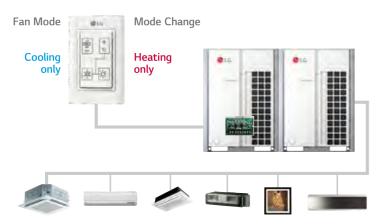
Cooling only, heating only, and fan mode can be selected.





#### 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



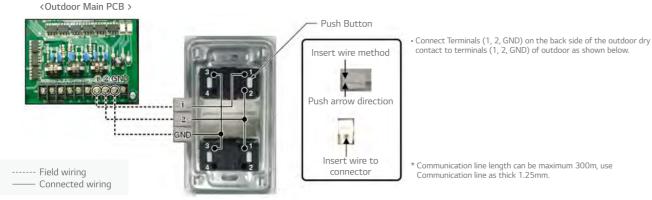
#### **Models Applied**

MULTI V WATER S

• MULTI V 5 • MULTI V IV

- MULTI V WATER II • MULTI V S
- MUL TI V PLUS II, MULTI V PLUS

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

## CONTROLLER MODULE





PAHCMM000

PAHCMC000

#### Specifications

**Control Application Kit** 

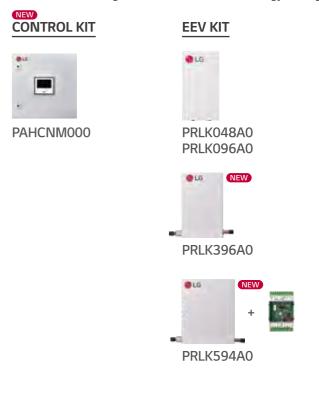
Time	Type Model Dimensions (mm) W H D		Dimensions (mm)		Power Supply	IP	Description
туре			Power Supply	Rating	Description		
Communication	PAHCMR000	300	300	155	1Ø, 220~240 V, 50/60 Hz	IP66	Return / Room air temperature control by DDC or LG individual / centralized controller.
Kit	PAHCMS000	380	300	155	1Ø, 220~240 V, 50/60 Hz	IP66	Discharge air / Supply air temperature control by DDC or LG individual / centralized controller
Controller	PAHCMM000	162	90	61	DC 12V	IP20	Main Controller module
Module	PAHCMC000	108	90	61	DC 12V	IP20	Communication Controller module
Control Kit	PAHCNM000	500	500	210	1Ø, 220~240 V, 50/60 Hz		Various AHU control functions with multiple DX coils (Maximum connectable ODU is 3 units)

#### **Expansion Application Kit**

Tura	Madal	Dimensions (mm)			Pipe Diameter (mm)	Canadity Jaday Danas
Туре	Model	W	н	D	Liquid	Capacity Index Range
	PRLK048A0	217	404	83	12.7	3.6 ~ 28 kW
	PRLK096A0	217	404	83	12.7	28.1 ~ 56 kW
EEV Kit	PRLK396A0	349.5	345.5	180	19.05	56.1 ~ 112 kW
	PRLK594A0	409.5	345.5	180	19.05	112.1 ~ 168 kW

\* Communication line length can be maximum 300m, use

• MULTI V WATER IV



#### Communication Kit

#### HIGH ENERGY EFFICIENCY

LG's DX AHU solutions' superior perfomance provides a highly efficient heat source system.

- High energy efficiency inverter system
- Large range of expansion application Kit : Max 168 kW EEV Kit <sup>1)</sup>
- Connected to various heat sources : MULTI V, MULTI V WATER, MULTI V S, SINGLE SPLIT 1) Maximum connectable EEV capacity for PAHCMR000, PAHCMC000 is 112 kW



#### **DIVERSE OPTIONS FOR CONTROL**

AHU communication kit can be connected to various control systems 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**

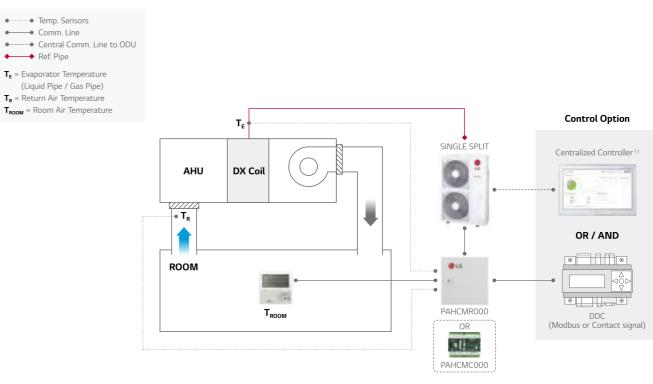
LG AHU system can be a suitable solution for various sites due to its application flexibility and wide range of line up with large capacity models. According to the required capacity, a single or multiple module combination is possible due to the AHU communication kit's modular design.

• Multiple module combination for large capacity AHU

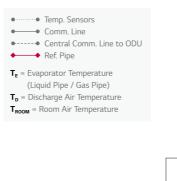


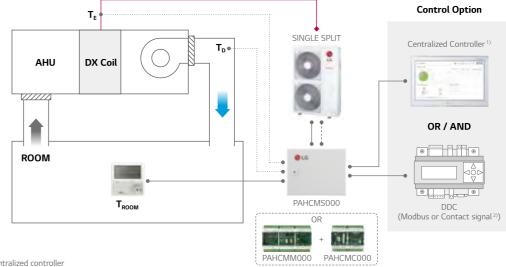
## Single Split Application (Communication Kit & Controller Module)

Single Split + Return / Room Air Temperature Control



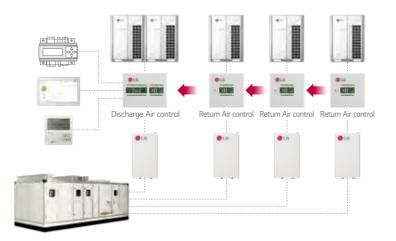
#### Single Split + Discharge Air Temperature Control





