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LG HVAC SOLUTION





#### **LG Electronics**

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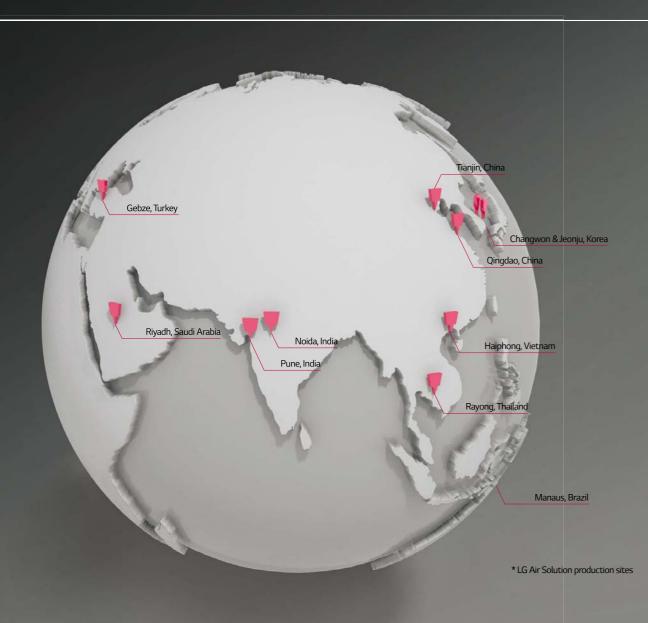
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# LG AIR SOLUTION

# AS A TOTAL HVAC & ENERGY SOLUTION PROVIDER

# **INFRASTRUCTURE** IN EUROPE



total HVAC and energy solution. The company offers a broad portfolio of air conditioner products that are compatible with any building anywhere, including compact residences, towering skyscrapers, massive factories and giant concert halls. As a true total HVAC and energy solution provider, LG also supplies even the largest buildings and industrial facilities with central air conditioning systems such as chillers and efficient control

The history of the business unit goes back to 1968, when LG (then called GoldStar) rolled out Korea's first residential air conditioner. As the company first began making chillers for large commercial buildings in 1970, the commercial air conditioning business has grown exponentially, especially within the last 20 years. In 2008, LG sold its 100 millionth air conditioning

The LG Electronics Air Solution Business Unit is a provider of unit, becoming the first company in the industry to reach that significant milestone. The success of LG air conditioners has allowed the company to become one of the major players in the highly competitive HVAC industry. By enhancing the industry's B2B infrastructure and finding further solutions for the HVAC sector, LG has risen to become a total HVAC solutions specialist. The company has steadily increased its sales and market share by introducing energy efficient and reliable HVAC solutions and actively pursuing new opportunities wherever they arise. This sustained, excellent performance is built on a solid foundation of global R&D and advanced manufacturing capabilities.



LG Air Conditioning Academy

LG has set up 19 official air conditioning Committed to meet all requirements regarding LG's European Air Conditioning Distribution that offers them the chance to experience the the whole product lifecycle.



LG Energy Lab in Europe

academies in Europe, teaching much needed energy efficiency and environmental demands, Center is located in Oosterhout, the Netherlands. skills to thousands of current industry LG has been running Energy Lab. LG Energy Lab Supplying and delivering products all over professionals including installers, consultants. is an innovative site dedicated to commercial Europe, this distribution hub has contributed designers, sales staff and service technicians. and residential products in heating, ventilation to smooth and rapid delivery, direct shipping The academy program is being used to share and the latest energy efficient air conditioning for smaller orders and delivery tailored to air expertise and cultivate these HVAC experts by solutions. Also as a showcase, LG Energy Lab is conditioners. The hub tries to manage inventory providing a cutting-edge technical educational equipped with complete monitoring and control efficiency by taking advantage of LG EU's experience with the newest and most advanced systems. The performance of all products will be established inventory pool. technology and equipment. Moreover, as LG's tracked and analyzed by a team of Research and



#### **European Air Conditioning Distribution Center**

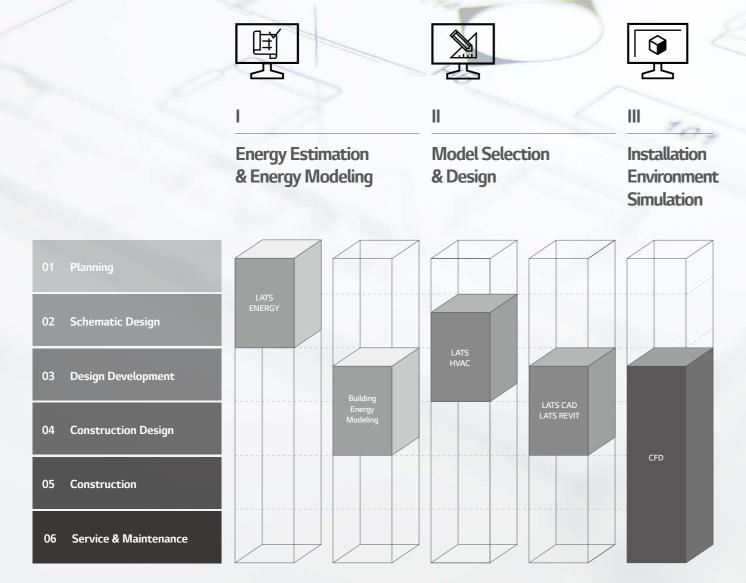


# **ENGINEERING CAPABILITY** :HVAC TOOL & SUPPORT

From planning to service & maintenance and then to de-construction, an architectural project goes along 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. Due to the usage of such tools, buildings are effectively designed, built, supervised, and maintained throughout the lifecycle.

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

# \* LATS: LG Air-conditioner Technical Solution



#### 01 Draft Energy Estimation

#### LATS Energy

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

#### 02 Building Energy Modeling

#### eQuest, EnergyPro, Trace700 and More

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

#### 03 Model Selection

#### LATS HVAC

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

#### 04 Design

#### LATS CAD

LATS CAD enables faster and a more accurate design of LG HVAC products.

Moreover, it offers not only designing, but also quotation and installation review in order to minimize problems during installation processes.

#### LATS Revit

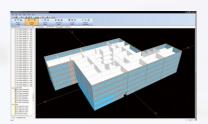
LATS REVIT is developed to make 3D designing of LG HVAC products easier than the previous program. It enables engineers to check 3D images from designing stage and prevents possible issues of the installation stage.

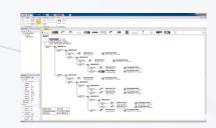
#### **05 Installation Environment Simulation**

#### CFD Analysis

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

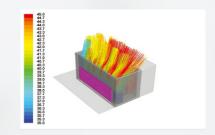












# LG CONTROL SOLUTION

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





# OUTDOOR UNIT

# **LINE-UP**

Unit : HP												
Туре	Features	Appearance	4	5	6	8	10	12	14	16	18	20
						•	•	•				
MULTI V 5	Dual sensing control     Large capacity ODU (Up to 26HP)     Continuous Heating								•	•	•	•
	Ocean black fin heat exchanger     Energy saving by     heat recovery technology     Flexible installation with											
	heat recovery unit and large capacity • For large space, high rise building and individual control building											
	Saves floor space Flexible design applications	0	0	0								
MULTI V S	- Slim, light and wide line up (4 ~ 12HP) - Combination of indoor unit (Up to 20 Units)		•	0•	0•							
	<ul> <li>For Small / Medium building with up to 20 rooms</li> </ul>					•	•	•				
MULTI V S Heat Recovery	у	0			•							
	High efficiency system regardless external conditions     Indoor installation product	0.0				•	•		•			•
MULTI V WATER IV	Quiet unit noise level (No fans)     For Water sourced system, High rise building and Aesthetic building	300 Jan 300 Ja										
Heat Pump / Heat Recovery	Cooling and heating at the same time Minimizing energy cost by water sourced heat recovery system	92 92										
	For individual control building     For Water sourced system, High rise building and Aesthetic building					• •						
MULTI V WATER S	<ul> <li>Easy to install additional capacity</li> <li>Compact size</li> <li>Light weight</li> <li>For Residential and Commercial building</li> </ul>	9.5			0							
MULTI V M	High flexibility of installation     Quiet operation     Various indoor unit combinations & Long distance between modules	e LG		•								

22	24	26	28	30	32	34	36	38	40	42	44	46	48	50	52	54	56	58	60	62	64	66	68	70	72	74	76	78	80		96
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● 380V, 3Ø O 220V, 1Ø



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

Following the first and second generations with Inverter technology and non-ozone depleting refrigerant, MULTI V III has advanced its efficiency with diverse cutting-edge technologies such as HiPORTM that directly returns oil to compressor and Vapor Injection that allows double compression by adding mid-pressure refrigerant. As acknowledged by the Eurovent Certification, the innovative technologies of 4th generation secured MULTI V brand the product leadership based on efficient system like Smart Load Control that controls operational load according to external temperature and other technologies that are optimized to manage refrigerant and heat exchange for all cooling, heating and part load operations. Moreover, MULTI V developed wide range of VRF line-up that could satisfy various types and size of building; MULTI V S is the VRF with side discharge, designed for small to mid-sized building and MULTI V WATER is the water-cooled VRF solution with variable water flow controlling technology.

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

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



# **DUAL SENSING**CONTROL

The cooling load is based on the amount of both sensible heat load and latent heat load. Most importantly, the cooling load is keen to, and thus, greatly affected by external humidity, rather than the outdoor temperature. For this reason, MULTI V 5's Dual Sensing Control applied function senses both temperature and humidity and applies sensed data for load control in order to obtain in-depth understanding of sensible heat load and latent heat load. This helps preventing excessive cooling load supply and offers the most pleasant and comfortable cooling environment the users want combined with reduction in energy consumption.

#### **Smart Load Control (SLC)**

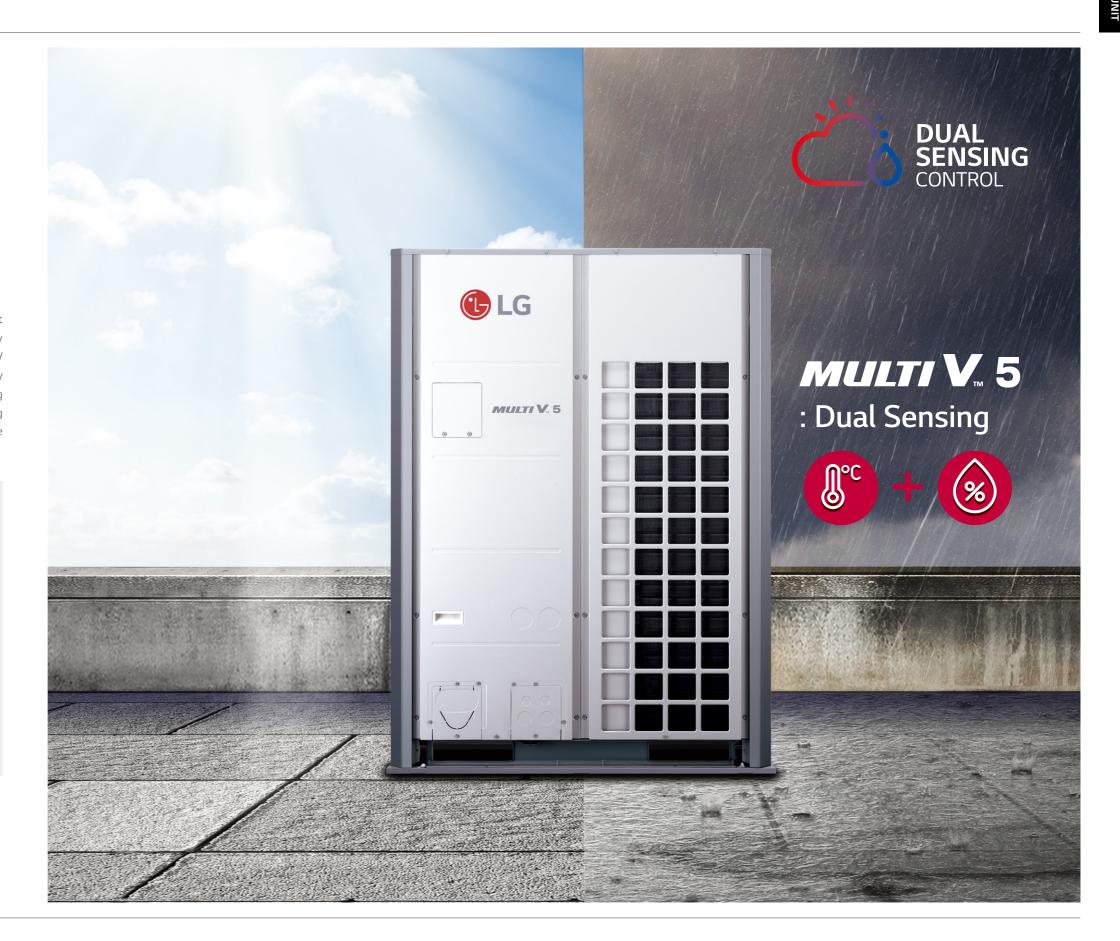
This comprehensive understanding of environmental conditions allows optimized energy efficiency and maximized indoor comfort level.



#### **Comfort Cooling**

This maintains operation at mild cooling mode around set temperature without stopping in between operations for maximized user comfort.





# **ULTIMATE INVERTER**COMPRESSOR

As the core technology of the air conditioning system, the Ultimate Inverter Compressor of MULTI V 5 boasts its ultimate efficiency and durability, designed based on the unique technology and innovation of LG HVAC.

#### All Inverter

Provide high efficiency with low vibration and low noise

#### Six By-pass Valves

Prevent compressor damage due to excessively compressed refrigerant more efficiently than 4 by-pass valves

#### 01. Vapor Injection

Maximize heating capacity via two-stage compression

#### 02. Enhanced Bearing with PEEK Material

Newly invented system motivated by PEEK (Polyetheretherketone) bearing used for aero engine to increase operation range and durability

#### 03. Wide Operation Range from 10 to 165Hz

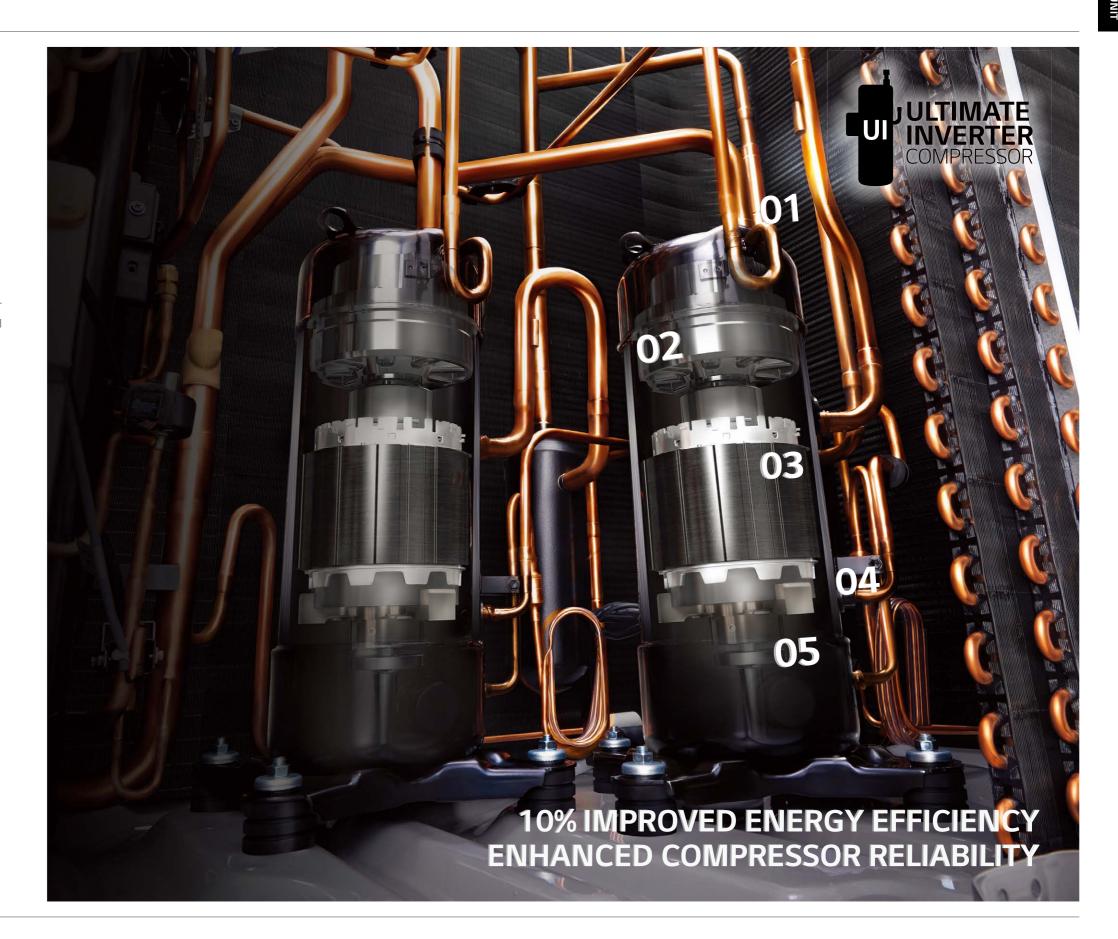
Improved part load efficiency at all operation ranges

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

Resolve compressor efficiency loss caused by oil return

#### 05. Smart Oil Management

Oil level detection in real time



# LARGE CAPACITY ODU WITH BIOMIMETICS TECHNOLOGY FAN

#### Large Capacity Outdoor Unit

Enhanced core parts like biomimetics technology-based fans, 4-sided heat exchanger as opposed to 3-sided heat exchanger of previous model and compressor with increased efficiency and capacity allow large capacity for outdoor units. A single unit of MULTI V 5 can provide up to 26HP.



#### Humpback Whale Design

Inspired by the bumps on the humpback whale's flipper, the tubercles on the back side increased wind power by reducing flacking.



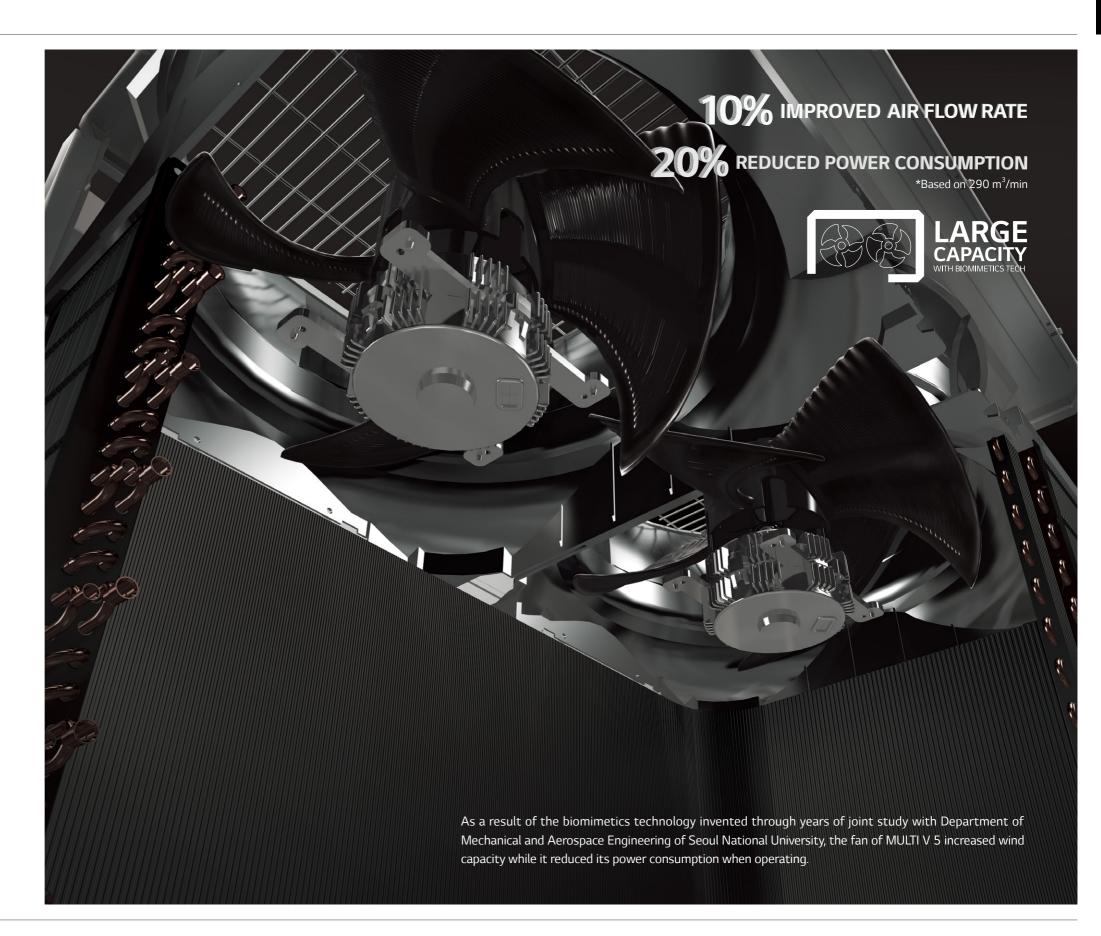
#### Clam Shell Pattern

Like the clam shell textures, the range difference created by moire pattern reduced noise level.



#### Increased Air Flow Rate

With extended shroud, discharged air current is stabilized and power consumption is reduced.

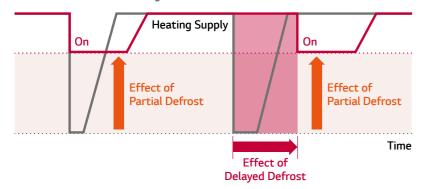


# **CONTINUOUS HEATING**

Improved technologies such as Dual Sensing Control, Partial Defrost and Smart Oil Management enhance Continuous Heating for increased heating capacity and indoor comfort. The delayed and partial defrost technologies minimize unnecessary operational consumption to provide consistent heating.

#### <u>— мигті V. 5</u>

- Non-continuous heating model





- \* Test condition : Outdoor 2/1 °C, Indoor 20/15 °C, Humidity 83%







**Partial Defrost** 



Power Input

Down to 7%

Smart Oil Management

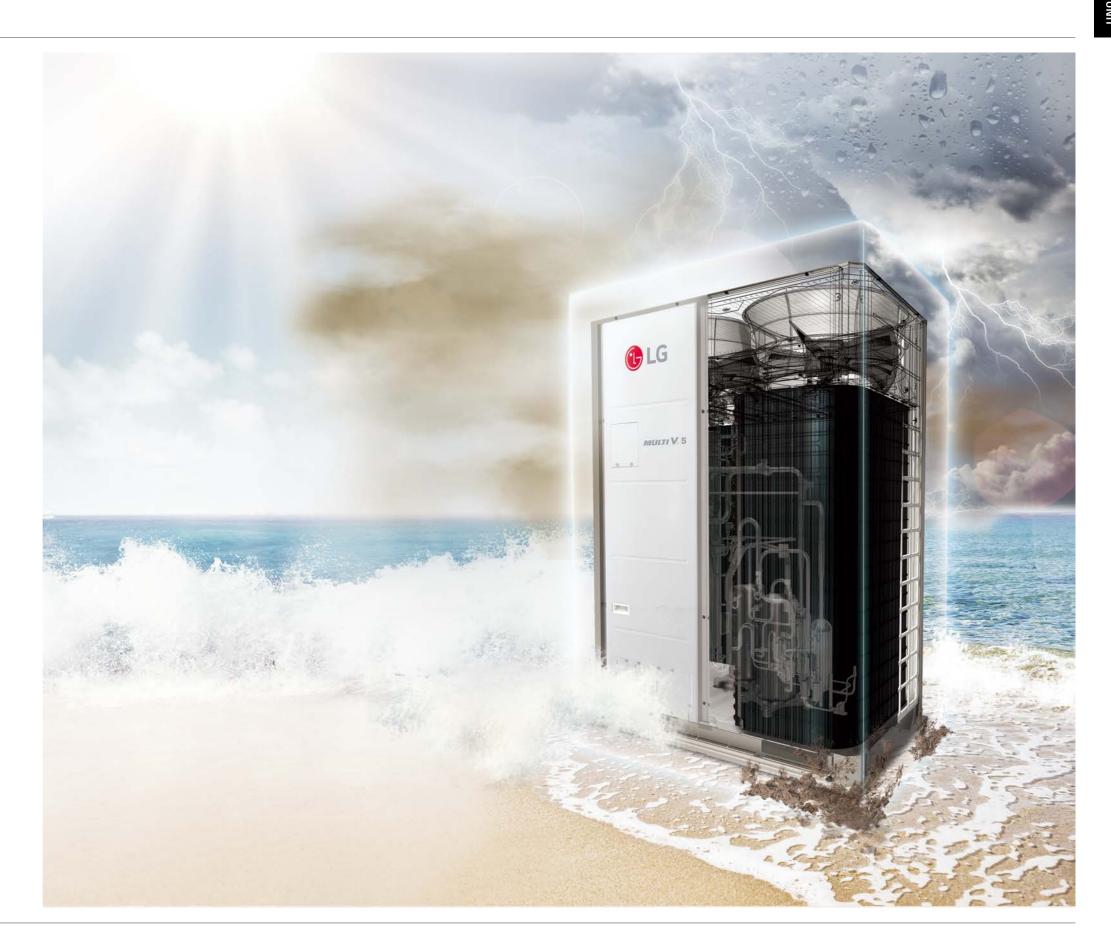


# OCEAN BLACK FIN HEAT EXCHANGER

Improved technologies such as Dual Sensing Control, Partial Defrost and Smart Oil Management enhance Continuous Heating for increased heating capacity and indoor comfort. The delayed and partial defrost technologies minimize unnecessary operational consumption to provide consistent heating.



- \* Test Method B Simulation Validated
- (Test condition: Salt contaminated condition +severe industrial/traffic environment (NO<sub>2</sub>/SO<sub>2</sub>)
- \* Based on 1,500 UL test hours



**OUTDOOR UNIT KEY FEATURES** 

# **CONSULTANTS & HVAC DESIGNERS**

From accurate 3D-based building modeling to strong system capability regardless of the building size and climate conditions, MULTI V 5 offers the most efficient and flexible installation environment for consultants and HVAC designers. Indeed, MULTI V 5 is the most reasonable HVAC system that has achieved the best efficiency through LG's enhanced inner parts, operational cycle and controlling technology.

# O1 Improved designing effectiveness and accuracy via LATS Revit, the BIM application

LG provides 3D-based BIM simulation tool, LATS Revit, in order to offer product selection, positioning and piping from installation, interference check to correction phases based on systematic consideration of the load. This enables the easiest, yet the most accurate system modeling support.



Even in the extreme climate situations, MULTI V 5 can perform stable heating and cooling operations. Due to LG's improved inner parts and cycle technology, it can perform heating operation at extremely cold temperature as low as -25C. For cooling performance, MULTI V 5 can operate from -15°C to 48°C. With wide operational range, it can perfectly perform heating operation in cold environment, making the product adequate for uses in specialized venues like server rooms.

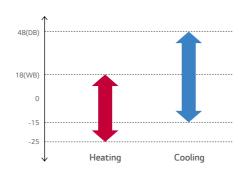
# 03 Flexible construction design available due to long piping technology

Through the world's best class piping technology MULTI V 5 provides the perfect solution for various types of building with diverse size and purposes. The longest piping length offered by MULTI V 5 is 225m and height difference between outdoor unit and indoor unit stretches up to 110m.

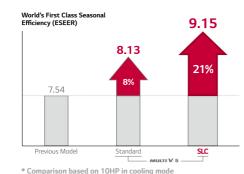
# 04 The most economical solution with the world's top class energy efficiency

Improved reliability based on LG's Ultimate Inverter Compressor and other core parts, as well as the most developed controlling technology due to optimal cycle operation and Dual Sensing Control that recognizes both the temperature and humidity achieved the world's best class seasonal efficiency (ESEER) of 9.15. As a result, this enables the most economical system capability for MULTI V 5 in comparison to any other existing HVAC systems.





Total Piping Length	1,000m
Actual longest piping length	225m
Longest piping length after 1st branch (conditional application)	40m (90m)
Height between ODU ~ IDU	110m
Height between IDU ~ IDU	40m
Height between ODU ~ ODU	5m



#### OUTDOOR UNIT KEY FEATURES

# **INSTALLERS**

Due to increased capacity provided by single outdoor units, installation became simpler with reduced number of outdoor unit combination. Moreover, solutions connected to and operated by smart devices significantly shortened physical hours required for test run, diagnose and monitoring of multiple services while making these controlling more accurate.

# O1 Increased installation convenience due to large capacity units reducing number of outdoor units required for combination

By providing up to 26HP for single unit line up, MULTI V 5 decreases the total number of required outdoor units in order to ultimately simplify installation process, when compared to previous models. For example, previous system required a combination of a 20HP outdoor unit, a 18HP outdoor unit and a 10HP outdoor unit to run a total of 48HP. For MULTI V 5, however, only 2 outdoor units with each providing 24HP can cover the same amount. This significantly reduces installation hours, especially those that used to take long time such as using crane to properly place outdoor units on the rooftop.





#### 02 Simple and easy installation and service with Mobile LGMV

With LGMV, the smarter SVC application, hours and resources spent for installation are significantly reduced and more accurate installation and service can be offered.

#### Auto test run

Mobile application allows automatic address setting and test run report releasing.

#### Refrigerant diagnose solution

By regularly checking the amount of refrigerant, it automatically reloads if current amount is not enough.

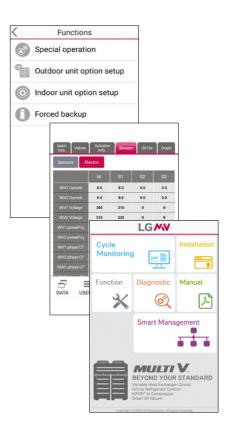
#### Easier setting for installers

Unlike before when set up had to be done via DIP Switch of Outdoor unit, installers can simply manage setting via mobile app for MULTI V 5. Indeed, settings for SLC steps, Dual Sensing Control and outdoor unit fan's maximum RPM control can be easily managed via LGMV.

#### **Smart management**

By checking test run history, black box review and other previous records, site information can be managed efficiently.

\*LGMV application is available for Android and iOS (iphone/ipad)



#### **OUTDOOR UNIT KEY FEATURES**

# **BUILDING OWNERS**

With increased reliability of core parts such as compressor and heat exchanger, as well as high operational efficiency, building owners can significantly reduce operational costs in comparison to other systems. At the same time, large capacity outdoor units minimize installation space which eventually allow better use of the floor space. Moreover, MULTI V 5 prevents overuse of the operational costs by planning and consuming the projected monthly energy usage.

#### 01 Corrosion resistance via Ocean Black Fin

Protection certified by UL (Underwriters Laboratories), LG's exclusive Ocean Black Fin is applied on the heat exchanger of MULTI V 5 in order to perform even in corrosive environments. The protection from various corrosive external environments such as seaside with high salt contamination and industrial cities with severe air pollution caused by fumes from factories keeps MULTI V 5 operating without breakdown.



# O2 Minimized installation footprint via large capacity outdoor units for flexible usage of the saved floor space

MULTI V 5 provides up to 26HP for single unit line up. Considering that a total of 260HP is being installed, the total installation space is saved up to 23% while the overall product weight decreases up to 15% in comparison to previous model. This eventually resulted in the maximized use of the saved floor space. Moreover, reduced product weight of MULTI V 5 makes installation easier with less limitation on product weight installed on the building's rooftop.



# 03 Operational costs management by presetting energy consumption

Energy management function allows MULTI V 5 to preset monthly energy usage and consume what has been previously planned. By analyzing and comparing previous consumption and planned energy usage for the month, overuse of the HVAC system operational costs can be prevented.



# 04 Easy building remodeling with Integral system that offers both the Heat Pump & Heat Recovery

MULTI V 5 offers HVAC solution with integrated system that offers both the Heat Pump and the Heat Recovery Systems.

Even if the site has been previously installed with Heat Pump System, user can easily replace it with Heat Recovery System or Hot Water Solution when necessary, through simple piping construction which eventually allows more rooms for future remodeling plans.



Heat Pump System Heat Recovery Syste

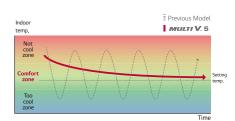
#### OUTDOOR UNIT KEY FEATURES

# **END USERS**

LG's inverter technology and capability to actively respond to the building's both internal and external environment allow users to quickly arrive at the desired ambient and systematically maintain such condition. Moreover, users can control the indoor environment remotely via smartphone from wherever and whenever. Lastly, new Standard III Remote Controller with simple user interface and premium design provides users the optimal controlling experience.

#### 01 More comfortable cooling environment via Dual Sensing

With the performance of LG's Ultimate Inverter Compressor MULTI V 5 can quickly approach at user's desired temperature. At the same time, the dual sensing technology controls and maintains indoor temperature pleasantly based on its recognition of both the temperature and humidity in order to offer the optimal user comfort.



#### 02 Continuous heating operation

Due to improved technologies of MULTI V 5 such as delayed defrost via Dual Sensing Control, partial defrost and smart oil management, users can enjoy pleasant and comfortable indoor environment with no stopping of heating operations in between.



# 03 Optimal controlling environment with new Standard III Remote Controller

MULTI V 5's new wired remote controller offers simple and easy controlling experience via simplified user interface and 4.3-inch large colored LCD screen. Moreover, it provides diverse information such as indoor temperature, humidity, cleanliness and real-time check on energy consumption.



0.028

# MULTI V 5 Certified to Meet New EUROVENT Efficiency Regulations

The MULTI V range has always been at the forefront of energy efficiency. LG takes customers' concerns about energy savings very seriously. The company also strives to protect the environment by continuously improving MULTI V technology, thereby reducing its carbon footprint. In European Union countries, the energy efficiency of variable refrigerant flow (VRF) products has become a policy of its own. While European policymakers encourage technology improvements of VRF products, they also recently set minimum efficiency boundaries. This is to ensure that less energy-efficient VRF products are no longer sold, while environmentally friendly VRF units are promoted. As a result, beginning in 2018, VRF products will have to meet minimum energy efficiency standards, also taking into account the seasonal operation of the product in both heating and cooling modes.

Preserving the environment is LG's top priority, and MULTI V 5 will meet the stricter efficiency standards from day one. As a company, LG is pleased that mandatory regulations on energy efficiency will allow easier comparisons between manufacturers offering similar products. Efficiency assessments will be done on an equal footing, thus allowing customers to make informed choices measured according to European regulations and standards. However, LG's transparent communication

regarding the energy performance of MULTI V 5 units does not stop there. MULTI V 5 will also have its performance certified through independent third party organizations, such as Eurovent certification for VRE.

MULTI V 5 performances will be assessed and certified so LG customers will be able to make the most of national incentive policies that require certified data when implementing VRF technology. Eurovent certification for MULTI V 5 will allow customers to accelerate their business and to reduce their workload to minimal levels. Eurovent certification for MULTI V 5 will be even more important as the EU rules for the energy efficiency of VRF products do not require energy labeling to be displayed with the units. However, designers and construction companies consulting the Eurovent database will find information about the energy performance of MULTI V 5 at a glance.



# 5 MAIN FEATURES

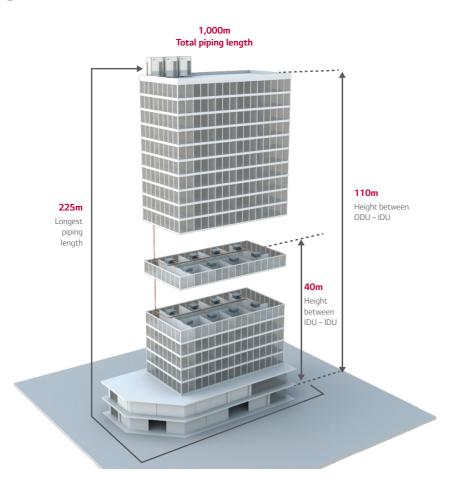
- ULTIMATE EFFICIENCY
- ULTIMATE PERFORMANCE
- ULTIMATE COMFORT
- ULTIMATE FLEXIBILITY
- ULTIMATE CONTROL
- HEAT RECOVERY

#### **OUTDOOR UNIT KEY FEATURES**

# **MULTIV5**

Due to improved supercooling circuit and refrigerant controlling technologies, MULTI V 5 allows users to install world's best class piping lengths, which results in more flexible installation design.

# Piping length



# Piping capabilities

Total Piping Length	1,000m
Actual longest piping length (Equivalent)	200m (225m)
Longest piping length after 1st branch (conditional application)	40m (90m)
Height between ODU ~ IDU	110m
Height between IDU – IDU	40m
Height between ODU - ODU	5m

#### **ULTIMATE EFFICIENCY**

# LG's Ultimate Inverter Compressor

The newly designed bearing of the Ultimate Inverter Compressor allows low-frequency operation at 10 Hz from the previously lowest speed at 15 Hz, increasing the ultimate efficiency and reliability of MULTI V 5.

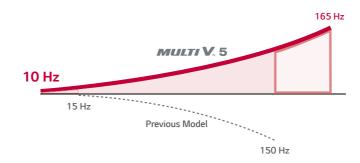


#### **Vapor Injection**

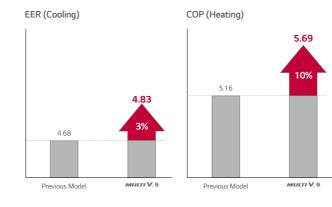
- Maximize heating capacity via two-stage compression
- Provide powerful heating in low temperature conditions
- Improve energy efficiency and heating performance

#### **Extended Compressor Speed from 10 Hz**

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



# World's First Class, Rated Efficiency (Eurovent Test Condition)



#### 

# Enhanced Bearing with PEEK Material for Increased Durability and Reliability

- Applied newly invented scroll system driven by PEEK (Polyetheretherketone) bearing used for aero engine
- Can operate longer without oil supply
- Increase durability and reliability

#### **Concentration Motor**

• 10% increase of magnetic flux density

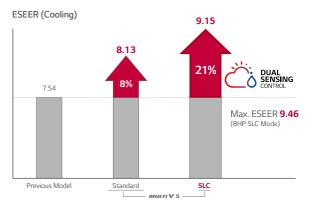
#### HiPOR™

• Minimizing energy loss with direct oil return

#### **Smart Oil Management**

• Measuring the presence of oil through the oil sensor

# World's First Class Seasonal Efficiency (ESEER)

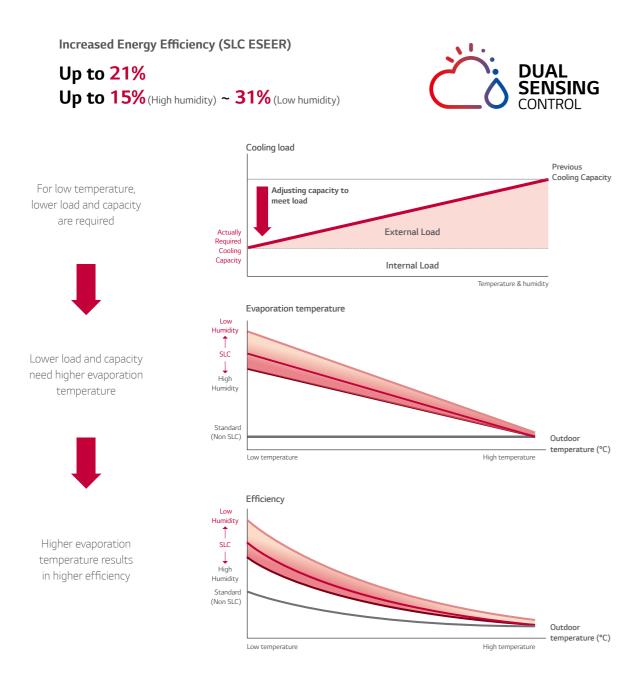


\* Comparison based on 10HP in cooling mode

# **ULTIMATE EFFICIENCY**

# **Smart Load Control (SLC)**

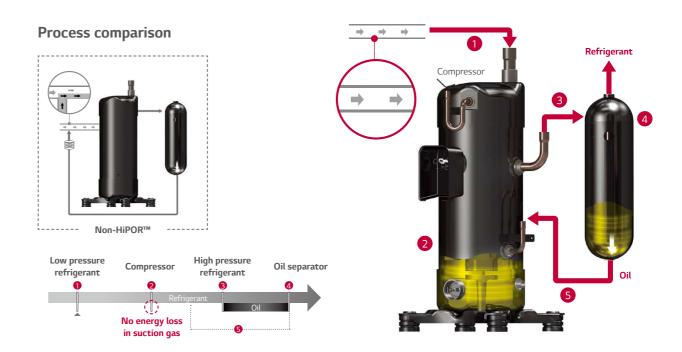
Smart Load Control function enables comprehensive understanding of environmental conditions in order to optimize energy efficiency and maximize indoor comfort level. This technology allows active control of discharge refrigerant temperature which eventually increases the ESEER up to 21% for maximum 26 HP and 15% for average outdoor units in comparison to the previous models.



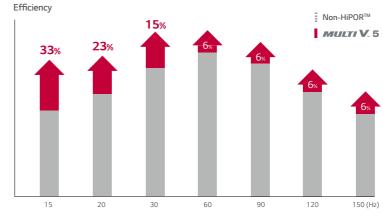
<sup>\*</sup> Low humidity: Below 50% / Standard: 50~70% / High humidity: 70~100%

# HiPOR™ (High Pressure Oil Return)

HiPOR™ technology enables oil to return directly into the compressor, instead of returning through the refrigerant suction pipe in order to minimize energy losses while maximizing the efficiency of compressor. The previous model compressor that caused loss of low pressure refrigerant return to the refrigerant pipe. However MULTI V 5 maximizes reliability and efficiency of the compressor by reducing high pressure refrigerant loss.



#### **Efficiency comparison**



<sup>\*</sup> Rating condition (Tc=54.4 °C, Te=7.2 °C)

0.34 0.35

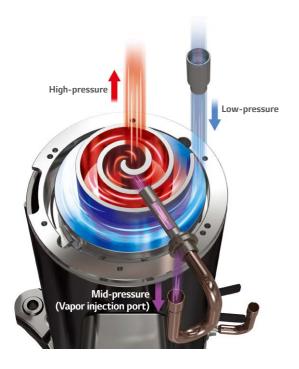
<sup>\*</sup> Setting is available in indoor (Standard III Remote Controller)

# **ULTIMATE EFFICIENCY**

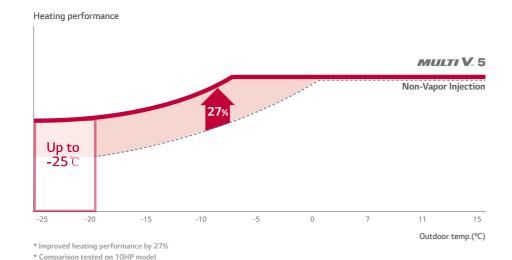
# **Vapor Injection**

Vapor Injection uses a two-stage compression effect, which is designed to provide efficient heating in very cold environments. Combined with HiPOR<sup>™</sup>, this system boosts heating performance and enhances heating temperature range.

#### Technology mechanism

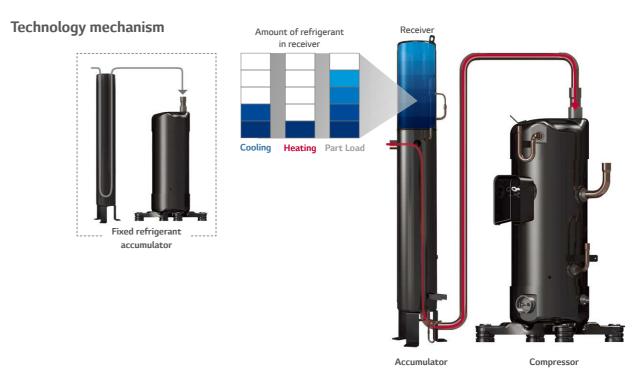


#### Performance comparison

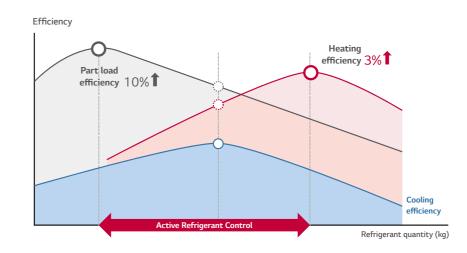


# **Active Refrigerant Control**

Active Refrigerant Control monitors and adjusts the quantity of circulating refrigerant during each cycle to maximize efficiency in real time when it runs cooling and heating operation, as well as the part load operation. This five step control leads to an improvement in energy efficiency, unlike when fixed amount of refrigerant is provided to the compressor regardless of operation mode, which limits optimal efficiency for each operation.



#### **Efficiency performance**

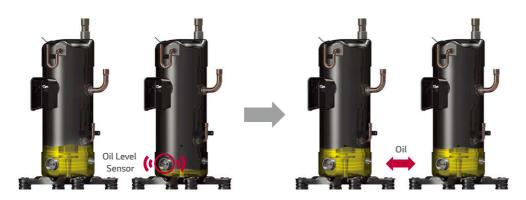


# **ULTIMATE EFFICIENCY**

# **Smart Oil Management**

Compressor reliability and Efficiency are improved with an oil sensor that allows oil balancing and oil return. The value of the capacitance between the electrodes can measure the presence of oil in real-time. This real-time measurement of oil in the compressor reduces energy loss, providing consistent heating for the indoor environment. With Smart Oil Return, heating operation time per day has increased up to 12% in comparison to previous model.

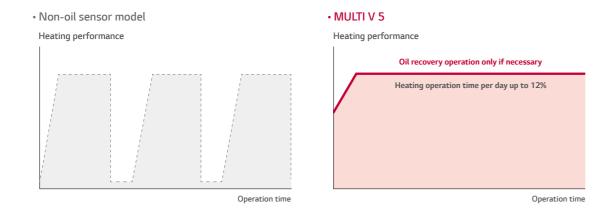
#### **Auto Oil Balancing**



#### **Smart Oil Return**



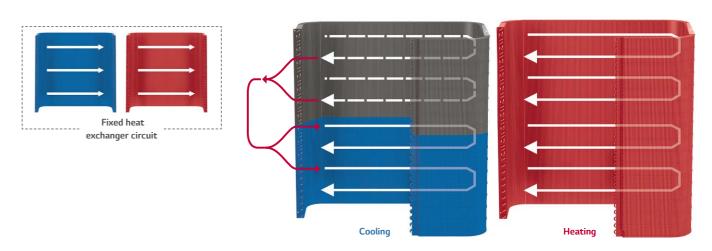
#### Operation time comparison



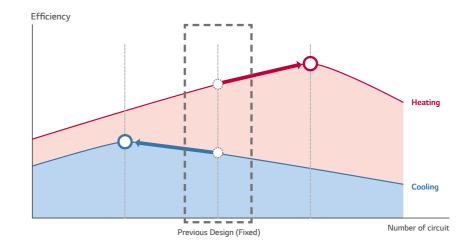
# Variable Heat Exchanger Circuit

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.