1) PI485 (PMNEP14A1) 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



CONTROL SOLUTIONS

INTEGRATION DEVICE

• .....• Temp. Sensors

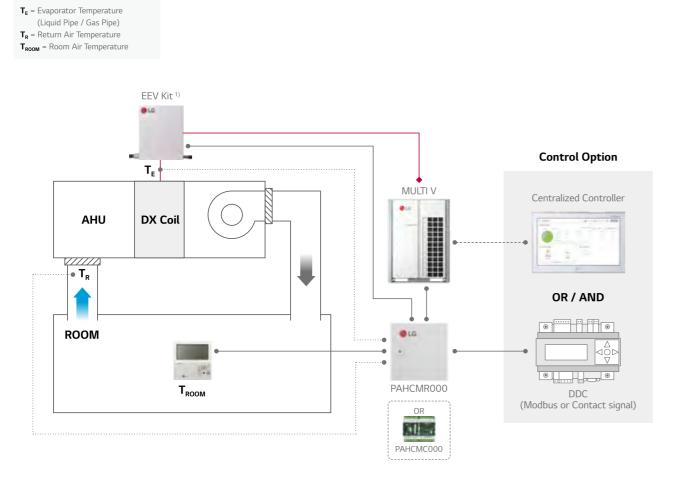
•----• Central Comm. Line to ODU

Comm, Line

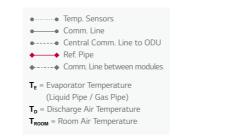
♦ Ref. Pipe

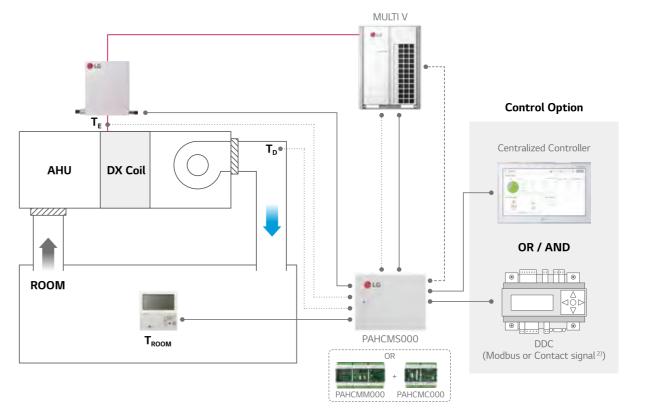
#### MULTI V Application (Communication Kit & Controller Module)

MULTI V + EEV Kit + IDU + Return / Room Air Temperature Control



MULTI V + EEV Kit + Discharge Air Temperature Control





1) Multiple EEV kits can be applicable with multiple DX Coils and PAHCMR000s

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

1) Multiple EEV kits can be applicable with multiple DX Coils and PAHCMR000s 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 (PAHCMC000)	PAHCMS000 (PAHCMM000 + PAHCMC000)	Туре	Note
	Operation On / Off	On / Off	On / Off	Digital Input (Non Voltage)	
	Operation Mode	Cooling / Heating	Cooling / Heating	Digital Input (Non Voltage)	Available operation mode can vary depending on the settings of Communication Kit
	Return (Room) Air Temperature <sup>2)</sup>	16 ~ 30 ℃	-	Analog Input (DC 0~10 V / 20mA)	-
Control 1)	Discharge Air Temperature <sup>2)</sup>	-	-	-	Discharge air temperature should be controller directly by DDC using 'ODU Capacity Control
	Fan Speed 3)	-	High / Middle / Low	Digital Input (Non Voltage)	-
	Forced Thermal	On / Off	-	Digital Input (Non Voltage)	-
	ODU Capacity	-	40 ~ 100%	Analog Input (DC 0~10 V / 20mA)	-
	Emergency Stop	-	Stop / Normal	Digital Input (Non Voltage)	-
	Operation	On / Off	On / Off	Digital Output (Max : DC 30 V / 1 A, AC 250V / 1 A )	For PACHMR000, dip sw1-3 DO Type should be set 'Off' (Status), In this case, 'fan speed' cannot monitored by DO ports
	Operation Mode	-	-		It needs to be checked through control signal
	Fan Speed	High / Middle / Low	High / Middle / Low	Digital Output (Max : DC 30 V / 1 A, AC 250V / 1 A )	For PACHMR000, dip sw1-3 DO Type should be set 'On' (Fan Mode) In this case, 'On/Off, defrost, error Status' cannot monitored by DO ports
Monitor	Defrost Operation	Defrost / Normal	Defrost / Normal	Digital Output (Max : DC 30 V / 1 A, AC 250V / 1 A )	For PACHMR000, dip sw1-3 DO Type should be set 'Off' (Status), In this case, 'fan speed' cannot monitored by DO ports
	Error Alarm	Error/Normal	Error/Normal	Digital Output, Relay C contact (Max : DC 30 V / 1 A, AC 250V / 1 A )	For PACHMR000, dip sw1-3 DO Type should be set 'Off' (Status), In this case, 'fan speed' cannot monitored by DO ports
	Compressor On / Off	_	On / Off	Digital Output, (Max : DC 30 V / 1 A, AC 250V / 1 A )	-

Control functions for LG individual and central controller are not available in case of using together with DDC via contact signal
 The range of temp. is differ depending on the type of the controller.
 To control fan speeds, DO port of the fan speed status should be connected to the fan control panel
 Note : For more detail information, please refer to the product data book

#### Communication with DDC via Modbus protocol

	Function List	PAHCMR000 (PAHCMC000)	PAHCMS000 (PAHCMM000 +PAHCMC000)	Note
	Operation On/Off	On / Off	On / Off	
	Operation Mode	Cooling / Heating / Fan	Cooling / Heating / Fan	
	Return (Room) Air Temperature	16 ~ 30 ℃	-	
Control 1)	Discharge Air Temperature <sup>2)</sup>	-	12~50°C	Dip SW1-2 Discharge Temp. Control Type should be set 'On'
Control "	Fan Speed 3)	High / Middle / Low	-	
	Forced Thermal On/Off	=	-	
	ODU Capacity Control <sup>2)</sup>	-	40 ~ 100%	Dip SW1-2 Discharge Temp. Control Type should be set 'On'
	Emergency Stop	-	-	
	Operation	On / Off	On / Off	
	Operation Mode	Cooling / Heating / Fan	Cooling / Heating / Fan	-
	Return (Room) Air Temperature	0	-	Corresponding air temperature sensor connected to AHU
Maritan	Discharge Air Temperature	-	0	Comm. Kit is required
Monitor	Fan Speed	High / Middle / Low	High / Middle / Low	
	Defrost Operation	Defrost/Normal	Defrost/Normal	
	Error Alram	Error / Normal, Error code	Error / Normal, Error code	
	Compressor On / Off	On / Off	On / Off	

※ ○ : Applied, - : Not Applied
 1) Control functions for LG individual and central controller are not available in case of using together with DDC via contact signal
 2) In case of PAHCMS000, control type between "Discharge Air Temperature" and "ODU Capacity Control" is selectable
 3) To control fan speeds, DO port of the fan speed status should be connected to the fan control panel
 Note : For the Modbus memory map and more detail information, please refer to the product data book

#### **Communication Kit Function**

With LG Control system (Individual & Centralized Controller)

	Function List	PAHCMR000 (PAHCMC000)	PAHCMS000 (PAHCMM000 +PAHCMC000)	Note
	Operation On/Off	On / Off	On / Off	-
	Operation Mode	Cooling / Heating / Fan	Cooling / Heating / Fan	Available operation mode can vary depending on the settings of Communication Kit
	Return (Room) Air Temperature <sup>2)</sup>	16∼30 °C	-	-
Control 1)	Discharge Air Temperature <sup>2)</sup>	-	12 ~ 50 °C	Standard II : 16 ~ 30 °C Standard III : 12 ~ 50 °C (Available in April, 2020) Central Controllers : 12~50 °C
	Fan Speed 3)	High / Mid / Low	High / Mid / Low	To control the AHU fan, dip switch 1-3 'DO type' should be set 'On (Fan Speed)' (PAHCMR000)
	Operation	On / Off	On / Off	-
	Operation Mode	Cooling / Heating / Fan	Cooling / Heating / Fan	-
	Return (Room) Air Temperature	0	0	-
	Discharge Air Temperature		0	-
Monitor	Fan Speed	High / Middle / Low	High / Middle / Low	-
	Defrost Operation	On / Off	On / Off	Only with Individual Controller
	Error Alram	Error Code	Error Code	Error code will be displayed on the screen
	Compressor On/Off	On / Off	On / Off	Only with Individual Controller