#### Technology mechanism



#### **Efficiency performance**



# **ULTIMATE PERFORMANCE**

# Heat Exchanger with Ocean Black Fin for Corrosion Resistance

LG's exclusive Ocean Black Fin is applied on the heat exchanger of MULTI V 5 in order to perform even in corrosive environments. The strong protection from various corrosive external environments such as seaside with high salt contamination and industrial cities with severe air pollution caused by fumes from factories keeps MULTI V 5 operating without breakdown. This improvement in durability prolongs the product's lifespan and lowers both the operational and maintenance costs.

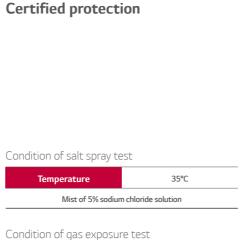






# **Corrosion Resistance Proven by Certified Tests**

LG Corrosion Resistance solution passed ISO accelerated corrosion test conducted by an independent test organization and the result has been certified by prestigious global certification organization, UL (Underwriters Laboratories).





- \* Test Method B Simulation Validated
  (Test condition: Salt contaminated condition +
  severe industrial/traffic environment(NO<sub>2</sub>/SO<sub>2</sub>))
- \* Based on 1,500 UL test hours

# **Enhanced Coating Layers**

5 x 10<sup>-6</sup>

10 x 10<sup>-5</sup>

The black coating with enhanced epoxy resin is applied for strong protection from various corrosive external conditions such as salt contamination and air pollution including fumes from factories. 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.



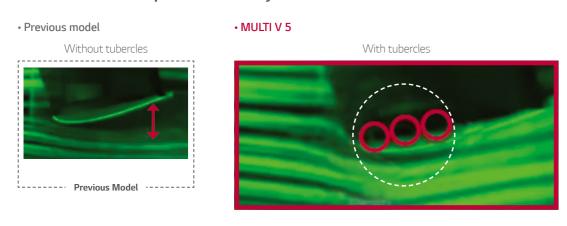
## **ULTIMATE PERFORMANCE**

# Larger Capacity ODU with Biomimetics Technology Fan

The moire pattern from external texture of clam shells has been applied on fans to create the range difference which results in reduction of noise level. At the same time, unlike the fans installed in previous products that generate separation of flow due to absence of tubercles, the bumpy back design inspired by the bumps on the humpback whale's flipper is applied as the tubercles on the back side of the fans, increasing wind power by reducing flacking.



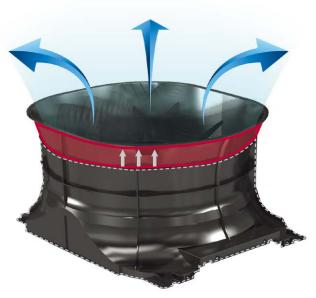
#### Flow difference comparison caused by tubercles



<sup>\*</sup> Biomimetic refers to human-made processes, substances, devices, or systems that imitate nature

# **Increased Air Flow Rate with Bigger Shroud**

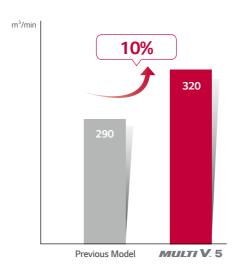
In addition to the biomimetics technology-based fans, extended shroud of MULTI V 5 allows more high static pressure and helps fans to blow higher air volume for efficient operation. With wider air guide, discharged air current is stabilized and noise level is reduced.



# **Enhanced Performance with Newly Developed Fan**

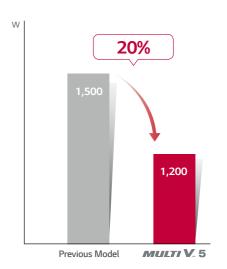
Based on the biomimetics technology, the fans of MULTI V 5 increased air flow rate by 10% in comparison to previous model and reduced its power consumption up to 20%. This eventually results in maximized performance with large capacity.

#### Air flow rate



#### \* Comparison based on 20HP model

#### **Power consumption**



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

# **ULTIMATE PERFORMANCE**

# **Enhanced Bearing with PEEK Material**

Motivated by the lubricative material of PEEK(Polyetheretherketone) bearing used for aero engines, the newly invented scroll system with refined shape increases durability and reliability of compressor. It also helps MULTI V 5 to operate longer without oil supply in comparison to the previous models.

#### Technology mechanism comparison







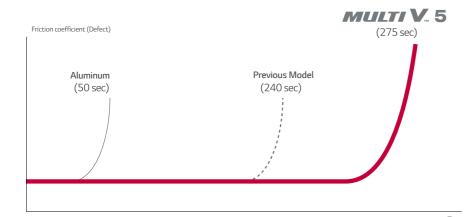


- ① Material : PEEK (Polyetheretherketone)
- ①+② Structure: New Outer Bearing
- ③ Supporter: High speed operation with reduction of bearing load and vibration

Operating time without oil supply **Up to 15%** 

Noise Level (Max. Sound Pressure) **Down to 3dB** 

#### Oilless operation hours comparison



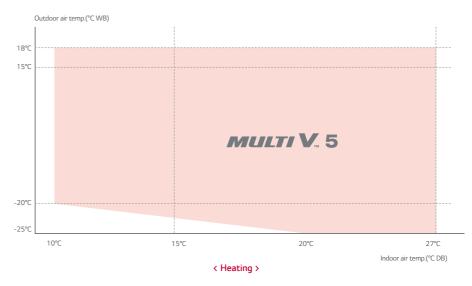
\* LG Internal test result

\* Test condition : Bearing oil blocking test (Oil blocking at 60 Hz)

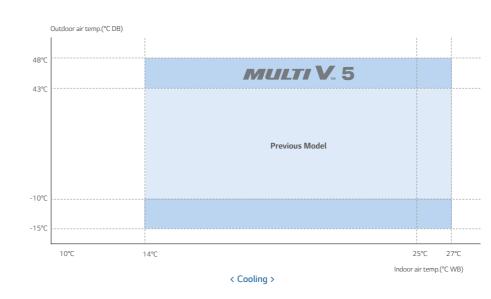
# Reliable Performance in Extreme Environment

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

#### Wider operational range for each performance



\* Under the condition of -25°C for outdoor temperature and 20°C for indoor temperature



0.044 0.045

#### **OUTDOOR UNIT KEY FEATURES**

# **MULTI V 5**

## **ULTIMATE COMFORT**

# **Continuous Heating**

With Dual Sensing Control, partial defrost and smart oil management via oil sensor, continuous heating technology has been improved.

11% Increase in Heating Operation Time Per Day

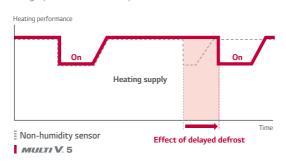
**7%** Reduction in Power Input



#### Delayed Defrost via Humidity Sensor of Dual Sensing Control

By controlling the evaporation temperature considering the humidity, heating operation time is improved.

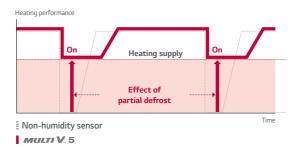




#### **Partial Defrost**

Unlike the previous model that stopped heating operation for one-time defrost, MULTI V 5 partially defrosts the heat exchanger by dividing it to lower and upper parts in order to provide consistent heating for the indoor environment and improve heating capacity.





#### **Smart Oil Management**

Oil sensor of the Ultimate Inverter (UI) Compressor enables smart oil management to provide enhanced heating operation without periodic oil recovery operation.



Eliminated Unnecessary Oil Return via Oil Sensor



Non-humidity sensor

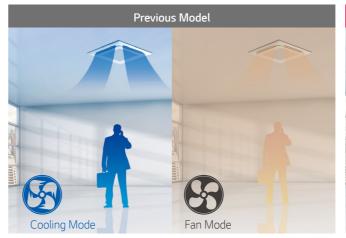
#### \* LG internal test result

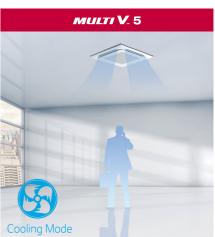
# **Comfort Cooling**

Without stopping in between operations, this function allows MULTI V 5 to maintain operation at mild cooling mode around the set temperature by sensing both temperature and humidity with Dual Sensing Control. By preventing both cold draft and repeated turn on/offs previously required to match the set temperature, users can experience more comfortable indoor environment.

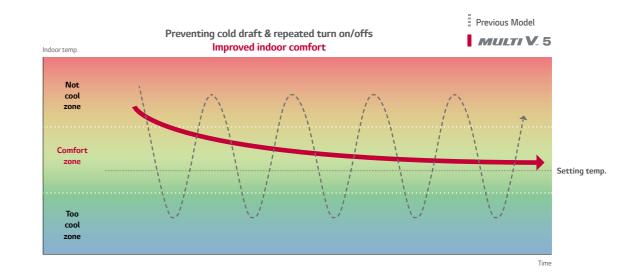


#### Cooling operation comparison





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



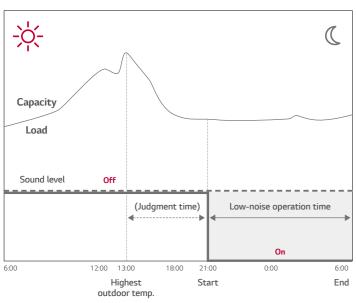
# **ULTIMATE COMFORT**

# **Low-Noise Operation**

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.

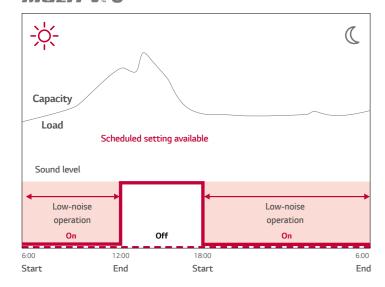
# **Operation hours comparison**

#### **Previous Model**





#### MULTI V. 5





\* Indoor unit set up available with Standard III Remote

# **ULTIMATE FLEXIBILITY**

# Flexible Installation Space with Large Capacity Outdoor Units

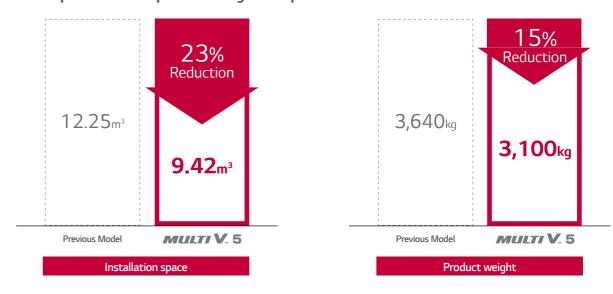
Large capacity outdoor units of MULTI V 5 minimizes installation space that spares valuable floor space and significantly decreases total installed weights. This allows users the flexible design potential and better use of the saved space.

#### Comparison on installation space





#### Installation space area and product weight comparison

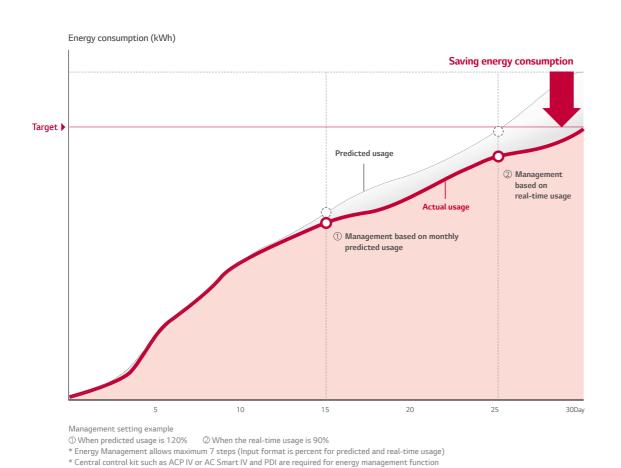


<sup>\*</sup> Comparison basis: 2 Rows of outdoor units 260HP (26HP X 10sets) installation case

# **ULTIMATE CONTROL**

# **Energy Management**

Energy Management allows MULTI V 5 to analyze previous data in order to forecast energy usage beforehand and prevent from exceeding the monthly energy consumption plan by systematically controlling the cooling volume. With energy consulting program that provides automatic operation options for 7 levels of energy management such as compressor capacity management and indoor unit operation level control, users can monitor energy usage anytime and efficiently manage their energy bills.



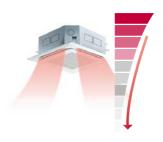
#### **Control methods**







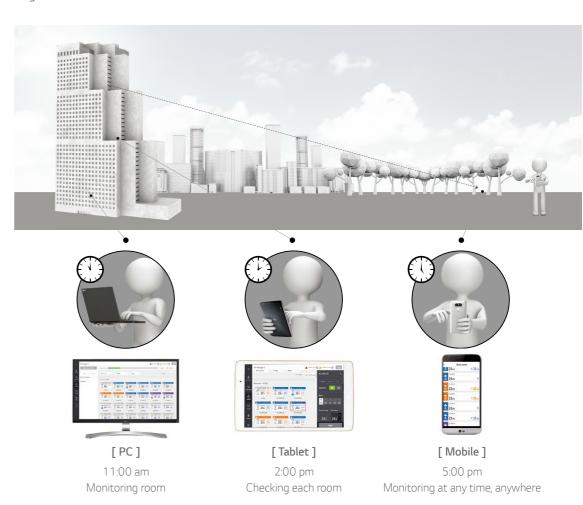
Operation rate control of indoor unit

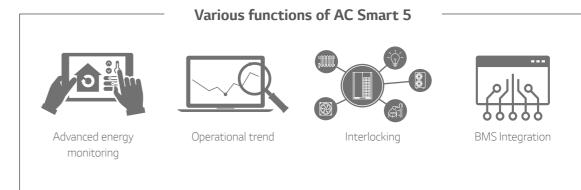


Indoor unit operation management

# **AC Smart 5 with Advanced Control Interface**

As an advanced central controller, AC Smart 5 offers flexible interface for each user by assessing the device screen and automatically customizing the layout to provide the most optimized interface. Moreover, without additional device, AC Smart 5 provides BACnet/IP and Modbus TCP/IP interface to be integrated by BMS(Building Management System), as well as its own various management function

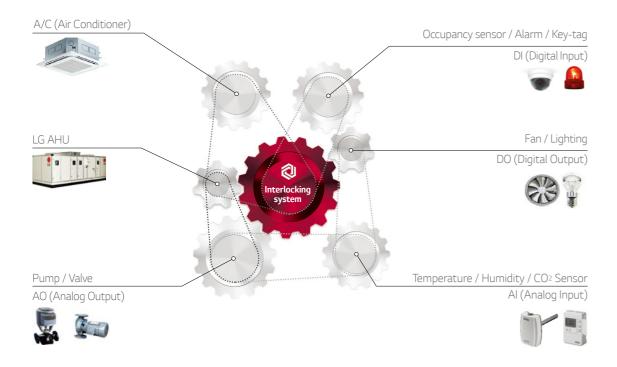




## **ULTIMATE CONTROL**

# **Expandability & Programmability**

The expandable control system can be interlocked with sensors and facilities of building, as well as air conditioners. It makes building management smart by setting up logic optimized for the site.



# **System Flexibility**

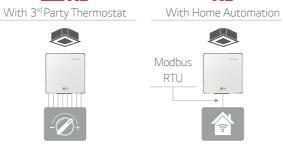
It can be linked with 3rd party BMS via Gateway and provide flexible control system for each site via Dry Contact.

Interlock with 3<sup>rd</sup> party BMS

**Dry Contact optimized** 



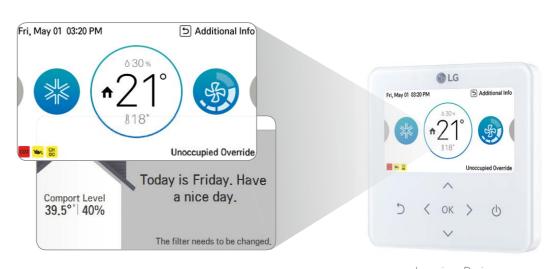
# for variable scenario Hotel Room



# Smart Individual Controller (with Standard III Remote Controller)

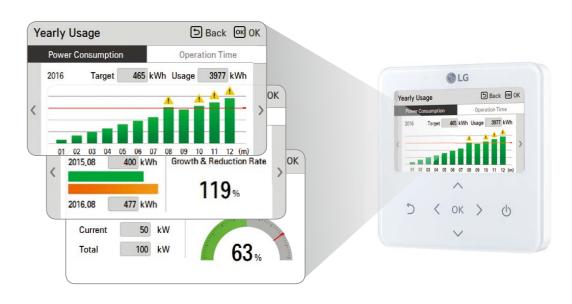
New Standard III Remote Controller of MULTI V 5 offers 4.3-inch large LCD screen with neat and premium design. This luxurious design well-matches interior design through large colored LCD screen with curved display and simple button layout which makes it easier to control. With diverse information offered such as temperature, humidity and cleanliness information, users can check on currently consumed power in real-time and electricity consumption data(weekly/monthly/annually) to predict and plan power consumption usage. Moreover, simple and geometrically neat design of user interface makes data comprehension visually easy. With circular visual theme, information are labelled in different-sized circles based on their priorities.

# Intuitive & Emotional Interface



Luxurious Design

## Energy Management



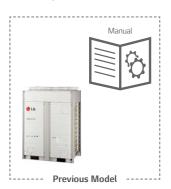
<sup>\*</sup> Central control kit such as ACP IV or AC Smart IV and PDI are required for energy management function

## **ULTIMATE CONTROL**

# Simple Test Run via LGMV

In order to bring out performance to the 100% level, proper product test run is necessary. For previous product, professional engineer who is well-aware of more than 40 different functional settings and 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, however, 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.

#### Test run comparison





#### LGMV smartphone application setting pages



Installation	ITR			ITR			
(i) ITR	t report was saved.		up Confirmation				
Print ITR report	frigerant <u>/</u>	Result: -5.5	ion Inform				
(ii) ITR report history	ODU Z	Check	tion	Name Co			
9	IDU Z	Check	sor				
Auto addressing	check : IDU1, IDU2, more details, click [i		sk the installation information with the actual product ditions				
				Air Temperature			
			or .	25℃			
			oor	32°C			
			alt				
	Read mor		ОК				

Wi-Fi MV Module

37% Reduction in Installation Hours

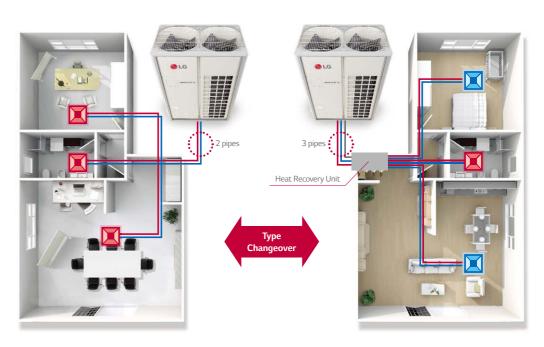
## **HEAT RECOVERY**

# Applicable for Various Building Types with Heat Pump & Heat Recovery Systems

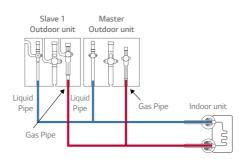
LG MULTI V 5 satisfies users' various needs with just one platform. Heat Pump System works for the sites where either cooling or heating operation is needed, while Heat Recovery System fits perfectly to the sites wherein both the cooling and heating operations are simultaneously needed or locations installed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

#### **Simple Piping System Changes**

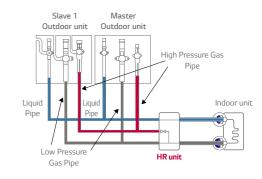
MULTI V 5 allows the building previously installed with Heat Pump System to switch to the Heat Recovery System for changing purpose of the building or remodeling reasons via simple piping construction.







Heat Recovery System



<sup>\*</sup> This feature is provided only to qualified professional installers

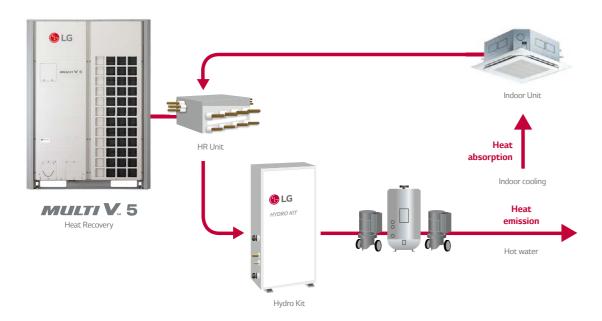
<sup>\*\*</sup>LGMV Application is available for Android and iOS (iphone/ipad)

## **HEAT RECOVERY**

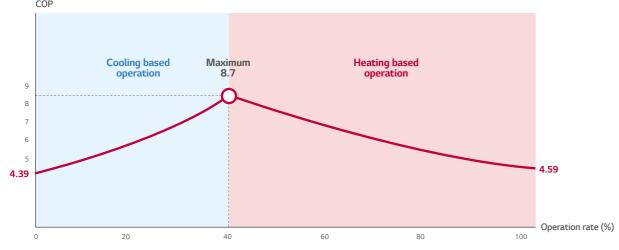
# **Energy Saving with Simultaneous Operation**

MULTI V 5 Heat Recovery system with HR Unit can perform both cooling and heating operations simultaneously. For continuous operation, it minimizes in order to switch mode while it increases efficiency with simultaneous operation. Moreover, it allows the COP to reach up to 8.5 under circumstances of 40% cooling and 60% heating operations, which results in the decreased energy consumption up to 30%.

#### Technology mechanism



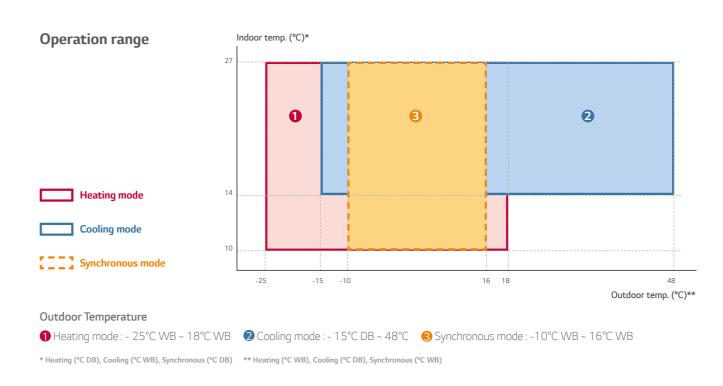
#### COP with simultaneous operation



#### \* Outdoor temperature : 7°C DB / 6°C WB \* Indoor temperature : 20°CDB / 15°C WB

# Wide Operation Range

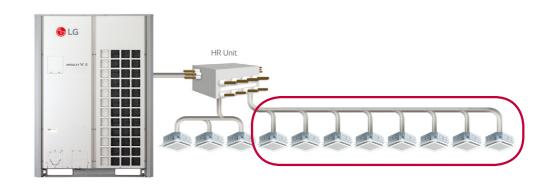
Both the low and high temperature operation ranges are expanded through condenser with various control. For heating mode, the outdoor temperature can go from as low as -25°C to 24°C, and from -15°C to as high as 48°C for cooling mode. As for the synchronous mode, it can run from -10°C to 16°C.



# Flexible Connection of Heat Recovery Unit

LG MULTI V 5 Heat Recovery Unit allows flexible connection both in series and in a row. With the zone control function, up to 8 indoor units can be connected to a branch while the maximum of 32 indoor units can be connected to a HR unit, saving the installation cost by flexible connection.

#### Zoning control



<sup>\*</sup> ARUM200LTE5





			_				_
	HP		8	10	12	14	16
	Combination Unit		ARUM080LTE5	ARUM100LTE5	ARUM120LTE5	ARUM140LTE5	ARUM160LTE5
	Independent Unit		ARUM080LTE5	ARUM100LTE5	ARUM120LTE5	ARUM140LTE5	ARUM160LTE5
	Cooling (Rated)	kW	22.4	28.0	33.6	39.2	44.8
Capacity	Heating (Rated)	kW	22.4	28.0	33.6	39.2	44.8
	Heating (Max)	kW	25.2	31.5	37.8	44.1	50.4
	Cooling (Rated)	kW	4.49	5.80	7.58	8.68	10.89
	Heating (Rated)	kW	3.97	4.92	6.85	8.13	10.28
	Heating (Max)		4.78	5.92	8.26	9.72	12.39
			4.99	4.83	4.43	4.52	4.11
			8.41	8.13	7.47	7.33	6.59
ESEER (SLC)			9.46	9.15	8.60	8.26	7.79
	COP (Rated)		5.64	5.69	4.91	4.82	4.36
COP	COP (Max)		5.27	5.32	4.58	4.54	4.07
Casing Color			Warm Gray / Dawn Gray				
Heat Exchar			Ocean Black Fin				
Compressor	Motor Output × Number		4,200 × 1	5,300 × 1	5,300 × 1	5,300 × 1	5,300 × 1
			Propeller fan				
			240 × 1	240 × 1	240 × 1	320 × 1	320 × 1
			DC INVERTER				
Liquid Pipe			9.52(3/8)	9.52(3/8)	12.7(1/2)	12.7(1/2)	12.7(1/2)
	re Gas Pipe		19.05(3/4)	22.2(7/8)	28.58(1-1/8)	28.58(1-1/8)	28.58(1-1/8)
			15.88(5/8)	19.05(3/4)	19.05(3/4)	22.2(7/8)	22.2(7/8)
Dimensions	(W×H×D)		(930 × 1,690 × 760) × 1	(930 × 1,690 × 760) × 1	(930 × 1,690 × 760) × 1	(1,240 × 1,690 × 760)×1	(1,240 × 1,690 × 760)×1
			198 × 1	215 × 1	215 × 1	237 × 1	237 × 1
		dB(A)	58.0	58.0	59.0	60.0	60.5
Pressure Level		dB(A)	59.0	59.0	60.0	61.0	61.5
	Cooling	dB(A)	77.0	78.0	79.0	82.0	83.0
	Heating	dB(A)	78.0	79.0	80.0	84.0	85.0
Communicat	tion Cable	No.×mm² (VCTF-SB)	2C × 1.0 ~ 1.5				
	Refrigerant name		R410A	R410A	R410A	R410A	R410A
	Precharged Amount		7.5	9.5	9.5	13.5	13.5
		lbs	16.5	20.9	20.9	29.8	29.8
	GWP		2087.5	2087.5	2087.5	2087.5	2087.5
	t-CO₂eq		15.7	19.8	19.8	28.2	28.2
			Electronic Expansion Valve				
			FVC68D(PVE)	FVC68D(PVE)	FVC68D(PVE)	FVC68D(PVE)	FVC68D(PVE)
Oil	Charge		3,900	3,900	3,900	3,900	3,900
			380~415, 3, 50	380~415, 3, 50	380~415, 3, 50	380~415, 3, 50	380~415, 3, 50
Power Suppl	ly		380, 3, 60	380, 3, 60	380, 3, 60	380, 3, 60	380, 3, 60
Number of n			13(20)	16(25)	20(30)	23(35)	26(40)

#### ARUM180LTE5 / ARUM200LTE5 / ARUM220LTE5 / ARUM221LTE5 / ARUM240LTE5





	HP		18	20	22	22'	24
	Combination Unit		ARUM180LTE5	ARUM200LTE5	ARUM220LTE5	ARUM221LTE5	ARUM240LTE5
			ARUM180LTE5	ARUM200LTE5	ARUM220LTE5	ARUM120LTE5 ARUM100LTE5	ARUM240LTE5
			50.4	56.0	61.6	61.6	67.2
			50.4	56.0	61.6	61.6	67.2
Capacity			56.7	63.0	69.3	69.3	74.3
		Btu/h	193,500	215,000	236,500	236,500	253,400
	Cooling (Rated)	kW	10.91	12.77	15.70	13.4	17.40
	Heating (Rated)	kW	10.12	12.20	14.15	11.8	15.89
	Heating (Max)	kW	11.94	14.69	16.76	14.2	18.80
EER			4.62	4.39	3.92	4.60	3.86
			7.40	7.03	6.68	7.76	6.57
ESEER (SLC)			8.11	7.70	7.87	8.84	8.05
	COP (Rated)		4.98	4.59	4.35	5.23	4.23
СОР	COP (Max)		4.75	4.29	4.13	4.89	3.95
Casing Color			Warm Gray / Dawn Gray	Warm Gray / Dawn Gra			
Heat Exchang	ger		Ocean Black Fin	Ocean Black Fin	Ocean Black Fin	Ocean Black Fin	Ocean Black Fin
Compressor	Motor Output × Number		5,300 × 1 + 4,200 × 1	5,300 × 1 + 4,200 × 1	5,300 × 1 + 4,200 × 1	5,300 × 2	5,300 × 2
	Туре		Propeller fan	Propeller fan	Propeller fan	Propeller fan	Propeller fan
	Air Flow Rate (High)	m³/min	320 × 1	320 × 1	320 × 1	(240 × 1) + (240 × 1)	320 × 1
	Drive		DC INVERTER	DC INVERTER	DC INVERTER	DC INVERTER	DC INVERTER
Liquid Pipe		mm (inch)	15.88(5/8)	15.88(5/8)	15.88(5/8)	15.88(5/8)	15.88(5/8)
Low Pressure	e Gas Pipe	mm (inch)	28.58(1-1/8)	28.58(1-1/8)	28.58(1-1/8)	28.58(1-1/8)	34.9(1-3/8)
High Pressure	re Gas Pipe	mm (inch)	22.2(7/8)	22.2(7/8)	28.58(1-1/8)	28.58(1-1/8)	28.58(1-1/8)
			(1,240 × 1,690 × 760) ×1	(1,240 × 1,690 × 760) ×1	(1,240 × 1,690 × 760) ×1	(930 × 1,690 × 760) × 1 + (930 × 1,690 × 760) × 1	(1,240 × 1,690 × 760) :
Net Weight		kg	300 × 1	300 × 1	300 × 1	(215 × 1) + (215 × 1)	310 × 1
	Cooling	dB(A)	61.0	62.0	64.5	61.5	65.0
		dB(A)	62.0	64.5	65.5	62.5	67.0
		dB(A)	85.0	86.0	86.0	81.5	88.0
		dB(A)	86.0	87.0	88.0	82.5	90.0
Communicati	ion Cable	No.×mm² (VCTF-SB)	2C × 1.0 ~ 1.5	2C × 1.0 ~ 1.5			
	Refrigerant name		R410A	R410A	R410A	R410A	R410A
	Precharged Amount		16.0	16.0	16.0	19.0	17.0
		lbs	35.3	35.3	35.3	41.9	37.5
			2087.5	2087.5	2087.5	2087.5	2087.5
	t-CO <sub>2</sub> eq		33.4	33.4	33.4	39.7	35.5
			Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Va
	Туре		FVC68D(PVE)	FVC68D(PVE)	FVC68D(PVE)	FVC68D(PVE)	FVC68D(PVE)
Oil	Charge		5,200	5,200	5,200	7,800	5,200
			380~415, 3, 50	380~415, 3, 50	380~415, 3, 50	380~415, 3, 50	380~415, 3, 50
			380, 3, 60	380, 3, 60	380, 3, 60	380, 3, 60	380, 3, 60
			29(45)	32(50)	35(44)	35(44)	39(48)

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

<sup>\*</sup> This product contains Fluorinated Greenhouse Gases. (R410A)

#### **OUTDOOR UNIT SPECIFICATION**

# **MULTI V 5**



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

#### ARUM260LTE5

#### ARUM241LTE5 / ARUM261LTE5 / ARUM280LTE5 / ARUM300LTE5







	HP		24'	26	26'	28	30
Model			ARUM241LTE5	ARUM260LTE5	ARUM261LTE5	ARUM280LTE5	ARUM300LTE5
Name			ARUM120LTE5 ARUM120LTE5	ARUM260LTE5	ARUM140LTE5 ARUM120LTE5	ARUM160LTE5 ARUM120LTE5	ARUM180LTE5 ARUM120LTE5
	Cooling (Rated)		67.2	72.8	72.8	78.4	84.0
Cananitus	Heating (Rated)	kW	67.2	67.2	72.8	78.4	84.0
Capacity		kW	75.6	74.3	81.9	88.2	94.5
	Heating (Max)	Btu/h	257,900	253,400	279,400	300,900	322,400
	Cooling (Rated)	kW	15.2	20.20	16.3	18.5	18.5
Input	Heating (Rated)	kW	13.7	15.99	15.0	17.1	17.0
	Heating (Max)	kW	16.5	19.15	18.0	20.7	20.2
EER			4.43	3.60	4.48	4.24	4.54
ESEER			7.47	6.34	7.39	6.94	7.43
ESEER (SLC)			8.60	7.62	8.41	8.12	8.29
COP	COP (Rated)		4.91	4.20	4.86	4.58	4.95
COF	COP (Max)		4.58	3.88	4.56	4.27	4.68
Casing Color			Warm Gray / Dawn Gray	Warm Gray / Dawn Gray	Warm Gray / Dawn Gray	Warm Gray / Dawn Gray	Warm Gray / Dawn Gray
Heat Exchang	ger		Ocean Black Fin	Ocean Black Fin	Ocean Black Fin	Ocean Black Fin	Ocean Black Fin
Compressor	Motor Output × Number		5,300 × 2	5,300 × 2	5,300 × 2	5,300 × 2	(5,300 × 2) + (4,200 × 1)
	Туре		Propeller fan	Propeller fan	Propeller fan	Propeller fan	Propeller fan
Fan	Air Flow Rate (High)		(240 × 1) + (240 × 1)	320 × 1	(320 × 1) + (240 × 1)	(320 × 1) + (240 × 1)	(320 × 1) + (240 × 1)
	Drive		DC INVERTER	DC INVERTER	DC INVERTER	DC INVERTER	DC INVERTER
Liquid Pipe			15.88(5/8)	19.05(3/4)	19.05(3/4)	19.05(3/4)	19.05(3/4)
Low Pressure	Gas Pipe	mm (inch)	34.9(1-3/8)	34.9(1-3/8)	34.9(1-3/8)	34.9(1-3/8)	34.9(1-3/8)
High Pressure	e Gas Pipe		28.58(1-1/8)	28.58(1-1/8)	28.58(1-1/8)	28.58(1-1/8)	28.58(1-1/8)
Dimensions (			(930 × 1,690 × 760) × 1 + (930 × 1,690 × 760) × 1	(1,240 × 1,690 × 760) ×1	(1,240 × 1,690 × 760) × 1 + (930 × 1,690 × 760) × 1	(1,240 × 1,690 × 760) × 1 + (930 × 1,690 × 760) × 1	(1,240 × 1,690 × 760) × 1 + (930 × 1,690 × 760) × 1
Net Weight		kg	(215 × 1) + (215 × 1)	310 × 1	(237 × 1) + (215 × 1)	(237 × 1) + (215 × 1)	(300 × 1) + (215 × 1)
Sound	Cooling	dB(A)	62.0	65.0	62.5	62.8	63.1
Pressure Level		dB(A)	63.0	67.0	63.5	63.8	64.1
Sound		dB(A)	82.0	88.0	83.8	84.5	86.0
Power Level		dB(A)	83.0	90.0	85.5	86.2	87.0
Communicati	on Cable	No.×mm² (VCTF-SB)	2C × 1.0 ~ 1.5	2C × 1.0 ~ 1.5	2C × 1.0 ~ 1.5	2C × 1.0 ~ 1.5	2C × 1.0 ~ 1.5
	Refrigerant name		R410A	R410A	R410A	R410A	R410A
	Precharged Amount		19.0	17.0	23.0	23.0	25.5
D 6:		lbs	41.9	37.5	50.7	50.7	56.2
Refrigerant			2087.5	2087.5	2087.5	2087.5	2087.5
	t-CO <sub>2</sub> eq		39.7	35.5	48.0	48.0	53.2
	Control		Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve
Refrigerant	Туре		FVC68D(PVE)	FVC68D(PVE)	FVC68D(PVE)	FVC68D(PVE)	FVC68D(PVE)
Oil	Charge	CC	7,800	5,200	7,800	7,800	9,100
Power Supel		Ø V-H=	380~415, 3, 50	380~415, 3, 50	380~415, 3, 50	380~415, 3, 50	380~415, 3, 50
Power Supply			380, 3, 60	380, 3, 60	380, 3, 60	380, 3, 60	380, 3, 60
Number of m	aximum connectable inc	door units	39(48)	42(52)	42(52)	45(56)	49(60)

#### ARUM320LTE5 / ARUM340LTE5 / ARUM360LTE5 / ARUM380LTE5 / ARUM400LTE5





	HP		32	34	36	38	40
	Combination Unit		ARUM320LTE5	ARUM340LTE5	ARUM360LTE5	ARUM380LTE5	ARUM400LTE5
Model Name			ARUM200LTE5 ARUM120LTE5	ARUM220LTE5 ARUM120LTE5	ARUM240LTE5 ARUM120LTE5	ARUM240LTE5 ARUM140LTE5	ARUM240LTE5 ARUM160LTE5
			89.6	95.2	100.8	106.4	112.0
	Heating (Rated) kW		89.6	95.2	100.8	106.4	112.0
Capacity		kW	100.8	107.1	112.1	118.4	124.7
		Btu/h	343,900	365,400	382,300	403,800	425,300
	Cooling (Rated)	kW	20.4	23.3	25.0	26.1	28.3
	Heating (Rated)	kW	19.1	21.0	22.7	24.0	26.2
	Heating (Max)	kW	22.9	25.0	27.1	28.5	31.2
EER			4.40	4.09	4.04	4.08	3.96
ESEER			7.19	6.94	6.85	6.83	6.58
ESEER (SLC)			8.01	8.11	8.22	8.11	7.94
COP	COP (Rated)		4.70	4.53	4.43	4.43	4.28
CUP	COP (Max)		4.39	4.28	4.14	4.15	4.00
Casing Color			Warm Gray / Dawn Gray	Warm Gray / Dawn Gray	Warm Gray / Dawn Gray	Warm Gray / Dawn Gray	Warm Gray / Dawn Gray
Heat Exchan	ger		Ocean Black Fin	Ocean Black Fin	Ocean Black Fin	Ocean Black Fin	Ocean Black Fin
	Motor Output × Number		(5,300 × 2) + (4,200 × 1)	(5,300 × 2) + (4,200 × 1)	5,300 × 3	5,300 × 3	5,300 × 3
	Туре		Propeller fan	Propeller fan	Propeller fan	Propeller fan	Propeller fan
	Air Flow Rate (High)	m³/min	(320 × 1) + (240 × 1)	(320 × 1) + (240 × 1)	(320 × 1) + (240 × 1)	320 × 2	320 × 2
	Drive		DC INVERTER	DC INVERTER	DC INVERTER	DC INVERTER	DC INVERTER
Liquid Pipe		mm (inch)	19.05(3/4)	19.05(3/4)	19.05(3/4)	19.05(3/4)	19.05(3/4)
Low Pressure	e Gas Pipe	mm (inch)	34.9(1-3/8)	34.9(1-3/8)	41.3(1-5/8)	41.3(1-5/8)	41.3(1-5/8)
High Pressur	e Gas Pipe	mm (inch)	28.58(1-1/8)	28.58(1-1/8)	28.58(1-1/8)	34.9(1-3/8)	34.9(1-3/8)
			(1,240 × 1,690 × 760) × 1 + (930 × 1,690 × 760) × 1	(1,240 × 1,690 × 760) × 1 + (930 × 1,690 × 760) × 1	(1,240 × 1,690 × 760) × 1 + (930 × 1,690 × 760) × 1	(1,240 ×1,690 × 760) × 2	(1,240 ×1,690 × 760) × 3
Net Weight		kg	(300 × 1) + (215 × 1)	(300 × 1) + (215 × 1)	(310 × 1) + (215 × 1)	(310 × 1) + (237 × 1)	(310 × 1) + (237 × 1)
Sound	Cooling	dB(A)	63.8	65.6	66.0	66.2	66.3
Pressure Level		dB(A)	65.8	66.6	67.8	68.0	68.1
	Cooling	dB(A)	86.8	86.8	88.5	89.0	89.2
Power Level		dB(A)	87.8	88.6	90.4	91.0	91.2
	ion Cable	No.×mm² (VCTF-SB)	2C × 1.0 ~ 1.5	2C × 1.0 ~ 1.5	2C × 1.0 ~ 1.5	2C × 1.0 ~ 1.5	2C × 1.0 ~ 1.5
	Refrigerant name		R410A	R410A	R410A	R410A	R410A
	Precharged Amount		25.5	25.5	26.5	30.5	30.5
			56.2	56.2	58.4	67.2	67.2
			2087.5	2087.5	2087.5	2087.5	2087.5
	t-CO <sub>2</sub> eq		53.2	53.2	55.3	63.7	63.7
			Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valv
Refrigerant			FVC68D(PVE)	FVC68D(PVE)	FVC68D(PVE)	FVC68D(PVE)	FVC68D(PVE)
Oil	Charge		9,100	9,100	9,100	9,100	9,100
			380~415, 3, 50	380~415, 3, 50	380~415, 3, 50	380~415, 3, 50	380~415, 3, 50
Power Supply			380, 3, 60	380, 3, 60	380, 3, 60	380, 3, 60	380, 3, 60
Number of m		door units	52(64)	55(64)	58(64)	61(64)	64

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

<sup>\*</sup> This product contains Fluorinated Greenhouse Gases. (R410A)

# TDOOR UNIT

# **MULTI V 5**

#### ARUM420LTE5 / ARUM440LTE5 / ARUM460LTE5 / ARUM480LTE5 / ARUM500LTE5





	HP		42	44	46	48	50
	Combination Unit		ARUM420LTE5	ARUM440LTE5	ARUM460LTE5	ARUM480LTE5	ARUM500LTE5
			ARUM240LTE5 ARUM180LTE5	ARUM240LTE5 ARUM200LTE5	ARUM240LTE5 ARUM220LTE5	ARUM240LTE5 ARUM240LTE5	ARUM240LTE5 ARUM140LTE5 ARUM120LTE5
	Cooling (Rated)	kW	117.6	123.2	128.8	134.4	140.0
	Heating (Rated)		117.6	123.2	128.8	134.4	140.0
Capacity		kW	131.0	137.3	143.6	148.5	156.2
	Heating (Max)		446,800	468,300	489,800	506,700	532,800
	Cooling (Rated)	kW	28.3	30.2	33.1	34.8	33.7
			26.0	28.1	30.0	31.8	30.9
	Heating (Max)	kW	30.7	33.5	35.6	37.6	36.8
EER			4.15	4.08	3.89	3.86	4.16
			6.90	6.77	6.62	6.57	6.97
			8.05	7.86	7.96	8.05	8.23
	COP (Rated)		4.52	4.39	4.29	4.23	4.54
COP	COP (Max)		4.26	4.10	4.04	3.95	4.25
Casing Color			Warm Gray / Dawn Gray				
Heat Exchang	ger		Ocean Black Fin				
Compressor	Motor Output × Number		(5,300 × 3) + (4,200 × 1)	(5,300 × 3) + (4,200 × 1)	(5,300 × 3) + (4,200 × 1)	5,300 × 4	5,300 × 4
	Туре		Propeller fan				
Fan			320 × 2	320 × 2	320 × 2	320 × 2	(320 × 2) + (240 × 1)
			DC INVERTER				
Liquid Pipe			19.05(3/4)	19.05(3/4)	19.05(3/4)	19.05(3/4)	19.05(3/4)
Low Pressure	e Gas Pipe	mm (inch)	41.3(1-5/8)	41.3(1-5/8)	41.3(1-5/8)	41.3(1-5/8)	41.3(1-5/8)
High Pressure	e Gas Pipe		34.9(1-3/8)	34.9(1-3/8)	34.9(1-3/8)	34.9(1-3/8)	34.9(1-3/8)
Dimensions ('			(1,240 ×1,690 × 760) × 2	(1,240 ×1,690 × 760) × 2	(1,240 ×1,690 × 760) × 2	(1,240 ×1,690 × 760) × 2	(1,240 × 1,690 × 760) × 2 + (930 × 1,690 × 760) × 2
			(310 × 1) + (300 × 1)	(310 × 1) + (300 × 1)	(310 × 1) + (300 × 1)	310 × 2	(310 × 1) + (237 × 1) + (215 × 1)
		dB(A)	66.5	66.8	67.8	68.0	67.0
Pressure Level		dB(A)	68.2	68.9	69.3	70.0	68.6
Sound	Cooling	dB(A)	89.8	90.1	90.1	91.0	89.4
Power Level	Heating	dB(A)	91.5	91.8	92.1	93.0	91.3
Communicati		No.×mm² (VCTF-SB)	2C × 1.0 ~ 1.5				
			R410A	R410A	R410A	R410A	R410A
	Precharged Amount		33.0	33.0	33.0	34.0	40.0
			72.8	72.8	72.8	75.0	88.2
			2087.5	2087.5	2087.5	2087.5	2087.5
	t-CO <sub>2</sub> eq		68.9	68.9	68.9	71.0	83.5
			Electronic Expansion Valve				
			FVC68D(PVE)	FVC68D(PVE)	FVC68D(PVE)	FVC68D(PVE)	FVC68D(PVE)
Oil	Charge		10,400	10,400	10,400	10,400	13,000
			380~415, 3, 50	380~415, 3, 50	380~415, 3, 50	380~415, 3, 50	380~415, 3, 50
			380, 3, 60	380, 3, 60	380, 3, 60	380, 3, 60	380, 3, 60
	aximum connectable inc		64	64	64	64	64