C : Applied, - : Not Applied
 Control functions for LG individual and central controller are not available in case of using together with DDC via contact signal
 The range of setting temperature is different depending on the type of the controllers. And operation may different from setting range.
 To control fan speeds, DO port of the fan speed status should be connected to the fan control panel
 Note : For more detail information, please refer to the product data book

#### 0

	Ind	ividual Contro	ller		Cen	tralized Contro	oller		BMS Gateway	PDI
	Premium	Standard III	Standard II	AC Ez	AC Ez Touch	AC Smart 5	ACP 5	AC Manager 5 <sup>1)</sup>	ACP Lonworks	Premium Standard
Controller	2011 4				$\frac{ \mathbf{x}  \leq \mathbf{x}}{ \mathbf{x}  < \mathbf{x}}$			1 10 X	1250	
Model no.	PREMTA000 PREMTA000A PREMTA000B	PREMTB100 PREMTBB10	PREMTB001	PQCSZ25050	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	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 April, 2020
 Note : 1. Dry contact for indoor unit (PDRYCB000 / 400 / 300 / 500) is not applied
 2. For more details, please refer to the product data book

#### Outdoor Unit Compatibility

For Small Size Application (~ 15 kW) - Single Split

Туре	Model	UUA1 (2.5 ~ 5.0 kW) <sup>1)</sup>	UUB1 (5.0 ~ 8.0 kW) <sup>1)</sup>	UUC1 (7.1 ~ 10.0 kW) <sup>1)</sup>	UUD1 / UUD3 (10.0 ~ 15.0 kW) <sup>1)</sup>
Communication Kit (Controller Module)	PAHCMR000 (PAHCMC000)	-	0	0	0
	PAHCMS000 (PAHCMM000 + PAHCMC000)	-	0	0	0
Control Kit	PAHCNM000	-	-	-	-

#### For Medium-Large Size Application (~ 672 kW) - MULTI V

Turpo	Model		MULTI V				MULTI V WATER		
Туре	inidet	5	IV	III	S	IV	II		
Communication Kit (Controller Module)	PAHCMR000 (PAHCMC000)	0	0	0	0	0	0		
	PAHCMS000 (PAHCMM000 + PAHCMC000)	0	0	0	0	0	0		
Control Kit	PAHCNM000	0	0	0	0	0	0		

#### **Expansion Application Kit Compatibility**

EEV Kit	Capacity index (kW)		Control Application Kit (Maximum connectable EEV Kits)			Connection by ODU system		
Model	Min.	Max	PAHCMR000	PAHCMS000 (PAHCMM000 + PAHCMC000)	PAHCNM000	MULTI V		
	iviin.	Max.	(PAHCMC000)			Heat Pump	Heat Recovery	Single Split
PRLK048A0	3.6	28	O (1)	○ (1)	○ (6)	0	0	-
PRLK096A0	28.1	56	0(1)	0 (1)	0 (6)	0	O (Max 33.7 kW)	-
PRLK396A0	56.1	112	O (1)	0(1)	○ (6)	0	-	-
PRLK594A0	112.1	168	-	0 (1)	0 (3)	0	-	-

# % O : Applied, - : Not applied Note 1. Table of the outdoor unit compatibility is based on European regional model. 2. When connecting outdoor units in other areas, please check whether they are compatible or not. 3. Expansion application kit compatibility is based on capacity index of the system, it may changed according to system design condition.

#### Control Kit

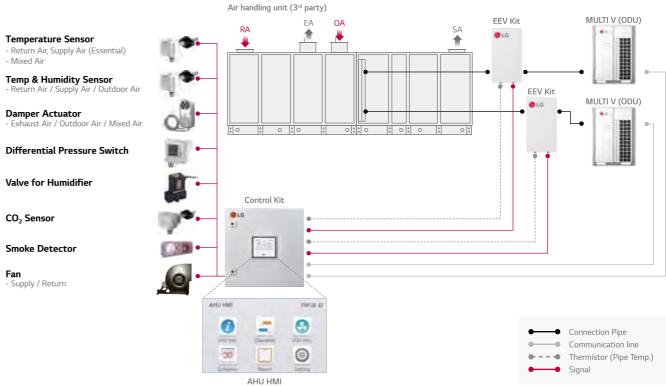
List	Required Item		
Heating / Cooling	SA / RA temperature sensor (or SA / RA temperature & humidity sensor)		
Automatic Ventilation         SA / RA temperature, CO2 sensor, Damper actuator (OA, EA, MA)			
Energy Saving (Cooling Mode Only) SA temperature, OA / RA temp&humidity sensor, Damper actuator (OA, EA,			
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
Temperature Sensor	- 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 - 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
Static Pressure Sensor	- Power : AC 24V, Output signal : DC 0 ~ 10V - Boundary : 0 ~ 1000pa	- Apply to SA (for inverter control)
- 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

## Various Control with Control kit - Multiple MULTI V + EEV Kits



# CONTROL SOLUTIONS

Connection Pipe
Communication line
Thermistor (Pipe Temp.)
Signal

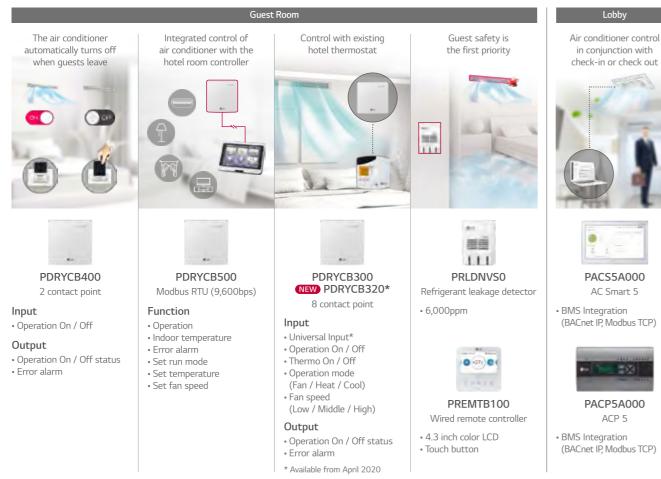
228 / 229

## HOTEL

#### Hotel Control Solution



### **Design Proposal**



## **SHOPPING MALL**

#### **Shopping Mall Control Solution**



#### **Design Proposal**

PQNUD1S40

PDI Premium (8 port)

• Max. 128 IDU

.....

Dry contact

Dry contact r thermost

Refrigerar eak detec

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AC Smart 5 (Schedule)





PACP5A000 ACP 5

 BMS Integration (BACnet IP, Modbus TCP)

Proportionally distribute and manage the power consumption by tenants

Real-time system issue detection and alert





#### **Maintenance Office**

Reduces energy by checking operational trends



#### Atrium

Integrated management of AHU applied to large spaces

Chiller and VRF integrated control





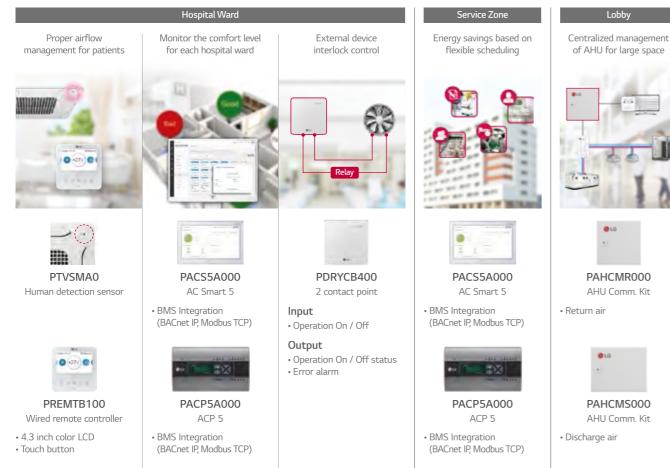


## HOSPITAL

#### Hospital Control Solution



### **Design Proposal**



## **ACADEMIC INSTITUTION**

Academic Institution Control Solution



### **Design Proposal**

Lobby











PREMTB100 Wired remote controller • 4.3 inch color LCD

Touch button



(BACnet IP, Modbus TCP)

PACS5A000 AC Smart 5 BMS Integration

#### Classroom

Automatically save energy in the absence of students

Central controls prevent students from arbitrary control

#### Lecture Hall

Schedule management according to academic plan

#### **Maintenance Office**

Integrated management of distributed buildings

Centralized management with multiple interfaces



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Wired remot controller

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ntral contro (Lock)

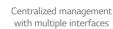
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entral contro (Schedule)

CONTROL SOLUTIONS

#### Lecture Room Schedule management





e Office





+

PACP5A000 ACP 5 BMS Integration (BACnet IP, Modbus TCP)





## OFFICE

#### **Office Control Solution**



#### 0 Energy savings and management throughout the building entral control. (Energy Navi, 0 Integrated management of HVAC with BMS system 0 Reduce costs by replacing BMS

#### Office Room

Reasonable power distribution to tenants

#### Server Room

24-hour backup management

Meeting Room Energy savings based on occupancy detection



detection

0 -27

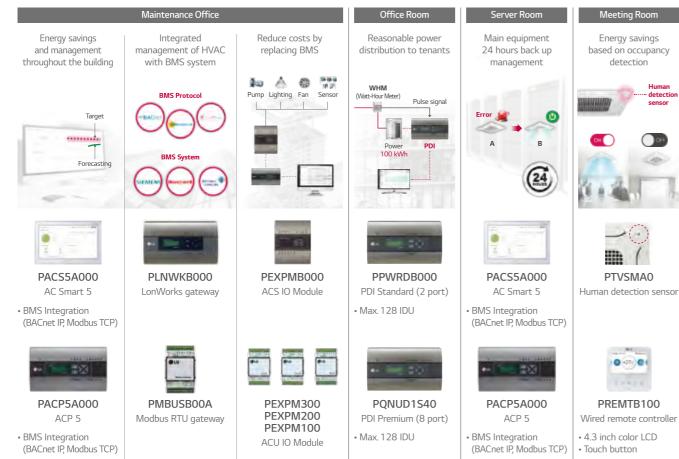
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PDI

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CS IO Mod

#### **Design Proposal**



## **RESIDENTIAL**

#### **Residential Control Solution**



#### **Design Proposal**

Vane control

Reservation

• Error check

(Sleep, Weekly On / Off)



Set operation mode

Set temperature

Set fan speed





#### Input

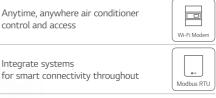
 Universal Input\* Operation On / Off • Thermo On / Off Operation mode (Fan / Heat / Cool) Fan speed

#### Output

• Operation On / Off status • Error alarm \* Available from April 2020

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#### Home



#### Bed Room

Use a familiar residential thermostat	Fr
Simple interlocking control by remote control	[,

#### Apartment / Residence

Stable system operation



Dry contac or thermos

•**○**• ...

Wired remot controller

# CONTROL SOLUTIONS

APPLICATION



#### Apartment

Stable system operation when indoor unit power is lost





**PRIPO** Independent power module • EEV full close function

234 / 235

# ACCESSORIES

MECHANICAL ACCESSORIES / PIPING ACCESSORIES



## **CASSETTE PANEL**

The Independent Vane Operation makes desired and comfortable air flow.



## **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

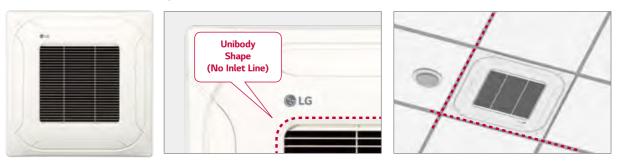
• Independent vane operation uses separate motors, making it Possible to control all 1, 2, and 4 vanes independently.

• 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

c.		Suction	n Color		Weight	Dimension (mm)			Applied Model Capacity (kW)*				
	Model	Туре	(RAL)	Gloss	(kg)	w	н	D		Split		l Split	MULTI V
									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 Mar.	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-UQC	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

## **DUAL VANE CASSETTE PANEL**



#### **Key Features**

	Function									
Model	Dual Vane	Wi-Fi	Floor Temperature Sensor	Air Purification	Elevating Grille	Occupancy Sensor				
PT-AAGW0	0	Optional	Х	Х	Х	Optional				
PT-AEGW0	0	Optional	Х	Х	0	Optional				
PT-AFGW0	0	Optional	0	Optional	Х	Optional				

#### Specification

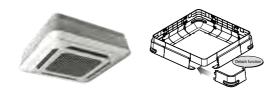
Model	Suction		Gloss	Weight	Dimension (mm)			
iviodel	Туре			(kg)	W	н	D	
PT-AAGW0	Grid	White (RAL 9003)	-	7.1	950	35	950	
PT-AEGW0	Grid	White (RAL 9003)	-	8.5	950	35	950	
PT-AFGW0	Grid	White (RAL 9003)	-	7.5	950	35	950	

#### Air Purification Kit



## **CASSETTE COVER**

Cover in case of exposed cassette installation.