#### ARUM520LTE5 / ARUM540LTE5 / ARUM560LTE5 / ARUM580LTE5 / ARUM600LTE5





	HP		52	54	56	58	60
	Combination Unit		ARUM520LTE5	ARUM540LTE5	ARUM560LTE5	ARUM580LTE5	ARUM600LTE5
Model Name			ARUM240LTE5 ARUM160LTE5 ARUM120LTE5	ARUM240LTE5 ARUM180LTE5 ARUM120LTE5	ARUM240LTE5 ARUM200LTE5 ARUM120LTE5	ARUM240LTE5 ARUM220LTE5 ARUM120LTE5	ARUM240LTE5 ARUM240LTE5 ARUM120LTE5
			145.6	151.2	156.8	162.4	168.0
	Heating (Rated)		145.6	151.2	156.8	162.4	168.0
Capacity			162.5	168.8	175.1	181.4	186.3
			554,300	575,800	597,300	618,800	635,700
	Cooling (Rated)		35.9	35.9	37.8	40.7	42.4
	Heating (Rated)		33.0	32.9	34.9	36.9	38.6
	Heating (Max)		39.4	39.0	41.7	43.8	45.9
			4.06	4.21	4.15	3.99	3.96
ESEER			6.76	7.02	6.91	6.78	6.73
ESEER (SLC)			8.08	8.17	8.01	8.08	8.15
	COP (Rated)		4.41	4.60	4.49	4.40	4.35
COP	COP (Max)		4.12	4.33	4.19	4.14	4.06
Casing Color			Warm Gray / Dawn Gray	Warm Gray / Dawn Gray	Warm Gray / Dawn Gray	Warm Gray / Dawn Gray	Warm Gray / Dawn Gray
Heat Exchan			Ocean Black Fin	Ocean Black Fin	Ocean Black Fin	Ocean Black Fin	Ocean Black Fin
Compressor	Motor Output × Number		5,300 × 4	(5,300 × 4) + (4,200 × 1)	(5,300 × 4) + (4,200 × 1)	(5,300 × 4) + (4,200 × 1)	5,300 × 5
	Туре		Propeller fan	Propeller fan	Propeller fan	Propeller fan	Propeller fan
	Air Flow Rate (High)		(320 × 2) + (240 × 1)	(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	DC INVERTER
Liquid Pipe			19.05(3/4)	19.05(3/4)	19.05(3/4)	19.05(3/4)	19.05(3/4)
Low Pressure	· Gas Pipe		41.3(1-5/8)	41.3(1-5/8)	41.3(1-5/8)	41.3(1-5/8)	41.3(1-5/8)
			34.9(1-3/8)	34.9(1-3/8)	34.9(1-3/8)	34.9(1-3/8)	34.9(1-3/8)
			(1,240 × 1,690 × 760) × 2	(1,240 × 1,690 × 760) × 2 + (930 × 1,690 × 760) × 1	(1,240 × 1,690 × 760) × 2	(1,240 × 1,690 × 760) × 2 + (930 × 1,690 × 760) × 1	(1,240 × 1,690 × 760) ×
			(310 × 1) + (237 × 1) + (215 × 1)	(310 × 1) + (300 × 1) + (215 × 1)	(310 × 1) + (300 × 1) + (215 × 1)	(310 × 1) + (300 × 1) + (215 × 1)	(310 × 2) + (215 × 1)
		dB(A)	67.1	67.2	67.4	68.3	68.5
Pressure Level		dB(A)	68.7	68.8	69.5	69.8	70.4
	Cooling	dB(A)	89.6	90.1	90.4	90.4	91.3
Sound Power Level	Heating	dB(A)	91.5	91.8	92.0	92.4	93.2
		No.×mm² (VCTF-SB)	2C × 1.0 ~ 1.5	2C × 1.0 ~ 1.5	92.0 2C × 1.0 ~ 1.5	92.4 2C × 1.0 ~ 1.5	95.2 2C × 1.0 ~ 1.5
		(**************************************	R410A	R410A	R410A	R410A	R410A
			40.0	42.5	42.5	42.5	43.5
	Precharged Amount in factory	lbs	88.2	93.7	93.7	93.7	95.9
	GWP		2087.5	2087.5	2087.5	2087.5	2087.5
	t-CO <sub>2</sub> eq		83.5	88.7	88.7	88.7	90.8
	Control			Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valv
			FVC68D(PVE)	FVC68D(PVE)	FVC68D(PVE)	FVC68D(PVE)	FVC68D(PVE)
Refrigerant Oil	Type Charge		13,000	14,300	14,300	14,300	14,300
	Charge			,			
			380~415, 3, 50 380, 3, 60	380~415, 3, 50 380, 3, 60	380~415, 3, 50 380, 3, 60	380~415, 3, 50 380, 3, 60	380~415, 3, 50 380, 3, 60
			64	64	64	64	64

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

<sup>\*</sup> This product contains Fluorinated Greenhouse Gases. (R410A)

#### ARUM620LTE5 / ARUM640LTE5 / ARUM660LTE5 / ARUM680LTE5 / ARUM700LTE5 / ARUM720LTE5



	НР		62	64	66	68	70	72
	Combination Unit		ARUM620LTE5	ARUM640LTE5	ARUM660LTE5	ARUM680LTE5	ARUM700LTE5	ARUM720LTE5
			ARUM240LTE5 ARUM240LTE5 ARUM140LTE5	ARUM240LTE5 ARUM240LTE5 ARUM160LTE5	ARUM240LTE5 ARUM240LTE5 ARUM180LTE5	ARUM240LTE5 ARUM240LTE5 ARUM200LTE5	ARUM240LTE5 ARUM240LTE5 ARUM220LTE5	ARUM240LTE5 ARUM240LTE5 ARUM240LTE5
	Cooling (Rated)		173.6	179.2	184.8	190.4	196.0	201.6
	Heating (Rated)		173.6	179.2	184.8	190.4	196.0	201.6
Capacity			192.6	198.9	205.2	211.5	217.8	222.8
			657,200	678,700	700,200	721,700	743,200	760,100
	Cooling (Rated)		43.5	45.7	45.7	47.6	50.5	52.2
	Heating (Rated)		39.9	42.1	41.9	44.0	45.9	47.7
	Heating (Max)		47.3	50.0	49.5	52.3	54.4	56.4
EER			3.99	3.92	4.04	4.00	3.88	3.86
			6.73	6.58	6.78	6.70	6.60	6.57
ESEER (SLC)			8.09	7.98	8.05	7.92	7.99	8.05
	COP (Rated)		4.35	4.26	4.41	4.33	4.27	4.23
СОР	COP (Max)		4.07	3.98	4.14	4.05	4.01	3.95
Casing Color			Warm Gray / Dawn Gray					
Heat Exchan			Ocean Black Fin					
	Motor Output × Number		5,300 × 5	5,300 × 5	(5,300 × 5) + (4,200 × 1)	(5,300 × 5) + (4,200 × 1)	(5,300 × 5) + (4,200 × 1)	5,300 × 6
			Propeller fan					
	Air Flow Rate (High)		320 × 3	320 × 3	320 × 3	320 × 3	320 × 3	320 × 3
			DC INVERTER					
Liquid Pipe		mm (inch)	22.2(7/8)	22.2(7/8)	22.2(7/8)	22.2(7/8)	22.2(7/8)	22.2(7/8)
Low Pressure	e Gas Pipe	mm (inch)	44.5(1-3/4)	44.5(1-3/4)	53.98(2-1/8)	53.98(2-1/8)	53.98(2-1/8)	53.98(2-1/8)
High Pressur	re Gas Pipe		41.3(1-5/8)	41.3(1-5/8)	44.5(1-3/4)	44.5(1-3/4)	44.5(1-3/4)	44.5(1-3/4)
			(1,240 ×1,690 × 760) × 3					
Net Weight		kg	(310 × 2) + (237 × 1)	(310 × 2) + (237 × 1)	(310 × 2) + (300 × 1)	(310 × 2) + (300 × 1)	(310 × 2) + (300 × 1)	310 × 3
Sound	Cooling	dB(A)	68.6	68.7	68.8	69.0	69.6	69.8
		dB(A)	70.5	70.6	70.6	71.1	71.3	71.8
	Cooling	dB(A)	91.5	91.6	92.0	92.2	92.2	92.8
		dB(A)	93.5	93.6	93.8	94.0	94.2	94.8
	ion Cable	No.×mm² (VCTF-SB)	2C × 1.0 ~ 1.5					
	Refrigerant name		R410A	R410A	R410A	R410A	R410A	R410A
	Precharged Amount	kg	47.5	47.5	50.0	50.0	50.0	51.0
			104.7	104.7	110.2	110.2	110.2	112.4
	GWP		2087.5	2087.5	2087.5	2087.5	2087.5	2087.5
	t-CO₂eq		99.2	99.2	104.4	104.4	104.4	106.5
			Electronic Expansion Valve					
	Туре		FVC68D(PVE)	FVC68D(PVE)	FVC68D(PVE)	FVC68D(PVE)	FVC68D(PVE)	FVC68D(PVE)
Oil	Charge		14,300	14,300	15,600	15,600	15,600	15,600
Power Cuppl		a v uz	380~415, 3, 50	380~415, 3, 50	380~415, 3, 50	380~415, 3, 50	380~415, 3, 50	380~415, 3, 50
			380, 3, 60	380, 3, 60	380, 3, 60	380, 3, 60	380, 3, 60	380, 3, 60
			64	64	64	64	64	64

#### ARUM740LTE5 / ARUM760LTE5 / ARUM780LTE5 / ARUM800LTE5 / ARUM820LTE5 / ARUM840LTE5



	HP		74	76	78	80	82	84
	Combination Unit		ARUM740LTE5	ARUM760LTE5	ARUM780LTE5	ARUM800LTE5	ARUM820LTE5	ARUM840LTE5
Model Name			ARUM240LTE5 ARUM240LTE5 ARUM140LTE5 ARUM120LTE5	ARUM240LTE5 ARUM240LTE5 ARUM160LTE5 ARUM120LTE5	ARUM240LTE5 ARUM240LTE5 ARUM180LTE5 ARUM120LTE5	ARUM240LTE5 ARUM240LTE5 ARUM200LTE5 ARUM120LTE5	ARUM240LTE5 ARUM240LTE5 ARUM220LTE5 ARUM120LTE5	ARUM240LTE5 ARUM240LTE5 ARUM240LTE5 ARUM120LTE5
	Cooling (Rated)		207.2	212.8	218.4	224.0	229.6	235.2
	Heating (Rated)	kW	207.2	212.8	218.4	224.0	229.6	235.2
Capacity			230.4	236.7	243.0	249.3	255.6	260.6
	Heating (Max)	Btu/h	786,200	807,700	829,200	850,700	872,100	889,100
			51.1	53.3	53.3	55.2	58.1	59.8
			46.8	48.9	48.8	50.8	52.8	54.5
	Heating (Max)		55.6	58.2	57.8	60.5	62.6	64.7
			4.06	3.99	4.10	4.06	3.95	3.93
			6.84	6.70	6.88	6.80	6.72	6.69
			8.17	8.07	8.13	8.02	8.07	8.12
	COP (Rated)		4.43	4.35	4.48	4.41	4.35	4.31
COP	COP (Max)		4.15	4.06	4.20	4.12	4.08	4.03
Casing Colo			Warm Gray / Dawn Gray					
Heat Exchar	nger		Ocean Black Fin					
Compressor	Motor Output × Number		5,300 × 6	5,300 × 6	(5,300 × 6) + (4,200 × 1)	(5,300 × 6) + (4,200 × 1)	(5,300 × 6) + (4,200 × 1)	5,300 × 7
	Туре		Propeller fan					
	Air Flow Rate (High)	m³/min	(320 × 3) + (240 × 1)	(320 × 3) + (240 × 1)	(320 × 3) + (240 × 1)	(320 × 3) + (240 × 1)	(320 × 3) + (240 × 1)	(320 × 3) + (240 × 1
	Drive		DC INVERTER					
Liquid Pipe		mm (inch)	22.2(7/8)	22.2(7/8)	22.2(7/8)	22.2(7/8)	22.2(7/8)	22.2(7/8)
Low Pressur	re Gas Pipe	mm (inch)	53.98(2-1/8)	53.98(2-1/8)	53.98(2-1/8)	53.98(2-1/8)	53.98(2-1/8)	53.98(2-1/8)
High Pressu	re Gas Pipe	mm (inch)	44.5(1-3/4)	44.5(1-3/4)	44.5(1-3/4)	44.5(1-3/4)	44.5(1-3/4)	44.5(1-3/4)
Dimensions			(1,240 × 1,690 ×760) × 3 + (930 × 1,690 ×760) × 1			(1,240 × 1,690 ×760) × 3 + (930 × 1,690 ×760) × 1	(1,240 × 1,690 ×760) × 3 + (930 × 1,690 ×760) × 1	(1,240 × 1,690 × 760) × + (930 × 1,690 × 760) ×
			(310 × 2) + (237 × 1) + (215 × 1)	(310 × 2) + (237 × 1) + (215 × 1)	(310 × 2) + (300 × 1) + (215 × 1)	(310 × 2) + (300 × 1) + (215 × 1)	(310 × 2) + (300 × 1) + (215 × 1)	(310 × 3) + (215 × 1
Sound	Cooling	dB(A)	69.1	69.2	69.2	69.4	70.0	70.1
Pressure Level		dB(A)	70.9	70.9	71.0	71.4	71.6	72.1
Sound	Cooling	dB(A)	91.8	91.9	92.2	92.4	92.4	92.9
Power Level		dB(A)	93.7	93.8	94.0	94.2	94.4	94.9
Communica	tion Cable	No.×mm² (VCTF-SB)	2C × 1.0 ~ 1.5					
			R410A	R410A	R410A	R410A	R410A	R410A
	Precharged Amount		57.0	57.0	59.5	59.5	59.5	60.5
			125.7	125.7	131.2	131.2	131.2	133.4
			2087.5	2087.5	2087.5	2087.5	2087.5	2087.5
	t-CO₂eq		119.0	119.0	124.2	124.2	124.2	126.3
			Electronic Expansion Valve					
			FVC68D(PVE)	FVC68D(PVE)	FVC68D(PVE)	FVC68D(PVE)	FVC68D(PVE)	FVC68D(PVE)
Oil	Charge		18,200	18,200	19,500	19,500	19,500	19,500
			380~415, 3, 50	380~415, 3, 50	380~415, 3, 50	380~415, 3, 50	380~415, 3, 50	380~415, 3, 50
Power Supp	ly		380, 3, 60	380, 3, 60	380, 3, 60	380, 3, 60	380, 3, 60	380, 3, 60
	maximum connectable in		64	64	64	64	64	64

st This product contains Fluorinated Greenhouse Gases. (R410A)

<sup>\*</sup> This product contains Fluorinated Greenhouse Gases. (R410A)

#### ARUM860LTE5 / ARUM880LTE5 / ARUM900LTE5 / ARUM920LTE5 / ARUM940LTE5 / ARUM960LTE5



	НР		86	88	90	92	94	96
	Combination Unit		ARUM860LTE5	ARUM880LTE5	ARUM900LTE5	ARUM920LTE5	ARUM940LTE5	ARUM960LTE5
Model Name			ARUM240LTE5 ARUM240LTE5 ARUM240LTE5 ARUM140LTE5	ARUM240LTE5 ARUM240LTE5 ARUM240LTE5 ARUM160LTE5	ARUM240LTE5 ARUM240LTE5 ARUM240LTE5 ARUM180LTE5	ARUM240LTE5 ARUM240LTE5 ARUM240LTE5 ARUM200LTE5	ARUM240LTE5 ARUM240LTE5 ARUM240LTE5 ARUM220LTE5	ARUM240LTE5 ARUM240LTE5 ARUM240LTE5 ARUM240LTE5
			240.8	246.4	252.0	257.6	263.2	268.8
			240.8	246.4	252.0	257.6	263.2	268.8
Capacity			266.9	273.2	279.5	285.8	292.1	297.0
		Btu/h	910,600	932,000	953,500	975,000	996,500	1,013,400
	Cooling (Rated)		60.9	63.1	63.1	65.0	67.9	69.6
	Heating (Rated)	kW	55.8	58.0	57.8	59.9	61.8	63.6
	Heating (Max)		66.1	68.8	68.3	71.1	73.2	75.2
EER			3.96	3.91	3.99	3.96	3.88	3.86
ESEER			6.68	6.57	6.72	6.66	6.60	6.57
ESEER (SLC)			8.07	8.00	8.04	7.95	8.00	8.05
	COP (Rated)		4.32	4.25	4.36	4.30	4.26	4.23
СОР	COP (Max)		4.04	3.97	4.09	4.02	3.99	3.95
Casing Color			Warm Gray / Dawn Gray					
Heat Exchang	ger		Ocean Black Fin					
	Motor Output × Number		5,300 × 7	5,300 × 7	(5,300 × 7) + (4,200 × 1)	(5,300 × 7) + (4,200 × 1)	(5,300 × 7) + (4,200 × 1)	5,300 × 8
	Туре		Propeller fan					
	Air Flow Rate (High)		320 × 4	320 × 4	320 × 4	320 × 4	320 × 4	320 × 4
	Drive		DC INVERTER					
Liquid Pipe			22.2(7/8)	22.2(7/8)	22.2(7/8)	22.2(7/8)	22.2(7/8)	22.2(7/8)
Low Pressure	e Gas Pipe	mm (inch)	53.98(2-1/8)	53.98(2-1/8)	53.98(2-1/8)	53.98(2-1/8)	53.98(2-1/8)	53.98(2-1/8)
High Pressure	e Gas Pipe		44.5(1-3/4)	44.5(1-3/4)	44.5(1-3/4)	44.5(1-3/4)	44.5(1-3/4)	44.5(1-3/4)
			(1,240 ×1,690 × 760) × 4					
Net Weight		kg	(310 × 3) + (237 × 1)	(310 × 3) + (237 × 1)	(310 × 3) + (300 × 1)	(310 × 3) + (300 × 1)	(310 × 3) + (300 × 1)	310 × 4
	Cooling	dB(A)	70.2	70.3	70.3	70.4	70.9	71.0
Pressure Level		dB(A)	72.1	72.2	72.2	72.5	72.7	73.0
Sound	Cooling	dB(A)	93.1	93.2	93.4	93.6	93.6	94.0
		dB(A)	95.1	95.2	95.3	95.4	95.6	96.0
	ion Cable	No.×mm² (VCTF-SB)	2C × 1.0 ~ 1.5					
			R410A	R410A	R410A	R410A	R410A	R410A
	Precharged Amount	kg	64.5	64.5	67.0	67.0	67.0	68.0
		lbs	142.2	142.2	147.7	147.7	147.7	149.9
			2087.5	2087.5	2087.5	2087.5	2087.5	2087.5
	t-CO₂eq		134.6	134.6	139.9	139.9	139.9	142.0
			Electronic Expansion Valve					
	Туре		FVC68D(PVE)	FVC68D(PVE)	FVC68D(PVE)	FVC68D(PVE)	FVC68D(PVE)	FVC68D(PVE)
Oil	Charge	СС	19,500	19,500	20,800	20,800	20,800	20,800
Dower Curel		Ø V H-	380~415, 3, 50	380~415, 3, 50	380~415, 3, 50	380~415, 3, 50	380~415, 3, 50	380~415, 3, 50
			380, 3, 60	380, 3, 60	380, 3, 60	380, 3, 60	380, 3, 60	380, 3, 60
Number of m	naximum connectable in		64	64	64	64	64	64

# Notes

- 1. Eurovent Test Condition: For more info regarding program consult www.eurovent-certification.com
- 2. Capacities are based on the following conditions:
  - Cooling Temperature : Indoor 27°C(80.6°F) DB / 19°C(66.2°F) WB Outdoor 35°C(95°F) DB / 24°C(75.2°F) WB
- Heating Temperature : Indoor 20°C(68°F) DB / 15°C(59°F) WB Outdoor 7°C(44.6°F) DB / 6°C(42.8°F) WB
- Piping Length: Interconnected Pipe Length = 7.5m
- Difference Limit of Elevation (Outdoor ~ Indoor Unit) is Zero.
- 3. Wiring cable size must comply with the applicable local and national code.
- 4. Sound Level Values can be increased owing to ambient conditions during operation.
- 5. The numbers in parentheses means maximum connectable indoor units in accordance with outdoor units combination. The recommended ratio is 130%.
- 6. ESEER calculation corresponds with below conditions and power input of indoor units is not included.
  - Indoor temperature : 27°C(80.6°F) DB / 19°C(66.2°F) WB
  - Outdoor Temperature conditions.

Part Load Ratio	Outdoor Air Temp. (°C (°F)DB)	Weighting Coefficients
100%	35 (95)	0.03
75%	30 (86)	0.33
50%	25 (77)	0.41
25%	20 (68)	0.23

- Formula : 0.03 × EER100% + 0.33 × EER75% + 0.41 × EER50% + 0.23 × EER25%
- 7. Due to our policy of innovation some specifications may be changed without notification.
- 8. Power factor could vary less than 1% according to the operating conditions.
- 9. This product contains Fluorinated greenhouse gases.

<sup>\*</sup> This product contains Fluorinated Greenhouse Gases. (R410A)

# Longest piping length 15m Height difference between IDU ~ IDU 40m Height difference between ODU ~ IDU 300m Total piping length

# 

#### 1. Compact Size



#### 2. Piping Capabilities

Total Piping Length	300m
Longest piping length	150m
(Equivalent)	(175m)
Longest piping length after 1st branch	40m
(Conditional application)	(90m)
Height difference between	40m*
ODU ~ IDU	(50m**)
Height difference between IDU ~ IDU	15m

\* In case of outdoor unit installed lower than indoor unit \*\* In case of outdoor unit installed upper than indoor unit

#### 3. Operation Range

- Heating: -20 ~ 18°C WB
- Cooling : -5 ~ 43°C DB

# **EFFICIENCY**

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

MULTI V S has high efficiency inverter scroll compressor with frequency range 15Hz ~ 150Hz.

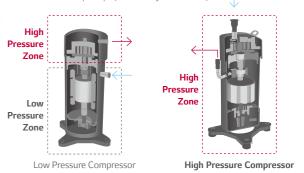
# 

## High Pressure Compressor

4 by-pass valve

- Viscosity of oil is secured due to high temperature and pressure.
- Do not need oil pump. (Efficiency Increases)

World Best Class Compressor Speed



# Inverter Scroll Compressor

- Inverter SCROLL compressor of high efficiency
- Low vibration / Low noise

# Benefit

- Saves valuable floor space
- Flexible design applications
- Slim, light and wide line up (4 ~ 12HP)
- Combination of indoor unit

# **Application**

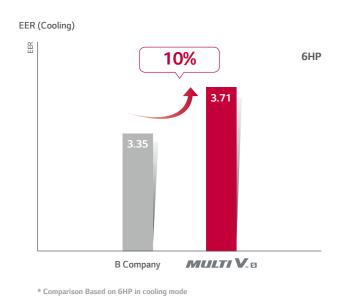
- Premium residential apartment / House (With small balcony)
- Small sized office / Restaurant / Retail shops
- Building with multiple owners

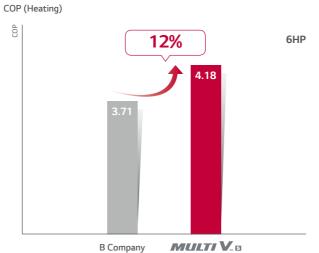
#### **OUTDOOR UNIT KEY FEATURES**

# **MULTIVS**

## **EFFICIENCY**

# **High Efficiency**





<sup>\*</sup> Comparison Based on 6HP in heating mode

# **Reliable Inverter Compressor**

MULTI V S Inverter compressors are highly efficient and reliable for all commercial & residential applications.

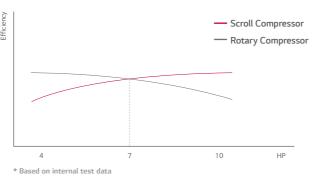
# MULTI V<sub>m</sub> s

High reliability and efficiency at all capacity

- Below 7HP: Rotary compressor
- Upper 7HP : Scroll compressor

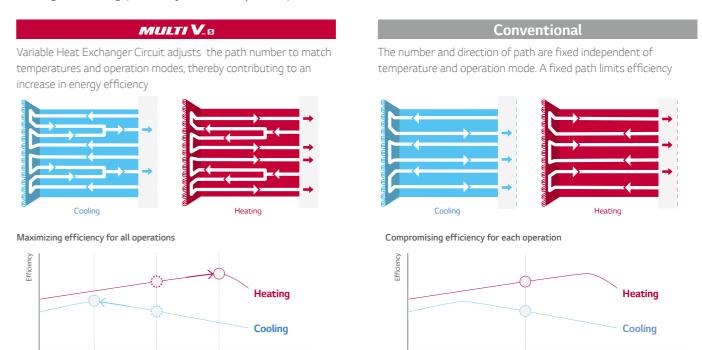






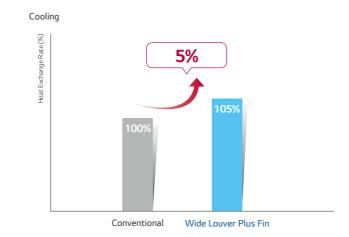
# **Optimal Heat Exchanger Circuit**

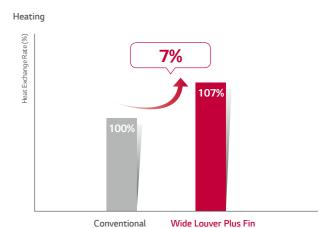
Variable Heat Exchanger Circuit is the world first technology which intelligently selects the optimal path for both heating and cooling (Efficiency increased up to 5%).



# Heat Exchanger with Wide Louver Plus Fin

Improved heat exchanger efficiency of up to 7%.





# **MULTIVS**

#### **EFFICIENCY**

## **Pressure Sensor**

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

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

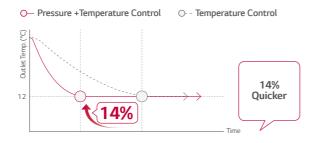






#### **Quick Operating Response**

Pressure control takes up to 14% less time in cooling mode, to reach the desired temperature.



The indoor environment can be made more comfortable, faster and more accurately.

\* Based on internal test data

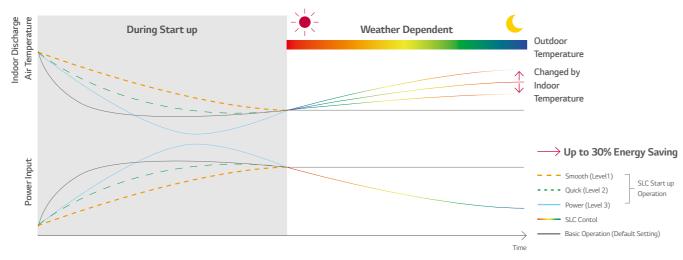
#### **Smart Load Control**

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



#### Benefits:

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



## **PERFORMANCE**

## High Reliability of Refrigerant Cycle

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

#### 1. Cyclone Centrifuges Oil Separator

- Highly reliable and efficient oil separation by centrifugal separation using cyclone methods
- High collection efficiency as well as outstanding resistance to high temperature and pressure



#### 2. Large Volume Accumulator

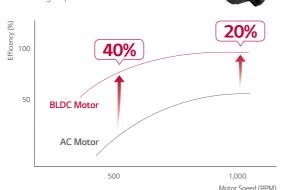
- Improved reliability by adopting the large volume accumulator (138% volume up compared to conventional)
- Prevents the liquid refrigerant entering the compressor suction



#### •

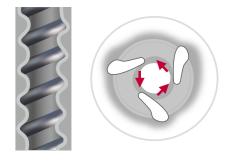
#### 3. BLDC Fan Motor

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



#### 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)
- ightarrow Reduction of indoor refrigerant noise level



Double Sub-cool Interchanger

# **MULTIVS**

## **PERFORMANCE**

## Fan Technology and E.S.P. Control

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

#### Fan Technology

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

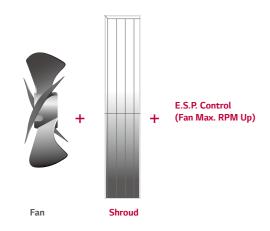


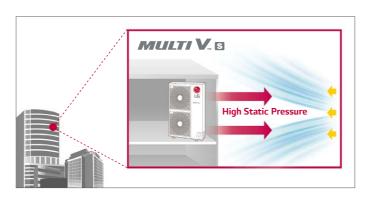
Super cannon fan increases the air volume in 50 CMM and the noise level is decreased by 4dB (A).



#### High E.S.P. Technology

Flow of air has straightness due to fan shroud and E.S.P. control even in high-rise building.

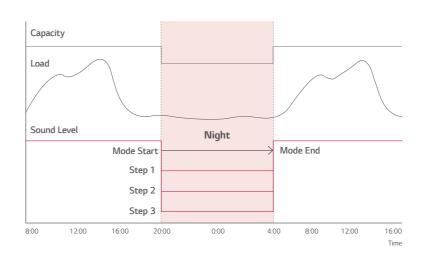


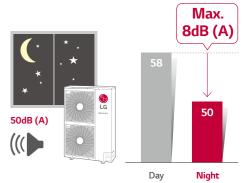


- Straight air flow
- New shroud adopted
- Performs high static pressure

## **Night Silent Operation**

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

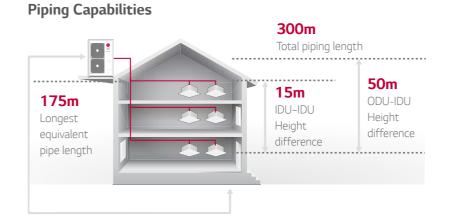




- \* Normal mode noise level (10HP) : 58dB(A)
- \* Night 3 step noise level (10HP) : 56dB(A), 53dB(A), 50dB(A)
- \* Sound pressure tested by following conditions : 1m distance / 1.5m height

## **Expanded Piping Capabilities**

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.



<sup>\*</sup> E.S.P : External Static Pressure

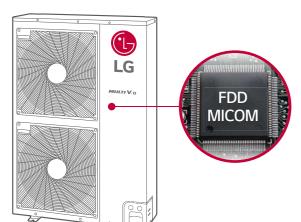
**OUTDOOR UNIT KEY FEATURES** 

# **MULTIVS**

#### **CONVENIENCE**

## **Upgraded Fault Detection and 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.



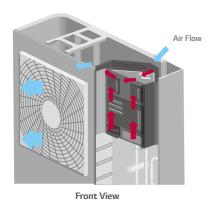
- Auto commissioning Mode
- Auto Refrigerant Collection
- Auto evaluation of refrigerant amount and charging
- Able to access LGMV (LG Monitoring View) by smartphone
- Black box function
- Piping & wiring error check-up

## **Self Cooled Control**

MULTI V S has heat exchanger structure and diagonal shape of control box. (Efficiency increased up to 3%)

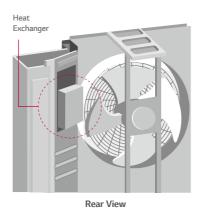
#### **Control Box Cooling System**

- Feature of control box is diagonal shape, it makes naturally air flowing (Directly pulling air back of the fan)
- Reduced heating / cooling efficiency loss



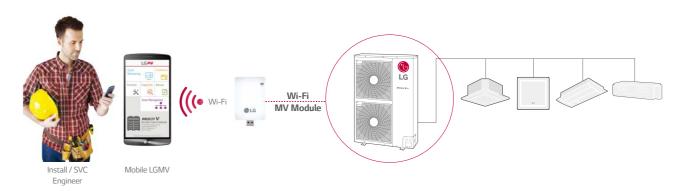
#### **Heat Exchanger Technology**

- Heat exchanger structure
- Optimal air flow by aluminum heat exchanger on control box.



## **Smartphone Monitoring & Control**

Mobile LGMV helps users to monitor the MULTI V S system cycle using Wi-Fi MV Module. Technicians can check LGMV data 10m away from MULTI V S outdoor with smartphone.



Connection type: Wi-Fi / To use Mobile LGMV Application, exclusive Wi-Fi MV Module is required

#### **Smart Phone Specification**

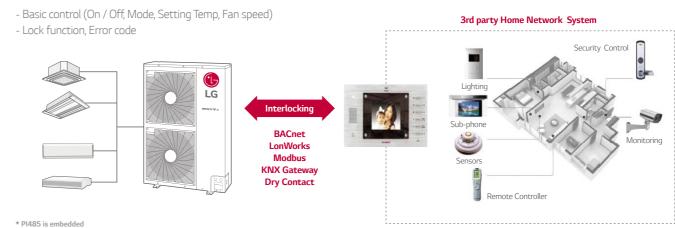
App. Name	os	Recommended Specification	Resolution	Wireless Communication Effective Distancd
	iOS (iPad Only)	AppiOS 8.0 / 8.1	2,048 x 1,536 (Optimization) / 1,024 x 768	• Effective distance : 10m (Open Area)
Mobile LGMV	LGMV Android	Android 4.4 (Android 3.x, Honeycomb not Supported)	480 x 800 / 720 x 1,280, 768 x 1,280 / 768 x 1,024 / 1,080 x 1,920	The effective distance may be reduced by the communication environment

## With Home Network System

Interlocking with home network system enables various application.

Depending on building size and usage, various communication method can be given.

#### Compatibility to Home Network System



# **MULTIVS**

## **PERFORMANCE**

## Heat Exchanger with Ocean Black Fin for Corrosion Resistance

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

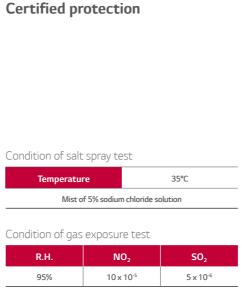






## **Corrosion Resistance Proven by Certified Tests**

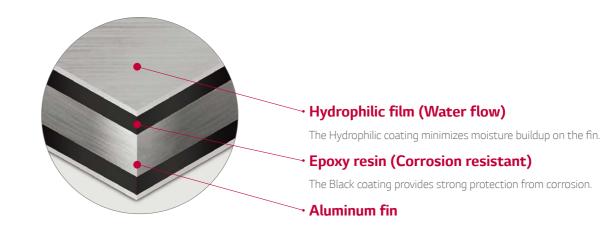
LG Corrosion Resistance solution passed ISO accelerated corrosion test conducted by an independent test organization and the result has been certified by prestigious global certification organization, UL (Underwriters Laboratories).





## **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 including fumes from factories. 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.



 $_{0.078}$ 



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

#### ARUN040GSS0 / ARUN040GSR0 / ARUN050GSL0



НР			4	5
Model Name	Combination Unit		ARUN040GSS0 / ARUN040GSR0	ARUN050GSL0
			12.1	14.0
Capacity 1) (Rated)			12.5	15.0
			3.57	3.78
Input (Rated) <sup>1)</sup> Heating kW			2.91	3.75
EER			3.39	3.70
COP			4.3	4.0
			BLDC Inverter Twin Rotary	BLDC Inverter Twin Rotary
	Piston Displacement	cm³/rev	44.2	44
	Motor Output		4,000	4,000
	Starting Method		DC Inverter Starting	DC Inverter Starting
	Туре		Axial Flow Fan	Axial Flow Fan
	Motor Output x Number		124 x 1	124 x 1
			60	60
			2,119	2,119
	Drive		DC INVERTER	DC INVERTER
	Discharge	Side / Top	Side	Side
Dia - Cananatiana	Liquid	mm (inch)	Ø 9.52(3/8)	Ø 9.52(3/8)
Pipe Connections Gas			Ø 15.88(5/8)	Ø 15.88(5/8)
Dimensions (W x H x D	))	mm	950 × 834 × 330	950 × 834 × 330
Net Weight		kg	69	73
Sound Pressure Level	Cooling		50	52
Soulid Plessule Level	Heating	dB(A)	52	58
Sound Power Level		dB(A)	66	68
Communication Cable		No. x mm² (VCTF-SB)	2C x 1.0 ~ 1.5	2C x 1.0 ~ 1.5
	Refrigerant name		R410A	R410A
	Precharged Amount	kg	1.8	2.4
		lbs	4.0	5.3
Remgerant	GWP		2,087.5	2,087.5
	t-CO <sub>2</sub> eq		3.8	5.0
	Control		Electronic Expansion Valve	Electronic Expansion Valve
Refrigerant Oil	Туре		FVC68D(PVE)	FVC68D(PVE)
Kemgerant Oil	Charge		1,300	1,300
Power Supply		V, Ø, Hz	220-240 , 1 , 50	220-240 , 1 , 50
Power Supply		ν, <i>ω</i> , πz	220, 1, 60	220, 1, 60
			8	10

- 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 ARUNO50GSL0 is 130%)
- 4. Wiring cable size must comply with the applicable local and national codes.
- 5. Due to our policy of innovation some specifications may be changed without notification.
- 6. Sound Level Values are measured at Anechoic chamber. Therefore, these values can be increased owing to ambient conditions during operation.
- 7. Power factor could vary less than  $\pm$ 1% according to the operating conditions. 8. This product contains Fluorinated greenhouse gases.(R410A, GWP(Global warming potential) = 2087.5)



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ARUN060GSS0	/ ARUN06	0GSR0
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HP			5	6	
Model Name	Combination Unit		ARUN050GSS0 / ARUN050GSR0	ARUN060GSS0 / ARUN060GSR0	
	Cooling	kW	14.0	15.5	
Capacity 1) (Rated)	Heating	kW	16.0	18.0	
Input (Rated) 1)		kW	3.51	4.18	
input (Rateu) 9	Heating	kW	3.60	4.31	
			3.99	3.71	
COP			4.44	4.18	
			BLDC Inverter Twin Rotary	BLDC Inverter Twin Rotary	
	Piston Displacement	cm³/rev	44.2	44.2	
Compressor	Motor Output	W	4,000	4,000	
			DC Inverter Starting	DC Inverter Starting	
	Туре		Axial Flow Fan	Axial Flow Fan	
	Motor Output x Number	W	124 x 2	124 x 2	
		m³/min	110	110	
		ft³/min	3,885	3,885	
			DC INVERTER	DC INVERTER	
	Discharge	Side / Top	Side	Side	
		mm (inch)	Ø 9.52(3/8)	Ø 9.52(3/8)	
Pipe Connections	Gas	mm (inch)	Ø 15.88(5/8)	Ø 19.05(3/4)	
Dimensions (W x H x D		mm	950 × 1,380 × 330	950 × 1,380 × 330	
Net Weight		kg	94	94	
		dB(A)	51	52	
	Heating	dB(A)	53	54	
Sound Power Level		dB(A)	67	69	
Communication Cable		No. x mm <sup>2</sup> (VCTF-SB)	2C x 1.0 ~ 1.5	2C x 1.0 ~ 1.5	
	Refrigerant name		R410A	R410A	
	Precharged Amount	kg	3.0	3.0	
	Precharged Amount	lbs	6.6	6.6	
	GWP		2,087.5	2,087.5	
	t-CO₂eq		6.3	6.3	
	Control		Electronic Expansion Valve	Electronic Expansion Valve	
Defrigerant Oil	Туре		FVC68D(PVE)	FVC68D(PVE)	
Refrigerant Oil	Charge	СС	1,300	1,300	
		V Ø 11-	220-240 , 1 , 50	220-240,1,50	
		V, Ø, Hz	220, 1, 60	220, 1, 60	
Number of maxmum co	onnectable indoor units 3)		10	13	

- 1. Eurovent Test Condition: Type of indoor unit connected is only Ceiling Concealed Duct.
- Refer to EUROVENT certification regulation for more detail test conditions. Refer to EUROVENT website for test values connected Ceiling Cassette type indoors. 2. Performances are based on the following conditions :
- Cooling Temperature : Indoor 27°C(80.6°F) DB / 19°C(66.2°F) WB / Outdoor 35°C(95°F) DB / 24°C(75.2°F) WB Heating Temperature : Indoor 20°C(68°F) DB / 15°C(59°F) WB / Outdoor 7°C(44.6°F) DB / 6°C(42.8°F) WB
- 3. The maximum combination ratio is 160%.
- 4. Wiring cable size must comply with the applicable local and national codes.
- 5. Due to our policy of innovation some specifications may be changed without notification.
- 6. Sound Level Values are measured at Anechoic chamber. Therefore, these values can be increased owing to ambient conditions during operation.
- 7. Power factor could vary less than  $\pm$ 1% according to the operating conditions. 8. This product contains Fluorinated greenhouse gases.(R410A, GWP(Global warming potential) = 2087.5)

# **MULTIVS**



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ARUN040LSS0 / ARUN050LSS0 / ARUN060LSS0 ARUN040LSR0 / ARUN050LSR0 / ARUN060LSR0



HP			4	5	6
Model Name	Combination Unit		ARUN040LSS0 / ARUN040LSR0	ARUN050LSS0 / ARUN050LSR0	ARUN060LSS0 / ARUN060LSR0
C : 1) (D : 1)			12.1	14.0	15.5
Capacity 1) (Rated)			12.5	16.0	18.0
(Data 1) 1)			2.88	3.56	4.18
Input (Rated) 1)	Heating	kW	2.76	3.60	4.31
EER			4.20	3.93	3.71
СОР			4.53	4.44	4.18
			BLDC Inverter Twin Rotary	BLDC Inverter Twin Rotary	BLDC Inverter Twin Rotary
C	Piston Displacement		44.2	44.2	44.2
Compressor	Motor Output	W	4,000	4,000	4,000
	Starting Method		DC Inverter Starting	DC Inverter Starting	DC Inverter Starting
	Туре		Axial Flow Fan	Axial Flow Fan	Axial Flow Fan
	Motor Output x Number	W	124 x 2	124 x 2	124 x 2
	Air Flow Rate (High)	m³/min	110	110	110
	All Flow Rate (Flight)	ft³/min	3,885	3,885	3,885
	Drive		DC INVERTER	DC INVERTER	DC INVERTER
	Discharge	Side / Top	Side	Side	Side
Dina Connections	Liquid	mm (inch)	Ø 9.52(3/8)	Ø 9.52(3/8)	Ø 9.52(3/8)
Pipe Connections Gas		mm (inch)	Ø 15.88(5/8)	Ø 15.88(5/8)	Ø 19.05(3/4)
Dimensions (W x H x D	)	mm	950 × 1,380 × 330	950 × 1,380 × 330	950 × 1,380 × 330
Net Weight		kg	96	96	96
Sound Pressure Level	Cooling	dB(A)	50	51	52
Journa Fressure Level	Heating	dB(A)	52	53	54
Sound Power Level		dB(A)	66	67	69
Communication Cable		No. x mm <sup>2</sup> (VCTF-SB)	2C x 1.0 ~ 1.5	2C x 1.0 ~ 1.5	2C x 1.0 ~ 1.5
	Refrigerant name		R410A	R410A	R410A
	Precharged Amount	kg	3.0	3.0	3.0
Refrigerant		lbs	6.6	6.6	6.6
Remgerant	GWP		2,087.5	2,087.5	2,087.5
	t-CO₂eq		6.3	6.3	6.3
	Control		Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve
Refrigerant Oil	Туре		FVC68D(PVE)	FVC68D(PVE)	FVC68D(PVE)
Kerngerant Oil	Charge		1,300	1,300	1,300
Power Supply		V, Ø, Hz	380-415,3,50	380-415,3,50	380-415,3,50
Power Supply		ν, ω, πz	380, 3, 60	380, 3, 60	380, 3, 60
Number of maxmum co			8	10	13

#### Notes

- 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^{\circ}C(80.6^{\circ}F)\ DB\ /\ 19^{\circ}C(66.2^{\circ}F)\ WB\ /\ Outdoor\ 35^{\circ}C(95^{\circ}F)\ DB\ /\ 24^{\circ}C(75.2^{\circ}F)\ WB\ -\ Heating\ Temperature: Indoor\ 20^{\circ}C(68^{\circ}F)\ DB\ /\ 15^{\circ}C(59^{\circ}F)\ WB\ /\ Outdoor\ 7^{\circ}C(44.6^{\circ}F)\ DB\ /\ 6^{\circ}C(42.8^{\circ}F)\ DB\ /\$
- 3. The maximum combination ratio is 160%.
- 4. Wiring cable size must comply with the applicable local and national codes.
- 5. Due to our policy of innovation some specifications may be changed without notification.
- 6. Sound Level Values are measured at Anechoic chamber. Therefore, these values can be increased owing to ambient conditions during operation.
- 7. Power factor could vary less than  $\pm 1\%$  according to the operating conditions.
- 8. This product contains Fluorinated greenhouse gases.(R410A, GWP(Global warming potential) = 2087.5)



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Check ongoing validity of certification: www.eurovent-certification.com

#### ARUN080LSS0 / ARUN100LSS0 / ARUN120LSS0



HP			8	10	12
Model Name	Combination Unit		ARUN080LSS0	ARUN100LSS0	ARUN120LSS0
Cooling		kW	22.4	28.0	33.6
		kW	24.5	30.6	36.7
		kW	6.27	8.70	10.50
nput (Rated) 1)	(Rated) <sup>1)</sup> Cooling Heating		6.28	7.56	9.66
			3.57	3.22	3.20
COP			3.90	4.05	3.80
			Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll
		cm³/rev	43.8	62.1	62.1
	Motor Output	W	4,200	5,300	5,300
			Direct On Line	Direct On Line	Direct On Line
			Propeller fan	Propeller fan	Propeller fan
	Motor Output x Number	W	124 x 2	250 x 2	250 x 2
		m³/min	140	190	190
		ft³/min	4,944	6,710	6,710
	Drive		DC INVERTER	DC INVERTER	DC INVERTER
	Discharge	Side / Top	Side	Side	Side
		mm (inch)	Ø 9.52(3/8)	Ø 9.52(3/8)	Ø 12.7(1/2)
Pipe Connections	Gas	mm (inch)	Ø 19.05(3/4)	Ø 22.2(7/8)	Ø 28.58(1 1/8)
Dimensions (W x H x D		mm	950 × 1,380 × 330	1,090 × 1,625 × 380	1,090 x 1,625 x 380
Net Weight		kg	115	144	157
		dB(A)	57	58	60
		dB(A)	57	58	60
		dB(A)	74	77	78
Communication Cable		No. x mm² (VCTF-SB)	2C x 1.0 ~ 1.5	2C x 1.0 ~ 1.5	2C x 1.0 ~ 1.5
	Refrigerant name		R410A	R410A	R410A
	December and Assessed	kg	3.5	4.5	6.0
	Precharged Amount	lbs	7.7	9.9	13.2
	GWP		2,087.5	2,087.5	2,087.5
	t-CO <sub>2</sub> eq		7.3	9.4	12.5
	Control		Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve
Pofrigorant Oil	Туре		FVC68D(PVE)	FVC68D(PVE)	FVC68D(PVE)
Refrigerant Oil	Charge	СС	2,400	2,600	3,400
		V Ø 11-	380-415,3,50	380-415,3,50	380-415,3,50
		V, Ø, Hz	380,3,60	380,3,60	380,3,60
Number of maxmum co	onnectable indoor units 3)		13	16	20

#### Notes:

- 1. Eurovent Test Condition : Type of indoor unit connected is only Ceiling Concealed Duct.
- Refer to EUROVENT certification regulation for more detail test conditions. Refer to EUROVENT website for test values connected Ceiling Cassette type indoors. 2. Performances are based on the following conditions :
- Cooling Temperature : Indoor 27°C(80.6°F) DB / 19°C(66.2°F) WB / Outdoor 35°C(95°F) DB / 24°C(75.2°F) WB
- Heating Temperature : Indoor 20°C(68°F) DB / 15°C(59°F) WB / Outdoor 7°C(44.6°F) DB / 6°C(42.8°F) WB
- 3. The maximum combination ratio is 160%.
- 4. Wiring cable size must comply with the applicable local and national codes.
- 5. Due to our policy of innovation some specifications may be changed without notification.
- 6. Sound Level Values are measured at Anechoic chamber. Therefore, these values can be increased owing to ambient conditions during operation.
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- 8. This product contains Fluorinated greenhouse gases.(R410A, GWP(Global warming potential) = 2087.5)

## **OUTDOOR UNIT SPECIFICATION**

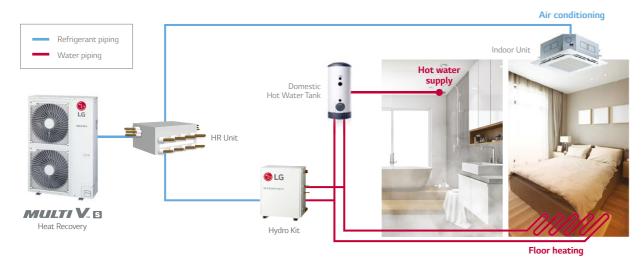
# MULTI V S HEAT RECOVERY

# MULTI V S HEAT RECOVERY

## **HEAT RECOVERY**

## **System Diagram**

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

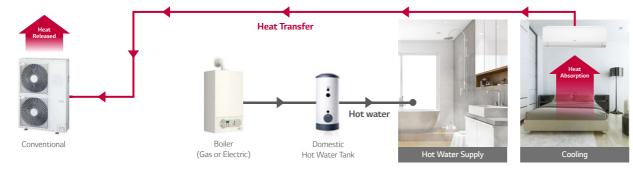


## **Energy Saving**

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

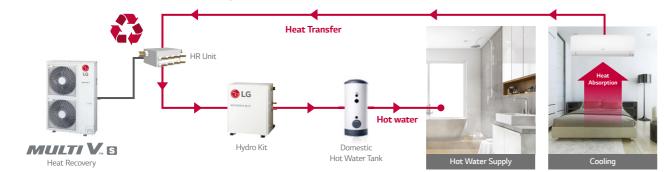
#### Conventional

Absorbed heat is released to outdoor air.



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

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



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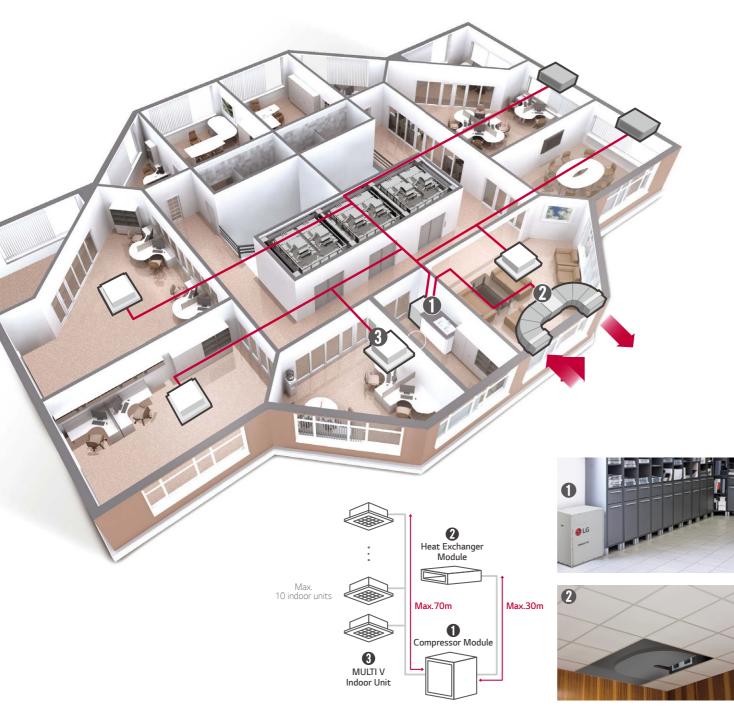
#### ARUB060GSS4



HP				6			
Model				ARUB060GSS4			
				15.5			
Capacity (Rated) 1)				18.0			
				3.97			
Power Input (Rated) '	Heating	Nom	kW	4.10			
EER				3.90			
COP				4.39			
ESEER				7.15			
SLC ESEER				8.05			
				Hermetically Sealed Scroll			
	Piston Displacement		cm³/rev	43.8			
Compressor	Motor Output			4,200			
	Starting Method			DC Inverter Starting			
				Axial Flow Fan			
	Motor Output x Number			124 x 2			
				110			
				3,885			
				DC INVERTER			
	Discharge			Side			
				Ø 9.52 (3/8)			
Pipe Connections				Ø 19.05 (3/4)			
				Ø 15.88 (5/8)			
Dimensions (W x H x D)				950 × 1,380 × 330			
Net Weight				118			
			dB(A)	56			
			dB(A)	58			
			dB(A)	69			
			dB(A)	71			
Communication Cable	(VCTF-SB)			2C x 1.0 ~ 1.5			
				R410A			
	Precharged Amount			3.5			
	t-CO <sub>2</sub> eq			7.3			
				Electronic Expansion Valve			
				FVC68D(PVE)			
Refrigerant Oil	Charge			1,300			
				220-240 , 1 , 50			
Power Supply			V, Ø, Hz	220, 1, 60			
	ectable indoor units			13			

- 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%.
- Wiring cable size must comply with the applicable local and national codes.
   Due to our policy of innovation some specifications may be changed without notification.
- 6. Sound Level Values are measured at Anechoic chamber. Therefore, these values can be increased owing to ambient conditions during operation.
- 7. Power factor could vary less than  $\pm 1\%$  according to the operating conditions.
- 8. This product contains Fluorinated greenhouse gases.(R410A, GWP(Global warming potential) = 2087.5)

# **MULTI V MODULAR**



#### High flexibility of installation

Heat exchanger module can be installed for direct inlet/ outlet or duct connected inlet/outlet

#### Quiet operation

Low sound level of compressor module can make compressor installed inside space.

# Various indoor unit combinations & long distance between modules

- Maximum 10 indoor units can be connected and be operated separately.
- Maximum distance between compressor module and heat exchanger module is 30m.
- Maximum distance between indoor module and compressor module is 70m.

## High Flexibility of installation

#### Outside unit split by compressor and heat exchanger module

Split unit can make installation much more flexible. Compressor module can be installed at any place inside such as storage room, or in a kitchen. Heat exchanger module can be installed in a false ceiling spaces in both case of direct inlet/outlet and ducted inlet/outlet. Higher maximum external static pressure can make Installation more flexible

# Direct inlet/outlet case Indoor unit Duct Heat exchanger Compressor

# Duct connected case Indoor unit Duct Heat exchanger

Lighter & smaller units can make installation much more easier

#### Ease and flexibility of installation

Ease and flexibility of installation thanks to the high static pressure available and adjustable and the reduced weight

#### Small size

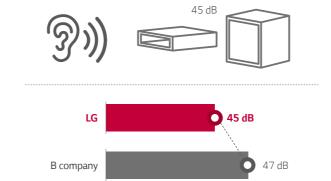
Make the most of your local space thanks to its small size

#### Regulatory compliance

Regulatory compliance thanks to the 3600 CMM of exhausted air

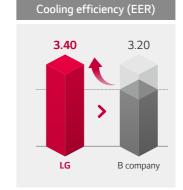
## **Quiet operation**

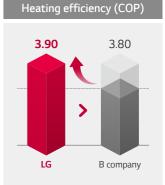
Low sound level of both compressor module and heat exchanger module can make outdoor units installed and operated inside



## **High Efficiency**

World class higher efficiency can get much more energy savings World best inverter compressor, optimal heat exchanger circuit and smart load control make world class higher efficiency than other brands.





# **MULTI V MODULAR**



#### \* Below spec can be revised until PDB distributed.

НР			5
Model Name	Combination Unit		Compressor Module
model reame		kW	14.0
		kcal/h	12,000
Capacity 1)		kW	14.0 / 16.0
		kcal/h	12,000 / 13,800
	Cooling (Pated)		
	Heating (Rated / Max.) kW 3.59/4.		
EER (Based on Rated ca		KVV	3.40
			3.90
COP (Based on Rated ca			
COP (Based on Max. cap			3.70
Power Factor 7)	Rated	•	0.93
Casing Color			Morning Gray
Heat Exchanger			·
	Туре		Hermetic Motor Compressor
	Piston Displacement	cm³/rev	31.6
	Number of Revolution	rev/min	3,600
	Motor Output	W	3,200
	Starting Method		DC Inverter Starting
	Oil Type		FVC68D(PVE)
	Oil Charge		1,000
	Туре		
	Motor Output x Number	W	-
		m³/min	-
		ft³/min	-
	Drive		-
	Discharge	Side / Top	-
		mmAq (Pa)	
External Static Pressure	Max.	mmAq (Pa)	-
Pipe Connections	Liquid / Gas	mm (inch)	Ø 9.52(3/8) - IDU / Ø 15.88(5/8) - IDU
		mm	580 × 700 × 500
		inch	22-27/32 x 27-9/16 x 19-11/16
		kg	77
		lbs	170
Sound Pressure Level	Cooling / Heating	dB(A)	45 / 45
	High pressure protection	-	High pressure sensor
Protection Devices	Compressor / Fan		Over-heat protection
Communication Cable	Inverter	- No.×mm² (VCTF)	Over-heat protection / Over-current protection  2C x 1.0 ~ 1.5
communication Cable		No.×mm (VCTF)	
	Refrigerant name	lie	R410A
	Precharged Amount	kg	2.0
		lbs	4.4
	t-CO₂ eq		4.2
	Control		•
Power Supply		V, Ø, Hz	380-415, 3, 50
			10

- 1. Eurovent Test Condition : Type of indoor unit connected is only Ceiling Concealed Duct.
- Refer to EUROVENT certification programme 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
- Heat Exchanger Module ~ Compressor Module = 5m Compressor Module ~ Indoor Unit = 7.5m
- 3. The maximum combination ratio is 130%.

  4. Wiring cable size must comply with the applicable local and national codes.
- 5. Due to our policy of innovation some specifications may be changed without notification.
- 6. Sound Level Values are measured at Anechoic chamber. Therefore, these values can be increased owing to ambient conditions during operation.

  7. Power factor could vary less than ±1% according to the operating conditions.

  8. This product contains Fluorinated greenhouse gases. (R410A, GWP (Global warming potential) = 2087.5)



#### \* Below spec can be revised until PDB distributed.

HP			5
Model Name	Combination Unit		Heat Exchanger Module
	C   (D   1)	kW	
		kcal/h	
		kW	-/-
		kcal/h	-/-
	Cooling (Rated)	kW	-
	Heating (Rated / Max.)	kW	-/-
ER (Based on Rated capa			-
OP (Based on Rated cap			-
OP (Based on Max. capa			-
Power Factor 7)		-	-
Casing Color			Galvanized Steel Plate
Heat Exchanger			Ocean Black Fin (Wide Louver Plus)
			-
	Piston Displacement	cm³/rev	-
	Number of Revolution	rev/min	-
	Motor Output	W	
	Starting Method	**	-
	Oil Type		
	Oil Charge		
			- Sirocco Fan
	Type  Motor Output v Number	W	400 x 2
	Motor Output x Number		
		m³/min	60
		ft³/min	2,119
		C: 1. (T.	Direct
	Discharge	Side / Top	Side
external Static Pressure	Nominal (Rated, Factory Set)	mmAq (Pa)	3 (29)
	Max.	mmAq (Pa)	16 (157)
Pipe Connections	Liquid / Gas	mm (inch)	Ø 12.7(1/2) - Comp. Module / Ø 19.05(3/4) - Comp. Module
		mm	1,562 x 460 x 688
		inch	61-1/2 x 18-1/8 x 27-3/32
Net Weight		kg	87
		lbs	192
ound Pressure Level	Cooling / Heating	dB(A)	45 / 45
	High pressure protection	-	-
Protection Devices	Compressor / Fan	•	Fan driver overload protector
		-	•
Communication Cable		No.×mm²(VCTF)	2C x 1.0 ~ 1.5
	Refrigerant name		-
	Precharged Amount	kg	-
		lbs	-
	t-CO₂ eq		-
	Control		Electronic Expansion Valve
		V, Ø, Hz	1, 220-240, 50

- 1. Eurovent Test Condition: Type of indoor unit connected is only Ceiling Concealed Duct.
- Refer to EUROVENT certification programme for more detail test conditions. Refer to EUROVENT website for test values connected Ceiling Cassette type indoors.
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- 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
- Heat Exchanger Module ~ Compressor Module = 5m Compressor Module ~ Indoor Unit = 7.5m
- 3. The maximum combination ratio is 130%.

  4. Wiring cable size must comply with the applicable local and national codes.
- 5. Due to our policy of innovation some specifications may be changed without notification.
- 6. Sound Level Values are measured at Anechoic chamber. Therefore, these values can be increased owing to ambient conditions during operation.
- 7. Power factor could vary less than ±1% according to the operating conditions. 8. This product contains Fluorinated greenhouse gases. (R410A, GWP (Global warming potential) = 2087.5)

## MULTI V WATER IV HEAT PUMP / HEAT RECOVERY

## 300m Total piping length 1. Compact Size Installation Space 1m³ per each 20HP 40m Height difference between IDU~IDU 2. Light Weight 50m Height 150m difference Longest between piping ODU~IDU length 3. Variable Water Flow **Control Kit**

## **Benefit**

- Saves valuable floor space
- Low noise level (no fans)
- Flexible design applications
- High efficient water source system

## **Application**

- Large scale office
- · Commercial building using geothermal / Water supply

MIIIT

Luxurious residential building

## Superior Efficiency via Integration of Smart Technologies

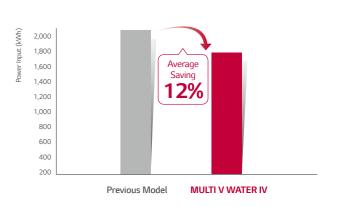
Today's businesses demand highly efficient temperature control solutions, capable of providing optimal energy savings without sacrificing performance. When it comes to cooling and heating a multi-storey or high-rise building, water cooled HVAC systems have become the solution of choice. Offering several performance enhancements and greater installation versatility, LG's MULTI V WATER IV combines intelligent functions with advanced inverter technology; boosting both energy efficiency and operational range.

Along with outstanding energy efficiency, the new solution comes with a range of truly smart features, including optimized cycle composition and smart control. For ease of installation and better economy of space, MULTI V WATER IV is both lighter in weight and smaller in overall size. LG, a leading innovator in HVAC technologies, will continue to develop and manufacture high performance, energy efficient solutions for the benefit of its growing global customer-base.

## **Economical, Highly Efficient System**

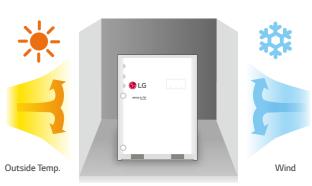
Adopting a water-based cooling method, this unit optimizes performance in comparison to compressor capacity. It also ensures heat exchange performance for high-rise buildings, thus allowing electrical-savings.

Source : LG Energy Estimate Program (LEEP) simulation data-5th floor building in Paris, France



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

Regardless of outdoor temperature and other environmental conditions, MULTI V WATER IV is the optimal solution for high-rise buildings.

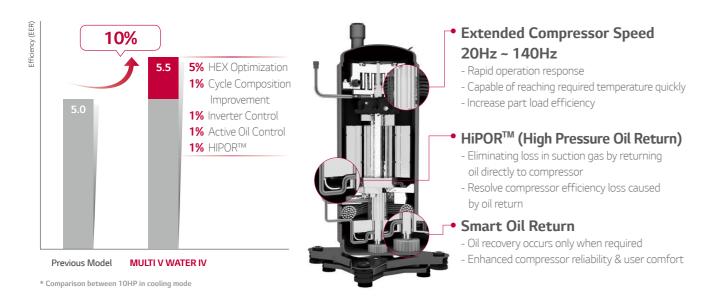


## MULTI V WATER IV HEAT PUMP / HEAT RECOVERY

#### **EFFICIENCY**

## LG's 4th Generation Inverter Compressor

With a fourth generation inverter compressor, the MULTI V WATER IV boasts top-class energy efficiency.

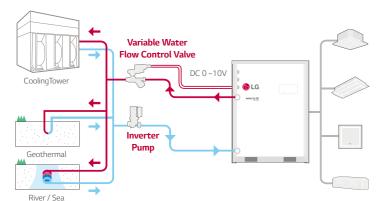


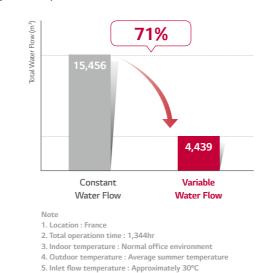
## Variable Water Flow Control Kit (Option)

The world's first variable water flow control system for water cooled VRF system.

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

- Adjust water flow by pressure control after connecting PCB in the existing MULTI V Water Outdoor unit

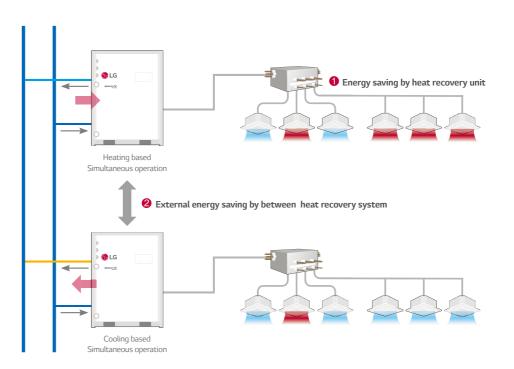




## **PERFORMANCE**

## **Minimizing Energy Input**

Through water sourced heat recovery system, minimizing not only outside unit power input but also external energy input such as cooling tower and boiler.



## **Largest Capacity**

Providing 8 ~ 20HP with single unit, and up to the world's largest capacity 80HP by combination.

Line up (HP)	8	10	14	20	22	24	28	30	34	40	42 ~ 60	62 ~ 80
LG	1 Unit				± = 2 Units					3 Units	4 Units	
Company B		Jnit	-	2 Unit	-		3 Unit				-	-
Company C	11	Jnit	-		2 Unit	3 Unit			-	-	-	

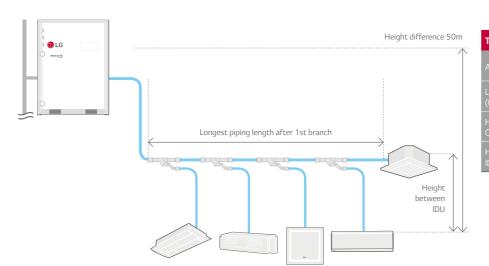
# MULTI V WATER IV HEAT PUMP / HEAT RECOVERY

## **FLEXIBLE DESIGN**

## **Longest Piping Length**

Provide flexible installation up to 300m of total piping length.

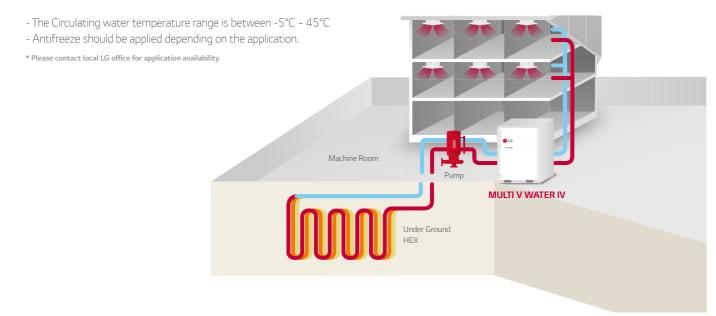
As water pipes are not connected to indoor units, users are free from leakage problems.



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

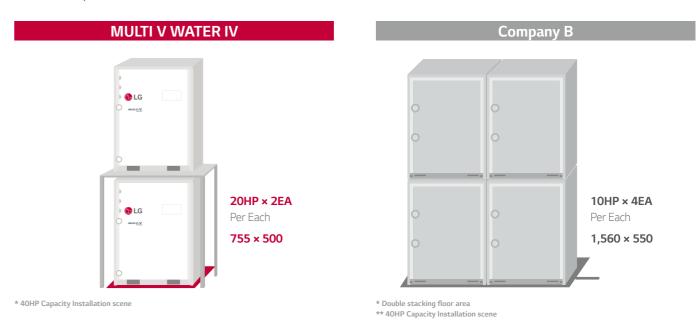
## **MULTI V WATER IV System for Geothermal Applications**

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



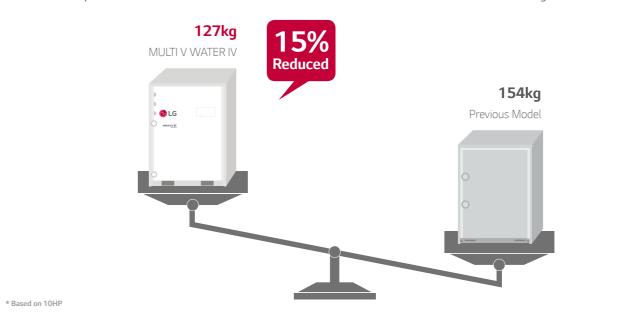
## **Compact Size**

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



## **Light Weight**

Easier to transport and install thanks to 13% reduction in unit size and 15% reduction in overall weight.



# MULTI V WATER IV HEAT RECOVERY

#### ARWB080LAS4 / ARWB100LAS4 / ARWB140LAS4 / ARWB200LAS4

HP			8	10	14	20
	Combination Unit		ARWB080LAS4	ARWB100LAS4	ARWB140LAS4	ARWB200LAS4
Model Name			ARWB080LAS4	ARWB100LAS4	ARWB140LAS4	ARWB200LAS4
6 3			22.4	28.0	39.2	56.0
Capacity			25.2	31.5	44.1	63.0
			3.86	5.09	7.84	11.20
Input			4.20	5.34	8.17	11.67
Casing Color			Warm Gray , Mornig Gray	Warm Gray , Mornig Gray	Warm Gray , Mornig Gray	Warm Gray , Mornig Gray
			Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll
			(Inverter) x 1	(Inverter) x 1	(Inverter) x 1	(Inverter) x 1
			43.8	43.8	43.8	62.1
			Inverter 3,600 at 60Hz	Inverter 3,600 at 60Hz	Inverter 3,600 at 60Hz	Inverter 3,600 at 60Hz
Compressor	Motor Output		4.2	4.2	4.2	5.3
	Starting Method		Direct On Line	Direct On Line	Direct On Line	Direct On Line
	Oil Type		FVC68D(PVE)	FVC68D(PVE)	FVC68D(PVE)	FVC68D(PVE)
	Oil Charge Amount		1 200 + 1 600	1 200 + 1 600	1 200 + 1 600	1 400 + 1 600
	Туре		Stainless Steel Plate	Stainless Steel Plate	Stainless Steel Plate	Stainless Steel Plate
Hara E. dansar	Maximum Pressure Resistance	kgf/cm²	45	45	45	45
Heat Exchanger		kPa	10.7	15.8	28.6	30.1
	Rated Water Flow	LPM	77	96	ARWB140LAS4  39.2  44.1  7.84  8.17  Warm Gray , Mornig Gray Hermetically Sealed Scroll (Inverter) x 1  43.8 Inverter 3,600 at 60Hz  4.2 Direct On Line FVC68D(PVE) 1 200 + 1 600 Stainless Steel Plate  45 28.6 135	192
Temp. range of			10°C ~ 45°C(50°F ~ 113°F)	10°C ~ 45°C(50°F ~ 113°F)	10°C ~ 45°C(50°F ~ 113°F)	10°C ~ 45°C(50°F ~ 113°F)
Circulation water	Heating		-5°C ~ 45°C(23°F ~ 113°F)	-5°C ~ 45°C(23°F ~ 113°F)	5°C ~ 45°C(23°F ~ 113°F)	-5°C ~ 45°C(23°F ~ 113°F)
	Liquid Pipes	mm (inch)	9.52(3/8)	9.52(3/8)	12.7(1/2)	12.7(1/2)
Refrigerant Connecting Pipes	Low Pressure Gas Pipes	mm (inch)	22.2(7/8)	22.2(7/8)	25.4(1)	28.58(1-1/8)
	High Pressure Gas Pipes	mm (inch)	19.05(3/4)	19.05(3/4)	19.05(3/4)	19.05(3/4)
	Inlet	mm	PT40 (1-1/2, Internal)	PT40 (1-1/2, Internal)	PT40 (1-1/2, Internal)	PT40 (1-1/2, Internal)
Water Connecting Pipes	Outlet		PT40 (1-1/2, Internal)	PT40 (1-1/2, Internal)	PT40 (1-1/2, Internal)	PT40 (1-1/2, Internal)
	Drain Outlet		PT20 (3/4, External)	PT20 (3/4, External)	PT20 (3/4, External)	PT20 (3/4, External)
			(755 × 500 × 997) × 1	(755 × 500 × 997) × 1	(755 × 500 × 997) × 1	(755 × 500 × 997) × 1
Dimensions (W x H x D)			(29-23/32 x 39-1/4 x 19- 11/16) x 1	(29-23/32 x 39-1/4 x 19- 11/16) x 1		(29-23/32 x 39-1/4 x 19- 11/16) x 1
Net Weight		kg	127 x 1	127 x 1	127 x 1	140 x 1
		lbs	280 x 1	280 x 1	28.6 135 10°C ~ 45°C(50°F ~ 113°F) 5°C ~ 45°C(23°F ~ 113°F) 12.7(1/2) 25.4(1) 19.05(3/4) PT40 (1-1/2, Internal) PT20 (3/4, External) (755 × 500 × 997) × 1 (29-23/32 × 39-1/4 × 19-11/16) × 1 127 × 1 280 × 1 1.0 ~ 1.5 × 2C R412A 5.8 EEV	309 x 1
Transmission Cable (CVV	-SB)	mm²	1.0 ~1.5 x 2C	1.0 ~1.5 x 2C	1.0 ~1.5 x 2C	1.0 ~1.5 x 2C
	Name		R410A	R410A	R412A	R410A
Refrigerant	Charge Amount	kg	5.8	5.8	5.8	3.0
	Control Device		EEV	EEV	EEV	EEV
Power Supply		Ø/V/Hz	3 / 380 - 415 / 50	3 / 380 - 415 / 50	3 / 380 - 415 / 50	3 / 380 - 415 / 50
т оwei эцрріу			3 / 380 / 60	3 / 380 / 60	3 / 380 / 60	3 / 380 / 60
Sound Pressure Level	Cooling	dB(A)	47	50	58	54
- Journa i lessure Level	Heating	dB(A)	51	53	57	60
Sound Power Level	Cooling	dB(A)	59	62	70	66
Sound Fower Level			63	65	69	72

ARWB220LAS4	ARWB240LAS4	ARWB280LAS4 /	ARWB300LAS4
/ ((( V V D Z Z O L) ( ) + /	/ (((VVDZ-OL/ (3-)	/ (((VVDZOOL) (3-)	/ (( ( V D D D O D L) ( ) ¬

HP			22	24	28	30
	Combination Unit		ARWB220LAS4	ARWB240LAS4	ARWB280LAS4	ARWB300LAS4
Model Name			ARWB140LAS4 ARWB080LAS4	ARWB140LAS4 ARWB100LAS4	ARWB140LAS4 ARWB140LAS4	ARWB200LAS4 ARWB100LAS4
			61.6	67.2	78.4	84.0
Capacity			69.3	75.6	88.2	94.5
			11.70	12.93	15.68	16.29
			12.37	13.51	16.34	17.01
Casing Color			Warm Gray , Mornig Gray	Warm Gray , Mornig Gray	Warm Gray , Mornig Gray	Warm Gray , Mornig Gray
			Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scrol
			(Inverter) x 2	(Inverter) x 2	(Inverter) x 2	(Inverter) x 2
			43.8 + 43.8	43.8 + 43.8	43.8 + 43.8	62.1 + 43.8
			Inverter 3,600 at 60Hz	Inverter 3,600 at 60Hz	Inverter 3,600 at 60Hz	Inverter 3,600 at 60Hz
Compressor	Motor Output		4.2+4.2	4.2 + 4.2	4.2 + 4.2	5.3 + 4.2
			Direct On Line	Direct On Line	Direct On Line	Direct On Line
	Oil Type		FVC68D(PVE)	FVC68D(PVE)	FVC68D(PVE)	FVC68D(PVE)
	Oil Charge Amount		(1 200 + 1 600) x 2	(1 200 + 1 600) x 2	(1 200 + 1 600) x 2	(1 400 + 1 200) + 1 600 x
			Stainless Steel Plate	Stainless Steel Plate	Stainless Steel Plate	Stainless Steel Plate
			45	45	45	45
Heat Exchanger - -			28.6 + 10.7	28.6 + 15.8	28.6 + 28.6	30.1 + 15.8
		LPM	135 ÷ 77	135 + 96	135 + 135	192 + 96
			10°C ~ 45°C(50°F ~ 113°F)	10°C ~ 45°C(50°F ~ 113°F)	10°C ~ 45°C(50°F ~ 113°F)	10°C ~ 45°C(50°F ~ 113°F
Circulation water			-5°C ~ 45°C(23°F ~ 113°F)	-5°C ~ 45°C(23°F ~ 113°F)	-5°C ~ 45°C(23°F ~ 113°F)	-5°C ~ 45°C(23°F ~ 113°F)
			19.05(3/4)	19.05(3/4)	19.05(3/4)	19.05(3/4)
Refrigerant Connecting Pipes			34.9(1-3/8)	34.9(1-3/8)	34.9(1-3/8)	34.9(1-3/8)
Connecting ripes			28.58(1-1/8)	28.58(1-1/8)	28.58(1-1/8)	28.58(1-1/8)
			PT40 + PT40 (Internal)	PT40 + PT40 (Internal)	PT40 + PT40 (Internal)	PT40 + PT40 (Internal)
Water Connecting Pipes	Outlet		PT40 + PT40 (Internal)	PT40 + PT40 (Internal)	PT40 + PT40 (Internal)	PT40 + PT40 (Internal)
	Drain Outlet		PT20 (3/4, External)	PT20 (3/4, External)	PT20 (3/4, External)	PT20 (3/4, External)
			(755 × 997 × 500) x 2	(755 × 997 × 500) x 2	(755 × 997 × 500) x 2	(755 × 997 × 500) × 2
			(29-23/32 x 39-1/4 x 19- 11/16) x 2	(29-23/32 x 39-1/4 x 19- 11/16) x 2	(29-23/32 x 39-1/4 x 19- 11/16) x 2	(29-23/32 x 39-1/4 x 19- 11/16) x 2
			127 x 2	ARWB240LAS4 ARWB1800 ARWB140LAS4 ARWB1400 ARWB100LAS4 ARWB1400 67.2 78.4 75.6 88.2 12.93 15.68 13.51 16.34  y Warm Gray , Mornig Gray Warm Gray , M Hermetically Sealed Scroll (Inverter) (Inverter) x 2 (Inverter) 43.8 + 43.8 43.8 + 43.8 + 43.8 + 44.2 Inverter 3,600 at 60Hz Inverter 3,600 4.2 + 4.2 4.2 + 4.2 Direct On Line Direct On FVC68D(PVE) FVC68D(I (1200 + 1600) x 2 (1200 + 16 Stainless Steel Plate Stainless Steel 45 45 28.6 + 15.8 28.6 + 2 135 + 96 135 + 1 F) 10°C - 45°C(50°F - 113°F) 10°C - 45°C(50°F - 113°F) F) -5°C - 45°C(23°F - 113°F) -5°C - 45°C(23°F - 113°F) 28.58(1-1/8) 28.58(1- PT40 + PT40 (Internal) PT40 + PT40 (Internal) PT20 (3/4, External) PT20 (3/4, E (755 x 997 x 500) x 2 (755 x 997 x 500) x 2 127 x 2 127 x 2 280 x 2 280 x 1.0 - 1.5 x 2C 1.0 - 1.5 x 2C R410A R410A 5.8 + 5.8 5.8 + 5 EEV EEV 3 / 380 - 415 / 50 3 / 380 - 415	127 x 2	(140 x 1) + (127 x 1)
			280 x 2	280 x 2	280 x 2	(309 x 1) + (280 x 1)
Transmission Cable (CVV-			1.0 ~1.5 x 2C	1.0 ~1.5 x 2C	1.0 ~1.5 x 2C	1.0 ~1.5 x 2C
			R410A	R410A	R410A	R410A
Refrigerant	Charge Amount		5.8 ÷ 5.8	5.8 + 5.8	5.8 + 5.8	3.0 + 5.8
	Control Device		EEV	EEV	EEV	EEV
			3 / 380 - 415 / 50	3 / 380 - 415 / 50	3 / 380 - 415 / 50	3 / 380 - 415 / 50
Power Supply			3/380/60		3/380/60	3 / 380 / 60
		dB(A)	58	59	59	55
		dB(A)	58	58	58	61
		dB(A)	71	72	72	68
		dB(A)	71	71	71	74

<sup>\*</sup> This product contains Fluorinated Greenhouse Gases. (R410A)

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

<sup>-</sup> Cooling : Indoor temp. 27°C (80.6°F) DB / 19°C (66.2°F) WB, Water inlet temp. 30°C (86°F), Interconnecting piping length 7.5m, Level difference of zero

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

<sup>3.</sup> Due to our policy of innovation some specifications may be changed without notification

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

<sup>\*</sup> This product contains Fluorinated Greenhouse Gases. (R410A)

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

<sup>-</sup> Cooling : Indoor temp. 27°C (80.6°F) DB / 19°C (66.2°F) WB, Water inlet temp. 30°C (86°F), Interconnecting piping length 7.5m, Level difference of zero

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

<sup>3.</sup> Due to our policy of innovation some specifications may be changed without notification

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

# OUTDOOR UNIT

ARWB480LAS4 / ARWB500LAS4 / ARWB540LAS4 / ARWB600LAS4

# MULTI V WATER IV HEAT RECOVERY

#### ARWB340LAS4 / ARWB400LAS4 / ARWB420LAS4 / ARWB440LAS4

HP			34	40	42	44
			ARWB340LAS4	ARWB400LAS4	ARWB420LAS4	ARWB440LAS4
			ARWB200LAS4 ARWB140LAS4	ARWB200LAS4 ARWB200LAS4	ARWB200LAS4 ARWB140LAS4 ARWB080LAS4	ARWB200LAS4 ARWB140LAS4 ARWB100LAS4
			95.2	112.0	117.6	123.2
Capacity			107.1	126.0	132.3	138.6
			19.04	22.40	22.90	24.13
			19.84	23.34	24.04	25.18
Casing Color			Warm Gray , Mornig Gray	Warm Gray , Mornig Gray	Warm Gray , Mornig Gray	Warm Gray , Mornig Gray
			Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll
			(Inverter) x 2	(Inverter) x 2	(Inverter) x 3	(Inverter) x 3
			43.8 + 62.1	62.1 + 62.1	62.1 + 43.8 + 43.8	62.1 + 43.8 + 43.8
	Number of revolution		Inverter 3,600 at 60Hz	Inverter 3,600 at 60Hz	Inverter 3,600 at 60Hz	Inverter 3,600 at 60Hz
	Motor Output		4.2 + 5.3	5.3 + 5.3	5.3 + 4.2 + 4.2	5.3 + 4.2 + 4.2
	Starting Method		Direct On Line	Direct On Line	Direct On Line	Direct On Line
	Oil Type		FVC68D(PVE)	FVC68D(PVE)	FVC68D(PVE)	FVC68D(PVE)
	Oil Charge Amount		(1 400 + 1 200) + 1 600 x 2	(1 400 + 1 600) x 2	(1 400 + 1 200 + 1 200) + 1 600 x 3	(1 400 + 1 200 + 1 200) + 1 600 x 3
			Stainless Steel Plate	Stainless Steel Plate	Stainless Steel Plate	Stainless Steel Plate
	Maximum Pressure Resistance	kgf/cm²	45	45	45	45
Heat Exchanger			30.1 + 28.6	30.1 + 30.1	30.1 + 28.6 + 10.7	30.1 + 28.6 + 15.8
	Rated Water Flow	LPM	192 + 135	192 + 192	192 + 135 + 77	192 + 135 + 96
			10°C ~ 45°C(50°F ~ 113°F)	10°C ~ 45°C(50°F ~ 113°F)	10°C ~ 45°C(50°F ~ 113°F)	10°C ~ 45°C(50°F ~ 113°F)
Circulation water			-5°C ~ 45°C(23°F ~ 113°F)	-5°C ~ 45°C(23°F ~ 113°F)	-5°C ~ 45°C(23°F ~ 113°F)	-5°C ~ 45°C(23°F ~ 113°F)
	Liquid Pipes		19.05(3/4)	19.05(3/4)	19.05(3/4)	19.05(3/4)
Refrigerant Connecting Pipes			34.9(1-3/8)	41.3(1-5/8)	41.3(1-5/8)	41.3(1-5/8)
			28.58(1-1/8)	34.9(1-3/8)	34.9(1-3/8)	34.9(1-3/8)
			PT40 + PT40 (Internal)	PT40 + PT40 (Internal)	PT40 + PT40 + PT40 (Internal)	PT40 + PT40 + PT40 (Internal)
Water Connecting Pipes	Outlet		PT40 + PT40 (Internal)	PT40 + PT40 (Internal)	PT40 + PT40 + PT40 (Internal)	PT40 + PT40 + PT40 (Internal)
	Drain Outlet		PT20 (3/4, External)	PT20 (3/4, External)	PT20 (3/4, External)	PT20 (3/4, External)
			(755 × 997 × 500) x 2	(755 × 997 × 500) x 2	(755 × 997 × 500) x 3	(755 × 997 × 500) x 3
			(29-23/32 x 39-1/4 x 19- 11/16) x 2	(29-23/32 x 39-1/4 x 19- 11/16) x 2	(29-23/32 x 39-1/4 x 19- 11/16) x 3	(29-23/32 x 39-1/4 x 19- 11/16) x 3
Net Weight			(140 x 1) + (127 x 1)	140 x 2	132.3 22.90 24.04  Gray Warm Gray , Mornig Gray	(140 x 1) + (127 X 2)
iver weight			(309 x 1) + (280 x 1)	309 x 2		(309 x 1) + (280 X 2)
Transmission Cable (CVV-			1.0 ~1.5 x 2C	1.0 ~1.5 x 2C	1.0 ~1.5 x 2C	1.0 ~1.5 x 2C
			R410A	R410A	R410A	R410A
	Charge Amount	kg	3.0 + 5.8	3.0 + 3.0	3.0 + 5.8 + 5.8	3.0 + 5.8 + 5.8
	Control Device		EEV	EEV	EEV	EEV
Power Supply			3 / 380 - 415 / 50	3 / 380 - 415 / 50	3 / 380 - 415 / 50	3 / 380 - 415 / 50
		Ø/V/HŻ	3/380/60	3/380/60	3/380/60	3/380/60
Sound Drosowe Level	Cooling	dB(A)	59	55	60	60
	Heating	dB(A)	61	61	62	62
Sound Dower Lavel	Cooling	dB(A)	72	68	73	74
		dB(A)	74	74	76	76

HP			48	50	54	60
	Combination Unit		ARWB480LAS4	ARWB500LAS4	ARWB540LAS4	ARWB600LAS4
Model Name			ARWB200LAS4 ARWB140LAS4 ARWB140LAS4	ARWB200DAS4 ARWB200DAS4 ARWB100DAS4	ARWB200LAS4 ARWB200LAS4 ARWB140LAS4	ARWB200LAS4 ARWB200LAS4 ARWB200LAS4
			134.4	140.0	151.2	168.0
			151.2	157.5	170.1	189.0
	Cooling		26.88	27.49	30.24	33.60
			28.01	28.68	31.51	35.01
asing Color			Warm Gray , Mornig Gray	Warm Gray , Mornig Gray	Warm Gray , Mornig Gray	Warm Gray , Mornig Gray
	Туре		Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scrol
	Combination		(Inverter) x 3	(Inverter) x 3	(Inverter) x 3	(Inverter) x 3
			62.1 + 43.8 + 43.8	62.1 + 62.1 + 43.8	62.1 + 62.1 + 43.8	62.1 + 62.1 + 62.1
			Inverter 3,600 at 60Hz	Inverter 3,600 at 60Hz	Inverter 3,600 at 60Hz	Inverter 3,600 at 60Hz
	Motor Output		5.3 + 4.2 + 4.2	5.3 + 5.3 + 4.2	5.3 + 5.3 + 4.2	5.3 + 5.3 + 5.3
			Direct On Line	Direct On Line	Direct On Line	Direct On Line
	Oil Type		FVC68D(PVE)	FVC68D(PVE)	FVC68D(PVE)	FVC68D(PVE)
	Oil Charge Amount		(1 400 + 1 200 + 1 200) + 1 600 x 3	(1 400 + 1 400 + 1 200) + 1 600 x 3	(1 400 + 1 400 + 1 200) + 1 600 x 3	(1 400 + 1 600) x 3
			Stainless Steel Plate	Stainless Steel Plate	Stainless Steel Plate	Stainless Steel Plate
			45	45	45	45
Heat Exchanger			30.1 + 28.6 + 28.6	30.1 + 30.1 + 15.8	30.1 + 28.6 + 28.6	30.1 + 30.1 + 30.1
		LPM	192 + 135 + 135	192 + 192 + 96	192 + 192 + 135	192 + 192+ 192
			10°C ~ 45°C(50°F ~ 113°F)	10°C ~ 45°C(50°F ~ 113°F)	10°C ~ 45°C(50°F ~ 113°F)	10°C ~ 45°C(50°F ~ 113°F
			-5°C ~ 45°C(23°F ~ 113°F)	-5°C ~ 45°C(23°F ~ 113°F)	-5°C ~ 45°C(23°F ~ 113°F)	-5°C ~ 45°C(23°F ~ 113°F
			19.05(3/4)	19.05(3/4)	19.05(3/4)	19.05(3/4)
Refrigerant Connecting Pipes			41.3(1-5/8)	41.3(1-5/8)	41.3(1-5/8)	41.3(1-5/8)
			34.9(1-3/8)	34.9(1-3/8)	34.9(1-3/8)	34.9(1-3/8)
			PT40 + PT40 + PT40 (Internal)	PT40 + PT40 + PT40 (Internal)	PT40 + PT40 + PT40 (Internal)	PT40 + PT40 + PT40 (Internal)
Vater Connecting Pipes	Outlet		PT40 + PT40 + PT40 (Internal)	PT40 + PT40 + PT40 (Internal)	PT40 + PT40 + PT40 (Internal)	PT40 + PT40 + PT40 (Internal)
	Drain Outlet		PT20 (3/4, External)	PT20 (3/4, External)	PT20 (3/4, External)	PT20 (3/4, External)
			(755 × 997 × 500) x 3	(755 × 997 × 500) x 3	(755 × 997 × 500) x 3	(755 × 997 × 500) x 3
			(29-23/32 x 39-1/4 x 19- 11/16) x 3	(29-23/32 x 39-1/4 x 19- 11/16) x 3	(29-23/32 x 39-1/4 x 19- 11/16) x 3	(29-23/32 x 39-1/4 x 19- 11/16) x 3
			(140 x 1) + (127 X 2)	(140 x 2) + (127 X 1)	Warm Gray , Mornig Gray Hermetically Sealed Scroll (Inverter) x 3 62.1 + 62.1 + 43.8 Inverter 3,600 at 60Hz 5.3 + 5.3 + 4.2 Direct On Line FVC68D(PVE) (1 400 + 1 400 + 1 200) + 1 600 x 3 Stainless Steel Plate 45 30.1 + 28.6 + 28.6 192 + 192 + 135 10°C - 45°C(50°F - 113°F) -5°C - 45°C(23°F - 113°F) 19.05(3/4) 41.3(1-5/8) 34.9(1-3/8) PT40 + PT40 + PT40 (Internal) PT40 + PT40 + PT40 (Internal) PT20 (3/4, External) (755 x 997 x 500) x 3 (29-23/32 x 39-1/4 x 19-	140 x 3
			(309 x 1) + (280 X 2)	(309 x 2) + (280X1)	(309 x 2) + (280X1)	309 x 3
ransmission Cable (CVV-			1.0 ~1.5 x 2C	1.0 ~1.5 x 2C	1.0 ~1.5 x 2C	1.0 ~1.5 x 2C
			R410A	R410A	R410A	R410A
Refrigerant	Charge Amount		3.0 + 5.8 + 5.8	3.0 + 3.0 + 5.8	3.0 + 3.0 + 5.8	3.0 + 3.0 + 3.0
	Control Device		EEV	EEV	EEV	EEV
			3 / 380 - 415 / 50	3 / 380 - 415 / 50	3 / 380 - 415 / 50	3 / 380 - 415 / 50
			3 / 380 / 60	3 / 380 / 60	3/380/60	3 / 380 / 60
	Cooling	dB(A)	60	58	60	56

74

63

72

77

62

74

76

62

70

76

<sup>\*</sup> This product contains Fluorinated Greenhouse Gases. (R410A)

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

<sup>-</sup> Cooling : Indoor temp. 27°C (80.6°F) DB / 19°C (66.2°F) WB, Water inlet temp. 30°C (86°F), Interconnecting piping length 7.5m, Level difference of zero

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

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

 $<sup>{\</sup>it 3. \, Due \, to \, our \, policy \, of \, innovation \, some \, specifications \, may \, be \, changed \, without \, notification}$ 

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

<sup>\*</sup> This product contains Fluorinated Greenhouse Gases. (R410A)

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

<sup>-</sup> Cooling : Indoor temp. 27°C (80.6°F) DB / 19°C (66.2°F) WB, Water inlet temp. 30°C (86°F), Interconnecting piping length 7.5m, Level difference of zero

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

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

 $<sup>{\</sup>tt 3.\ Due\ to\ our\ policy\ of\ innovation\ some\ specifications\ may\ be\ changed\ without\ notification}$ 