#### Key Features

- Specially designed for indoor unit
- Covers the side area of cassette
- Gives elegant looks
- Light weight

#### Specification

	Model	Front	Weigl	nt (kg)	Dimensions (mm)			
Model		Front	NET	Gross	W	н	D	
	PTDCM	PT-UMC / PT-UMC1	TP / TN	5.9	8.8	1,157	1,157	268
	FIDCIVI		TM	5.9	8.8	1,157	1,157	310
	PTDCQ	PT-UQC	TR	5.0	7.2	907	907	268
			TQ	5.0	7.2	907	907	310

Model Name

PT-AAGW0 PT-AEGW0 PT-AFGW0

Dielectric Dust collecting filter	Photocatalytic Deodorizing filter	HVPS	Ionizer
0	0	0	0

### Model Name

PTDCM / PTDCQ

#### **Applied Products**

4 Way Cassette (for chassis TP, TN, TM, TQ, TR)

#### Included Parts

- Cover A, Cover B
- Cover C, Cover D



Cover A (4 units)



Cover C (4 units)

- Screws
- Installation Manual







Cover D (4 units)

۵MG

Screw (32 units)



Installation Manual

238 / 239

## **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

Dimensions (Unit : mm)

LZ-H050GXN0 / LZ-H080GXN0 LZ-H100GXN0 / LZ-H050GXH0 LZ-H080GXH0 / LZ-H100GXH0

#### **Key Features**

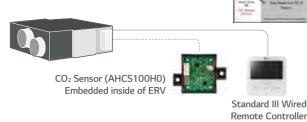
Specification

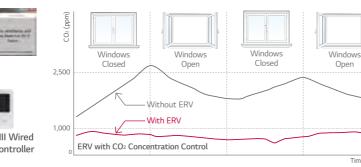
- Applied Model : ERV (Embeded), ERV DX (Option)
- Supply voltage : DV12V  $\pm$  5%
- Output : 0.6 ~ 4.4V (Linear output, 240 ~ 1,760 ppm CO<sub>2</sub>)
- Accuracy : ± 10% (2 days after installation)

#### Description

- The product is especially designed to detect CO<sub>2</sub>.
- This model requires Standard III Wired Remote Controller for display.

#### Key Application





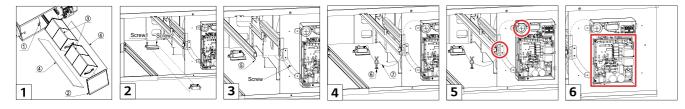
#### How to Intstall

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).

- 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**

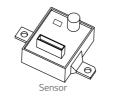
R410A refrigerant leakage detector ensures room safety.



#### **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 should be installed 300 ~ 500mm above the floor.

#### **Included Parts**



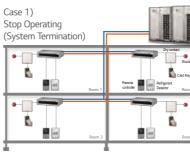


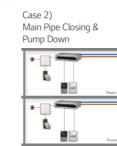
Connecting Cable

Key Application

Refrigerant Leakage Detector has three application methods.

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Accessory Specification (To realize the case 2 application)

111



[Optional / Field Supply] Automatic Ball Valve<sup>1</sup>



% Necessary accessory

) Please contact to subsidiary to get the recommended specification. (LG Electronic don't provide this accessory)







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#### Model Name

**PRLDNVS0** 

#### **Applied Products**

MULTI V 5 MULTI V IV Heat Pump & Heat Recovery MULTI V WATER IV

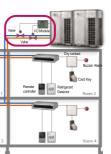
#### Specification

Parts	Specification						
	Rated Voltage (V)	DC 5.0 ± 5%					
	Dimensions (W x H x D, mm)	31 x 44 x 20					
	Weight (g)	22					
Sensor	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					
	Dimension of Backplate (W x H x D, mm)						

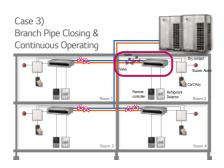
This function available for ARU\*\*\*\*L\*\*5 and 4 (MULTI V 5, MULTI V IV H/P, H/R model)



Sensor Protective Cove









[Field Supply] Buzzer alarm for room



Central Control Devices

## **EEV KIT (FOR INDOOR UNIT)**

MULTI V EEV KIT is specially designed to reduce noise and make comfort environment.



#### **Key Features**

**Key Application** 

Refrigerant flow (Cooling)

Pipe ----- Wire

 Decreasing noise level of Multi V Indoor units and easy installation.

#### Model Name

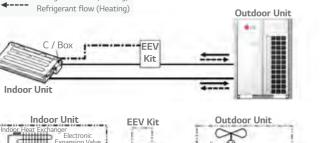
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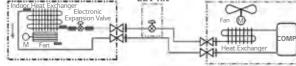
#### **Applied Products**

Indoor Unt	Model	Chassis	Applicable
	1 Way Cassette	TU	0
	2 Way Cassette	Π	N/A
	2 Way Casselle	TS	O(~5.6kW)
Cassette		TR	0
		TQ	O(~4.5kW)
	4 Way Cassette	TP	N/A
		TN	N/A
		BG	
	High Sensible	BR	-
	High Sensible	B8	-
	High Static	B8	
	Tigit Static	M1	O(~5.6kW)
Duct	Middle Static	M2	(~J.0KVV)
	Wildule Static	M3	-
		11	0
	Low Static	L2	
		L3	-
	Elear Standing	CE	0
	Floor Standing	CF	-
	Convertible	VE	0
	Coiling Suspanded	V1	-
	Ceiling Suspended	V2	-
Etc		SJ	0
LIL	Wall Mounted	SK	0
		SV	-
	Art Cool	SF	0
	Console	QA	0
	HYDRO KIT	К2	-
	THERO KI	K3	-

 $\ll$   $\bigcirc$  : Applied, - : Not applied, N/A : Not Applicable

EEV Kit can be applied for the space which requires quiet





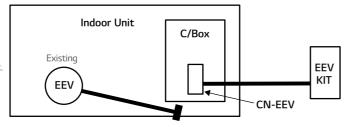
#### How to Install

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. ④ Finally connect the lead wire of the EEV Kit to the indoor unit's PCB. (5) Assemble the control box cover



Note : If you don't use EEV of same specification, Cooling (Heating) capacity could be decreased.

## **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.



#### **Key Features**

• Designed for wireless control

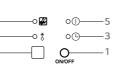
• Indication lamps (3 colors) and Self-diagnosis function

#### **Key Application**

Note : Do not install both the IR Receiver and Wired Remote Controller. This may cause malfunctions.









#### ④ Hotstart lamp (Orange) Lights up during the pre-heating operation, defrost operation as well as latent heat removal operation in heat mode. Available

Operation of Indication Lamps

Turns the indoor unit on or off when

Lights up during the timer operation.

Receives the signal from remote controler.

remote controller is not working.

① Emergency Operation button :

② Signal Detector :

(3) Timer lamp (Green) :

- only for the heat pump models, not cooling only models. (5) 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.

Luxury Hotel

cutive office

Eve

environment and noise sensitive space.

Model Name PWLRVN000

#### **Applied Products**

MULTI V Indoors (Ceiling Concealed Duct, Floor Standing Units)



#### 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.



#### **Key Features**

• Independent Power Module is specially designed to close the Indoor EEV when power cut-off. - Supply Voltage : DC  $12V \pm 50\%$ 

#### **Included Parts**

Model		PRIPO		(Others) • Harness 1 (1m)
ltem	Independent Power Kit	Screw	Clamp (Tie Wrap)	Harness 1 (1m)     Harness 2 (1m)     Harness 3 (1m)
Q'ty	1	2	4	Installation Manual     Insulation (PE)



### **Key Application**

Gen4 Wall Mounted

EEV

J EEV / MAIN

To Indoor unit's EEV

Model Name

**Applied Products** 

MULTI V Indoor Units

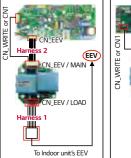
**PRIPO** 

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

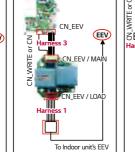
DUCT/FS/CVT/FAU



CST / Console / Hydro Kit Gen2 Wall Mounted / ARTCOOL

EV / I OA

To Indoor unit's EEV



 Turn the power off using circuit breaker. ② Disconnect the EEV cable of the indoor unit's PCB (CN-EEV)

- ③ Connect the independent power module (CN-EEV/ LOAD) to the independent power module (CN-EEV/ @ 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**

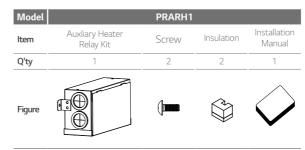
Providing an efficient way to add auxiliary heat.

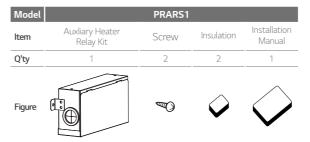


#### **Key Features**

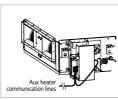
- Provides two stages of auxiliary heat for indoor unit.
- Provides ability to use the two stage auxiliary heater as the primary or secondary heating source.

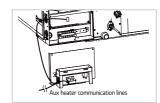
#### **Included Parts**





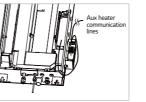
#### How to Install





High Static Ducted

Low Static Ducted





1 Way Cassette

2 Way Cassette

#### Model Name

PRARS1

#### **Applied Products**

Wall Mounted, Art Cool Mirror, Art Cool Gallery

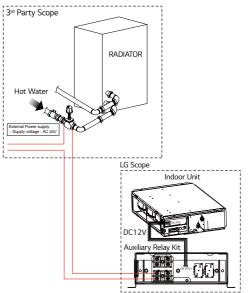
#### Model Name

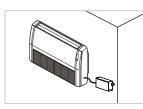
PRARH1

#### **Applied Products**

1, 2, 4 Way Ceiling Cassette, High Static Ducted, Low Static Ducted, Ceiling Suspended

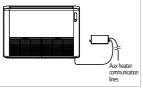
## **Key Application**





Wall Mounted

ACCESSORIES



Ceiling Suspended



4 Way Cassette

## **HEAT RECOVERY**



#### 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

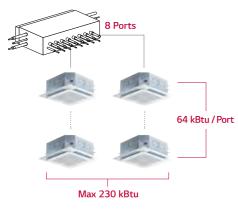
#### **Key Features**

• 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** 

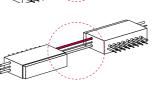
Maximum number of connectable indoor units : 64 IDUs / HR unit (in case of 8 ports model)



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



#### **Included Parts**

- HR unit (1EA)
- Hanging bolts M10 or M8 (4EA)
- Nut M8 or M10 (8EA)
- Washers M10 (8EA)
- Reducers

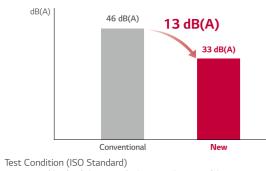
#### Specification

	Mode	l		PRHR023	PRHR033	PRHR043	PRHR063	PRHR083
Number of Branc	h		EA	2	3	4	6	8
Maximum Conne (Per branch / unit	ctable Capacity of In t)	door Units	kW	17.5 / 35	17.5 / 52.5	17.5 / 69.5	17.5 / 69.5	17.5 / 69.5
Maximum Numbe	er of Connectable Inc	loor Units Per Branc	h EA	8	8	8	8	8
Cooling			kW	0.040	0.040	0.040	0.076	0.076
Nominal Input H	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
	Indoor Unit	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

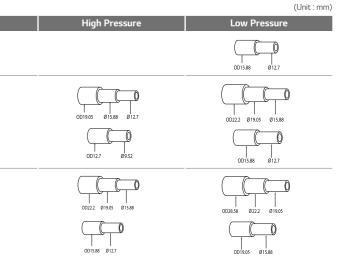
#### Reducers for Indoor Unit and HR Unit

	Model	Liquid
Indoor Unit Reducer		009:52 Ø635
HR Unit Reducer	PRHR023	00952 8635
HK UNIT KEDUCEP	PRHR033 PRHR043 PRHR063 PRHR083	OD15.88 012.7 0952

#### Reduce Noise



- 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  $\rightarrow$  heating switching operation



#### 246 / 247

## **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

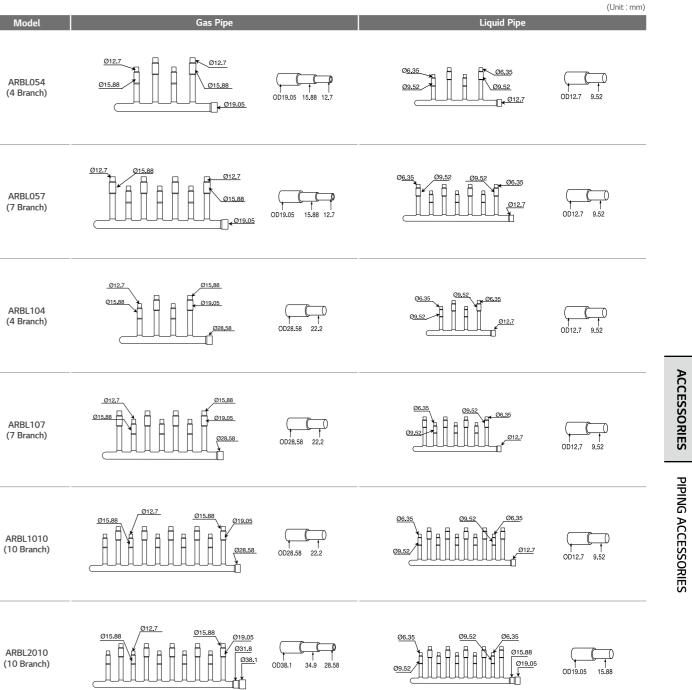
Refer to specifications

#### **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

#### Specification

Header Branch R410A



(7 Branch)



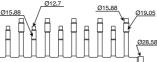
# (4 Branch)



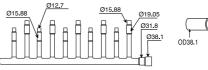




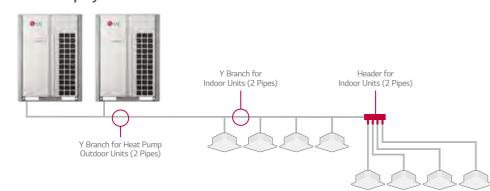




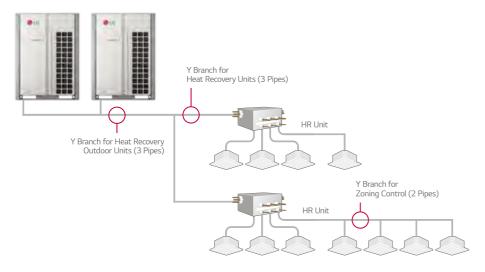
ARBL2010 (10 Branch)



#### **Key Application** Heat Pump System



#### Heat Recovery System



## **PIPING ACCESSORIES**

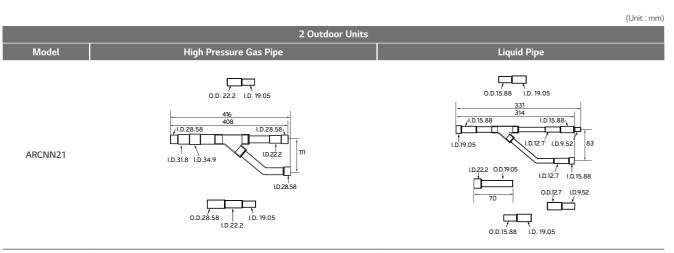
Y Branch pipe for connection of outdoor units.