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

# MULTI V WATER IV HEAT RECOVERY

#### ARWB620LAS4 / ARWB640LAS4 / ARWB680LAS4

#### ARWB700LAS4 / ARWB740LAS4 / ARWB800LAS4

HP			62	64	68
	Combination Unit		ARWB620LAS4	ARWB640LAS4	ARWB680LAS4
			ARWB200LAS4 ARWB200LAS4 ARWB140LAS4 ARWB080LAS4	ARWB200LAS4 ARWB200LAS4 ARWB140LAS4 ARWB100LAS4	ARWB200LAS4 ARWB200LAS4 ARWB140LAS4 ARWB140LAS4
			173.6	179.2	190.4
Capacity			195.3	201.6	214.2
			34.10	35.33	38.08
			35.71	36.85	39.68
Casing Color			Warm Gray , Mornig Gray	Warm Gray , Mornig Gray	Warm Gray , Mornig Gray
			Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll
			(Inverter) x 4	(Inverter) x 4	(Inverter) x 4
			62.1 + 62.1 + 43.8 + 43.8	62.1 + 62.1 + 43.8 + 43.8	62.1 + 62.1 + 43.8 + 43.8
			Inverter 3,600 at 60Hz	Inverter 3,600 at 60Hz	Inverter 3,600 at 60Hz
Compressor	Motor Output		5.3 + 5.3 + 4.2 + 4.2	5.3 + 5.3 + 4.2 + 4.2	5.3 + 5.3 + 4.2 + 4.2
			Direct On Line	Direct On Line	Direct On Line
	Oil Type		FVC68D(PVE)	FVC68D(PVE)	FVC71D(PVE)
	Oil Charge Amount		(1 400 x 2 + 1200 x 2) +(1 600 x 4)	(1 400 x 2 + 1200 x 2) +(1 600 x 4)	(1 400 x 2 + 1200 x 2) +(1 600 x 4)
			Stainless Steel Plate	Stainless Steel Plate	Stainless Steel Plate
			45	45	45
Heat Exchanger			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
			10°C ~ 45°C(50°F ~ 113°F)	10°C ~ 45°C(50°F ~ 113°F)	10°C ~ 45°C(50°F ~ 116°F)
Circulation water			-5°C ~ 45°C(23°F ~ 113°F)	-5°C ~ 45°C(23°F ~ 113°F)	-5°C ~ 45°C(23°F ~ 116°F)
			19.05(3/4)	19.05(3/4)	22.2(7/8)
Refrigerant Connecting Pipes			41.3(1-5/8)	41.3(1-5/8)	53.98(2-1/8)
	High Pressure Gas Pipes	mm (inch)	34.9(1-3/8)	34.9(1-3/8)	44.5(1-3/4)
			PT40 + PT40 + PT40 (Internal)	PT40 + PT40 + PT40 (Internal)	PT 40 + PT 40 + PT 40 + PT40
Water Connecting Pipes	Outlet		PT40 + PT40 + PT40 (Internal)	PT40 + PT40 + PT40 (Internal)	PT 40 + PT 40 + PT 40 + PT40
	Drain Outlet		PT20 (3/4, External)	PT20 (3/4, External)	PT20 (3/4, External)
			(755 × 997 × 500) × 4	(755 × 997 × 500) × 4	(755 × 997 × 500) x 4
			(29-23/32 x 39-1/4 x 19-11/16) x 4	(29-23/32 x 39-1/4 x 19-11/16) x 4	(29-23/32 x 39-1/4 x 19-11/16) x 4
Net Weight		kg	(140 x 2) + (127 X 2)	(140 x 2) + (127 X 2)	(140 x 2) + (127 X 2)
Thet vveigit		lbs	(309 x 2) + (280X2)	(309 x 2) + (280X2)	(309 x 2) + (280 X 2)
Transmission Cable (CVV-	SB)		1.0 ~1.5 x 2C	1.0 ~1.5 x 2C	1.0 ~1.5 x 5C
	Name		R410A	R410A	R410A
	Charge Amount	kg	5.8 + 5.8 + 3.0 + 3.0	5.8 + 5.8 + 3.0 + 3.0	5.8 + 5.8 + 3.0 + 3.0
	Control Device		EEV	EEV	EEV
Power Supply		Ø/V/Hz	3 / 380 - 415 / 50	3 / 380 - 415 / 50	6 / 380 - 415 / 50
			3/380/60	3 / 380 / 60	6/380/60
Sound Pressure Level	Cooling	dB(A)	61	61	61
Souriu Pressure Level	Heating	dB(A)	64	64	63
Sound Power Level	Cooling	dB(A)	75	75	75
Sound Power Level			79	79	77

HP			70	74	80
	Combination Unit		ARWB700LAS4	ARWB740LAS4	ARWB800LAS4
Model Name			ARWB200LAS4 ARWB200LAS4 ARWB200LAS4 ARWB100LAS4	ARWB200LAS4 ARWB200LAS4 ARWB200LAS4 ARWB140LAS4	ARWB200LAS4 ARWB200LAS4 ARWB200LAS4 ARWB200LAS4
			196.0	184.8	201.6
Capacity			220.5	207.9	226.8
			38.69	35.53	38.76
			40.35	37.14	40.52
Casing Color			Warm Gray , Mornig Gray	Warm Gray , Mornig Gray	Warm Gray , Mornig Gray
			Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll
			(Inverter) x 4	(Inverter) x 4	(Inverter) x 4
			62.1 + 62.1 + 62.1 + 43.8	62.1 + 62.1 + 62.1 + 43.8	62.1 + 62.1 + 62.1 + 62.1
			Inverter 3,600 at 60Hz	Inverter 3,600 at 60Hz	Inverter 3,600 at 60Hz
Compressor	Motor Output		5.3 + 5.3 + 5.3 + 4.2	5.3 + 5.3 + 5.3 + 4.2	5.3 + 5.3 + 5.3 + 5.3
			Direct On Line	Direct On Line	Direct On Line
	Oil Type		FVC71D(PVE)	FVC74D(PVE)	FVC77D(PVE)
	Oil Charge Amount		(1 400 x 3 + 1 200) +(1 600 x 4)	(1 400 x 3 + 1 200) +(1 600 x 4)	(1 400 + 1 600) x 4
			Stainless Steel Plate	Stainless Steel Plate	Stainless Steel Plate
	Maximum Pressure Resistance	e kgf/cm²	45	45	45
Heat Exchanger			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
Temp. range of	Cooling		10°C ~ 45°C(50°F ~ 116°F)	10°C ~ 45°C(50°F ~ 119°F)	10°C ~ 45°C(50°F ~ 122°F)
Circulation water	Heating		-5°C ~ 45°C(23°F ~ 116°F)	-5°C ~ 45°C(23°F ~ 119°F)	-5°C ~ 45°C(23°F ~ 122°F)
			22.2(7/8)	22.2(7/8)	22.2(7/8)
Refrigerant Connecting Pipes	Low Pressure Gas Pipes	mm (inch)	53.98(2-1/8)	53.98(2-1/8)	53.98(2-1/8)
	High Pressure Gas Pipes	mm (inch)	44.5(1-3/4)	44.5(1-3/4)	44.5(1-3/4)
	Inlet	mm	PT 40 + PT 40 + PT 40 + PT40	PT 40 + PT 40 + PT 40 + PT 40	PT 40 + PT 40 + PT 40 + PT 40
Water Connecting Pipes	Outlet	mm	PT 40 + PT 40 + PT 40 + PT40	PT 40 + PT 40 + PT 40 + PT 40	PT 40 + PT 40 + PT 40 + PT 40
	Drain Outlet	mm	PT20 (3/4, External)	PT20 (3/4, External)	PT20 (3/4, External)
Dimensions (W x H x D)		mm	(755 × 997 × 500) × 4	(755 × 997 × 500) × 4	(755 × 997 × 500) × 4
Difficisions (VV X 11 X D)			(29-23/32 x 39-1/4 x 19-11/16) x 4	(29-23/32 x 39-1/4 x 19-11/16) x 4	(29-23/32 x 39-1/4 x 19-11/16) x 4
Net Weight		kg	(140 x 2) + (127 X 2)	(140 x 3) + (127 x 1)	140 x 4
			(309 x 2) + (280 X 2)	(309 x 3) + (280 x 1)	309 x 4
Transmission Cable (CVV-	SB)		1.0 ~1.5 x 5C	1.0 ~1.5 x 8C	1.0 ~1.5 x 11C
	Name		R410A	R410A	R410A
	Charge Amount	kg	5.8 + 5.8 + 3.0 + 3.0	3.0 + 3.0 + 3.0 + 5.8	3.0 + 3.0 + 3.0 + 3.0
	Control Device		EEV	EEV	EEV
Power Supply			6 / 380 - 415 / 50	9 / 380 - 415 / 50	12 / 380 - 415 / 50
			6 / 380 / 60	9 / 380 / 60	12 / 380 / 60
Sound Pressure Level	Cooling	dB(A)	60	61	57
Journa Fressule Level	Heating	dB(A)	65	63	63
Sound Power Level	Cooling	dB(A)	74	75	71
Journa Fower Level		dB(A)	80	77	77

<sup>\*</sup> This product contains Fluorinated Greenhouse Gases. (R410A)

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

<sup>-</sup> Cooling : Indoor temp. 27°C (80.6°F) DB / 19°C (66.2°F) WB, Water inlet temp. 30°C (86°F), Interconnecting piping length 7.5m, Level difference of zero

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

<sup>3.</sup> Due to our policy of innovation some specifications may be changed without notification

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

<sup>\*</sup> This product contains Fluorinated Greenhouse Gases. (R410A)

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

<sup>-</sup> Cooling : Indoor temp. 27°C (80.6°F) DB / 19°C (66.2°F) WB, Water inlet temp. 30°C (86°F), Interconnecting piping length 7.5m, Level difference of zero

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

<sup>3.</sup> Due to our policy of innovation some specifications may be changed without notification

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

# MULTI V WATER IV HEAT PUMP

#### ARWN080LAS4 / ARWN100LAS4 / ARWN140LAS4 / ARWN200LAS4

HP			8	10	14	20
	Combination Unit		ARWN080LAS4	ARWN100LAS4	ARWN140LAS4	ARWN200LAS4
			ARWN080LAS4	ARWN100LAS4	ARWN140LAS4	ARWN200LAS4
			22.4	28.0	39.2	56.0
Capacity			25.2	31.5	44.1	63.0
			3.86	5.09	7.84	11.20
			4.20	5.34	8.17	11.67
Casing Color			Warm Gray , Mornig Gray	Warm Gray , Mornig Gray	Warm Gray , Mornig Gray	Warm Gray , Mornig Gray
			Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll
			(Inverter) x 1	(Inverter) x 1	(Inverter) x 1	(Inverter) x 1
			43.8	43.8	43.8	62.1
			Inverter 3,600 at 60Hz	Inverter 3,600 at 60Hz	Inverter 3,600 at 60Hz	Inverter 3,600 at 60Hz
Compressor	Motor Output		4.2	4.2	4.2	5.3
	Starting Method		Direct On Line	Direct On Line	Direct On Line	Direct On Line
	Oil Type		FVC68D(PVE)	FVC68D(PVE)	FVC68D(PVE)	FVC68D(PVE)
	Oil Charge Amount		1 200 + 1 600	1 200 ÷ 1 600	1 200 + 1 600	1 400 + 1 600
			Stainless Steel Plate	Stainless Steel Plate	Stainless Steel Plate	Stainless Steel Plate
			45	45	45	45
Heat Exchanger			ARWN080LAS4 ARWN100LAS4 ARWN110LAS4 ARWN110LAS5 ARWN115LAS5 ARWN110LAS5 ARWN11	28.6	30.1	
	Rated Water Flow	LPM	77	96	ARWN140LAS4  ARWN140LAS4  39.2  44.1  7.84  8.17  Warm Gray , Mornig Gray Hermetically Sealed Scroll     (Inverter) x 1  43.8  Inverter 3,600 at 60Hz  4.2  Direct On Line FVC68D(PVE)  1 200 + 1 600  Stainless Steel Plate  45  28.6  135  10°C - 45°C(50°F - 113°F)  5°C - 45°C(23°F - 113°F)  12.7(1/2)  25.4(1)  PT40 (1-1/2, Internal) PT20 (3/4, External)  (755 × 500 × 997) × 1	192
			10°C ~ 45°C(50°F ~ 113°F)	10°C ~ 45°C(50°F ~ 113°F)	10°C ~ 45°C(50°F ~ 113°F)	10°C ~ 45°C(50°F ~ 113°F)
Circulation water			-5°C ~ 45°C(23°F ~ 113°F)	-5°C ~ 45°C(23°F ~ 113°F)	5°C ~ 45°C(23°F ~ 113°F)	-5°C ~ 45°C(23°F ~ 113°F)
	Liquid Pipes		9.52(3/8)	9.52(3/8)	12.7(1/2)	12.7(1/2)
Connecting Pipes	Combination  Piston Displacement cm³/rev  Number of revolution rev/min  Motor Output kW  Starting Method  Oil Type  Oil Charge Amount cc  Type  Maximum Pressure Resistance kgf/cm²  Head Loss kPa  Rated Water Flow LPM  Cooling  Heating  Liquid Pipes mm (inch)  Gas Pipes mm (inch)  Outlet mm  Drain Outlet mm  mm  inch  kg  kg  lbs		22.2(7/8)	22.2(7/8)	25.4(1)	28.58(1-1/8)
			PT40 (1-1/2, Internal)	PT40 (1-1/2, Internal)	PT40 (1-1/2, Internal)	PT40 (1-1/2, Internal)
Water Connecting Pipes	Outlet		PT40 (1-1/2, Internal)	PT40 (1-1/2, Internal)	PT40 (1-1/2, Internal)	PT40 (1-1/2, Internal)
	Drain Outlet		PT20 (3/4, External)	PT20 (3/4, External)	PT20 (3/4, External)	PT20 (3/4, External)
			(755 × 500 × 997) × 1	(755 × 500 × 997) × 1	(755 × 500 × 997) × 1	(755 × 500 × 997) × 1
					(29-23/32 x 39-1/4 x 19- 11/16) x 1	(29-23/32 x 39-1/4 x 19- 11/16) x 1
			127 x 1	127 x 1	127 x 1	140 x 1
		lbs	280 x 1	280 x 1	ARWN140LAS4 ARWN140LAS4 39.2 44.1 7.84 8.17 Warm Gray , Mornig Gray Hermetically Sealed Scroll (Inverter) x 1 43.8 Inverter 3,600 at 60Hz 4.2 Direct On Line FVC68D(PVE) 1 200 + 1 600 Stainless Steel Plate 45 28.6 135 10°C - 45°C(50°F - 113°F) 5°C - 45°C(23°F - 113°F) 12.7(1/2) 25.4(1) PT40 (1-1/2, Internal) PT40 (1-1/2, Internal) PT20 (3/4, External) (755 × 500 × 997) × 1 (29-23/32 × 39-1/4 × 19- 11/16) × 1 127 × 1 280 × 1 1.0 -1.5 × 2C R412A 5.8 EEV 3 / 380 - 415 / 50 3 / 380 / 60 58 57 70	309 x 1
Transmission Cable (CVV-			1.0 ~1.5 x 2C	1.0 ~1.5 x 2C	1.0 ~1.5 x 2C	1.0 ~1.5 x 2C
			R410A	R410A	R412A	R410A
	Charge Amount		5.8	5.8	5.8	3.0
	Control Device		EEV	EEV	EEV	EEV
			3 / 380 - 415 / 50	3 / 380 - 415 / 50	3 / 380 - 415 / 50	3 / 380 - 415 / 50
		Ø/V/Hz	3/380/60	3/380/60	3/380/60	3/380/60
			47	50	58	54
Sound Pressure Level			51	53	57	60
			59	62	70	66
Sound Power Level		dB(A)	63	65	69	72

$\Delta R M N 1 2 2 0 1 \Delta S A$	/ ARW/N12401 AS4	/ ARWN280LAS4 /	$\Delta R M M S M \Delta S M$
ANVINZZULAS4	/ ALIVINZ40LA34 /	ARVVINZOULAS4/	ALIVINOULA34

HP			22	24	28	30
	Combination Unit		ARWN220LAS4	ARWN240LAS4	ARWN280LAS4	ARWN300LAS4
Model Name			ARWN140LAS4 ARWN080LAS4	ARWN140LAS4 ARWN100LAS4	ARWN140LAS4 ARWN140LAS4	ARWN200LAS4 ARWN100LAS4
	Cooling		61.6	67.2	78.4	84.0
Capacity			69.3	75.6	88.2	94.5
	Cooling		11.70	12.93	15.68	16.29
			12.37	13.51	16.34	17.01
Casing Color			Warm Gray , Mornig Gray	Warm Gray , Mornig Gray	Warm Gray , Mornig Gray	Warm Gray , Mornig Gray
			Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll
			(Inverter) x 2	(Inverter) x 2	(Inverter) x 2	(Inverter) x 2
			43.8 + 43.8	43.8 + 43.8	43.8 + 43.8	62.1 + 43.8
			Inverter 3,600 at 60Hz	Inverter 3,600 at 60Hz	Inverter 3,600 at 60Hz	Inverter 3,600 at 60Hz
Compressor	Motor Output		4.2+4.2	4.2 + 4.2	4.2 + 4.2	5.3 + 4.2
			Direct On Line	Direct On Line	Direct On Line	Direct On Line
	Oil Type		FVC68D(PVE)	FVC68D(PVE)	FVC68D(PVE)	FVC68D(PVE)
	Oil Charge Amount		(1 200 + 1 600) x 2	(1 200 + 1 600) x 2	(1 200 + 1 600) x 2	(1 400 + 1 200) + 1 600 x 2
			Stainless Steel Plate	Stainless Steel Plate	Stainless Steel Plate	Stainless Steel Plate
			45	45	45	45
Heat Exchanger			28.6 + 10.7	28.6 + 15.8	28.6 + 28.6	30.1 + 15.8
		ARWN120LAS4 ARWN140L ARWN140LAS4 ARWN140L ARWN080LAS4 ARWN140L ARWN080LAS4 ARWN140L ARWN080LAS4 ARWN140L ARWN080LAS4 ARWN140L ARWN100L  kW 69.3 75.6  kW 11.70 12.93  kW 12.37 13.51  Warm Gray , Mornig Gray Warm Gray , Mo Hermetically Sealed Scroll Hermetically Sea (Inverter) x 2 (Inverter)  nt cm³/rev 43.8 + 43.8 43.8 43.8 + 43  on rev/min Inverter 3,600 at 60Hz Inverter 3,600  kW 4.2+4.2 4.2 + 4.2  Direct On Line Direct On Line FVC68D(PVE) FVC68D(P  c cc (1 200 + 1 600) x 2 (1 200 + 1 60  Stainless Steel Plate Stainless Steel e Resistance kgf/cm² 45 45  kPa 28.6 + 10.7 28.6 + 15  LPM 135 + 77 135 + 96  10°C - 45°C(50°F - 113°F) 10°C - 45°C(50°F  -5°C - 45°C(23°F - 113°F) - 5°C - 45°C(23°F  mm (inch) 19.05(3/4) 19.05(3/4)  mm PT40 + PT40 (Internal) PT40 + PT40 (Internal)  mm PT40 + PT4	135 + 96	135 + 135	192 ÷ 96	
			10°C ~ 45°C(50°F ~ 113°F)	10°C ~ 45°C(50°F ~ 113°F)	10°C ~ 45°C(50°F ~ 113°F)	10°C ~ 45°C(50°F ~ 113°F)
Circulation water			-5°C ~ 45°C(23°F ~ 113°F)	-5°C ~ 45°C(23°F ~ 113°F)	-5°C ~ 45°C(23°F ~ 113°F)	-5°C ~ 45°C(23°F ~ 113°F)
Refrigerant			19.05(3/4)	19.05(3/4)	19.05(3/4)	19.05(3/4)
			34.9(1-3/8)	34.9(1-3/8)	34.9(1-3/8)	34.9(1-3/8)
			PT40 + PT40 (Internal)	PT40 + PT40 (Internal)	PT40 + PT40 (Internal)	PT40 + PT40 (Internal)
Water Connecting Pipes	Outlet		PT40 + PT40 (Internal)	PT40 + PT40 (Internal)	PT40 + PT40 (Internal)	PT40 + PT40 (Internal)
	Drain Outlet		PT20 (3/4, External)	PT20 (3/4, External)	PT20 (3/4, External)	PT20 (3/4, External)
			(755 × 997 × 500) x 2	(755 × 997 × 500) x 2	(755 × 997 × 500) × 2	(755 × 997 × 500) x 2
			`	(29-23/32 x 39-1/4 x 19- 11/16) x 2	(29-23/32 x 39-1/4 x 19- 11/16) x 2	(29-23/32 x 39-1/4 x 19- 11/16) x 2
			127 x 2	127 x 2	127 x 2	(140 x 1) + (127 x 1)
			280 x 2	280 x 2	280 x 2	(309 x 1) + (280 x 1)
Transmission Cable (CVV-S			1.0 ~1.5 x 2C	1.0 ~1.5 x 2C	1.0 ~1.5 x 2C	1.0 ~1.5 x 2C
			R410A	R410A	R410A	R410A
	Charge Amount		5.8 + 5.8	5.8 + 5.8	5.8 + 5.8	3.0 + 5.8
	Control Device		EEV	EEV	EEV	EEV
			3 / 380 - 415 / 50	3 / 380 - 415 / 50	3 / 380 - 415 / 50	3 / 380 - 415 / 50
		Ø/V/Hz	3 / 380 / 60	3 / 380 / 60	3 / 380 / 60	3 / 380 / 60
		dB(A)	58	59	59	55
						61
	Heating	dB(A)	58	58	58	61
Sound Pressure Level  Sound Power Level	Heating Cooling				72	68

<sup>\*</sup> This product contains Fluorinated Greenhouse Gases. (R410A)

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

<sup>-</sup> Cooling : Indoor temp. 27°C (80.6°F) DB / 19°C (66.2°F) WB, Water inlet temp. 30°C (86°F), Interconnecting piping length 7.5m, Level difference of zero

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

<sup>3.</sup> Due to our policy of innovation some specifications may be changed without notification

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

<sup>\*</sup> This product contains Fluorinated Greenhouse Gases. (R410A)

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

<sup>-</sup> Cooling : Indoor temp. 27°C (80.6°F) DB / 19°C (66.2°F) WB, Water inlet temp. 30°C (86°F), Interconnecting piping length 7.5m, Level difference of zero

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

<sup>3.</sup> Due to our policy of innovation some specifications may be changed without notification

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

# UTDOOR UNIT

# MULTI V WATER IV HEAT PUMP

#### ARWN340LAS4 / ARWN400LAS4 / ARWN420LAS4 / ARWN440LAS4

HP			34	40	42	44
			ARWN340LAS4	ARWN400LAS4	ARWN420LAS4	ARWN440LAS4
			ARWN200LAS4 ARWN140LAS4	ARWN200LAS4 ARWN200LAS4	ARWN200LAS4 ARWN140LAS4 ARWN080LAS4	ARWN200LAS4 ARWN140LAS4 ARWN100LAS4
	Cooling	kW	95.2	112.0	ARWN420LAS4 ARWN200LAS4 ARWN140LAS4 ARWN080LAS4  117.6 132.3 22.90 24.04 Warm Gray , Mornig Gray Hermetically Sealed Scrot (Inverter) x 3 62.1 + 43.8 + 43.8 Inverter 3,600 at 60Hz 5.3 + 4.2 + 4.2 Direct On Line FVC68D(PVE) (1 400 + 1 200 + 1 200) + 1 600 x 3 Stainless Steel Plate 45 30.1 + 28.6 + 10.7 192 + 135 + 77 10°C - 45°C(50°F - 113°F -5°C - 45°C(23°F - 113°F 19.05(3/4) 41.3(1-5/8) PT40 + PT40 + PT40 (Internal) PT40 + PT40 + PT40 (Internal) PT20 (3/4, External) (755 × 997 × 500) x 3	123.2
Capacity			107.1	126.0	132.3	138.6
			19.04	22.40	22.90	24.13
			19.84	23.34	24.04	25.18
Casing Color			Warm Gray , Mornig Gray	Warm Gray , Mornig Gray	Warm Gray , Mornig Gray	Warm Gray , Mornig Gray
			Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scrol
			(Inverter) x 2	(Inverter) x 2	(Inverter) x 3	(Inverter) x 3
			43.8 + 62.1	62.1 + 62.1	62.1 + 43.8 + 43.8	62.1 + 43.8 + 43.8
	Number of revolution		Inverter 3,600 at 60Hz	Inverter 3,600 at 60Hz	Inverter 3,600 at 60Hz	Inverter 3,600 at 60Hz
Compressor	Motor Output		4.2 + 5.3	5.3 + 5.3	5.3 + 4.2 + 4.2	5.3 + 4.2 + 4.2
	Starting Method		Direct On Line	Direct On Line	Direct On Line	Direct On Line
	Oil Type		FVC68D(PVE)	FVC68D(PVE)	FVC68D(PVE)	FVC68D(PVE)
	Oil Charge Amount	ARWN340LAS4 ARWN ARWN140LAS4 ARWN ARWN ARWN140LAS4 ARWN ARWN ARWN ARWN ARWN ARWN ARWN ARWN	(1 400 + 1 600) × 2	(1 400 + 1 200 + 1 200) + 1 600 x 3	(1 400 + 1 200 + 1 200) + 1 600 x 3	
			Stainless Steel Plate	Stainless Steel Plate	Stainless Steel Plate	Stainless Steel Plate
Maxim Heat Exchanger			45	45	45	45
			30.1 + 28.6	30.1 + 30.1	30.1 + 28.6 + 10.7	30.1 + 28.6 + 15.8
	Rated Water Flow	LPM	192 + 135	192 + 192	192 + 135 + 77	192 + 135 + 96
Temp. range of			10°C ~ 45°C(50°F ~ 113°F)	10°C ~ 45°C(50°F ~ 113°F)	10°C ~ 45°C(50°F ~ 113°F)	10°C ~ 45°C(50°F ~ 113°F
Circulation water			-5°C ~ 45°C(23°F ~ 113°F)	-5°C ~ 45°C(23°F ~ 113°F)	-5°C ~ 45°C(23°F ~ 113°F)	-5°C ~ 45°C(23°F ~ 113°F
Refrigerant			19.05(3/4)	19.05(3/4)	19.05(3/4)	19.05(3/4)
Connecting Pipes			34.9(1-3/8)	41.3(1-5/8)	41.3(1-5/8)	41.3(1-5/8)
			PT40 + PT40 (Internal)	PT40 + PT40 (Internal)		PT40 + PT40 + PT40 (Internal)
Water Connecting Pipes	Outlet		PT40 + PT40 (Internal)	PT40 + PT40 (Internal)		PT40 + PT40 + PT40 (Internal)
	Drain Outlet		PT20 (3/4, External)	PT20 (3/4, External)	PT20 (3/4, External)	PT20 (3/4, External)
			(755 × 997 × 500) x 2	(755 × 997 × 500) × 2	ARWN140LAS4 ARWN080LAS4  117.6  132.3  22.90  24.04  Gray Warm Gray , Mornig Gray  Scroll Hermetically Sealed Scroll  (Inverter) x 3  62.1 + 43.8 + 43.8  OHz Inverter 3,600 at 60Hz  5.3 + 4.2 + 4.2  Direct On Line  FVC68D(PVE)  (1 400 + 1 200 + 1 200) + (1600 x 3)  ate  Stainless Steel Plate  45  30.1 + 28.6 + 10.7  192 + 135 + 77  113°F) 10°C - 45°C(50°F - 113°F) 1  13°F) -5°C - 45°C(23°F - 113°F) - 1  19.05(3/4)  41.3(1-5/8)  mal)  PT40 + PT40 + PT40  (Internal)  PT40 + PT40 + PT40  (Internal)  PT20 (3/4, External)  (x 2 (755 × 997 × 500) x 3  x 19-  (140 x 1) + (127 X 2)  (309 x 1) + (280 X 2)  1.0 - 1.5 x 2C  R410A  3.0 + 5.8 + 5.8  EEV	(755 × 997 × 500) x 3
Dimensions (W x H x D)				(29-23/32 x 39-1/4 x 19- 11/16) x 2		(29-23/32 x 39-1/4 x 19- 11/16) x 3
			(140 x 1) + (127 x 1)	140 x 2	(140 x 1) + (127 X 2)	(140 x 1) + (127 X 2)
		lbs	(309 x 1) + (280 x 1)	309 x 2	(309 x 1) + (280 X 2)	(309 x 1) + (280 X 2)
Transmission Cable (CVV-	-SB)	mm²	1.0 ~1.5 x 2C	1.0 ~1.5 x 2C	1.0 ~1.5 x 2C	1.0 ~1.5 x 2C
	Name		R410A	R410A	R410A	R410A
	Charge Amount		3.0 + 5.8	3.0 + 3.0	3.0 + 5.8 + 5.8	3.0 + 5.8 + 5.8
	Control Device		EEV	EEV	EEV	EEV
			3 / 380 - 415 / 50	3 / 380 - 415 / 50	3 / 380 - 415 / 50	3 / 380 - 415 / 50
Power Supply		Ø / V / Hz				

V D/W/W/V V V V	/ ARWN500LAS4	/ ADM/NI5/101 AS/	/ A D\\/\NI6001 A S /I
AKWW48ULA54	/ AKVVINDUULAS4 /	AKWIND4ULAS4/	ARVVINDUULAS4

HP			48	50	54	60
	Combination Unit		ARWN480LAS4	ARWN500LAS4	ARWN540LAS4	ARWN600LAS4
Model Name			ARWN200LAS4 ARWN140LAS4 ARWN140LAS4	ARWN200DAS4 ARWN200DAS4 ARWN100DAS4	ARWN200LAS4 ARWN200LAS4 ARWN140LAS4	ARWN200LAS4 ARWN200LAS4 ARWN200LAS4
			134.4	140.0	151.2	168.0
Capacity			151.2	157.5	170.1	189.0
			26.88	27.49	30.24	33.60
			28.01	28.68	31.51	35.01
Casing Color			Warm Gray , Mornig Gray	Warm Gray , Mornig Gray	Warm Gray , Mornig Gray	Warm Gray , Mornig Gra
			Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scro
			(Inverter) x 3	(Inverter) x 3	(Inverter) x 3	(Inverter) x 3
			62.1 + 43.8 + 43.8	62.1 + 62.1 + 43.8	62.1 + 62.1 + 43.8	62.1 + 62.1 + 62.1
			Inverter 3,600 at 60Hz			
	Motor Output		5.3 + 4.2 + 4.2	5.3 + 5.3 + 4.2	5.3 + 5.3 + 4.2	5.3 + 5.3 + 5.3
			Direct On Line	Direct On Line	Direct On Line	Direct On Line
	Oil Type		FVC68D(PVE)	FVC68D(PVE)	FVC68D(PVE)	FVC68D(PVE)
	Oil Charge Amount		(1 400 + 1 200 + 1 200) + 1 600 x 3	(1 400 + 1 400 + 1 200) + 1 600 x 3	(1 400 + 1 400 + 1 200) + 1 600 x 3	(1 400 + 1 600) x 3
			Stainless Steel Plate	Stainless Steel Plate	Stainless Steel Plate	Stainless Steel Plate
	Maximum Pressure Resistance	kgf/cm²	45	45	45	45
Heat Exchanger			30.1 + 28.6 + 28.6	30.1 + 30.1 + 15.8	30.1 + 28.6 + 28.6	30.1 + 30.1 + 30.1
	Rated Water Flow	LPM	192 + 135 + 135	192 + 192 + 96	192 + 192 + 135	192 + 192+ 192
			10°C ~ 45°C(50°F ~ 113°F)	10°C ~ 45°C(50°F ~ 113°F)	10°C ~ 45°C(50°F ~ 113°F)	10°C ~ 45°C(50°F ~ 113°
Circulation water			-5°C ~ 45°C(23°F ~ 113°F)	-5°C ~ 45°C(23°F ~ 113°F)	-5°C ~ 45°C(23°F ~ 113°F)	-5°C ~ 45°C(23°F ~ 113°
			19.05(3/4)	19.05(3/4)	19.05(3/4)	19.05(3/4)
			41.3(1-5/8)	41.3(1-5/8)	41.3(1-5/8)	41.3(1-5/8)
			PT40 + PT40 + PT40 (Internal)			
Water Connecting Pipes	Outlet		PT40 + PT40 + PT40 (Internal)			
	Drain Outlet		PT20 (3/4, External)	PT20 (3/4, External)	PT20 (3/4, External)	PT20 (3/4, External)
			(755 × 997 × 500) x 3			
			(29-23/32 x 39-1/4 x 19- 11/16) x 3	(29-23/32 x 39-1/4 x 19- 11/16) x 3	(29-23/32 x 39-1/4 x 19- 11/16) x 3	(29-23/32 x 39-1/4 x 19 11/16) x 3
			(140 x 1) + (127 X 2)	(140 x 2) + (127 X 1)	(140 x 2) + (127 X 1)	140 x 3
			(309 x 1) + (280 X 2)	(309 x 2) + (280X1)	(309 x 2) + (280X1)	309 x 3
Transmission Cable (CVV-	SB)		1.0 ~1.5 x 2C			
			R410A	R410A	R410A	R410A
	Charge Amount		3.0 + 5.8 + 5.8	3.0 + 3.0 + 5.8	3.0 + 3.0 + 5.8	3.0 + 3.0 + 3.0
	Control Device		EEV	EEV	EEV	EEV
			3 / 380 - 415 / 50	3 / 380 - 415 / 50	3 / 380 - 415 / 50	3 / 380 - 415 / 50
			3 / 380 / 60	3 / 380 / 60	3 / 380 / 60	3 / 380 / 60
		dB(A)	60	58	60	56
		dB(A)	62	63	62	62
		dB(A)	74	72	74	70
		dB(A)	76	77	76	76

3/380/60

59

61

72

74

3/380/60

55

61

68

74

3/380/60

60

62

73

76

3/380/60

60

62

74

76

<sup>\*</sup> This product contains Fluorinated Greenhouse Gases. (R410A)

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

<sup>-</sup> Cooling : Indoor temp. 27°C (80.6°F) DB / 19°C (66.2°F) WB, Water inlet temp. 30°C (86°F), Interconnecting piping length 7.5m, Level difference of zero

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

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

 $<sup>{\</sup>it 3. \, Due \, to \, our \, policy \, of \, innovation \, some \, specifications \, may \, be \, changed \, without \, notification}$ 

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

<sup>\*</sup> This product contains Fluorinated Greenhouse Gases. (R410A)

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

<sup>-</sup> Cooling : Indoor temp. 27°C (80.6°F) DB / 19°C (66.2°F) WB, Water inlet temp. 30°C (86°F), Interconnecting piping length 7.5m, Level difference of zero

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

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

 $<sup>{\</sup>bf 3.\ Due\ to\ our\ policy\ of\ innovation\ some\ specifications\ may\ be\ changed\ without\ notification}$ 

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

# MULTI V WATER IV HEAT PUMP

#### ARWN620LAS4 / ARWN640LAS4 / ARWN680LAS4

#### ARWN700LAS4 / ARWN740LAS4 / ARWN800LAS4

НР			62	64	68
	Combination Unit		ARWN620LAS4	ARWN640LAS4	ARWN680LAS4
			ARWN200LAS4 ARWN200LAS4 ARWN140LAS4 ARWN080LAS4	ARWN200LAS4 ARWN200LAS4 ARWN140LAS4 ARWN100LAS4	ARWN200LAS4 ARWN200LAS4 ARWN140LAS4 ARWN140LAS4
			173.6	179.2	190.4
Capacity			195.3	201.6	214.2
		kW	34.10	35.33	38.08
			35.71	36.85	39.68
Casing Color			Warm Gray , Mornig Gray	Warm Gray , Mornig Gray	Warm Gray , Mornig Gray
	Туре		Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll
			(Inverter) x 4	(Inverter) x 4	(Inverter) x 4
	Piston Displacement		62.1 + 62.1 + 43.8 + 43.8	62.1 + 62.1 + 43.8 + 43.8	62.1 + 62.1 + 43.8 + 43.8
			Inverter 3,600 at 60Hz	Inverter 3,600 at 60Hz	Inverter 3,600 at 60Hz
	Motor Output		5.3 + 5.3 + 4.2 + 4.2	5.3 + 5.3 + 4.2 + 4.2	5.3 + 5.3 + 4.2 + 4.2
			Direct On Line	Direct On Line	Direct On Line
	Oil Type		FVC68D(PVE)	FVC68D(PVE)	FVC71D(PVE)
	Oil Charge Amount		(1 400 x 2 + 1200 x 2) +(1 600 x 4)	(1 400 x 2 + 1200 x 2) +(1 600 x 4)	(1 400 x 2 + 1200 x 2) +(1 600 x 4)
			Stainless Steel Plate	Stainless Steel Plate	Stainless Steel Plate
			45	45	45
Heat Exchanger			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
			10°C ~ 45°C(50°F ~ 113°F)	10°C ~ 45°C(50°F ~ 113°F)	10°C ~ 45°C(50°F ~ 116°F)
Circulation water			-5°C ~ 45°C(23°F ~ 113°F)	-5°C ~ 45°C(23°F ~ 113°F)	-5°C ~ 45°C(23°F ~ 116°F)
	Liquid Pipes		19.05(3/4)	19.05(3/4)	22.2(7/8)
Connecting Pipes			41.3(1-5/8)	41.3(1-5/8)	53.98(2-1/8)
			PT40 + PT40 + PT40 (Internal)	PT40 + PT40 + PT40 (Internal)	PT 40 + PT 40 + PT 40 + PT40
Water Connecting Pipes	Outlet		PT40 + PT40 + PT40 (Internal)	PT40 + PT40 + PT40 (Internal)	PT 40 + PT 40 + PT 40 + PT40
	Drain Outlet		PT20 (3/4, External)	PT20 (3/4, External)	PT20 (3/4, External)
			(755 × 997 × 500) × 4	(755 × 997 × 500) × 4	(755 × 997 × 500) × 4
			(29-23/32 x 39-1/4 x 19-11/16) x 4	(29-23/32 x 39-1/4 x 19-11/16) x 4	(29-23/32 x 39-1/4 x 19-11/16) x 4
			(140 x 2) + (127 X 2)	(140 x 2) + (127 X 2)	(140 x 2) + (127 X 2)
			(309 x 2) + (280X2)	(309 x 2) + (280X2)	(309 x 2) + (280 X 2)
Transmission Cable (CVV-			1.0 ~1.5 x 2C	1.0 ~1.5 x 2C	1.0 ~1.5 x 5C
			R410A	R410A	R410A
	Charge Amount		5.8 + 5.8 + 3.0 + 3.0	5.8 + 5.8 + 3.0 + 3.0	5.8 + 5.8 + 3.0 + 3.0
	Control Device		EEV	EEV	EEV
			3 / 380 - 415 / 50	3 / 380 - 415 / 50	6 / 380 - 415 / 50
			3 / 380 / 60	3 / 380 / 60	6/380/60
			61	61	61
			64	64	63
			75	75	75
		dB(A)	79	79	77

HP			70	74	80	
	Combination Unit		ARWN700LAS4	ARWN740LAS4	ARWN800LAS4	
Model Name			ARWN200LAS4 ARWN200LAS4 ARWN200LAS4 ARWN100LAS4	ARWN200LAS4 ARWN200LAS4 ARWN200LAS4 ARWN140LAS4	ARWN200LAS4 ARWN200LAS4 ARWN200LAS4 ARWN200LAS4	
	Cooling		196.0	184.8	201.6	
Capacity			220.5	207.9	226.8	
	Cooling		38.69	35.53	38.76	
			40.35	37.14	40.52	
Casing Color			Warm Gray , Mornig Gray	Warm Gray , Mornig Gray	Warm Gray , Mornig Gray	
	Туре		Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll	
	Combination		(Inverter) x 4	(Inverter) x 4	(Inverter) x 4	
	Piston Displacement		62.1 + 62.1 + 62.1 + 43.8	62.1 + 62.1 + 62.1 + 43.8	62.1 + 62.1 + 62.1 + 62.1	
			Inverter 3,600 at 60Hz	Inverter 3,600 at 60Hz	Inverter 3,600 at 60Hz	
Compressor	Motor Output		5.3 + 5.3 + 5.3 + 4.2	5.3 + 5.3 + 5.3 + 4.2	5.3 + 5.3 + 5.3 + 5.3	
	Starting Method		Direct On Line	Direct On Line	Direct On Line	
	Oil Type		FVC71D(PVE)	FVC74D(PVE)	FVC77D(PVE)	
	Oil Charge Amount		(1 400 x 3 + 1 200) + (1 600 x 4)	(1 400 x 3 + 1 200) +(1 600 x 4)	(1 400 + 1 600) x 4	
	Туре		Stainless Steel Plate	Stainless Steel Plate	Stainless Steel Plate	
			45	45	45	
Heat Exchanger			30.1 + 30.1 + 30.1 + 15.8	30.1 + 30.1 + 30.1 + 28.6	30.1 + 30.1 + 30.1 + 30.1	
		LPM	192 + 192 + 192 + 96	192 + 192 + 192 + 135	192 + 192 + 192 + 192	
			10°C ~ 45°C(50°F ~ 116°F)	10°C ~ 45°C(50°F ~ 119°F)	10°C ~ 45°C(50°F ~ 122°F)	
Circulation water			-5°C ~ 45°C(23°F ~ 116°F)	-5°C ~ 45°C(23°F ~ 119°F)	-5°C ~ 45°C(23°F ~ 122°F)	
Refrigerant			22.2(7/8)	22.2(7/8)	22.2(7/8)	
Connecting Pipes			53.98(2-1/8)	53.98(2-1/8)	53.98(2-1/8)	
			PT 40 + PT 40 + PT 40 + PT40	PT 40 + PT 40 + PT 40 + PT 40	PT 40 + PT 40 + PT 40 + PT 40	
Water Connecting Pipes	Outlet		PT 40 + PT 40 + PT 40 + PT40	PT 40 + PT 40 + PT 40 + PT 40	PT 40 + PT 40 + PT 40 + PT 40	
	Drain Outlet		PT20 (3/4, External)	PT20 (3/4, External)	PT20 (3/4, External)	
			(755 × 997 × 500) × 4	(755 × 997 × 500) × 4	(755 × 997 × 500) × 4	
Dimensions (W x H x D)			(29-23/32 x 39-1/4 x 19-11/16) x 4	(29-23/32 x 39-1/4 x 19-11/16) x 4	(29-23/32 x 39-1/4 x 19-11/16) x 4	
			(140 x 2) + (127 X 2)	(140 x 3) + (127 x 1)	140 x 4	
			(309 x 2) + (280 X 2)	(309 x 3) + (280 x 1)	309 x 4	
Transmission Cable (CVV-	SB)		1.0 ~1.5 x 5C	1.0 ~1.5 x 8C	1.0 ~1.5 x 11C	
	Name		R410A	R410A	R410A	
	Charge Amount		5.8 + 5.8 + 3.0 + 3.0	3.0 + 3.0 + 3.0 + 5.8	3.0 + 3.0 + 3.0 + 3.0	
	Control Device		EEV	EEV	EEV	
Dower Cupply			6 / 380 - 415 / 50	9 / 380 - 415 / 50	12 / 380 - 415 / 50	
Power Supply		V/HZ / ש	6 / 380 / 60	9 / 380 / 60	12 / 380 / 60	
Carrad Danasara Larad	Cooling	dB(A)	60	61	57	
	Heating	dB(A)	65	63	63	
	Cooling	dB(A)	74	75	71	
		dB(A)	80	77	77	

<sup>\*</sup> This product contains Fluorinated Greenhouse Gases. (R410A)

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

<sup>-</sup> Cooling : Indoor temp. 27°C (80.6°F) DB / 19°C (66.2°F) WB, Water inlet temp. 30°C (86°F), Interconnecting piping length 7.5m, Level difference of zero

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

<sup>3.</sup> Due to our policy of innovation some specifications may be changed without notification

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

<sup>\*</sup> This product contains Fluorinated Greenhouse Gases. (R410A)

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

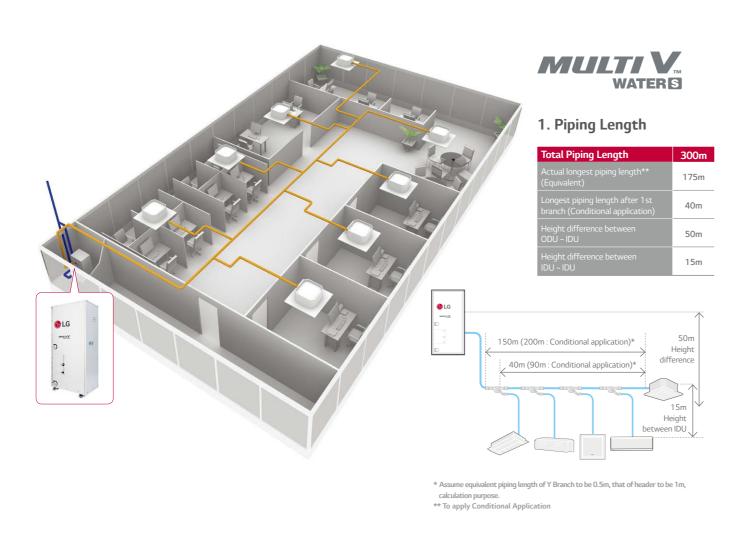
<sup>-</sup> Cooling : Indoor temp. 27°C (80.6°F) DB / 19°C (66.2°F) WB, Water inlet temp. 30°C (86°F), Interconnecting piping length 7.5m, Level difference of zero

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

<sup>3.</sup> Due to our policy of innovation some specifications may be changed without notification

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

# **MULTI V WATER S**



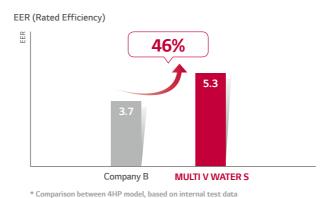
## **Benefit**

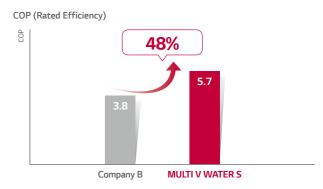
- Saves valuable floor space
- Low noise level (no fans)
- Flexible design applications
- High efficient water source system

## **Application**

- Building remodeling case (initially equipped with Chillers)
- Residential building with geothermal / Water supply
- High-rise commercial building

## World's First Class Cooling and Heating Efficiency



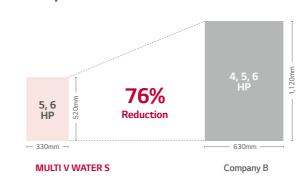


\* Comparison between 4HP model, based on internal test data

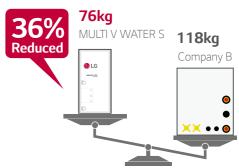
## **Compact Size**

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

#### Foot print area

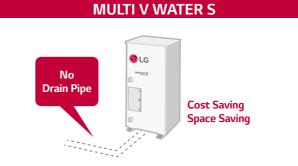


## Weight

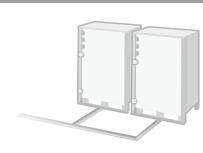


## **Convenient Installation**

Absence of drain pipe makes installation easier.



#### Conventional



# **MULTI V WATER S**

**OUTDOOR UNIT** 

# **MULTI V WATER**

ARWN60GA0

НР			6
Model	Independent Unit		ARWN60GA0
			15.5
Capacity			18.0
			3.20
			3.50
			4.84
СОР			5.14
Operation Range of			10°C ~ 45°C
Circulation water 5)			-5°C ~ 45°C
			BLDC Inverter Twin Rotary
			1
			50
Sound Pressure		dBA	50
			61
			61
Dimensions			520 x 1,080 x 330
Net Weight			76
			R410A
			1.0
Refrigerant	Precharged Amount		2.2
			2,087.5
	TCO <sub>2</sub> eq		2.1
			FVC68D
Refrigerant Oil	Charge		1,300
Power Supply			1 / 220-240 / 50, 60
Transmission Cable (VCTF			2C × 1.0~1.5
			145
	Actual Longest Piping Length		90
	After 1st Y Branch		40
	IDU - ODU		30
Piping Level Difference	IDU - IDU		15
			9.52 (3/8)
Piping Connection			19.05 (3/4)
Number of Outdoor Units			1
Number of Connectable Ir			9
Ratio of the Connectable			50 ~ 130%
	Туре		Stainless Steel Plate
			4,413
leat Exchanger —			60
	Head Loss	kPa	28.4
	Inlet		PT32 (1-1/4)
	Outlet		PT32 (1-1/4)
	Drain Outlet		-
	Drain Outlet	71111	-

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

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

## **REFERENCE SITE**

## **Bouygues Challenger**

LG MULTI V Water Solution with Geothermal Application









## **Site Information**

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

<sup>\*</sup> This product contains Fluorinated Greenhouse Gases. (R410A)

<sup>-</sup> Cooling Temperature : Indoor 27°C (80.6°F) DB / 19°C (66.2°F) WB / Water 30°C (86°F) - Heating Temperature : Indoor 20°C (68°F) DB / 15°C (59°F) WB / Water 20°C (68°F)

<sup>-</sup> Piping Length : Interconnected Pipe Length = 7.5m

<sup>-</sup> Difference Limit of Elevation (Outside ~ Indoor Unit) is Zero.