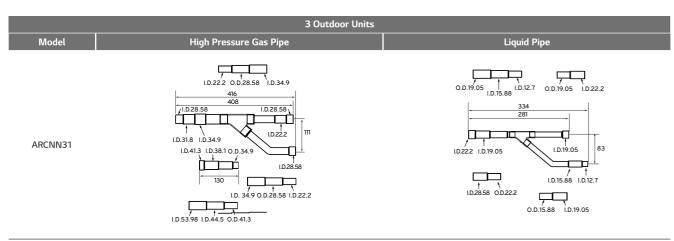
#### Specification

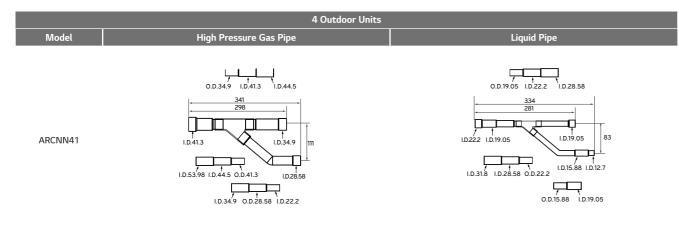
#### Heat Pump

R410A

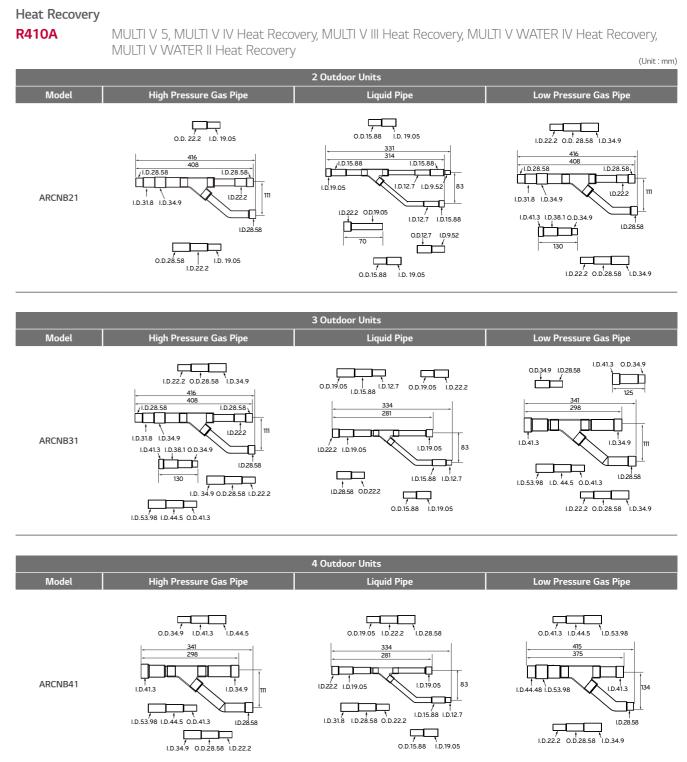
#### MULTI V 5, MULTI V IV, MULTI V III, MULTI V WATER IV, MULTI V WATER II

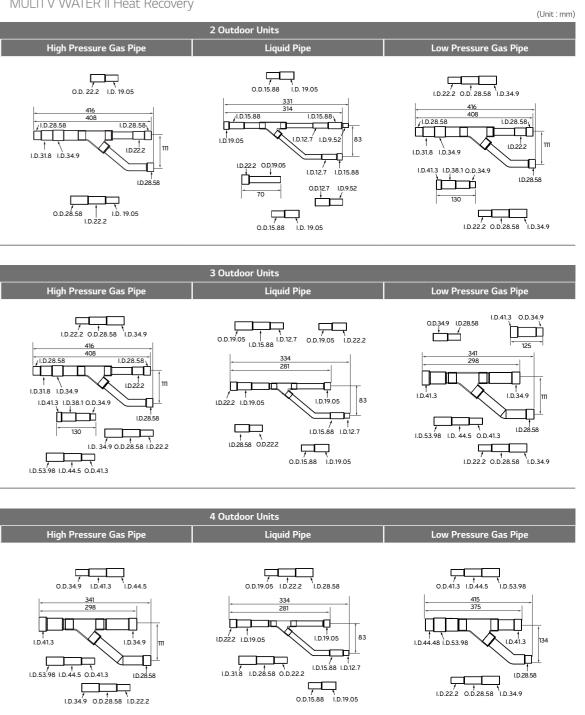


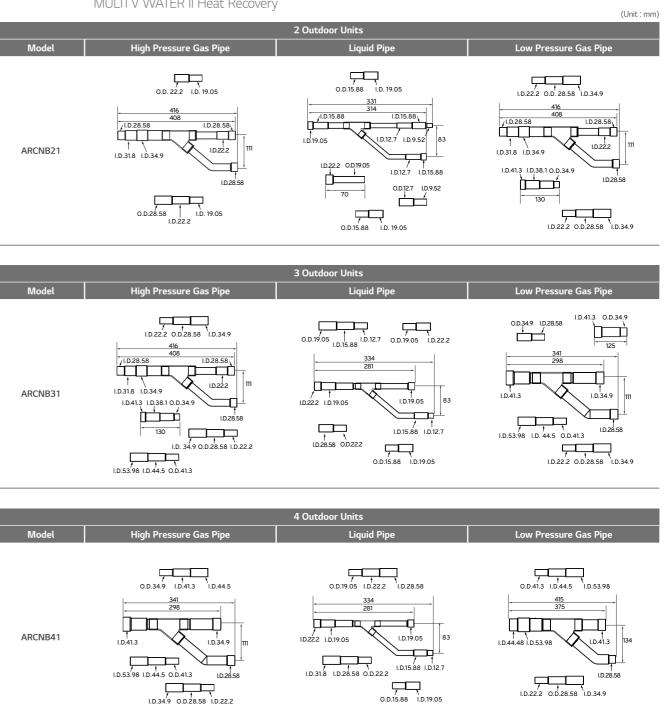


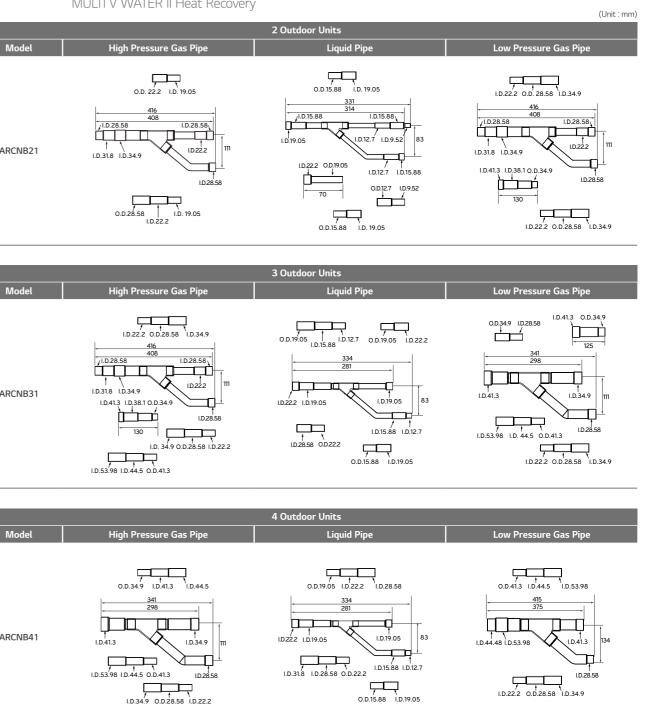


#### Specification









ACCESSORIES

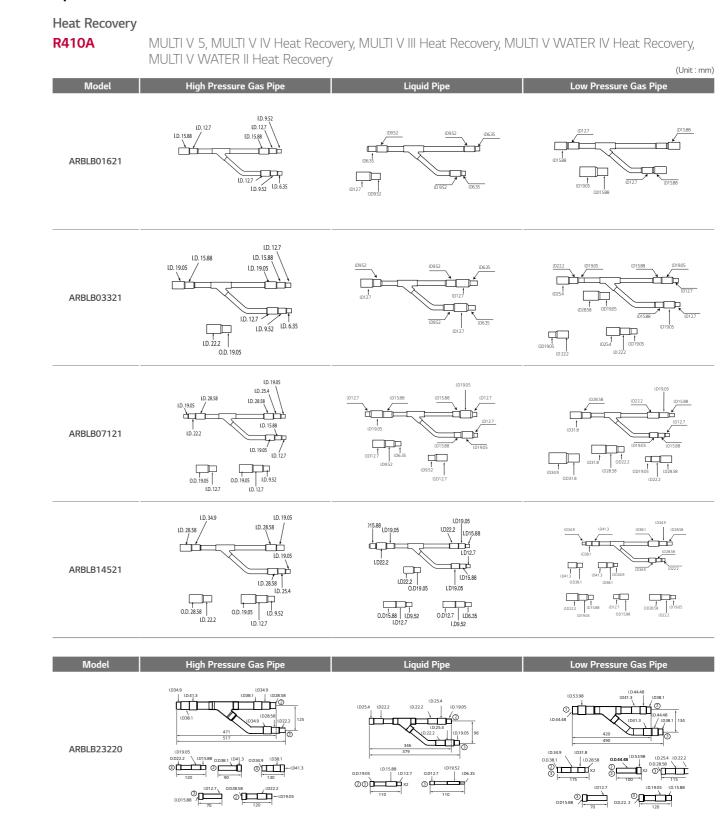
## **PIPING ACCESSORIES**

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) Liquid Pipe ARBLN01621 ARBLN03321 Gas Pi ARBLN07121 , , , , ΡĢ LD22.2 ARBLN14521 I.D15.8 0.D15.88 LD9.52 LD12.7 0.D12.7 LD6.35 ARBLN23220 3 2 3 0.0.19.05 U.D.1

#### Specification



ACCESSORIES

## **REFRIGERANT CHARGING KIT**

Recharging refrigerant after a pump down or when refrigerant is either insufficient or excessive.



## Model Name

PRAC1

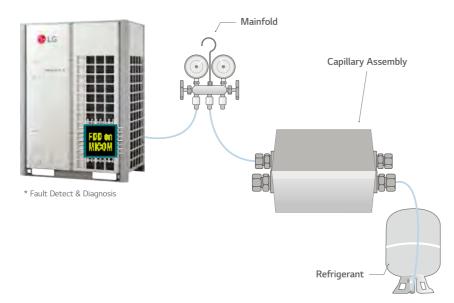
### **Applied Products**

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.



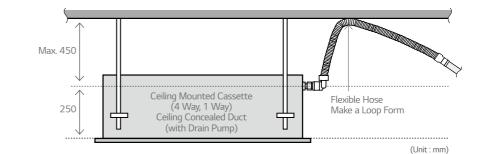
#### Key Features

• 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