 $<sup>2. \</sup> Wiring \ cable \ size \ must \ comply \ with \ the \ applicable \ local \ and \ national \ codes.$ 

<sup>3.</sup> Due to our policy of innovation some specifications may be changed without notification

<sup>4.</sup> Sound Level Values are measured at Anechoic chamber.

Therefore, these values can be increased owing to ambient conditions during operation.



#### INDOOR UNIT

# **LINE-UP**

# **FEATURE OVERVIEW**

	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			•	•	•												
4th generation Wall Mounted	Artcool Mirror		•	•	•	•	•	•		•								
Unit	Standard New Design Ne	Design *	•	•	•	•	•	•		•		•	•					
	4 Way Cassette (570 x 570)	No.	•	•	•	•	•	•	•									
4th generation Ceiling	4 Way Cassette (840 x 840)	N DE								•	•	•	•	•	•	•		
Mounted Cassette	2 Way Cassette				•	•		•		•								
	1 Way Cassette			•	•	•		•		•								
	Mid / High Statics			•	•	•	•	•		•	•		•	•	•	•	•	•
4th generation Ceiling Concealed	Low Statics		•	•	•	•	•	•	•	•								
Duct	High Sensible			•	•	•	•	•		•	•		•	•	•			
4th generation Fresh Air Intake	Units														•		•	•
4th generation Ceiling & Floor (	Convertible Unit				•	•												
4th generation Ceiling Suspend	ed Unit							•		•			•		•			
4th generation Console				•	•	•	•											
4th generation Floor	Floor Standing Unit with case			•	•	•	•	•		•								
Standing Unit	Floor Standing Unit without case			•	•	•	•	•		•								
4th generation	Low Temperature	New!*  Available from MID 2018													•			•
HYDRO KIT	High Temperature	Available from MID 2018													•		•	
4th generation Energy	with Humidifier	Available from Mild 2010					•			•		•						
Recovery Ventilator with DX Coil	without Humidifier	0.					•			•		•						

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

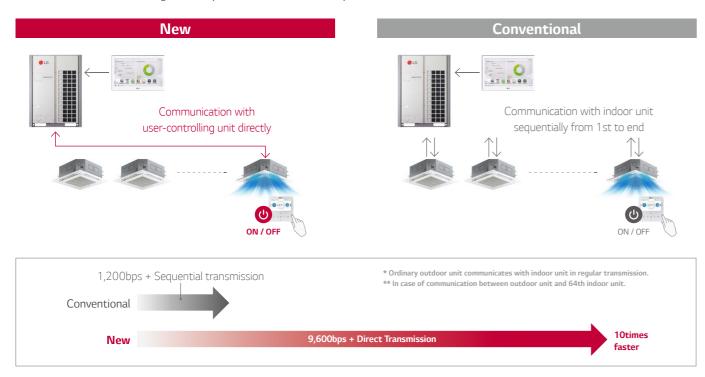
If 4<sup>th</sup> generation indoors are connected to MULTIV WATER S outdoor, some of function will not be activated.
 If 4<sup>th</sup> generation indoors are combined to 2<sup>nd</sup> generation indoors, some of function will not be activated.
 → More detailed information, refer to the "MULTI V INDOOR COMPATIBILITY"

INDOOR UNIT KEY FEATURES

# **COMFORT**

## **Quick Control**

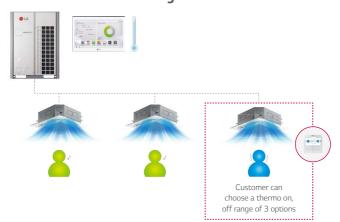
4th Generation indoor unit offers rapid heating and cooling about 10times faster than conventional through communication mode change and improved communication speed.



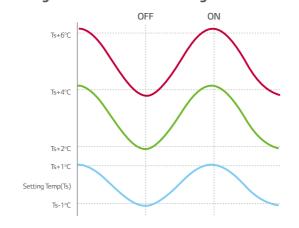
## Thermo On / Off Range Setting (Cooling)

User can set cooling thermo on / off range with wired remote controller for prevention overcooling and making optimized indoor environment.

#### **Prevention Overcooling**



#### Cooling Thermo On / Off Range



## Filter Sign (Remaining Time)

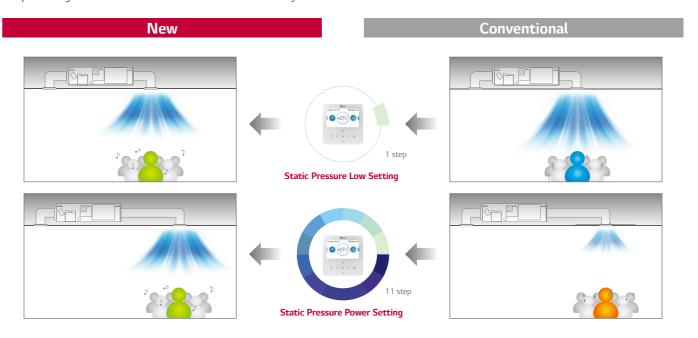
The alarm is activated when the filter needs to be cleaned, and the time remaining for cleaning is displayed on the screen, which is convenient for users.



Remain time until indoor filter cleaning 1729hr.

## Static Pressure 11 Step Control (Only for Ceiling Concealed Duct)

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



# **CONVENIENCE**

## **Group Control**

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





## **Energy Monitoring (Accumulated Electric Energy Check)**

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

#### **Install Scene**



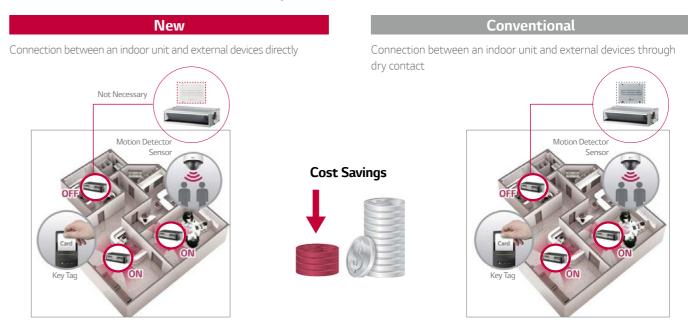
#### Apply for multistory building



<sup>\*</sup> 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.

## 1 Point External Input (On / Off Control)

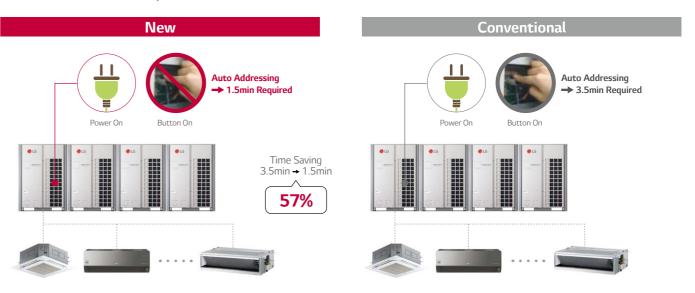
Indoor unit can control external devices without dry contact, so customer can save cost of installation.



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

## **Auto Addressing**

Addressing time has been reduced up to 1.5min., that needed only power on without any process. Auto addressing takes shorter as 57% as compared to conventional.



<sup>\* 64</sup>ea indoor units installing time

# **CONVENIENCE**

## Compatibility

#### Outdoor unit

- Any MULTI V series outdoor unit can be installed

#### Indoor unit

- Any MULTI V series can be installed

#### Wired remote controller

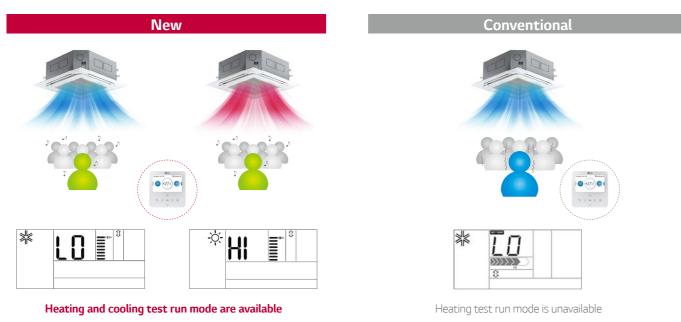
- Standard III: PREMTB100, PREMTBB10
- Standard II: PREMTB001, PREMTBB01
- Premium: PREMTA000, PREMTA000A, PREMTA000B

#### Implementable Functions

- Static Pressure 11 Step Control
- Cooling thermo on / off range setting
- Filter Sign
- Control the external devices
- Heating test run mode
- Convenient check information

## **Test Run (Heating)**

Test run mode can be operated cooling mode and heating mode for easy service.



## **Model Information Monitoring**

User can check indoor unit and outdoor unit's information with wired remote controller, so that is convenient for service.

Category	No					Mo	odel				
First number	0					MU	ILTI V				
Outdoor unit	1					M	ULTI				
Outdoor unit	2					Sii	ngle				
Category	No.	Mo	del	No.		Model	N	lo.		Mod	lel
	0	С	ST	6		Console	-	A		YDRO I ledium	
	1	Di	ıct	7	S	Single Package		В		HYDRO KIT for High Temp.	
	2	C	VT	8	Ger	neral Ventilatio	n	-		-	
	3	P	PAC			AWHP		-		-	
	4	R	RAC -			-		-		-	
Catego	ory	No.	Сар	acity	No.	Capacity	No.	Сара	acity	No.	Capacit
		0		5K	4	15K	8	36	5K	С	76K
	MULTIV	1	-	7K	5	18K	9	42	2K	D	96K
	MULIIV	2	9	9K	6	24K	Α	48	3K	-	-
		3	1	2K	7	28K	В	54	4K	-	-
		0	!	5K	4	12K	8	20	ЭK	-	-
number : capacity	MULTI	1		7K	5	14K	9	24	4K	-	-
of the	IVIULII	2	1	8K	6	15K	Α	30	ЭK	-	-
indoor unit		3	9	9K	7	18K	В	36	5K	-	-

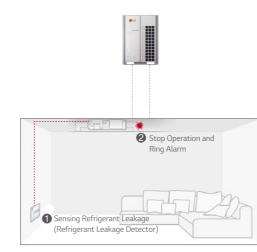
12K



## **Refrigerant Leakage Detection (Option Function)**

To meet the Global refrigerant leakage regulation, LG uses refrigerant leakage detection kit. This detector senses refrigerant leakage and when the refrigerant concentration exceeds 6,000ppm not only stopping the indoor unit operation but also giving an alarm using buzzer and sensor LED (The green and red LED lights blink simultaneously).

#### **Refrigerant Leakage Detection**



#### \* Refrigerant leakage detector is option accessory.

## In Case of Leak Refrigerant



Reduction

Reduction



Environmental Pollution



## **SMART**

INDOOR UNIT KEY FEATURES

# **WALL MOUNTED UNIT**

## Wi-Fi Control

Control your air conditioners via using the smart internet devices as Android or iOS based smartphones. This advanced technology provides you the best convenience.

#### LG SmartThinQ

Searc

 $Search \ "LG \ Smart Thin Q" \ on \ Google \ market \ or \ Appstore \ then \ download \ the \ app.$ 

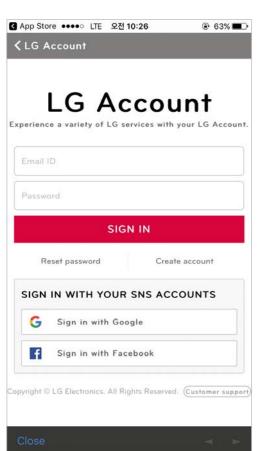


LG SmartThinQ

#### **How it Works**

#### Easy Registration and Log-in

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



#### Wi-Fi Connectivity

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

#### **Multiple Devices**

Multi-Control





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

## **Aesthetic Design**

You no longer need to be told what your air conditioner should look like. With LG's revolutionary ARTCOOL Gallery, you can change the look of your air conditioner to whatever you want, whenever you want. The ARTCOOL series have outstanding designs and have been awarded the International Forum Design Award, the Reddot Design Award and the G Mark.

#### Gallery

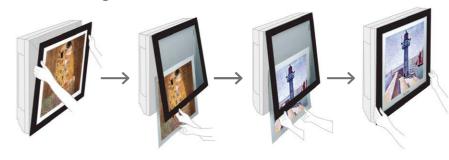








#### How to Change the Picture



#### **ARTCOOL Mirror**



#### **Standard**







5K / 7K / 9K / 12K / 15K

18K / 24K

30K/36K

#### INDOOR UNIT KEY FEATURES

# **WALL MOUNTED UNIT**

## \*Plasmaster\* Ionizer\*\*LUS

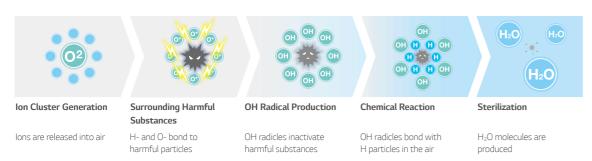
The powerful plasma lonizer protects you from odors and harmful substances in the air with over 3 million ions to sterilize not only the air passing through the air conditioner, but also surrounding surfaces for a safer, cleaner environment.

- \* Specifications may vary for each model.
- \* Depending on the experimental condition
- \* This function will be available with following models and date.
- ARNU\*\*GSJN4. ARNU\*\*GSKN4 : From `17 May

#### **How It Works**

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

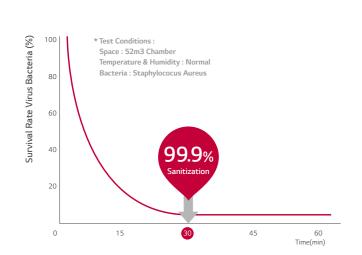
Plasmaster Ionizer+ reduces harmful microscopic particles by infusing the air passing through the air conditioner with over 3 millions ions.



#### **Test Result**

#### **Sterilization Performance Evaluations**

Plasmaster Ionizer+ reduces harmful microscopic particles by infusing the air passing through the air conditioner with over 3 millions ions.



#### $2.1 \ odor \ strength \ decrease \ in \ 60 \ minutes$

An odor of strength 2 or less indicates that there is odor but no sense of displeasure (degree of odor permissible).



## **Quick & Easy Installation**

LG air conditioner is designed for an easy and efficient installation, making possible to install several units in a short period of time

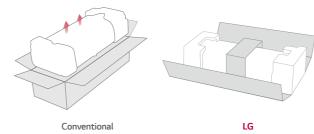
\* Specifications may vary for each model.

#### Concept

By reducing the manpower and time required for installation, it is now possible to install more units in less time.

#### **How It Works**

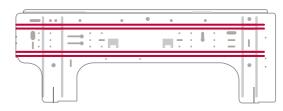
#### One Simple Packing Box



#### installation tir

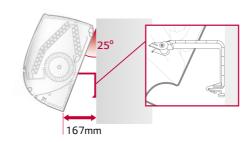
LG's installation plate is larger and customized to reduce installation time.

**Installation Plate Improvement** 



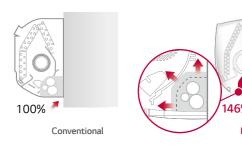
#### Installation Support Clip

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



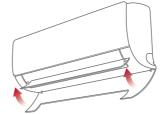
#### Wider Tubing Space

The space provided for tubing facilitates the whole installation process and hides the unorganized parts, making it appear clean and tidy.



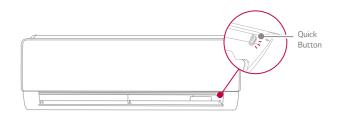
#### Detachable Bottom Cover

The air conditioner's bottom cover is detachable for easier installation and access.



#### Quick button for running test

The test button is conveniently located and easy to find.



# **ARTCOOL MIRROR**

ARNU05GSJR4 / ARNU07GSJR4 / ARNU09GSJR4 ARNU12GSJR4 / ARNU15GSJR4 ARNU18GSKR4 / ARNU24GSKR4



Model	Independent Uni	t		ARNU05GSJR4	ARNU07GSJR4	ARNU09GSJR4	ARNU12GSJR4	ARNU15GSJR4
	Cooling	Nom	kW	1.6	2.2	2.8	3.6	4.5
Capacity		Nom	kW	1.8	2.5	3.2	4.0	5.0
	Cooling / Heating			12	13	15	19	21
	Cooling / Heating	Rated <sup>2)</sup>	W	21	21	21	21	21
				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
	Cooling			6.5 / 6.0 / 5.5	7.0 / 6.5 / 5.5	8.2 / 7.0 / 5.5	9.5 / 8.2 / 6.5	10.5 / 9.0 / 7.0
				6.5 / 6.0 / 5.5	7.0 / 6.5 / 5.5	8.2 / 7.0 / 5.5	9.5 / 8.2 / 6.5	10.5 / 9.0 / 7.0
				30 / 29 / 28	32 / 30 / 28	34 / 32 / 28	37 / 34 / 30	42 / 39 / 32
			dBA	54 / 53 / 52	54 / 53 / 52	55 / 54 / 52	55 / 54 / 53	58 / 56 / 54
				895 × 285 × 205	895 × 285 × 205	895 × 285 × 205	895 × 285 × 205	895 × 285 × 205
				10.8	10.8	10.8	10.8	10.8
				6.35	6.35	6.35	6.35	6.35
Piping Connection				12.7	12.7	12.7	12.7	12.7
Connection				16.0	16.0	16.0	16.0	16.0

- \* This product contains Fluorinated Greenhouse Gases. (R410A)
- 1) Nom. : Performance tested under EN14511
- 2) Rated : Max power input allowed for fan motor Note: 1. 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 2. Due to our policy of innovation some specifications may be changed without notification

  - 3. I.D : ' Internal Diameter '

## **Accessories**

Model		ARNU05GSJR4	ARNU07GSJR4	ARNU09GSJR4	ARNU12GSJR4	ARNU15GSJR4	
	Simple (1 Contact Point with Case)	PDRYCB000					
Dry	2 Contact Point	PDRYCB400					
Contact	For Thermostat (On-Off / Mode / Fan Speed)			PDRYCB300			
	Modbus Communication	PDRYCB500					
EEV Kit fo	r MULTI V Indoor			PRGK024A0			

			ME alore Brown Controller				
Premium	Stand	ard III	Stano	Standard II		Simple for Hotel	Wireless Remote Controller
253   MM 0 0 0	Section   Sec	© 222 € 0 5 ( is ) 0	**************************************				
PREMTA000 PREMTA000A PREMTA000B	PREMTB100 (White)	PREMTBB10 (Black)	PREMTB001 (White)	PREMTBB01 (Black)	PQRCVCL0Q (Black) PQRCVCL0QW (White)	PQRCHCA0Q (Black) PQRCHCA0QW (White)	PQWRHQ0FDB



Model	Independent Uni	t		ARNU18GSKR4	ARNU24GSKR4
	Cooling	Nom	kW	5.6	7.1
Capacity		Nom	kW	6.3	8.0
				27	39
		Rated <sup>2)</sup>	W	40	40
				1/220~240/50 1/220/60	1 / 220-240 / 50 1 / 220 / 60
				12.5 / 12.0 / 11.3	14.0 / 12.7 / 11.5
	Heating	H/M/L	m³/min	12.5 / 12.0 / 11.3	14.0 / 12.7 / 11.5
			dBA	38 / 35 / 33	43 / 39 / 35
Sound Power		H/M/L	dBA	57 / 54 / 52	62 / 58 / 54
				1,030 × 325 × 245	1,030 × 325 × 245
Net Weight				15.4	15.4
				6.35	9.52
Piping Connection				12.7	15.88
				16.0	16.0

- \* This product contains Fluorinated Greenhouse Gases. (R410A)
- 1) Nom. : Performance tested under EN14511
- 2) Rated : Max power input allowed for fan motor
- Note: 1. 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 2. Due to our policy of innovation some specifications may be changed without notification

  - 3. I.D : 'Internal Diameter '

## Accessories

Model		ARNU18GSKR4	ARNU24GSKR4				
	Simple (1 Contact Point with Case)	PDRYC	B000				
Dry	2 Contact Point	PDRYCB400					
Contact	For Thermostat (On-Off / Mode / Fan Speed)	PDRYCB300					
	Modbus Communication	PDRYCB500					
EEV Kit for	MULTI V Indoor	PRGKO	24A0				

	Wired Remote Controller										
Premium	Stand	lard III	Stano	lard II Simple		Simple for Hotel	Wireless Remote Controller				
253	0 223 € (		**************************************			(A) (EE) (F) (F) (F) (F) (F) (F) (F) (F) (F) (F					
PREMTA000 PREMTA000A PREMTA000B	PREMTB100 (White)	PREMTBB10 (Black)	PREMTB001 (White)	PREMTBB01 (Black)	PQRCVCL0Q (Black) PQRCVCL0QW (White)	PQRCHCA0Q (Black) PQRCHCA0QW (White)	PQWRHQ0FDB				

## INDOOR UNIT SPECIFICATION

# **STANDARD**

# **ARTCOOL GALLERY**

ARNU07GSF14 / ARNU09GSF14 / ARNU12GSF14

ARNU05GSJC4 / ARNU07GSJC4 / ARNU09GSJC4 / ARNU12GSJC4 / ARNU15GSJC4 ARNU18GSKC4 / ARNU24GSKC4 / ARNU30GSVA4 / ARNU36GSVA4



Model	Independent Uni	t		ARNU07GSF14	ARNU09GSF14	ARNU12GSF14
	Cooling	Nom	kW	2.2	2.8	3.6
Capacity		Nom	kW	2.5	3.2	4.0
	Cooling / Heating		W	28	28	35
	Cooling / Heating	Rated <sup>2)</sup>	W	35	35	35
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
	Cooling		m³/min	8.1 / 6.3 / 4.2	8.1 / 6.3 / 4.2	9.3 / 7.7 / 6.0
	Heating	H/M/L	m³/min	8.1 / 6.3 / 4.2	8.1 / 6.3 / 4.2	9.3 / 7.7 / 6.0
Sound Pressure			dBA	38 / 32 / 27	38 / 32 / 27	44 / 38 / 32
Sound Power		H/M/L	dBA	48 / 44 / 39	48 / 44 / 39	54 / 48 / 42
Dimensions			mm	600 X 600 X 146	600 X 600 X 146	600 X 600 X 146
Net Weight			kg	15.0	15.0	15.0
			mm	6.35	6.35	6.35
Piping Connection	Gas		mm	12.7	12.7	12.7
			mm	12.2	12.2	12.2

- \* This product contains Fluorinated Greenhouse Gases. (R410A)
- 1) Nom. : Performance tested under EN14511
- 2) Rated : Max power input allowed for fan motor
- Note: 1. 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
  - 2. Due to our policy of innovation some specifications may be changed without notification
  - 3. I.D : ' Internal Diameter '

## **Accessories**

Model		ARNU07GSF14	ARNU12GSF14					
	Simple (1 Contact Point with Case)		PDRYCB000					
Dry	2 Contact Point	PDRYCB400						
Contact	For Thermostat (On-Off / Mode / Fan Speed)	PDRYCB300						
	Modbus Communication	PDRYCB500						
EEV Kit fo	or MULTI V Indoor	PRGK024A0						

	Wired Remote Controller										
Premium	Stand	ard III	Stand	lard II	Simple	Simple for Hotel	Wireless Remote Controller				
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PREMTA000 PREMTA000A PREMTA000B	PREMTB100 (White)	PREMTBB10 (Black)	PREMTB001 (White)	PREMTBB01 (Black)	PQRCVCL0Q (Black) PQRCVCL0QW (White)	PQRCHCA0Q (Black) PQRCHCA0QW (White)	PQWRHQ0FDB				



Model	Independ	lent Unit		ARNU05GSJC4	ARNU07GSJC4	ARNU09GSJC4	ARNU12GSJC4	ARNU15GSJC4	ARNU18GSKC4	ARNU24GSKC4	ARNU30GSVA4	ARNU36GSVA4
				1.6	2.2	2.8	3.6	4.5	5.6	7.1	8.5	10.4
Capacity	Heating	Nom	kW	1.8	2.5	3.2	4.0	5.0	6.3	7.5	9.2	10.8
	Cooling / Heating			10.0	11.0	12.0	15.0	23.0	32.0	39.0	83	98
	Cooling / Heating			30.0	30.0	30.0	30.0	30.0	53.0	53.0	154	154
	pply			1/220~240/50 1/220/60								
				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	14.0 / 12.0 / 10.5	15.2 / 12.7 / 10.5	22.0 / 19.0 / 16.0	27.0 / 24.0 / 20.0
				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	14.0 / 12.0 / 10.5	15.2 / 12.7 / 10.5	22.0 / 19.0 / 16.0	27.0 / 24.0 / 20.0
				30 / 29 / 28	32 / 30 / 28	34 / 32 / 28	37 / 34 / 30	42 / 39 / 32	43/39/34	46 / 41 / 34	48 / 45 / 42	50 / 47 / 43
			. dBA	54 / 53 / 52	54 / 53 / 52	55 / 54 / 52	55 / 54 / 53	58 / 56 / 54	63 / 57 / 52	65 / 60 / 54	61 / 58 / 55	63 / 60 / 57
Dimension:	s Body	WxHxD		818 x 316 x 189	975 x 354 x 209	975 x 354 x 209	1,190 x 346 x 265	1,190 x 346 x 265				
				8.4	8.4	8.4	8.4	8.4	12.2	12.2	19.0	19.0
				6.35	6.35	6.35	6.35	6.35	6.35	9.52	9.52	9.52
Piping Connection				12.7	12.7	12.7	12.7	12.7	12.7	15.88	15.88	15.9
	Drain	I.D		16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0

- \* This product contains Fluorinated Greenhouse Gases. (R410A)
- 1) Nom. : Performance tested under EN14511
- 2) Rated : Max power input allowed for fan motor
- Note: 1. 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
  - 2. Due to our policy of innovation some specifications may be changed without notification
  - 3. I.D : 'Internal Diameter '

## Accessories

Model		ARNU05GSJC4	ARNU07GSJC4	ARNU09GSJC4	ARNU12GSJC4	ARNU15GSJC4	ARNU18GSKC4	ARNU24GSKC4	ARNU30GSVA4	ARNU36GSVA4	
	Simple (1 Contact Point with Case)					PDRYCB000					
Dry	2 Contact Point		PDRYCB400								
	For Thermostat (On-Off / Mode / Fan Speed)					PDRYCB300					
						PDRYCB500					
EEV Kit f	or MULTI V Indoor				PRGK024A0					-	

	Wired Remote Controller										
Premium	Stand	Standard III Simple		Simple	Simple for Hotel	Wireless Remote Controller					
253 ) 10 00 00 00 00 00 00 00 00 00 00 00 00	) © 223 © (	• 223 € 1 • 23 € 1	*** **********************************			(A) (B) (B) (B) (C) (C) (C) (C) (C) (C) (C) (C) (C) (C					
PREMTA000 PREMTA000A PREMTA000B	PREMTB100 (White)	PREMTBB10 (Black)	PREMTB001 (White)	PREMTBB01 (Black)	PQRCVCL0Q (Black) PQRCVCL0QW (White)	PQRCHCA0Q (Black) PQRCHCA0QW (White)	PQWRHQ0FDB				

# **CEILING MOUNTED CASSETTE (4 Way)**

## **Compact Size**

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



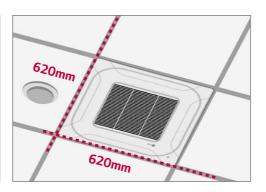
Standard Inverter	Height
7.1 ~ 8.0kW	204mm
10.0kW	246mm
12.5 ~ 15kW	288mm

## 620 Panel - 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

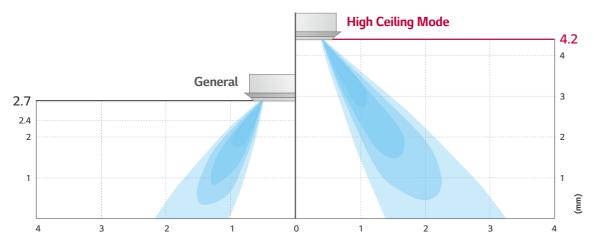






## **High Ceiling Mode**

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



## Human detect sensor & humidity sensor

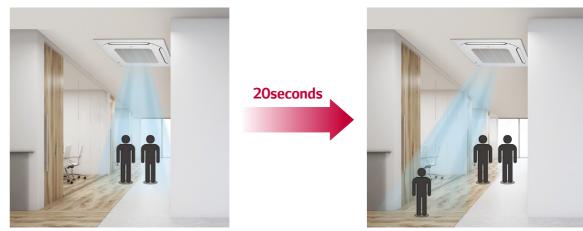


#### Comfortable and Power Saving Control based on Humidity

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

#### Detection

Checking no. of people and movement per 20seconds



#### Detection range







Height 3.5 (16 x 10m)



A sensor is installed 90° rotation  $12 \times 6m \rightarrow 6 \times 12m$  detecting

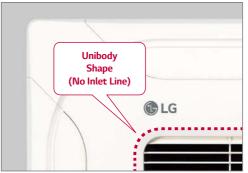
INDOOR UNIT KEY FEATURES

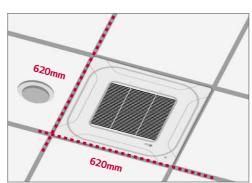
# **CEILING MOUNTED CASSETTE (4 Way)**

## **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







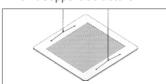
## **Auto Elevation Grille**

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

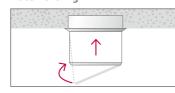
Easy filter cleaning with elevation grill.



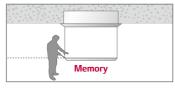
## 4-Point Support Structure

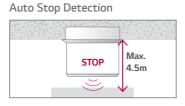


#### Auto Leveling



#### Memory for User's Level



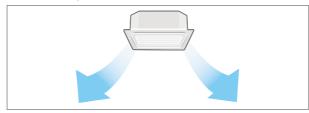


- \* Operating with wired remote controller (Model Name : PREMTB001,PREMTBB01) and wireless remote controller included in PTEGM0.
- \* Except ARNU05GTRC4, ARNU07GTRC4, ARNU09GTRC4, ARNU12GTRC4, ARNU15GTQC4, ARNU18GTQC4, ARNU21GTQC4
- \* Applied to Cassette panel PT-UMC1

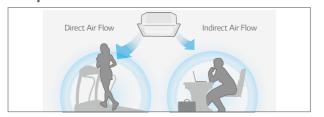
## **Independent Vane Control**

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

#### All Vane Operation

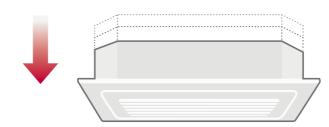


#### **Independent Vane Control**



## **Compact Size**

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

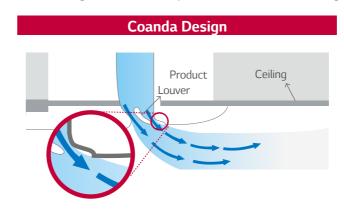


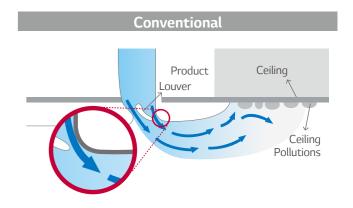
Capacity	Height
7.1 ~ 9.0kW	204mm
10.6kW	246mm
12.3 ~ 15.8kW	288mm

<sup>\*</sup> Length Width: 840 x 840mm

## **Prevent Ceiling Pollution**

Coanda design of air outlet can prevent contamination of ceiling.





# CEILING MOUNTED CASSETTE (4 Way / 2 Way)

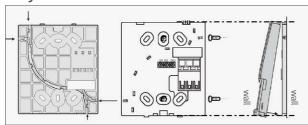
# **CEILING MOUNTED CASSETTE (1 Way)**

## **Flexible Connection**

Flexible connection of remote controller.

- Group control: 1 remote controller up to 16 indoor units. / Second remote control: 2 remote controllers to 1 indoor unit.

#### Easy & Solid Attachment to the Wall

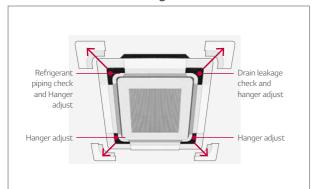




## **Convenient Panel Installation**

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

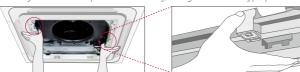
#### **Detachable Corner Design**





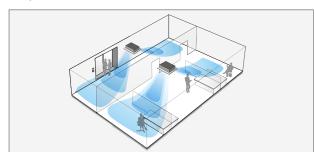






## 2 Way air flow without temperature variation

2 Way cassette is suitable for narrow type of space such as office / hotel / dormitory corridor and it provides thermal comfort without temperature variation.

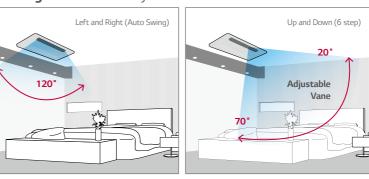




## 6-Step Vane Control

There are 6 different steps to control air flow direction. Also 1 way cassette has vane to move auto swing between left and right as 120 degree.

#### Moving Air Flow 1 Way cassette



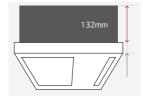
Fixed Air Flow Duct system



## **Minimized Height**

LG 1 Way cassette isn't affected by installation environment. LG 1 Way cassette height is 132mm and duct is 190mm, so it can provide ideal solution for installation in limited space.

Size Comparison 200

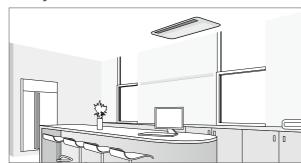




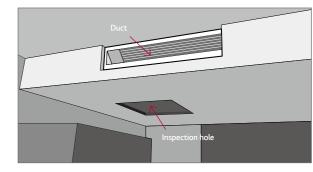
## Flexible Installation

The access for inspection at 1 Way Cassette does not require additional ducted space making the installation environment uncomplicated.

#### 1 Way cassette



Duct



# 4 Way CASSETTE (570 × 570)

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



Model	Independent Un	nit		ARNU05GTRD4	ARNU07GTRD4	ARNU09GTRD4	ARNU12GTRD4	ARNU15GTQD4	ARNU18GTQD4	ARNU21GTQD4
	Cooling	Nom	kW	1.6	2.2	2.8	3.6	4.5	5.6	6.0
Capacity	Heating	Nom	kW	1.8	2.5	3.2	4.0	5.0	6.3	6.8
	Cooling / Heating			13	13	14	17	24	25	28
				30	30	30	30	30	30	30
Power Suppl	ly		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	1 / 220~240 / 50 1 / 220 / 60	1 / 220~240 / 50 1 / 220 / 60
Airflow Rate	Cooling	H/M/L	m³/min	7.5 / 7.0 / 6.6	7.5 / 7.0 / 6.6	8.0 / 7.5 / 7.1	8.7 / 8.0 / 7.0	11.0 / 10.0 / 9.3	11.2 / 11.0 / 10.0	12.0 / 11.1 / 9.4
AITHOW Rate	Heating	H/M/L	m³/min	7.5 / 7.0 / 6.6	7.5 / 7.0 / 6.6	8.0 / 7.5 / 7.1	8.7 / 8.0 / 7.0	11.0 / 10.0 / 9.3	11.2 / 11.0 / 10.0	12.0 / 11.1 / 9.4
Sound Press			dBA	29/27/26	29 / 27 / 26	30 / 29 / 27	32 / 30 / 27	36 / 34 / 32	37 / 35 / 34	40 / 38 / 34
				46 / 44 / 43	46 / 44 / 43	47 / 46 / 44	48 / 47 / 44	51 / 49 / 47	52 / 50 / 49	55 / 53 / 49
	Body			570 x 214 x 570	570 x 256 x 570	570 x 256 x 570	570 x 256 x 570			
Net Weight			kg	12.6	12.6	13.7	13.7	15.0	15.0	15.0
	Liquid			6.35	6.35	6.35	6.35	6.35	6.35	9.52
Piping Connection	Gas		mm	12.7	12.7	12.7	12.7	12.7	12.7	15.88
	Drain			25.0	25.0	25.0	25.0	25.0	25.0	25.0
				PT-UQC						
Decoration	Color (RAL Code)			Morning Fog (RAL 120-4)						
	Dimensions	WxHxD	mm	700 x 22 x 700						
	Weight		kg	3.0	3.0	3.0	3.0	3.0	3.0	3.0
	Model			PT-QCHW0						
Decoration	Color (RAL Code)			Morning Fog (RAL 120-4)						
	Dimensions	WxHxD	mm	620 x 35 x 620						
				3.1	3.1	3.1	3.1	3.1	3.1	3.1

<sup>\*</sup> This product contains Fluorinated Greenhouse Gases. (R410A)

1) Nom. : Performance tested under EN14511 Note: 1. 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 2. Due to our policy of innovation some specifications may be changed without notification 3.1.D: 'Internal Diameter'

## Accessories

Model		ARNU05GTRD4	ARNU07GTRD4	ARNU09GTRD4	ARNU12GTRD4	ARNU15GTQD4	ARNU18GTQD4	ARNU21GTQD4				
	Simple (1 Contact Point with Case)		PDRYCB000									
Dry	2 Contact Point		PDRYCB400									
Contact	For Thermostat (On-Off / Mode / Fan Speed)		PDRYCB300									
	Modbus Communication				PDRYCB500							
Front Pa	nel											
Ventilation	on Kit											
EEV Kit f	or MULTI V Indoor				-							

	ME along Brown Controller						
Premium	Stand	Standard III Standard II Simple Simple for Hot				Simple for Hotel	Wireless Remote Controller
255 ]	220 (6)	◆14 Section 1 S	(A.M.) (V) • (M)	**************************************	a 20 0 v • 20 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		
PREMTA000 PREMTA000A	PREMTB100 (White)	PREMTBB10 (Black)	PREMTB001 (White)	PREMTBB01 (Black)	PQRCVCLOQ (Black) PQRCVCLOQW (White)	PQRCHCA0Q (Black) PQRCHCA0QW (White)	PQWRHQ0FDB

INDOOR UNIT SPECIFICATION

# 4 Way CASSETTE (840 × 840)

ARNU24GTPC4 / ARNU28GTPC4 / ARNU30GTPC4 / ARNU36GTNC4 ARNU42GTMC4 / ARNU48GTMC4 / ARNU54GTMC4



Model	Independent Un	iit		ARNU24GTPC4	ARNU28GTPC4	ARNU30GTPC4	ARNU36GTNC4	ARNU42GTMC4	ARNU48GTMC4	ARNU54GTMC4
C	Cooling	Nom	kW	7.1	8.2	9.0	10.6	12.3	14.1	15.8
Capacity	Heating	Nom	kW	8.0	9.2	10.0	11.9	13.8	15.9	18.0
	Cooling / Heating	Nom 1)	W	31	40	40	70	104	120	135
				40	40	40	144	144	144	144
Power Suppl	y			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	1 / 220~240 / 50 1 / 220 / 60	1 / 220~240 / 50 1 / 220 / 60
Airflow Rate	Cooling	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	30.0 / 27.0 / 24.0	31.0 / 29.0 / 27.0	34.0 / 32.0 / 27.0
All HOW Rate	Heating	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	30.0 / 27.0 / 24.0	31.0 / 29.0 / 27.0	34.0 / 32.0 / 27.0
Sound Press			. dBA	36 / 34 / 31	39 / 35 / 33	40 / 36 / 33	43 / 40 / 37	44 / 41 / 38	46 / 43 / 41	50 / 48 / 44
				55 / 53 / 50	56 / 54 / 52	57 / 54 / 52	62 / 59 / 56	63 / 59 / 56	65 / 61 / 59	69 / 67 / 63
Dimensions	Body	WxHxD		840 x 204 x 840	840 x 204 x 840	840 x 204 x 840	840 x 246 x 840	840 x 288 x 840	840 x 288 x 840	840 x 288 x 840
				20.8	20.8	20.8	23.5	25.6	25.6	26.5
	Liquid			9.52	9.52	9.52	9.52	9.52	9.52	9.52
Piping Connection				15.88	15.88	15.88	15.88	15.88	15.88	15.88
				25.0	25.0	25.0	25.0	25.0	25.0	25.0
	Model			PT-UMC1						
	Color (RAL Code)			Morning Fog (RAL 120-4)						
	Dimensions	WxHxD	) mm	950 x 25 x 950						
	Weight		kg	5.6	5.6	5.6	5.6	5.6	5.6	5.6
	Model			PT-MCHW0						
Decoration	Color (RAL Code)			Morning Fog (RAL 120-4)						
	Dimensions	WxHxD	) mm	950 x 35 x 950						
				6.3	6.3	6.3	6.3	6.3	6.3	6.3

<sup>\*</sup> This product contains Fluorinated Greenhouse Gases. (R410A)

- 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 2. Due to our policy of innovation some specifications may be changed without notification 3. I.D.: Internal Diameter

## Accessories

Model		ARNU24GTPC4	ARNU28GTPC4	ARNU30GTPC4	ARNU36GTNC4	ARNU42GTMC4	ARNU48GTMC4	ARNU54GTMC4		
	Simple (1 Contact Point with Case)				PDRYCB000					
Dry 2 Contact Point					PDRYCB400					
	For Thermostat (On-Off / Mode / Fan Speed)	PDRYCB300								
	Modbus Communication	PDRYCB500								
Front Pai	nel	PT-UMC1 / PT-MCHW0								
Ventilatio		PTEGM0								
EEV Kit f	or MULTI V Indoor	PTVK410 / PTVK420 / PTVK430								

	Wired Remote Controller									
Premium	Stand	lard III	Standard II		Simple	Simple for Hotel	Wireless Remote Controller			
255 T 0 0 0	2 ( ) 0				A 20 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0					
PREMTA000 PREMTA000A	PREMTB100 (White)	PREMTBB10 (Black)	PREMTB001 (White)	PREMTBB01 (Black)	PQRCVCLOQ (Black) PQRCVCLOQW (White)	PQRCHCA0Q (Black) PQRCHCA0QW (White)	PQWRHQ0FDB			

<sup>1)</sup> Nom. : Performance tested under EN14511 Note: 1. Capacities are based on the following conditions

## INDOOR UNIT SPECIFICATION

# **HIGH SENSIBLE SITE**

ARNU24GTMA4 / ARNU28GTMA4 ARNU36GTMA4 / ARNU42GTMA4

# **HIGH SENSIBLE SITE**

ARNU07GTNA4 / ARNU09GTNA4 / ARNU12GTNA4 ARNU15GTNA4 / ARNU18GTNA4



Model	Independent Unit	t		ARNU07GTNA4	ARNU09GTNA4	ARNU12GTNA4	ARNU15GTNA4	ARNU18GTNA4
	Cooling	Nom	kW	2.2	2.8	3.6	4.5	5.6
Capacity			kW	2.5	3.2	4.0	5.0	6.3
	Cooling / Heating	Nom	W	18	19	22	25	27
Power Input	Cooling / Heating	Rated	W	144	144	144	144	144
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
Airflow Rate	Cooling	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
AITTOW Rate	Heating	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
Sound Pressure			L dBA	35 / 33 / 30	36 / 33 / 30	37 / 35 / 33	39 / 35 / 33	40 / 35 / 33
Sound Power			L dBA	42 / 38 / 36	42 / 38 / 36	43 / 40 / 38	44 / 40 / 38	45 / 41 / 38
Dimensions		WxHx[	) mm	840 x 246 x 840				
Net Weight				23.5	23.5	23.5	23.5	23.5
				9.52	9.52	9.52	9.52	9.52
Piping Connection				15.88	15.88	15.88	15.88	15.88
	Drain	I.D	mm	25	25	25	25	25
	Model			PT-UMC1	PT-UMC1	PT-UMC1	PT-UMC1	PT-UMC1
Decoration	Color (RAL Code)			Morning Fog (RAL 120-4)				
Panel 1	Dimensions	WxHx[		950 x 25 x 950				
				5.6	5.6	5.6	5.6	5.6
	Model			PT-MCHW0	PT-MCHW0	PT-MCHW0	PT-MCHW0	PT-MCHW0
Decoration	Color (RAL Code)			Morning Fog (RAL 120-4)				
Panel 2	Dimensions	WxHx[	) mm	950 x 35 x 950				
				6.3	6.3	6.3	6.3	6.3

<sup>\*</sup> This product contains Fluorinated Greenhouse Gases. (R410A)

1) Nom. : Performance tested under EN14511

2) Rated : Max power input allowed for fan motor

Note: 1. 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 2. Due to our policy of innovation some specifications may be changed without notification 3.1.D: 'Internal Diameter'

## Accessories

Model		ARNU07GTNA4	ARNU09GTNA4	ARNU12GTNA4	ARNU15GTNA4	ARNU18GTNA4		
	Simple (1 Contact Point with Case)			PDRYCB000				
Dry	2 Contact Point			PDRYCB400				
Contact	For Thermostat (On-Off / Mode / Fan Speed)	PDRYCB300						
	Modbus Communication			PDRYCB500				
Front Pai	nel			PT-UMC1 / PT-MCHW0				
Ventilatio	on Kit	PTVK430						
EEV Kit f	or MULTI V Indoor	PRGK024A0						

	Mindon Bonoto Controllor							
Premium	Stand	lard III	Standard II		Simple	Simple for Hotel	Wireless Remote Controller	
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PREMTA000 PREMTA000A	PREMTB100 (White)	PREMTBB10 (Black)	PREMTB001 (White)	PREMTBB01 (Black)	PQRCVCLOQ (Black) PQRCVCLOQW (White)	PQRCHCA0Q (Black) PQRCHCA0QW (White)	PQWRHQ0FDB	



Model	Independent Uni	t		ARNU24GTMA4	ARNU28GTMA4	ARNU36GTMA4	ARNU42GTMA4	
	Cooling	Nom	kW	7.1	8.2	10.6	12.3	
Capacity	Heating	Nom	kW	8.0	9.2	11.9	13.8	
	Cooling / Heating	Nom	W	47	52	64	104	
Power Input				144	144	144	144	
Power Supply				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	
Airflow Rate	Cooling	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	
All flow rate	Heating	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	
Sound Pressure			L dBA	42 / 40 / 38	43 / 41 / 38	46 / 42 / 39	49 / 45 / 42	
				48 / 45 / 43	49 / 47 / 43	52 / 48 / 44	55 / 51 / 48	
Dimensions		WxHx	D mm	840 x 288 x 840				
				25.6	25.6	25.6	25.6	
				9.52	9.52	9.52	9.52	
Piping Connection				15.88	15.88	15.88	15.88	
				25	25	25	25	
	Model			PT-UMC1	PT-UMC1	PT-UMC1	PT-UMC1	
	Color (RAL Code)			Morning Fog (RAL 120-4)	Morning Fog (RAL 120-4)	Morning Fog (RAL 120-4)	Morning Fog (RAL 120-4)	
	Dimensions			950 x 25 x 950				
				5.6	5.6	5.6	5.6	
	Model			PT-MCHW0	PT-MCHW0	PT-MCHW0	PT-MCHW0	
Decoration	Color (RAL Code)			Morning Fog (RAL 120-4)	Morning Fog (RAL 120-4)	Morning Fog (RAL 120-4)	Morning Fog (RAL 120-4)	
	Dimensions	WxHx	D mm	950 x 35 x 950				
				6.3	6.3	6.3	6.3	

<sup>\*</sup> This product contains Fluorinated Greenhouse Gases. (R410A)

#### Accessories

Model		ARNU24GTMA4	ARNU28GTMA4	ARNU36GTMA4	ARNU42GTMA4				
	Simple (1 Contact Point with Case)	PDRYCB000							
Dry 2 Contact Point		PDRYCB400							
	For Thermostat (On-Off / Mode / Fan Speed)	PDRYCB300							
	Modbus Communication	PDRYCB500							
Front Par	nel	PT-UMC1 / PT-MCHW0							
	on Kit	PTEGM0							
	or MULTI V Indoor	PTVK410 / PTVK420 / PTVK430							

	ME 1 B 4 G 4 H						
Premium	Stand	lard III	Standard II		Simple	Simple for Hotel	Wireless Remote Controller
253 3 0 0	200	3 ( ) 0			A M O		
PREMTA000 PREMTA000A PREMTA000B	PREMTB100 (White)	PREMTBB10 (Black)	PREMTB001 (White)	PREMTBB01 (Black)	PQRCVCL0Q (Black) PQRCVCL0QW (White)	PQRCHCA0Q (Black) PQRCHCA0QW (White)	PQWRHQ0FDB

<sup>1)</sup> Nom. : Performance tested under EN14511 Note: 1. Capacities are based on the following conditions

<sup>-</sup> 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 2. Due to our policy of innovation some specifications may be changed without notification 3. I.D: 'Internal Diameter'

# **2 Way CASSETTE**

ARNU09GTSC4 / ARNU12GTSC4 ARNU18GTSC4 / ARNU24GTSC4



Model	Independent Unit	:		ARNU09GTSC4	ARNU12GTSC4	ARNU18GTSC4	ARNU24GTSC4
	Cooling	Nom	kW	2.8	3.6	5.6	7.1
Capacity		Nom	kW	3.2	4.0	6.3	8.0
				16	18	19	31
		Rated 2)	W	70	70	70	70
				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
				10.8 / 9.8 / 9.1	11.1 / 10.3 / 9.1	11.8 / 10.8 / 9.8	14.5 / 12.4 / 10.3
	Heating	H/M/L	. m³/min	10.8 / 9.8 / 9.1	11.1 / 10.3 / 9.1	11.8 / 10.8 / 9.8	14.5 / 12.4 / 10.3
			. dBA	33 / 31 / 29	34 / 32 / 29	35 / 33 / 31	40 / 37 / 33
			. dBA	42 / 40 / 38	43 / 41 / 39	44 / 43 / 41	49 / 46 / 41
		WxHxD		830 × 225 × 600	830 × 225 × 600	830 × 225 × 600	830 × 225 × 600
let Weight				18.1	18.1	18.1	18.1
				6.35	6.35	6.35	9.52
Piping Connection				12.7	12.7	12.7	15.88
				25.0	25.0	25.0	25.0
				PT-USC	PT-USC	PT-USC	PT-USC
Decoration				Morning Fog (RAL 120-4)			
	Dimensions	WxHxD		1,100 x 28 x 690			
	Weight			4.65	4.65	4.65	4.65

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

1) Nom. : Performance tested under EN14511

2) Rated : Max power input allowed for fan motor

- $Cooling: Indoor temp.\ 27^{\circ}C\ (80.6^{\circ}F)\ DB\ /\ 19^{\circ}C\ (66.2^{\circ}F)\ WB, Outdoor\ temp.\ 35^{\circ}C\ (95^{\circ}F)\ DB\ /\ 24^{\circ}C\ (75.2^{\circ}F)\ WB, Interconnecting\ piping\ length\ 7.5m, Level\ difference\ of\ zero\ piping\ length\ 7.5m, Level\ difference\ of\ zero\ piping\ length\ 7.5m, Level\ difference\ piping\ length\ 7.5m, Level\ piping\ pi$
- 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
- 2. Due to our policy of innovation some specifications may be changed without notification

3. I.D : 'Internal Diameter'

## Accessories

Model		ARNU09GTSC4	ARNU12GTSC4	ARNU18GTSC4	ARNU24GTSC4			
	Simple (1 Contact Point with Case)	PDRYCB000						
Dry	2 Contact Point	PDRYCB400						
Contact	For Thermostat (On-Off / Mode / Fan Speed)	PDRYCB300						
	Modbus Communication	PDRYCB500						
Front Par	el	PT-USC						
EEV Kit f	or MULTI V Indoor	PRGK024A0 -						

	Wired Remote Controller										
Premium	Stand	lard III	Standard II		Simple	Simple for Hotel	Wireless Remote Controller				
255 } = = = 0 0	Section   Sec	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	(a) (a) (b) (c) (c) (d) (d) (d) (d) (d) (d) (d) (d) (d) (d	(AB)	(a) (b) (c) (c) (c) (c) (c) (c) (c) (c) (c) (c						
PREMTA000 PREMTA000A PREMTA000B	PREMTB100 (White)	PREMTBB10 (Black)	PREMTB001 (White)	PREMTBB01 (Black)	PQRCVCL0Q (Black) PQRCVCL0QW (White)	PQRCHCA0Q (Black) PQRCHCA0QW (White)	PQWRHQ0FDB				

INDOOR UNIT SPECIFICATION

# 1 Way CASSETTE

ARNU07GTUD4 / ARNU09GTUD4 / ARNU12GTUD4 ARNU18GTTD4 / ARNU24GTTD4



Model	Independent Unit	t		ARNU07GTUD4	ARNU09GTUD4	ARNU12GTUD4	ARNU18GTTD4	ARNU24GTTD4
Capacity				2.2	2.8	3.6	5.6	7.1
	Heating	Nom	kW	2.5	3.2	4.0	6.3	7.1
				20	22	24	38	51
Power Input	Cooling / Heating	Rated <sup>2)</sup>		40	40	40	70	70
Power Supply				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
				8.2 / 7.3 / 6.4	9.2 / 8.6 / 8.2	10.0 / 9.2 / 8.2	13.3 / 12.1 / 10.9	14.6 / 13.3 / 11.5
Airflow Rate				8.2 / 7.3 / 6.4	9.2 / 8.6 / 8.2	10.0 / 9.2 / 8.2	13.3 / 12.1 / 10.9	14.6 / 13.3 / 11.5
Sound Pressure			. dBA	32 / 29 / 25	35 / 34 / 32	38 / 35 / 32	40 / 37 / 35	43 / 40 / 36
Sound Power				50 / 47 / 43	53 / 52 / 50	57 / 53 / 50	59 / 56 / 54	62 / 59 / 55
Dimensions				860 x 132 x 450	860 x 132 x 450	860 x 132 x 450	1,180 x 132 x 450	1,180 x 132 x 450
Net Weight				13.6	13.6	13.6	15.6	15.6
				6.35	6.35	6.35	6.35	9.52
Piping Connection				12.7	12.7	12.7	12.7	15.88
				25.0	25.0	25.0	25.0	25.0
				PT-UUC (Grill) / PT-UUD (Panel)	PT-UUC (Grill) / PT-UUD (Panel)	PT-UUC (Grill) / PT-UUD (Panel)	PT-UTC (Grill) / PT-UTD (Panel)	PT-UTC (Grill) / PT-UTD (Panel)
Decoration	Color (RAL Code)			Noble White (RAL 110-1)				
Panel		WxHxD		1,100 x 34 x 500	1,100 x 34 x 500	1,100 x 34 x 500	1,420 x 34 x 500	1,420 x 34 x 500
	Weight		kg	4.6	4.6	4.6	5.5	5.5

<sup>\*</sup> This product contains Fluorinated Greenhouse Gases. (R410A)

2) Rated : Max power input allowed for fan motor Note: 1. 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

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

3. I.D : 'Internal Diameter'

## **Accessories**

Model		ARNU07GTUD4	ARNU09GTUD4	ARNU12GTUD4	ARNU18GTTD4	ARNU24GTTD4	
	Simple (1 Contact Point with Case)	PDRYCB000					
Dry Contact	2 Contact Point	PDRYCB400					
	For Thermostat (On-Off / Mode / Fan Speed)	PDRYCB300					
	Modbus Communication	PDRYCB500					
Front Panel		PT-UUC (Grill) / PT-UUD (Panel)			PT-UTC (Grill) / PT-UTD (Panel)		
EEV Kit for MULTI V Indoor		PRGK024A0			-		

Wired Remote Controller						Mindon Borneto Controllor	
Premium	Standard III		Standard II		Simple	Simple for Hotel	Wireless Remote Controller
251 \ \(\frac{1}{12} \) \(\frac{1}{12} \) \(\frac{1}{12} \) \(\frac{1}{12} \) \(\frac{1}{12} \) \(\frac{1}{12} \)	)				a mo	(a) (b) (c) (c) (c) (c) (c) (c) (c) (c) (c) (c	
PREMTA000 PREMTA000A PREMTA000B	PREMTB100 (White)	PREMTBB10 (Black)	PREMTB001 (White)	PREMTBB01 (Black)	PQRCVCL0Q (Black) PQRCVCL0QW (White)	PQRCHCA0Q (Black) PQRCHCA0QW (White)	PQWRHQ0FDB

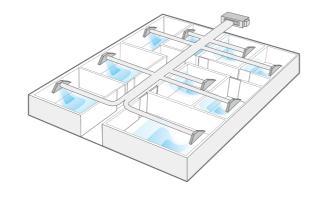
<sup>1)</sup> Nom. : Performance tested under EN14511

INDOOR UNIT KEY FEATURES

# **CEILING CONCEALED DUCT**

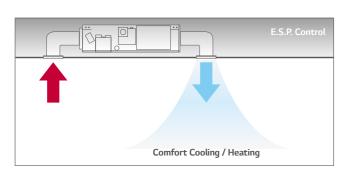
## **Operation for Multiple Rooms**

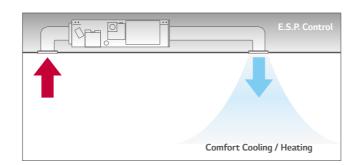
Using a spiral duct (embedded or flexible type) and stream chamber, it is possible to operate cooling / heating for several rooms simultaneously.



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

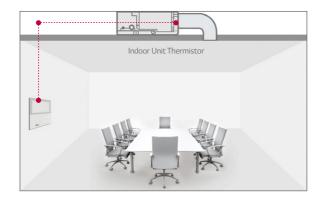
E.S.P. control function can make air volume controlled easily with remote controller. The BLDC motor can control fan speed and air volume regardless of the external static pressure. No additional accessories are necessary to control air flow.





## **Two Thermistors Control**

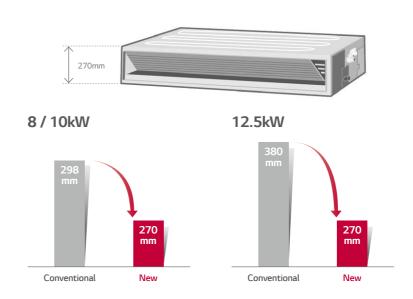
The indoor temperature can be checked using the thermistors in the remote controller as well as from the indoor unit. There may be a significant difference between ceiling and floor air temperature. Two thermistors can optimise indoor air temperature for a more comfortable environment.



Remote Controller Thermistor

## Minimized Height

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



## Flexible Installation (Low Static Duct Only)

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

New Low Static Duct	Conventional
Air intake at the rear or bottom	Air intake at the only rear
	1

Compares temperatures sensed from different positions, and automatically selects the optimum temperature for users.

# MID / HIGH STATIC

ARNU07GM1A4 / ARNU09GM1A4 / ARNU12GM1A4 ARNU15GM1A4 / ARNU18GM1A4 / ARNU24GM1A4



Model	Independent l	Unit		ARNU07GM1A4	ARNU09GM1A4	ARNU12GM1A4	ARNU15GM1A4	ARNU18GM1A4	ARNU24GM1A4
C	Cooling			2.2	2.8	3.6	4.5	5.6	7.1
Capacity		Nom	kW	2.5	3.2	4.0	5.0	6.3	8.0
Power	Cooling / Heating			39	40	46	67	85	91
Input	Cooling / Heating	Rated <sup>2)</sup>	W	190	190	190	190	190	190
Power Suppl				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	1 / 220~240 / 50 1 / 220 / 60
Airflow				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
Rate	Heating	H/M/I	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
External Sta			x mmAq(Pa)	2(20) ~ 15(147)	2(20) ~ 15(147)	2(20) ~ 15(147)	2(20) ~ 15(147)	2(20) ~ 15(147)	2(20) ~ 15(147)
Sound Press		H/M/I	L dBA	26 / 24 / 23	27 / 25 / 23	27 / 25 / 23	30 / 27 / 23	31 / 28 / 25	32 / 29 / 26
Sound Powe			L dBA	55 / 54 / 51	55 / 54 / 52	55 / 54 / 52	56 / 54 / 53	58 / 56 / 54	59 / 58 / 56
Dimensions	Body	WxHx[	) mm	900 × 270 × 700	900 × 270 × 700	900 × 270 × 700	900 × 270 × 700	900 × 270 × 700	900 × 270 × 700
Net Weight				25.5	25.5	25.5	25.5	25.5	26.5
				6.35	6.35	6.35	6.35	6.35	9.52
Piping Connection				12.7	12.7	12.7	12.7	12.7	15.88
COMPECTION				25.0	25.0	25.0	25.0	25.0	25.0

- \* This product contains Fluorinated Greenhouse Gases. (R410A)
- 1) Nom. : Performance tested under EN14511
- 2) Rated : Max power input allowed for fan motor Note : 1. 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
  - 2. Due to our policy of innovation some specifications may be changed without notification
  - 3. I.D : 'Internal Diamete
  - 4. The Sound Pressure test condition is based on 50 Pa for middle static duct.

### Accessories

Model		ARNU07GM1A4	ARNU09GM1A4	ARNU12GM1A4	ARNU15GM1A4	ARNU18GM1A4	ARNU24GM1A4			
	Simple (1 Contact Point with Case)	PDRYCB000								
Dry	2 Contact Point		PDRYCB400							
Contact	For Thermostat (On-Off / Mode / Fan Speed)	PDRYCB300								
	Modbus Communication	PDRYCB500								
EEV Kit fo	or MULTI V Indoor	PRGK024A0 -								
IR Receiv	er	PWLRVN000								

	Wired Remote Controller									
Premium	Stand	Standard III Standard II		lard II	Simple	Simple for Hotel	Wireless Remote Controller			
255 } = = = = = = = = = = = = = = = = = =	Section   Sec	• • • • • • • • • • • • • • • • • • •	**************************************		(a) (b) (c) (c) (c) (c) (c) (c) (c) (c) (c) (c					
PREMTA000 PREMTA000A	PREMTB100 (White)	PREMTBB10 (Black)	PREMTB001 (White)	PREMTBB01 (Black)	PQRCVCLOQ (Black) PQRCVCLOQW (White)	PQRCHCA0Q (Black) PQRCHCA0QW (White)	PQWRHQ0FDB			

ARNU28GM2A4 / ARNU36GM2A4 / ARNU42GM2A4 / ARNU48GM3A4 ARNU54GM3A4 / ARNU76GB8A4 / ARNU96GB8A4





Model	Independent l	Jnit		ARNU28GM2A4	ARNU36GM2A4	ARNU42GM2A4	ARNU48GM3A4	ARNU54GM3A4	ARNU76GB8A4	ARNU96GB8A4
	Cooling			8.2	10.6	12.3	14.1	15.8	22.4	28.0
Capacity				9.2	11.9	13.8	15.9	18.0	25.2	31.5
	Cooling / Heating			123	184	231	172	260	747	800
	Cooling / Heating	Rated <sup>2)</sup>	W	350	350	350	400	400	800	800
				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	1 / 220~240 / 50 1 / 220 / 60	1 / 220~240 / 50 1 / 220 / 60
				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	60.0 / 50.0 / 50.0	72.0 / 64.0 / 64.0
	Heating	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	60.0 / 50.0 / 50.0	72.0 / 64.0 / 64.0
External Stat			mmAq(Pa)	4(39) ~ 15(147)	4(39) ~ 15(147)	4(39) ~ 15(147)	4(39) ~ 15(147)	4(39) ~ 15(147)	6(59) ~ 25(245)	6(59) ~ 25(245)
Sound Pressu		H/M/L	dBA	36 / 34 / 33	37 / 36 / 34	38 / 37 / 36	39 / 37 / 35	42 / 40 / 39	45 / 41 / 40	47 / 42 / 41
			dBA	59 / 57 / 55	60 / 59 / 57	62 / 61 / 60	65 / 61 / 59	66 / 64 / 63	70 / 68 / 68	72 / 69 / 68
Dimensions	Body	WxHxD		1,250 × 270 × 700	1,250 × 270 × 700	1,250 × 270 × 700	1,250 × 360 × 700	1,250 × 360 × 700	1,562 x 460 x 688	1,562 x 460 x 688
				38.0	38.0	39.5	44.0	44.0	87.0	87.0
				9.52	9.52	9.52	9.52	9.52	9.52	9.52
Piping Connection				15.88	15.88	15.88	15.88	19.05	19.05	22.2
				25.0	25.0	25.0	25.0	25.0	25.0	25.0

- st This product contains Fluorinated Greenhouse Gases. (R410A)
- 1) Nom. : Performance tested under EN14511
- 2) Rated : Max power input allowed for fan motor Note : 1. 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
  - 2. Due to our policy of innovation some specifications may be changed without notification
  - 3. I.D : 'Internal Diameter '
  - 4. B8 : The Sound Pressure test condition is based on 220 Pa (High Static Pressue) as standard.
  - 5. The Sound Pressure test condition is based on 50 Pa for middle static duct.

### **Accessories**

Model		ARNU28GM2A4	ARNU36GM2A4	ARNU42GM2A4	ARNU48GM3A4	ARNU54GM3A4	ARNU76GB8A4	ARNU96GB8A4	
	Simple (1 Contact Point with Case)				PDRYCB000				
Dry	2 Contact Point	PDRYCB400							
Contact	For Thermostat (On-Off / Mode / Fan Speed)				PDRYCB300				
	Modbus Communication				PDRYCB500				
EEV Kit fo	or MULTI V Indoor	·							
IR Receiv					PWLRVN000				

	Mindre Brook Consulton						
Premium	Stand	lard III	Stand	dard II	Simple	Simple for Hotel	Wireless Remote Controller
253 ) 255 0 6	3 (					(A) (E) (E) (F) (F) (F) (F) (F) (F) (F) (F) (F) (F	
PREMTA000 PREMTA000A	PREMTB100 (White)	PREMTBB10 (Black)	PREMTB001 (White)	PREMTBB01 (Black)	PQRCVCL0Q (Black) PQRCVCL0QW (White)	PQRCHCA0Q (Black) PQRCHCA0QW (White)	PQWRHQ0FDB

# **LOW STATIC**

ARNU05GL1G4 / ARNU07GL1G4 / ARNU09GL1G4





Model	Independent Uni	t		ARNU05GL1G4	ARNU07GL1G4	ARNU09GL1G4
			kW	1.7	2.2	2.8
Capacity		Nom	kW	1.9	2.5	3.2
			W	29	31	39
Power Input		Rated <sup>2)</sup>	W	40	40	40
Power Supp			Ø / V / Hz	1 / 220~240 / 50 1 / 220 / 60	1 / 220-240 / 50 1 / 220 / 60	1 / 220~240 / 50 1 / 220 / 60
			m³/min	6.7 / 6.2 / 5.5	7.5 / 6.5 / 5.5	9.0 / 7.0 / 5.5
	e ————————— Heating		m³/min	6.7 / 6.2 / 5.5	7.5 / 6.5 / 5.5	9.0 / 7.0 / 5.5
External Sta			mmAq(Pa)	0(0) ~ 5(49)	0(0) ~ 5(49)	0(0) ~ 5(49)
Sound Press		H/M/L	dBA	25 / 24 / 22	26 / 24 / 22	28 / 25 / 22
Sound Powe			dBA	47 / 46 / 44	48 / 46 / 44	49 / 47 / 44
Dimensions			) mm	700 x 190 x 700	700 x 190 x 700	700 x 190 x 700
Net Weight			kg	17.5	17.5	17.5
			mm	6.35	6.35	6.35
Piping Connection			mm	12.7	12.7	12.7
			mm	25.4	25.4	25.4

- \* This product contains Fluorinated Greenhouse Gases. (R410A)
- 1) Nom. : Performance tested under EN14511
- 2) Rated : Max power input allowed for fan motor
- Note: 1. 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
  - 2. Due to our policy of innovation some specifications may be changed without notification

  - 4. L1 : The Sound Pressure test condition is based on 20 Pa (Static Pressue) as standard.

### Accessories

Model		ARNU05GL1G4	ARNU07GL1G4	ARNU09GL1G4				
	Simple (1 Contact Point with Case)		PDRYCB000					
Dry	2 Contact Point	PDRYCB400						
Contact	For Thermostat (On-Off / Mode / Fan Speed)	PDRYCB300						
	Modbus Communication		PDRYCB500	-				
EEV Kit f	or MULTI V Indoor		PRGK024A0					
IR Receiv			PWLRVN000					

	Wired Remote Controller									
Premium	Stand	lard III	Standard II		Simple	Simple for Hotel	Wireless Remote Controller			
253   E	Section   Sec	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	(a) (a) (b) (b) (c) (c) (c) (c) (c) (c) (c) (c) (c) (c	• (A)	(a) (a) (b) (c) (c) (c) (c) (c) (c) (c) (c) (c) (c					
PREMTA000 PREMTA000A PREMTA000B	PREMTB100 (White)	PREMTBB10 (Black)	PREMTB001 (White)	PREMTBB01 (Black)	PQRCVCL0Q (Black) PQRCVCL0QW (White)	PQRCHCA0Q (Black) PQRCHCA0QW (White)	PQWRHQ0FDB			



Model	Independent Uni	t		ARNU12GL2G4	ARNU15GL2G4	ARNU18GL2G4	ARNU21GL3G4	ARNU24GL3G4
	Cooling	Nom	kW	3.6	4.5	5.6	6.2	7.1
Capacity		Nom	kW	4.0	5.0	6.3	7.0	8.0
			W	41	56	71	72	103
Power Input		Rated <sup>2)</sup>	W	85	85	85	115	115
			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
			m³/min	10.0 / 8.5 / 7.0	12.5 / 10.0 / 8.5	15.0 / 12.5 / 10.0	17.5 / 14.0 / 12.0	20.0 / 16.0 / 12.0
	Heating	H/M/L	m³/min	10.0 / 8.5 / 7.0	12.5 / 10.0 / 8.5	15.0 / 12.5 / 10.0	17.5 / 14.0 / 12.0	20.0 / 16.0 / 12.0
External Sta			mmAq(Pa)	0(0) ~ 5(49)	0(0) ~ 5(49)	0(0) ~ 5(49)	0(0) ~ 5(49)	0(0) ~ 5(49)
Sound Press		H/M/L	dBA	30 / 27 / 25	33 / 30 / 28	35 / 32 / 29	35 / 29 / 28	36 / 33 / 28
Sound Powe			dBA	52 / 49 / 46	53 / 52 / 50	54 / 53 / 52	56 / 53 / 51	58 / 54 / 51
Dimensions	Body	WxHxD	mm	900 x 190 x 700	900 x 190 x 700	900 x 190 x 700	1,100 × 190 × 700	1,100 × 190 × 700
Net Weight			kg	23.0	23.0	23.0	27.0	27.0
			mm	6.35	6.35	6.35	9.52	9.52
Piping Connection			mm	12.7	12.7	12.7	15.88	15.88
			mm	25.4	25.4	25.4	25.4	25.4

- \* This product contains Fluorinated Greenhouse Gases. (R410A)
- 1) Nom. : Performance tested under EN14511
- 2) Rated : Max power input allowed for fan motor
- Note: 1. 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
  - 2. Due to our policy of innovation some specifications may be changed without notification

  - 4. L2, L3: The Sound Pressure test condition is based on 20 Pa (Static Pressue) as standard.

### Accessories

Model		ARNU12GL2G4	ARNU15GL2G4	ARNU18GL2G4	ARNU21GL3G4	ARNU24GL3G4
	Simple (1 Contact Point with Case)			PDRYCB000		
Dry	2 Contact Point			PDRYCB400		
	For Thermostat (On-Off / Mode / Fan Speed)			PDRYCB300		
	Modbus Communication			PDRYCB500		
EEV Kit fo	or MULTI V Indoor		PRGK024A0			-
IR Receiv	er			PWLRVN000		

	Wired Remote Controller									
Premium	Standard III		Standard II		ard II Simple		Wireless Remote Controller			
251 \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	20 € C				A PRODUCTION OF THE PRODUCTION					
PREMTA000 PREMTA000A PREMTA000B	PREMTB100 (White)	PREMTBB10 (Black)	PREMTB001 (White)	PREMTBB01 (Black)	PQRCVCL0Q (Black) PQRCVCL0QW (White)	PQRCHCA0Q (Black) PQRCHCA0QW (White)	PQWRHQ0FDB			

# **HIGH SENSIBLE SITE**

ARNU07GBGA4 / ARNU09GBGA4 / ARNU12GBGA4 / ARNU15GBGA4 / ARNU18GBRA4

ARNU24GBRA4 / ARNU28GBRA4 / ARNU36GB8A4 / ARNU42GB8A4 / ARNU48GB8A4





Model	Independent Un	it		ARNU07GBGA4	ARNU09GBGA4	ARNU12GBGA4	ARNU15GBGA4	ARNU18GBRA4
C	Cooling			2.2	2.8	3.6	4.5	5.6
Capacity				2.5	3.2	4.0	5.0	6.3
Dl.	Cooling / Heating			50	50	50	130	130
Power Input				450	450	450	450	450
Power Supp				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
Airflow				12.5 / 11.5 / 9.4	12.8 / 11.5 / 9.4	13.5 / 12.1 / 9.4	13.8 / 11.8 / 8.3	15.2 / 13.8 / 11.8
Rate	Heating	H/M/L	m³/min	12.5 / 11.5 / 9.4	12.8 / 11.5 / 9.4	13.5 / 12.1 / 9.4	13.8 / 11.8 / 8.3	15.2 / 13.8 / 11.8
External Sta	atic Pressure	Min ~ Max	mmAq(Pa)	3(29) ~ 18(177)	3(29) ~ 18(177)	3(29) ~ 18(177)	3(29) ~ 18(177)	5(49) ~ 20(196)
Sound Press				31 / 30 / 29	32 / 31 / 29	32 / 31 / 30	33 / 32 / 31	33 / 32 / 31
Sound Powe			dBA	58 / 56 / 55	59 / 56 / 55	59 / 58 / 56	59 / 58 / 56	59 / 58 / 56
Dimensions	Body	WxHxD		1,182 x 298 x 450	1,230 x 380 x 590			
Net Weight				38.0	38.0	38.0	38.0	53.0
				9.52	9.52	9.52	9.52	9.52
Piping Connection				15.88	15.88	15.88	15.88	15.88
Connection	Drain	I.D		25.0	25.0	25.0	25.0	25.0

- \* This product contains Fluorinated Greenhouse Gases. (R410A)
- 1) Nom. : Performance tested under EN14511
- 2) Rated : Max power input allowed for fan motor Note : 1. 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
  - 2. Due to our policy of innovation some specifications may be changed without notification
  - 3. I.D : 'Internal Diameter'

### **Accessories**

Model		ARNU07GBGA4	ARNU09GBGA4	ARNU12GBGA4	ARNU15GBGA4	ARNU18GBRA4
	Simple (1 Contact Point with Case)			PDRYCB000		
Dry	2 Contact Point			PDRYCB400		
	For Thermostat (On-Off / Mode / Fan Speed)			PDRYCB300		
	Modbus Communication			PDRYCB500		
EEV Kit f	or MULTI V Indoor			PRGK024A0		
IR Receiv	rer			PWLRVN000		

	Window Domete Controller							
Premium	Standard III		Standard II		Simple	Simple for Hotel	Wireless Remote Controller	
255 } 1 = 50 = 60	Section   Sect	220 D	© (A)		A 20 0 T • 20 Out			
PREMTA000 PREMTA000A PREMTA000B	PREMTB100 (White)	PREMTBB10 (Black)	PREMTB001 (White)	PREMTBB01 (Black)	PQRCVCLOQ (Black) PQRCVCLOQW (White)	PQRCHCA0Q (Black) PQRCHCA0QW (White)	PQWRHQ0FDB	





Model	Independent Un	it		ARNU24GBRA4	ARNU28GBRA4	ARNU36GB8A4	ARNU42GB8A4	ARNU48GB8A4
	Cooling			7.1	8.2	10.6	12.3	14.1
Capacity		Nom	kW	8.0	9.2	11.9	13.8	15.9
Power				233	402	420	528	538
		Rated <sup>2)</sup>	W	450	450	800	800	800
Power Supp				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
Airflow				29.8 / 27.3 / 23.8	36.2 / 32.1 / 28.5	49.0 / 37.3 / 30.2	54.2 / 41.3 / 31.8	57.2 / 43.0 / 34.0
	Heating	H/M/L	m³/min	29.8 / 27.3 / 23.8	36.2 / 32.1 / 28.5	49.0 / 37.3 / 30.2	54.2 / 41.3 / 31.8	57.2 / 43.0 / 34.0
External Sta	atic Pressure	Min ~ Ma	x mmAq(Pa)	5(49) ~ 20(196)	5(49) ~ 20(196)	6(59) ~ 25(245)	6(59) ~ 25(245)	6(59) ~ 25(245)
Sound Pres		H/M/L	dBA	44 / 43 / 42	45 / 44 / 43	46 / 45 / 42	47 / 46 / 43	47 / 46 / 44
Sound Powe			dBA	63 / 62 / 60	64 / 63 / 62	66 / 64 / 60	67 / 66 / 62	67 / 66 / 63
Dimensions				1,230 x 380 x 590	1,230 x 380 x 590	1,562 x 460 x 688	1,562 x 460 x 688	1,562 x 460 x 688
Net Weight				53.0	53.0	87.0	87.0	87.0
				9.52	9.52	9.52	9.52	9.52
Piping Connection				15.88	15.88	19.05	19.05	19.05
Connection				25.0	25.0	25.0	25.0	25.0

- st This product contains Fluorinated Greenhouse Gases. (R410A)
- 1) Nom. : Performance tested under EN14511
- Rated : Max power input allowed for fan motor
   Note : 1. 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
  - 2. Due to our policy of innovation some specifications may be changed without notification
  - 3. I.D : 'Internal Diameter '

### Accessories

Model		ARNU24GBRA4	ARNU28GBRA4	ARNU36GB8A4	ARNU42GB8A4	ARNU48GB8A4
	Simple (1 Contact Point with Case)			PDRYCB000		
Dry	2 Contact Point			PDRYCB400		
	For Thermostat (On-Off / Mode / Fan Speed)			PDRYCB300		
	Modbus Communication			PDRYCB500		
EEV Kit f	or MULTI V Indoor			-		
IR Receiv	er			PWLRVN000		

	Window Domete Controller						
Premium	Stand	lard III	Standard II		Simple	Simple for Hotel	Wireless Remote Controller
253 ) 255 0 6	) © 223 © (		ena control of the c			(A) (EE) (P) (P) (P) (P) (P) (P) (P) (P) (P) (P	
PREMTA000 PREMTA000A PREMTA000B	PREMTB100 (White)	PREMTBB10 (Black)	PREMTB001 (White)	PREMTBB01 (Black)	PQRCVCL0Q (Black) PQRCVCL0QW (White)	PQRCHCA0Q (Black) PQRCHCA0QW (White)	PQWRHQ0FDB

# **HIGH SENSIBLE SITE**

### ARNU07GM2A4 / ARNU09GM2A4 / ARNU12GM2A4 / ARNU15GM2A4

ARNU18GM3A4 / ARNU24GM3A4 / ARNU28GM3A4 / ARNU36GM3A4 / ARNU42GM3A4



Model	Independent Un	it		ARNU07GM2A4	ARNU09GM2A4	ARNU12GM2A4	ARNU15GM2A4
Caracitus	Cooling			2.2	2.8	3.6	4.5
Capacity			kW	2.5	3.2	4.0	5.0
De color d	Cooling / Heating			123.0	123.0	123.0	123
Power Input			W	350	350	350	350
Power Supp			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
Airflow			m³/min	28.0 / 24.0 / 21.0	28.0 / 24.0 / 21.0	28.0 / 24.0 / 21.0	28.0 / 24.0 / 21.0
Rate	Heating	H/M/L	m³/min	28.0 / 24.0 / 21.0	28.0 / 24.0 / 21.0	28.0 / 24.0 / 21.0	28.0 / 24.0 / 21.0
External Sta	atic Pressure	Min ~ Max	mmAq(Pa)	4(39) ~ 15(147)	4(39) ~ 15(147)	4(39) ~ 15(147)	4(39) ~ 15(147)
Sound Press		H/M/L	dBA	36 / 34 / 33	36 / 34 / 33	36 / 34 / 33	36 / 34 / 33
Sound Powe			dBA	59 / 57 / 55	59 / 57 / 55	59 / 57 / 55	59 / 57 / 55
Dimensions	Body	W×H×D	mm	1,250 × 270 × 700	1,250 × 270 × 700	1,250 × 270 × 700	1,250 × 270 × 700
Net Weight			kg	38.0	38.0	38.0	38.0
			mm	9.52	9.52	9.52	9.52
Piping Connection			mm	15.9	15.9	15.9	15.9
COMMECCION	Drain	I.D	mm	25.0	25.0	25.0	25.0

- \* This product contains Fluorinated Greenhouse Gases.(R410A)
- 1) Nom. : Performance tested under EN14511
- 2) Rated : Max power input allowed for fan motor
  Note : 1. 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
  - 2. Due to our policy of innovation some specifications may be changed without notification
  - 3. I.D 'Internal Diamete
  - 4. The Sound Pressure test condition is based on 50 Pa for middle static duct.

### **Accessories**

Model		ARNU07GM2A4	ARNU09GM2A4	ARNU12GM2A4	ARNU15GM2A4			
	Simple (1 Contact Point with Case)		PDRYC	CB000				
Dry	2 Contact Point		CB400					
Contact	For Thermostat (On-Off / Mode / Fan Speed)		PDRYC	DRYCB300				
	Modbus Communication	PDRYCB500						
EEV Kit f	or MULTI V Indoor	PRGK024A0						
IR Receiv	er	PWLRVN000						

	Wired Remote Controller								
Premium	Standard III		Standard II		Simple	Simple for Hotel	Wireless Remote Controller		
253 ) 25	© (22) ⊕ (	220 0	(* M) (* M) (* M)		**************************************	(a) (d) (m) (v) (v) (v) (d) (d) (d) (d) (d) (d) (d) (d) (d) (d	(本)		
PREMTA000 PREMTA000A PREMTA000B	PREMTB100 (White)	PREMTBB10 (Black)	PREMTB001 (White)	PREMTBB01 (Black)	PQRCVCL0Q (Black) PQRCVCL0QW (White)	PQRCHCA0Q (Black) PQRCHCA0QW (White)	PQWRHQ0FDB		



Model	Independent Uni	it		ARNU18GM3A4	ARNU24GM3A4	ARNU28GM3A4	ARNU36GM3A4	ARNU42GM3A4
	Cooling	Nom	kW	5.6	7.1	8.2	10.6	12.3
Capacity		Nom	kW	6.3	8.0	9.2	11.9	13.8
Power				172	172	172	172	172
				400	400	400	400	400
Power Supp				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
Airflow				40.0 / 34.0 / 28.0	40.0 / 34.0 / 28.0	40.0 / 34.0 / 28.0	40.0 / 34.0 / 28.0	40.0 / 34.0 / 28.0
				40.0 / 34.0 / 28.0	40.0 / 34.0 / 28.0	40.0 / 34.0 / 28.0	40.0 / 34.0 / 28.0	40.0 / 34.0 / 28.0
External Sta			x mmAq(Pa)	4(39) ~ 15(147)	4(39) ~ 15(147)	4(39) ~ 15(147)	4(39) ~ 15(147)	4(39) ~ 15(147)
			dBA	39 / 37 / 35	39 / 37 / 35	39 / 37 / 35	39 / 37 / 35	39 / 37 / 35
Sound Powe			dBA	61 / 59 / 57	61 / 59 / 57	61 / 59 / 57	61 / 59 / 57	61 / 59 / 57
				1,250 × 360 × 700	1,250 × 360 × 700	1,250 × 360 × 700	1,250 × 360 × 700	1,250 × 360 × 700
				44.0	44.0	44.0	44.0	44.0
				9.52	9.52	9.52	9.52	9.52
Piping Connection				15.9	15.88	15.88	15.88	15.88
Connection				25.0	25.0	25.0	25.0	25.0

- \* This product contains Fluorinated Greenhouse Gases.(R410A)
- 1) Nom. : Performance tested under EN14511
- 2) Rated : Max power input allowed for fan motor Note : 1. 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
  - 2. Due to our policy of innovation some specifications may be changed without notification
  - 3. I.D 'Internal Diameter'
  - 4. The Sound Pressure test condition is based on 50 Pa for middle static duct.

### Accessories

Model		ARNU18GM3A4	ARNU24GM3A4	ARNU28GM3A4	ARNU36GM3A4	ARNU42GM3A4
	Simple (1 Contact Point with Case)			PDRYCB000		
Dry	2 Contact Point			PDRYCB400		
	For Thermostat (On-Off / Mode / Fan Speed)			PDRYCB300		
				PDRYCB500		
EEV Kit f	or MULTI V Indoor	PRGK024A0				
IR Receiv				PWLRVN000		

	Window Brown Controller						
Premium	Standard III		Standard II		Simple	Simple for Hotel	Wireless Remote Controller
252 1 200 00 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		© 223 € 0 3 x (g) x x	• • • • • • • • • • • • • • • • • • •				
PREMTA000 PREMTA000A PREMTA000B	PREMTB100 (White)	PREMTBB10 (Black)	PREMTB001 (White)	PREMTBB01 (Black)	PQRCVCL0Q (Black) PQRCVCL0QW (White)	PQRCHCA0Q (Black) PQRCHCA0QW (White)	PQWRHQ0FDB

# INDOOR UNIT SPECIFICATION

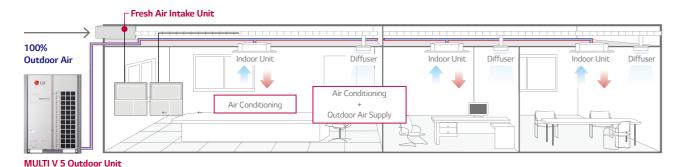
# FRESH AIR INTAKE UNIT

ARNU48GBRZ4 / ARNU76GB8Z4 / ARNU96GB8Z4

# FRESH AIR INTAKE UNIT

# Fresh Outdoor Air Supply

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



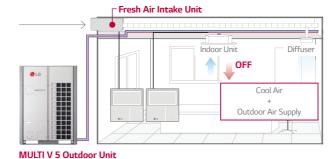
# **Economic Operation**

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

### **Spring Season**



### **Autumn Season**



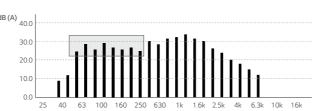
**MULTI V 5 Outdoor Unit** 

# **BLDC Fan Motor**

It can reduce a noise at low frequencies.

# **AC Tap Motor**

### **BLDC Motor**





Model	Independent Unit			ARNU48GBRZ4	ARNU76GB8Z4	ARNU96GB8Z4	
C	Cooling	Nom	kW	14.1	22.4	28.0	
Capacity	Heating	Nom	kW	13.5	21.4	26.7	
	Cooling / Heating		W	169	253	360	
	Cooling / Heating	Rated <sup>2)</sup>	W	169	360	360	
			Ø/V/Hz	1 / 220~240 / 50 1 / 220 / 60	1 / 220~240 / 50 1 / 220 / 60	1 / 220~240 / 50 1 / 220 / 60	
	Cooling		m³/min	18.8 / 14.7 / 14.7	23.7 / 13.2 / 13.2	35.7 / 23.7 / 23.7	
		H/M/L	m³/min	18.8 / 14.7 / 14.7	23.7 / 13.2 / 13.2	35.7 / 23.7 / 23.7	
Sound Pressure		H/M/L	dBA	41 / 40 / 38	45 / 43 / 43	47 / 45 / 45	
Sound Power		H/M/L	dBA	62 / 63 / 62	70 / 67 / 67	72 / 68 / 68	
Dimensions	Body	WxHxD	mm	1,230 x 380 x 590	1,562 x 460 x 688	1,562 x 460 x 688	
Net Weight			kg	45.0	73.0	73.0	
			mm	9.52	9.52	9.52	
Piping Connection	Gas		mm	15.88	19.05	22.2	
	Drain	I.D	mm	25.0	25.0	25.0	

- \* This product contains Fluorinated Greenhouse Gases. (R410A)
- 1) Nom. : Performance tested under EN14511 2) Rated : Max power input allowed for fan motor
- Note: 1. Capacities are based on the following conditio
  - $Cooling: Outdoor\ temp.\ 35^{\circ}C\ (95^{\circ}F)\ DB\ /\ 24^{\circ}C\ (75.2^{\circ}F)\ WB,\ Interconnecting\ piping\ length\ 7.5m,\ Level\ difference\ of\ zero$  $- \ Heating: Outdoor \ temp. \ 7^{\circ}C \ (44.6^{\circ}F) \ DB \ / \ 6^{\circ}C \ (42.8^{\circ}F) \ WB, Interconnecting \ piping \ length \ 7.5m, Level \ difference \ of \ zero \ Additional Property \ Additiona$
- 2. Capacities are net capacities
- 3. Noise Level is under standard mode [For actual High Mode (Factory set) condition,
- Noise Level may exceed the standard level by 1.5db (A)]
- 4. Due to our policy of innovation some specifications may be changed without prior notifications



	2 Exhaust an
<b>▲</b> CAUTION	
1. Operation range (Cooling : 5°C ~ 43°C, Heating : -5°C ~ 43°C)	2. Installation of exhaust fan is recommended for a sealed room. 3. Indoor Unit Connection
No. Connection Condition	Combination

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

### **Accessories**

Model		ARNU48GBRZ4 ARNU76GB8Z4		ARNU96GB8Z4
Simple (1 Contact Point with Case)				
Dry	2 Contact Point			
Contact	For Thermostat (On-Off / Mode / Fan Speed)		PDRYCB300	
	Modbus Communication			
IR Receiver			PWLRVN000	

	Wired Remote Controller								
Premium	Stand	Standard III Simple Simple for Hotel							
25°) = 00	) © 25 © (	200 (a)			A (20) (5) (6) (6) (6) (6) (6) (6) (6) (6) (6) (6				
PREMTA000 PREMTA000A PREMTA000B	PREMTB100 (White)	PREMTBB10 (Black)	PREMTB001 (White)	PREMTBB01 (Black)	PQRCVCLOQ (Black) PQRCVCLOQW (White)	PQRCHCA0Q (Black) PQRCHCA0QW (White)	PQWRHQ0FDB		

# **CEILING & FLOOR CONVERTIBLE UNIT**

# **CEILING SUSPENDED UNIT**

# **Differentiated Design**

With its stunning V-shaped design and black vane, LG's new ceiling-suspended air conditioner exudes modern elegance appropriate for any space. The tasteful aesthetics of the air conditioner helped earn it the iF Design Award.



# **Powerful Cooling & Heating**

The new LG Ceiling Suspended Unit is efficient for using in large areas due to its powerful cooling and heating operation. The powerful air speed and volume means the air flow can reach up to 15m away from the air conditioner.

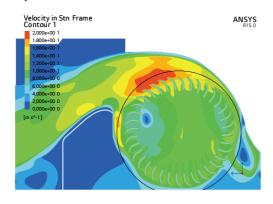


With enlarged outlet space, optimized the Air flow Path and improved Heat Exchanger's performance

# Outlet Space New LG Conventional

115% ENLARGED

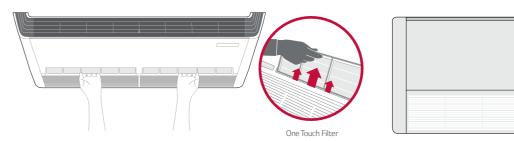
### Optimized the Air flow Path



105% IMPROVED

### One Touch & 2 Piece Filter

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



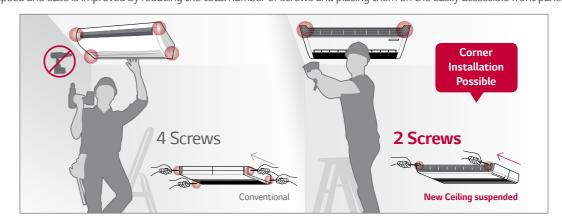
### **Two Thermistors Control**

Users can purchase an optional control panel that includes a second thermistor, allowing for temperature checks from multiple locations.



# **Easy installation**

Installation speed and ease is improved by reducing the total number of screws and placing them on the easily accessible front panel.