#### Model Name

PHDHA05T PHDHA07T PHDHA05B PHDHA07B

### **Applied Products**

MULTI V Indoor units

## **STOPPER VALVES**



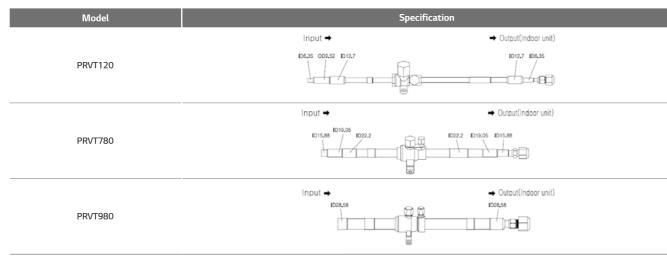
#### Model Name

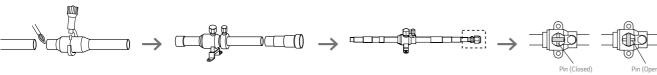
PRVT120 (Under 12.7mm) PMVT780 (Under 22.2mm) PMVT980 (Under 28.58mm)

#### **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

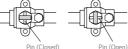




1. Cut the inlet side of the connector, and weld the pipe

How to Install

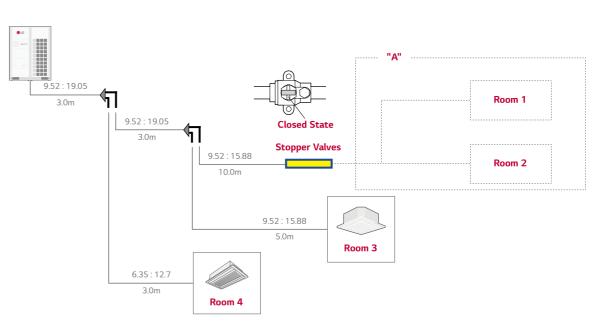
- 2. If installing additional indoor units, the outlet side connector should be cut according to installation pipe.
- 3. When installing a stopper valve, the flare part should be facing towards additional indoor unit.



4. When installing anadditional indoor unit, the SVC valve should be in closed state.

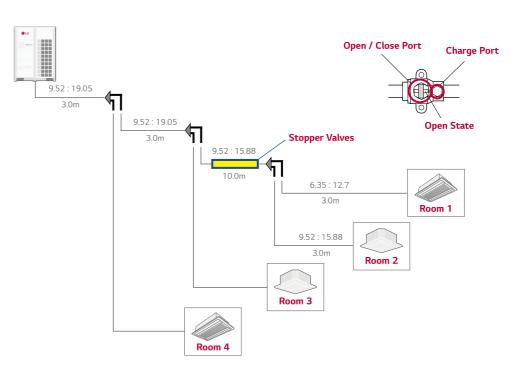
#### Application

(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.



% When welding, service valve shoud be wrapped by wet cloth.

## NOTE

NOTE

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