### INDOOR UNIT SPECIFICATION

# **CEILING SUSPENDED UNIT**

ARNU09GVEA4 / ARNU12GVEA4

ARNU18GV1A4 / ARNU24GV1A4 ARNU36GV2A4 / ARNU48GV2A4



Model	Independent Un	it		ARNU09GVEA4	ARNU12GVEA4
<b>.</b> .	Cooling	Nom	kW	2.8	3.6
Capacity		Nom	kW	3.2	4.0
			W	22	30
	Cooling / Heating	Rated 2)	W	30	30
			Ø/V/Hz	1 / 220~240 / 50 1 / 220 / 60	1 / 220-240 / 50 1 / 220 / 60
	Cooling		m³/min	7.6 / 6.9 / 6.2	9.2 / 7.6 / 6.9
	Heating	H/M/L	m³/min	7.6 / 6.9 / 6.2	9.2 / 7.6 / 6.9
			dBA	36 / 32 / 28	38 / 36 / 30
Sound Power		H/M/L	dBA	55 / 51 / 45	56 / 55 / 49
			mm	900 x 490 x 200	900 x 490 x 200
			kg	13.7	13.7
			mm	6.35	6.35
			mm	12.7	12.7
Connection			mm	16.0	16.0

**CEILING & FLOOR CONVERTIBLE UNIT** 

- \* This product contains Fluorinated Greenhouse Gases. (R410A)
- 1) Nom. : Performance tested under EN14511
- 2) Rated : Max power input allowed for fan motor Note: 1. Capacities are based on the following conditions
  - $Cooling: Indoor temp.\ 27^{\circ}C\ (80.6^{\circ}F)\ DB\ /\ 19^{\circ}C\ (66.2^{\circ}F)\ WB,\ Outdoor\ temp.\ 35^{\circ}C\ (95^{\circ}F)\ DB\ /\ 24^{\circ}C\ (75.2^{\circ}F)\ WB,\ Interconnecting\ piping\ length\ 7.5m,\ Level\ difference\ of\ zero\ decrees the connection of\ the\ connection$
  - 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
  - 2. Due to our policy of innovation some specifications may be changed without notification
  - 3. I.D : 'Internal Diameter '



Model	Independent Un	it		ARNU18GV1A4	ARNU24GV1A4	ARNU36GV2A4	ARNU48GV2A4
	Cooling	Nom	kW	5.6	7.1	10.6	14.1
Capacity		Nom	kW	6.3	8.0	11.9	15.9
			W	23	25	84	91
		Rated <sup>2)</sup>	W	130	130	184	184
			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
			m³/min	13.5 / 12.5 / 12	14/13/12	27 / 24 / 20	29 / 24 / 20
	Heating	H/M/L	m³/min	13.5 / 12.5 / 12	14/13/12	27 / 24 / 20	29 / 24 / 20
			dBA	36 / 34 / 33	37 / 35 / 33	48 / 46 / 44	49 / 47 / 44
Sound Power		H/M/L	dBA	61 / 59 / 56	62 / 59 / 56	68 / 66 / 64	68 / 67 / 66
Dimensions			mm	1200 x 690 x 235	1200 x 690 x 235	1,600 x 690 x 235	1,600 x 690 x 235
Net Weight			kg	29.0	29.0	37.0	37.0
			mm	6.35	9.52	9.52	9.52
Piping Connection	Gas		mm	12.7	15.88	15.88	15.88
			mm	16.0	16.0	16.0	16.0

- \* This product contains Fluorinated Greenhouse Gases. (R410A)
- 1) Nom. : Performance tested under EN14511
- 2) Rated : Max power input allowed for fan motor
- Note: 1. Capacities are based on the following conditions
  - $Cooling: Indoor \ temp.\ 27^{\circ}C \ (80.6^{\circ}F)\ DB\ /\ 19^{\circ}C \ (66.2^{\circ}F)\ WB, Outdoor \ temp.\ 35^{\circ}C \ (95^{\circ}F)\ DB\ /\ 24^{\circ}C \ (75.2^{\circ}F)\ WB, Interconnecting\ piping\ length\ 7.5m, Level\ difference\ of\ zero\ temp.\ 35^{\circ}C \ (95^{\circ}F)\ DB\ /\ 24^{\circ}C \ (75.2^{\circ}F)\ WB, Interconnecting\ piping\ length\ 7.5m, Level\ difference\ of\ zero\ temp.\ 35^{\circ}C \ (95^{\circ}F)\ DB\ /\ 24^{\circ}C \ (75.2^{\circ}F)\ WB, Interconnecting\ piping\ length\ 7.5m, Level\ difference\ of\ zero\ temp.\ 35^{\circ}C \ (95^{\circ}F)\ DB\ /\ 24^{\circ}C \ (75.2^{\circ}F)\ WB, Interconnecting\ piping\ length\ 7.5m, Level\ difference\ of\ zero\ temp.\ 35^{\circ}C \ (95^{\circ}F)\ DB\ /\ 24^{\circ}C \ (75.2^{\circ}F)\ WB, Interconnecting\ piping\ length\ 7.5m, Level\ difference\ of\ zero\ temp.\ 35^{\circ}C \ (95^{\circ}F)\ DB\ /\ 24^{\circ}C \ (75.2^{\circ}F)\ WB, Interconnecting\ piping\ length\ 7.5m, Level\ difference\ of\ zero\ temp.\ 35^{\circ}C \ (95^{\circ}F)\ DB\ /\ 24^{\circ}C \ (75.2^{\circ}F)\ WB, Interconnecting\ piping\ length\ 7.5m, Level\ difference\ piping\ length\ 7.5m, Level\ difference\ piping\ length\ 7.5m, Level\ difference\ piping\ piping\$
  - 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 2. Due to our policy of innovation some specifications may be changed without notification

  - 3. I.D : 'Internal Diameter '

### **Accessories**

Model		ARNU09GVEA4 ARNU12GVEA4				
Simple (1 Contact Point with Case)		PDRYCB000				
Dry	2 Contact Point	PDRYCB400				
Contact	For Thermostat (On-Off / Mode / Fan Speed)	PDRYCB300				
	Modbus Communication	PDRYC	DRYCB500			
EEV Kit fo	r MULTI V Indoor	PRGK024A0				

	Wired Remote Controller								
Premium	Stand	ard III	Standard II Simp		Simple	Simple for Hotel	Wireless Remote Controller		
253 ) == 0 0 0	Since   Sin	• • • • • • • • • • • • • • • • • • •	(a) (a) (b) (b) (c) (c) (c) (c) (c) (c) (c) (c) (c) (c			(A) (B) (B) (B) (C) (C) (C) (C) (C) (C) (C) (C) (C) (C			
PREMTA000 PREMTA000A PREMTA000B	PREMTB100 (White)	PREMTBB10 (Black)	PREMTB001 (White)	PREMTBB01 (Black)	PQRCVCLOQ (Black) PQRCVCLOQW (White)	PQRCHCA0Q (Black) PQRCHCA0QW (White)	PQWRHQ0FDB		

### Accessories

Model		ARNU18GV1A4 ARNU24GV1A4 ARNU36GV2A4 ARNU48GV2A4						
	Simple (1 Contact Point with Case)	PDRYCB000						
Dry	2 Contact Point	PDRYCB400						
Contact	For Thermostat (On-Off / Mode / Fan Speed)	PDRYCB300						
	Modbus Communication	PDRYCB500						

	Wired Remote Controller									
Premium	Stand	lard III	Stano	Standard II		Simple for Hotel	Wireless Remote Controller			
253   MAR 0 0 0	22 ( ) 0		#30 P M		A PRODUCTION OF THE PRODUCTION					
PREMTA000 PREMTA000A PREMTA000B	PREMTB100 (White)	PREMTBB10 (Black)	PREMTB001 (White)	PREMTBB01 (Black)	PQRCVCL0Q (Black) PQRCVCL0QW (White)	PQRCHCA0Q (Black) PQRCHCA0QW (White)	PQWRHQ0FDB			

# **CONSOLE**

### INDOOR UNIT SPECIFICATION

# **CONSOLE**

ARNU07GQAA4 / ARNU09GQAA4 ARNU12GQAA4 / ARNU15GQAA4

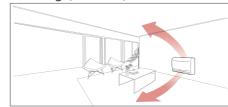
# **Installation Support Clip**

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.

### Cooling



### Heating (Normal)



# **Quick Floor Heating**

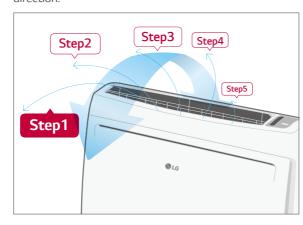
Console air conditioners offer a fast and powerful performance. Using the floor heating mode, console air conditioners provide faster floor heating and help to reach the desired temperature quickly.

		Company A	Electric Heater	LG	LG Floor Heating Mode
27°C	Vertical	1		4	
15°C	Horizontal				
Н	Time for eating C ~ 21°C)	12 minutes 30 seconds	50 minutes	9 minutes 30 seconds	8 minutes 40 seconds

(Test Condition: Target Temp.23°C, Indoor Room: 13°C~, Outdoor Room: 7°C)

# **5-Step Vane Control**

There are 5 different stages to control air flow direction.



# Healthier Air (3 Stage Air Filter System)



### 1st Advanced pre filter :

The antibacterial pre-filter primarily reduces large dust particles, mould and quilt dust.



### 2nd Allergy Filter:

Filter consists of enzyme that breaks down allergens, apatite and organic / inorganic binders. When the air passes through the filter, allergens cling to the filter, and the filter deactivates the allergens.



### 3rd Plasma Ion Generator:

The sterilised ion generator emits around 1.2 million ions, and traps some of the airborne hazardous substances.



Model	Independent Uni	t		ARNU07GQAA4	ARNU09GQAA4	ARNU12GQAA4	ARNU15GQAA4
	Cooling	Nom	kW	2.2	2.8	3.6	4.5
Capacity		Nom	kW	2.5	3.2	4.0	5.0
Power Input ·			W	15	15	18	24
		Rated 2)	W	30	30	30	30
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
Airflow Rate -			m³/min	6.7 / 5.9 / 4.8	6.7 / 5.9 / 4.8	7.5 / 5.9 / 4.8	8.7 / 6.7 / 5.9
	Heating	H/M/L	m³/min	6.7 / 5.9 / 4.8	6.7 / 5.9 / 4.8	7.5 / 5.9 / 4.8	8.7 / 6.7 / 5.9
Sound Pressure			dBA	37 / 34 / 28	37 / 34 / 28	39 / 34 / 28	42 / 37 / 31
Sound Power		H/M/L	dBA	53 / 50 / 44	53 / 50 / 44	56 / 50 / 44	58 / 53 / 50
Dimensions			mm	700 x 600 x 210			
Net Weight			kg	14.0	14.0	14.0	14.0
			mm	6.35	6.35	6.35	6.35
Piping Connection			mm	12.7	12.7	12.7	12.7
			mm	12.2	12.2	12.2	12.2

- \* This product contains Fluorinated Greenhouse Gases. (R410A)
- 1) Nom. : Performance tested under EN14511
- 2) Rated : Max power input allowed for fan motor
- Note: 1. 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
  - 2. Due to our policy of innovation some specifications may be changed without notification

### **Accessories**

Model		ARNU07GQAA4	ARNU09GQAA4	ARNU12GQAA4	ARNU15GQAA4			
	Simple (1 Contact Point with Case)	PDRYCB000						
Dry	2 Contact Point	PDRYCB400						
Contact	For Thermostat (On-Off / Mode / Fan Speed)	PDRYCB300						
	Modbus Communication	PDRYCB500						
EEV Kit fo	or MULTI V Indoor	PRGK024A0						

	Wired Remote Controller								
Premium	Stand	lard III	Stano	lard II	Simple	Simple for Hotel	Wireless Remote Controller		
251) 100 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	) © 223 © (		ena control of the c		* • = = • • • • • • • • • • • • • • • •	(A) (E) (B) (B) (B) (B) (B) (B) (B) (B) (B) (B			
PREMTA000 PREMTA000A PREMTA000B	PREMTB100 (White)	PREMTBB10 (Black)	PREMTB001 (White)	PREMTBB01 (Black)	PQRCVCL0Q (Black) PQRCVCL0QW (White)	PQRCHCA0Q (Black) PQRCHCA0QW (White)	PQWRHQ0FDB		

# **FLOOR STANDING UNIT**

### INDOOR UNIT SPECIFICATION

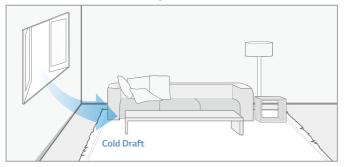
# **FLOOR STANDING UNIT**

ARNU07GCE\*4 / ARNU09GCE\*4 / ARNU12GCE\*4 ARNU15GCE\*4 / ARNU18GCF\*4 / ARNU24GCF\*4

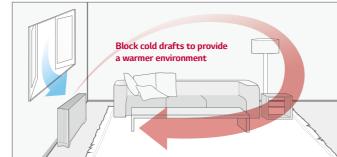
### **Block Cold Draft**

The floor standing unit can block cold drafts from windows to provide a warmer environment for places such as libraries and offices.

### Without Floor Standing

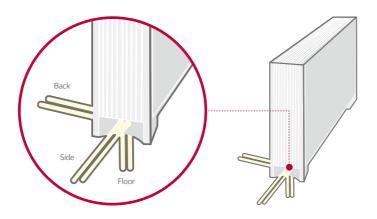


### With Floor Standing



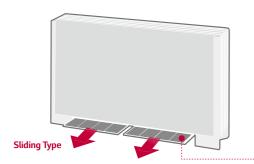
# 3 Way Flexible Installation

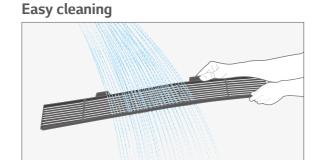
It is possible to install and connect the outdoor unit in 3 different ways (Side, Back, Floor).



# **Sliding Type Filter**

Easy maintenance and extended product life with sliding type filter.







1) Nom. : Performance tested under EN14511 2) Rated : Max power input allowed for fan motor

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

Note: 1. 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

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



	Wired Remote Controller								
Premium	Stand	ard III	Stano	Standard II		Simple for Hotel	Wireless Remote Controller		
253) ### 6 6	22 ( ) 0				A PO O	(A) (E) (F) (F) (F) (F) (F) (F) (F) (F) (F) (F			
PREMTA000 PREMTA000A PREMTA000B	PREMTB100 (White)	PREMTBB10 (Black)	PREMTB001 (White)	PREMTBB01 (Black)	PQRCVCL0Q (Black) PQRCVCL0QW (White)	PQRCHCA0Q (Black) PQRCHCA0QW (White)	PQWRHQ0FDB		





\* A : Floor Standing with case

* U : Floor Standing without ca	ıse
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Model	Independe	ent Unit		ARNU07GCE*4	ARNU09GCE*4	ARNU12GCE*4	ARNU15GCE*4	ARNU18GCF*4	ARNU24GCF*4
<b>6</b> :	Cooling	Nom	kW	2.2	2.8	3.6	4.5	5.6	7.1
Capacity		Nom	kW	2.5	3.2	4.0	5.0	6.3	8.0
Power	Cooling / Heating			24	30	36	44	54	84
Input	Cooling / Heating			85	85	85	85	115	115
Power Sup				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	1 / 220~240 / 50 1 / 220 / 60
Airflow	Cooling	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
Rate				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
Sound Pres		H/M/L	dBA	35 / 33 / 31	36 / 34 / 32	37 / 35 / 33	38 / 37 / 35	40 / 37 / 34	43 / 40 / 37
Sound Pow			dBA	54 / 52 / 50	55 / 54 / 52	57 / 55 / 54	59 / 57 / 55	60 / 57 / 54	61 / 60 / 57
Dimension				1,067 x 635 x 203 (A) 978 x 639 x 190 (U)	1,067 x 635 x 203 (A) 978 x 639 x 190 (U)	1,067 x 635 x 203 (A) 978 x 639 x 190 (U)	1,067 x 635 x 203 (A) 978 x 639 x 190 (U)	1,345 x 635 x 203 (A) 1,256 x 639 x 190 (U)	1,345 x 635 x 203 (A) 1,256 x 639 x 190 (U)
Net Weigh	nt <sup>3)</sup>			27.0 (A) / 20.0 (U)	34.0 (A) / 27.0 (U)	34.0 (A) / 27.0 (U)			
				6.35	6.35	6.35	6.35	6.35	9.52
Piping Connection				12.7	12.7	12.7	12.7	12.7	15.88
Comiection				12.0	12.0	12.0	12.0	12.0	12.0

Accessories

### INDOOR UNIT

# **COMPATIBILITY**

	New		Required	Controller	
No.	Function Name (4th generation indoor)	Function Description	Wired Remote Controller	Centralized Controller	Remarks
	Energy Monitoring	Monitoring accumulated power consumption by Wired Remote Controller	•	•	* Neccesary to install the PDI (Power Distribution Indicator) and central controller * Combined with Multi V Water S outdoor unit, this function is not available.
		Monitoring accumulated power consumption by Central Control Device / PDI	-	•	* Neccesary to install the PDI (Power Distribution Indicator) * To make a report, central controller must be installed
2	2 Set Point	2 set point control by Indoor and Central controller     Synchronization function with remote control     (Synchronization Setting and Monitoring)	•	•	* Wired remote controller and central controller must be installed * Combined with Multi V Water S outdoor unit, this function is not available.
3	Occupied / Unoccupied Scheduling Function (Sub Func. Enable)	Synchronization according to occupied/unoccupied by Indoor and Central control     Synchronization icon with remote controller (Synchronization Monitoring)	• [	or •	* Centralized control is able to when you combine only 4th generation indoor units (Use together with 2nd generation and 4th generation indoors, only wired remote controller is able to set this function as existing way)  * Wired remote controller or central controller must be installed (Function can be activeated using just one control device.)  * Combined with Multi V Water S outdoor unit, this function is not available.
4	Group Control	Group Control can use Additional function	•	-	* Check more details in PDB (Product Data Book) (Additional functions added using together same type of indoor units)
5	Test Run (Heating)	Test run mode can be operated in cooling mode and heating mode for easy service	•	-	
6	Model Information Monitoring	Product Type / Indoor Type / Indoor capacity information can be monitored by remote controller	•	-	
	Indoor unit address checking	Wired remote controller can check indoor unit address information	•	-	
		Function error sign display when refrigerant leakage occurred	۰	-	* Central controller has been installed, CH230 error code can be recognized (Old/New Same)  * Without Central Controller, it is able to recognize with wired remote controller (CH230)  * Combined with Multi V Water S outdoor unit, this function is not available.  * Accessory PRLDNVSO must be separately ordered
9	Thermo On / Off range Setting (Cooling)	User can set cooling thermo on/off range with wired remote controller for prevention overcooling	•	-	*Thermo On / Off temperature setting (3 step)
10	Thermo On / Off range Setting (Heating)	User can set heating thermo on/off range with wired remote controller for prevention overheating. (4 Steps)	•	-	*Thermo On / Off temperature setting (4 step)
	Static Pressure 11 Step Control (Only for Ceiling Concealed Duct Type)	Depends on the installation environment, 4th generation Ceiling Concealed Duct can control the static pressure by 11 steps for providing comfortable environment	•	-	* Only applied in Ceiling Concealed Duct
	1 point External Input (On / Off control)	Indoor unit can control external devices without purchasing Dry contact as an accessory (All 4th generation indoors)	۰	-	* Simple On/Off control by Dry Contact at Indoor  [Example of Contact port by product type] * 2 Way Cassette : CN-CC Port  (Wired remote controller installation function mode 41 is required) * 1 Way / 4 Way Cassette / Ceiling Concealed Duct / Wall Mounted Unit 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.	•	-	
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	•	-	
	Indoor Humidity display	Monitoring indoor humidity Wired Remote Controller	•	-	* Available only with Multi V 5
	Comfort Cooling setting	set the outdoor unit Comfort cooling operation value	•	-	* Available only with Multi V 5
	Smart Load Control setting	Change the outdoor unit's Smart Load Control stage value.	•	-	* Available only with Multi V 5
	ODU Refrigerant Noise Reduction setting	set the outdoor unit's refrigerant noise reduction function	•	-	* Available only with Multi V 5
	Low noise mode time setting	set the start and end time of the outdoor unit's low noise mode operation	•	-	* Available only with Multi V 5

Note: 1) No.1, 2, 3, 8: Functions are available to use together with 4th generation Indoor units only. If used together 2nd generation indoor unit and 4th 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 2<sup>nd</sup> 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) 2<sup>nd</sup> 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

	W	ired Remote Control	ler		Constitut Constitut				
Premium	Standard III	Standard II	Sim		Centralized Controller				
(PREMTA000 PREMTA000A PREMTA000B)	(PREMTB100) (PREMTBB10)	(PREMTB001) (PREMTB001)	Simple for Hotel (PQRCHCA0Q / QW)	Simple (PQRCVCLOQ / QW)	AC EZ (PQCSZ250S0)	AC EZ Touch (PACEZA000)	AC Smart IV (PACS4B000)	ACP IV (PACP4B000)	AC Manager IV (PACM4B000)
•	•	•	х	х	х	•	•	•	•
					х	•	•	•	•
•	•	Х	Х	Х	Х	•	•	•	•
•	•	х	х	х	х	٠	•	•	•
•	•	•	Х	Х					
•	•	•	Х	Х					
•	•	•	Х	Х					
•	•	•	Х	Х					
•	•	•	Х	Х					
•	•	•	Х	Х					
• (4 step)	• (4 step)	• (3 step)	• (3 step)	• (3 step)					
•	•	•	•	•					
х	•	•	х	х					
•	•	•	Х	Х					
•	•	•	Х	Х					
Х	•	Х	Х	Х					
Х	•	х	Х	Х					
Х	•	х	Х	х					
Х	•	Х	Х	Х					
Х	•	Х	Х	Х					

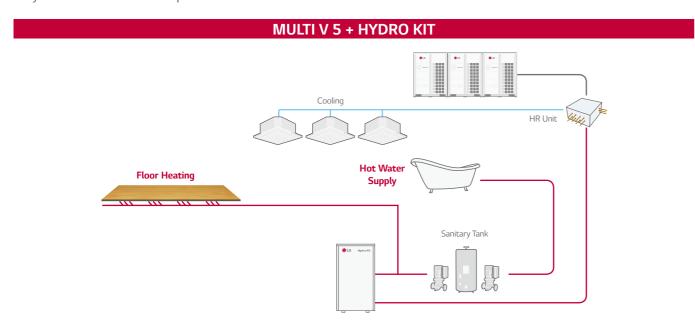
 $\chi$  : Not included this function in the Controller



# **HYDRO KIT**

# **Easy Installation**

Easy to install as it uses a compact and modular structure.

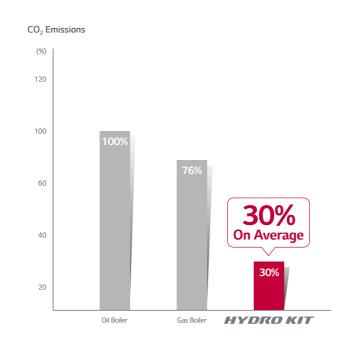


# **Eco-friendly Green Energy Solution**

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







# Saving Cost through High Efficiency

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

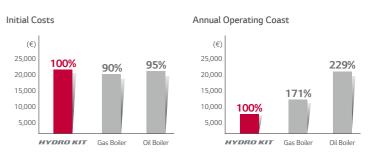
# 1st Proposal MULTI V 5 HYDRO KIT (Air Conditioning + Hot Water Supply + Floor Heating)

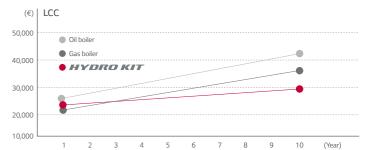
2nd Proposal MULTI V 5 Air-Conditioning + Gas Boiler (Hot Water Supply + Floor Heating)

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

### **Analysis Conditions**

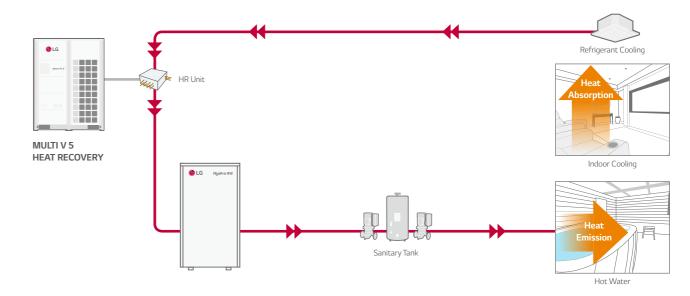
- Building Type : Dormitory, Flats
- Cooling / Floor Heating / Sanitary Hot Water for 10 years
- Cooling: MULTI V IV Indoor Unit
- Floor Heating : Medium Temp. HYDRO KIT (1ea)
- Sanitary Hot Water : High Temp. HYDRO KIT (2ea), Sanitary Hot Water Tanks
- Electricity Cost : Average Cost in EU
- Gas  $\mbox{Cost}$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





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

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



# **HYDRO KIT**

# **High Temperature Concept of HYDRO KIT**

Provides high temperature up to 80°C with dual inverter cascade cycle, applicable for buildings that require large amount of hot water supply.

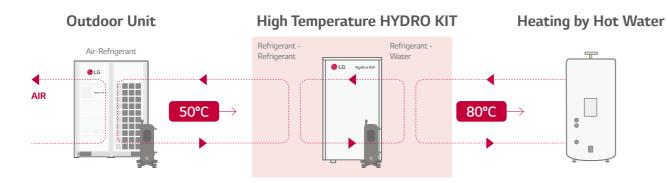
### **Dual Inverter Cascade Cycle Technology**

- Max 55% improved capacity compared to mid-temp. of HYDRO KIT
- Max 20% reduced heating operating cost compared to mid-temp. of HYDRO KIT
- Cascade R410A to R134A BLDC compressor technology

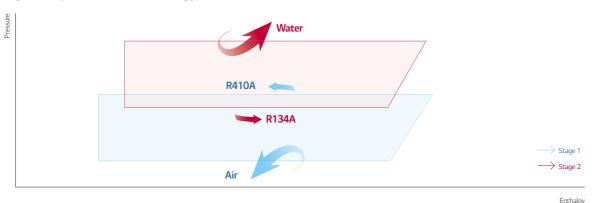
### High Volume of Hot Water

• Compared to lower temperature, storing high temperature water in a sanitary tank increases the quantity of mixed water available for the user.

# High Temperature of HYDRO KIT Cycle Diagram



### **High Temperature Technology**



# **Various Applications**

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

### Office



Shopping Mall / Restaurant



University / School



Hotel / Resort



**Hospital / Clinic** 

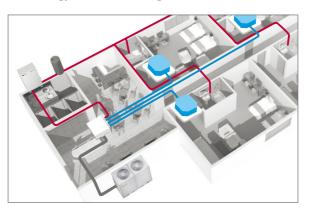


**Factory Facilities** 



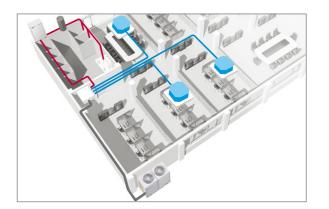
# **Hotel Application**

It is possible to operating cooling and heating constantly at the same time during the summer, to provide hot water for bathrooms by using waste heat energy of indoor cooling from an indoor unit.



# **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.





Туре				Low Temp.	Low Temp.
Model				ARNH04GK2A4	ARNH10GK2A4
				1 / 220~240 / 50 1 / 220 / 60	1 / 220-240 / 50 1 / 220 / 60
	Cooling			12.3	28.0
				13.8	31.5
	Cooling	Nomal		0.01	0.01
	Heating	Nomal	kW	0.01	0.01
Water Outlet	Cooling			5°C	5°C
				50°C	50°C
asing				Painted Steel Plate	Painted Steel Plate
		WxHxD		520 × 631 × 330	520 × 631 × 330
		WXHXD	inch	20-15 / 32 x 24-27 / 32 x13	20-15 / 32 x 24-27 / 32 x13
let Weight				30.5 (67)	35.0 (77.2)
		Туре		Brazed Plate HEX	Brazed Plate HEX
		Rated Water Flow		39.6	92.0
eat Exchanger		Head Loss	kPa	41.0	69.0
	Refrigerant to Refrigerant			-	-
		Туре		-	-
				Male PT 1	Male PT 1
		Outlet		Male PT 1	Male PT 1
iping Connections		Liquid Side		9.52 (3/8)	9.52 (3/8)
		Gas Side	mm (inch)	15.88 (5/8)	22.2 (7/8)
rain Piping Connection				Male PT 1	Male PT 1
	Cooling		dB (A)	26	26
			dB (A)	26	26
		Refrigerant Type		-	-
				-	-
		Refrigerant Type		R410A	R410A
		Precharged Amount		-	-
				EEV	EEV
		Cooling	°C (DB)	10°C ~ 43°C	10°C ~ 43°C
		Heating	°C (DB)	-20°C ~ 35°C	-20°C ~ 35°C
		Cooling	°C (DB)	10°C ~ 43°C	10°C ~ 43°C
	Conntected to Heat Recovery		°C (DB)	-20°C ~ 43°C	-20°C ~ 43°C
	Only Hydrokit			50 ~ 100	50 ~ 100
	Hydrokit + Standard IDUs			50 ~ 130	50 ~ 130



Туре				High Temp.	High Temp.
Model				ARNH04GK3A4	ARNH08GK3A4
Power Supply			Ø/V/Hz	1 / 220~240 / 50 1 / 220 / 60	1 / 220~240 / 50 1 / 220 / 60
Canacity (Rated)	Cooling		kW	-	-
Capacity (Rated)	Heating		kW	13.8	25.2
	Cooling	Nomal	kW	-	-
Power Input	Heating	Nomal	kW	2.3	5.0
Water Outlet	Cooling	Min	°C	-	-
	Heating	Max	°C	80°C	80°C
Casing				Painted Steel Plate	Painted Steel Plate
			mm	520 × 1,080 × 330	520 × 1,080 × 330
Dimensions			inch	20-15 / 32 x 42-17 / 32 x13	20-15 / 32 x 42-17 / 32 x13
Net Weight			kg (lbs)	88.0 (194.0)	94.0 (207.2)
		Туре		Brazed Plate HEX	Brazed Plate HEX
			L/min	19.8	36.0
Heat Exchanger			kPa	5.0	20.0
				Brazed Plate HEX	Brazed Plate HEX
Compressor				Twin Rotary Inverter	Twin Rotary Inverter
			inch	Male PT 1	Male PT 1
		Outlet	inch	Male PT 1	Male PT 1
Piping Connections			mm (inch)	9.52 (3/8)	9.52 (3/8)
			mm (inch)	15.88 (5/8)	19.05 (3/4)
Drain Piping Connection			mm (inch)	Male PT 1	Male PT 1
			dB (A)	-	-
			dB (A)	43	43
				R410A	R410A
				EEV	EEV
				R134A	R134A
		Precharged Amount	kg (lbs)	2.3(5.1)	3.0(6.6)
				EEV	EEV
			°C (DB)	-	-
	Conntected to Heat Pump		°C (DB)	-20°C ~ 35°C	-20°C ~ 35°C
Operation Range			°C (DB)	-	-
	Conntected to Heat Recovery		°C (DB)	-20°C ~ 43°C	-20°C ~ 43°C
	Only Hydrokit		%	50 ~ 100	50 ~ 100
Combination Ratio	Hydrokit + Standard IDUs		%	50 ~ 130	50 ~ 130

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

<sup>\*</sup> This product contains Fluorinated Greenhouse Gases. (R410A)

<sup>-</sup> 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^{\circ}C\ (68^{\circ}F)\ DB\ /\ 15^{\circ}C\ (59^{\circ}F)\ WB,\ Outdoor\ 7^{\circ}C\ (44.6^{\circ}F)\ DB\ /\ 6^{\circ}C\ (42.8^{\circ}F)\ WB,\ Water\ Inlet\ 30^{\circ}C\ (86^{\circ}F)\ /\ Outlet\ 35^{\circ}C\ (95^{\circ}F)\ /\ Outlet\$ 

<sup>2.</sup> Piping Length: Interconnected Pipe Length = 7.5m
3. Difference Limit of Elevation (Outdoor ~ Indoor Unit) is Zero.
4. MULTI V S 4HP (ARUN040GSSO, ARUN040LSSO) cannot be connected to Hydro Kit.

<sup>5.</sup> MULTI V Water S cannot be connected to Hydro Kit.

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

<sup>\*</sup> This product contains Fluorinated Greenhouse Gases. (R410A, R134A)

Note: 1. Capacities are based on the following conditions

<sup>-</sup> 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.

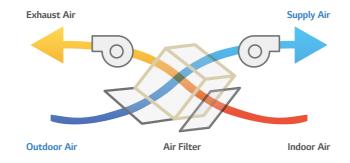
<sup>4.</sup> MULTI V S 4HP (ARUN040GSSO, ARUN040LSSO) cannot be connected to Hydro Kit.

<sup>5.</sup> MULTI V Water S cannot be connected to Hydro Kit.



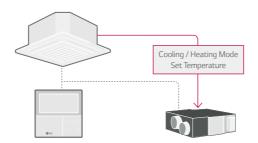
# High Efficiency Heat Exchanger

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



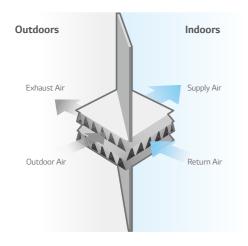
# **Interlocking with Air Conditioning System**

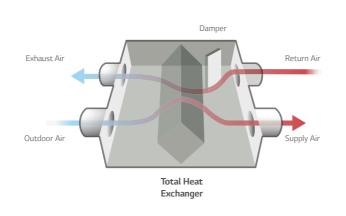
- LG ERV can be interlocked with air conditioners and controlled individually.
- This function can be operated when the system is connected with a remote control.



# **Compulsory Exhausting System**

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

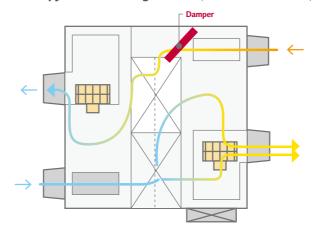




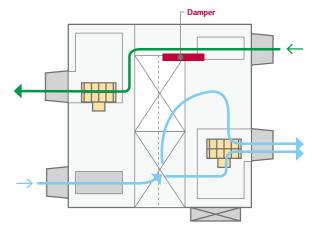
# **Bypass Ventilation**

LG ERV automatically switches the ventilation mode (Enthalpy Heat Exchange Mode / Bypass Mode) according to the indoor / outdoor temperature.

### Enthalpy Heat Exchange Mode (Summer / Winter)



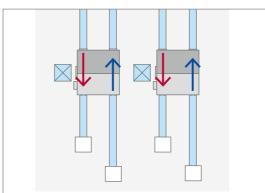
### Bypass Mode (Seasonal Change)



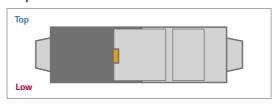
# Flexibility of Installation

It's possible to install upside down when you need only one inspection hole.

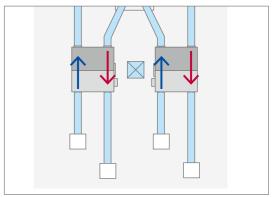
### Normal installation of 2 units

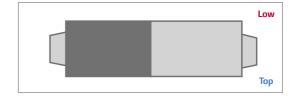


### Inspection chamber



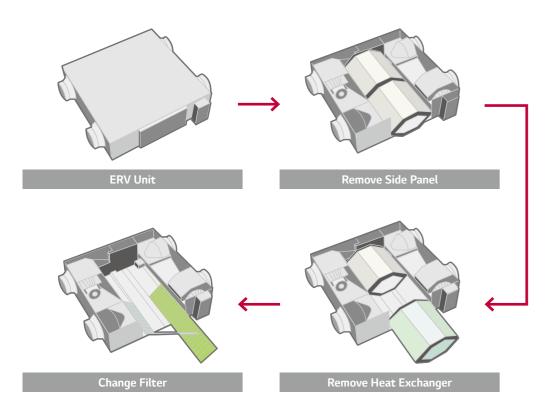
### Reverse installation of 1 unit (Left unit)





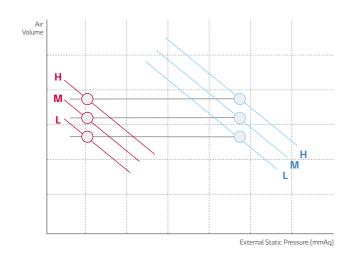
# **Easy Cleaning and Filter Change**

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



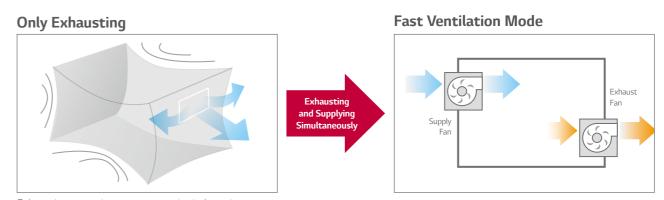
### **External Static Pressure Control**

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.



### **Fast Ventilation Mode**

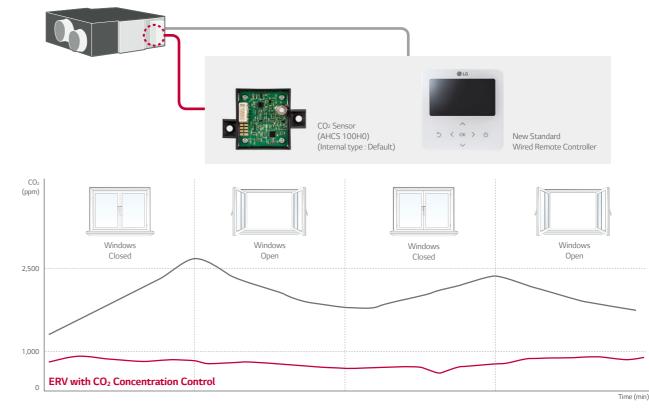
Fast ventilation mode prevents the spread of contaminants under negative indoor pressure, and makes indoor air fresh and comfortable quickly.



Exhausting operation causes negative indoor air pressure, and cannot fully ventilate.

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

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



**New Easy Controller** 

New wired remote controller is easy for usage.



### Easy!

- Navigation buttons, easy to use.
- Easy installation setting



### Convenient!

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

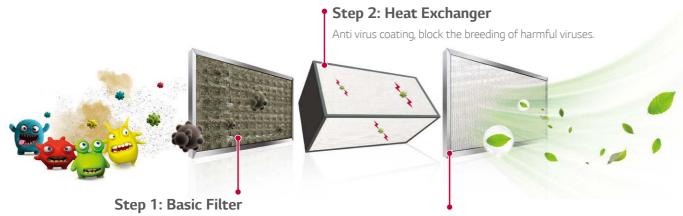


### Visible!

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

# Air Purifying System (3 Steps)

LG ERV can effectively remove the various harmful substances, such as micro dust and viruses. Possible selection of the high efficiency filter(F7) for micro dust removed.



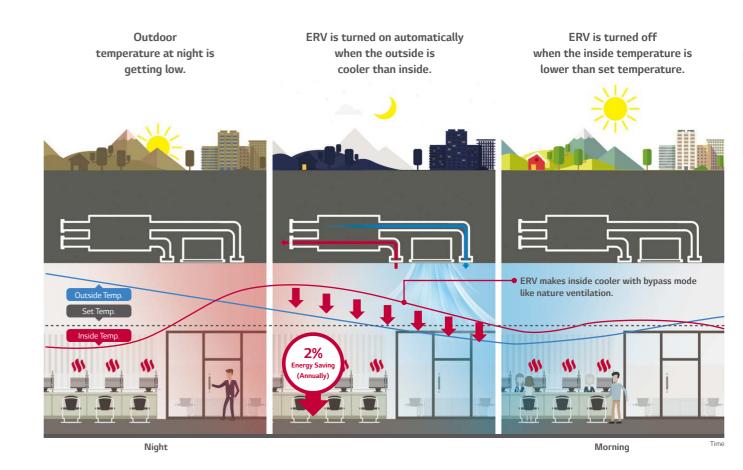
Installed front and behind of heat exchanger

F7 filter blocks 80 ~ 90% of dust sized 0.4µm. (EN 779 : 2012) Installed in front of heat exchanger. (option)

Step 3: High Efficiency Filter (F7)

# **Night Time Cooling**

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



- \* This function is operated with 'Night Time Free Cooling' on remote controller. (with MULTI V only)
- \*\* Energy saving ratio Can vary with condition.
- \*\*\* Available only with Standard III
- Test Condition
- Office (49,000 ft  $^{2)}$  / Occupancy : 30 / Area : London, UK
- ERV (1 000 CMH) + MULTI V 4 (12 HP) Unit Combination
- Other conditions are subject to BREEAM.
- (Building Research Establishment's Environmental Assessment Method)

Model				LZ-H025GBA4	LZ-H035GBA5	LZ-H050GBA5	
Nominal Capac	ity		CMH (CFM)	250 (147)	350 (206)	500 (294)	
					1, 220 - 240, 50 - 60		
	Step				SUPER-HIGH / HIGH / LOW		
	Current	SH/H/L	Amps	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 / 78 / 52	150 / 125 / 60	247 / 230 / 95	
			CMH (CFM)	250 / 250 / 150 (147 / 147 / 88)	350 / 350 / 210 (206 / 206 / 123)	500 / 500 / 320 (294 / 294 /188)	
				100 / 70 / 50 (0.40 / 0.28 / 0.20)	150 / 100 / 50 (0.60 / 0.40 / 0.20)	150 / 100 / 50 (0.60 / 0.40 / 0.20)	
	Temperature Exchange Efficiency			80 / 80 / 83	80 / 80 / 82	79 / 79 / 82	
	Energy Label	A+ to G Scale		A	A	В	
	Enthalpy Exchange Efficiency	Heating (SH / H / L)	%	70 / 70 / 72	75 / 75 / 80	75 / 75 / 78	
	Entirally exchange entirency	Cooling (SH / H / L)	%	66 / 66 / 68	71 / 71 / 75	68 / 68 / 75	
	Noise Level (Sound Level, 1.5m)	SH/H/L	dB(A)	29 / 28 / 24	35 / 32 / 26	37 / 36 / 28	
	Step			SUPER-HIGH / HIGH / LOW	SUPER-HIGH	/ HIGH / LOW	
	Current	SH/H/L	Amps	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 / 78 / 52	150 / 125 / 60	247 / 230 / 95	
			CMH (CFM)	250 / 250 / 150 (147 / 147 / 88)	350 / 350 / 210 (206 / 206 / 123)	500 / 500 / 320 (294 / 294 / 124)	
	External Static Pressure			100 / 70 / 50 (0.40 / 0.28 / 0.20)	150 / 130 / 100 (0.60 / 0.52 / 0.40)	150 / 100 / 50 (0.60 / 0.40 / 0.20)	
	Noise Level (Sound Level, 1.5m)		dB(A)	29 / 29 / 25	35 / 32 / 26	37 / 36 / 28	
Heat Exchange		Туре		Air to Air cross flow heat exchange	Air to Air cross flo	ow heat exchange	
Net Weight			kg	44	4	4	
Dimension				1,014 x 273 x 988	1,014 x 273 x 988	1,014 x 273 x 988	
Duct work*		Qty	EA	4	A	1	
Duct Work		Size (Ø)		Ø200	Ø200	Ø200	
Supply Air Fan		Qty		1			
Supply All I all		Туре		Direct-Drive (Sirocco Fan)	Direct-Drive (Sirocco Fan)	Direct-Drive (Sirocco Fan)	
Exhaust Air Fai		Qty	EA	1	-	<u> </u>	
LAHaust All I al		Туре		Direct-Drive (Sirocco Fan)	Direct-Drive (Sirocco Fan)	Direct-Drive (Sirocco Fan)	
		Qty	EA	2	1	2	
Filters (Default)		Туре		Cleanable fibrous fleeces	Cleanable fibrous fleeces	Cleanable fibrous fleeces	
		Size (W x H x D)	mm	855 x 10 x 160	855 x 6	5 x 230	
		Model		AHFT0.	35H0	AHFT050H0	
Filter (Ontin		Qty	EA	2	<u> </u>	2	
Filters (Optiona				F7	7	F7	
				423.5 x 1	32 x 25	425 x 194 x 25	
Dry Contact		Simple (1 Contact po	oint with case)	PDRYC	B000	PDRYCB000	

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

  - 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.

  Here are the air discharge port is about 8 dB(A) higher than the unit's operating sound.

  The sound level at the air discharge port is about 8 dB(A) higher than the unit's operating sound.

  The sound level at the air discharge port is about 8 dB(A) higher than the unit's operating sound.
- 5. Temperature and Enthalpy Exchange Efficiency at heating Indoor Temperature: 20.5°C DB, 59.5% RH, Outdoor Temperature: 5°C DB, 65% RH
- 6. Temperature Exchange efficiency is tested at heating condition. 7. F7 Filter is 2 pieces in 1 filter package

Premium	Stand	ard III	Stand	CO₂ Sensor	
PREMTAOOO PREMTAOOOB	PREMTB100	PREMTBB10	PREMTBB01	PREMTBOO1	AHCS100H0 (Internal Type : Default)





Model				LZ-H080GBA5	LZ-H100GBA5	LZ-H150GBA5	LZ-H200GBA5
Nominal Capac	ity		CMH (CFM)	800 (471)	1,000 (589)	1,500 (883)	2,000 (1,177)
Power Supply				1, 220 - 240, 50 - 60			
					SUPER-HIGH	/ HIGH / LOW	
		SH/H/L		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
			CMH (CFM)	800 / 800/ 660 (471 / 471 / 388)	1,000 / 1,000 / 800 (589 / 589 / 471)	1,500 / 1,500 / 1,200 (883 / 883 / 706)	2,000 / 2,000 / 1,60 (1,177 / 1,177 / 94
	External Static Pressure			160 / 100 / 50 (0.64 / 0.40 / 0.20)	160 / 100 / 50 (0.64 / 0.40 / 0.20)	160 / 100 / 50 (0.64 / 0.40 / 0.20)	160 / 100 / 50 (0.64 / 0.40 / 0.20
	Temperature Exchange Efficiency			82 / 82 / 83	80 / 80 / 81	82 / 82 / 83	80 / 80 / 81
	Energy Label	A+ to G Scale		A	В		
	Enthalpy Exchange Efficiency	Heating (SH / H / L)	%	73 / 73 / 76	71 / 71/ 73	73 / 73 / 76	71 / 71/ 73
		Cooling (SH / H / L)		66 / 66 / 70	64 / 64 / 67	66 / 66 / 70	64 / 64 / 67
	Noise Level (Sound Level, 1.5m)	SH/H/L	dB(A)	40 / 36 / 32	40 / 37 / 33	43 / 39 / 35	43 / 40 / 36
	Step			SUPER-HIGH	/ HIGH / LOW	SUPER-HIGH	/ HIGH / LOW
	Current	SH/H/L	Amps	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			328 / 266 / 144	463 / 370 / 208	660 / 530 / 290	926 / 740 / 420
			CMH (CFM)	800 / 800/ 660 (471 / 471 / 388)	1,000 / 1,000 / 800 (589 / 589 / 471)	1,500 / 1,500 / 1,200 (883 / 883 / 706)	2,000 / 2,000 / 1,6 (1,177 / 1,177 / 94
	External Static Pressure			160 / 100 / 50 (0.64 / 0.40 / 0.20)	160 / 100 / 50 (0.64 / 0.40 / 0.20)	160 / 100 / 50 (0.64 / 0.40 / 0.20)	160 / 100 / 50 (0.64 / 0.40 / 0.20
	Noise Level (Sound Level, 1.5m)	SH/H/L	dB(A)	41 / 37 / 33	41 / 38 / 34	44 / 40 / 36	44 / 41 / 37
Heat Exchange	r	Туре		Air to Air cross flo	ow heat exchange	Air to Air cross flo	ow heat exchange
Net Weight			kg	7	0	1.	58
Dimension		WxHxD	mm	1,101 x 40	05 x 1,230	1,353 x 8	15 x 1,230
Duct work*		Qty	EA		1	4 -	+ 2
Duct Work		Size (Ø)	mm	Ø2	50	Ø250 ·	+ Ø350
		Qty	EA	1	1		2
		Туре		Direct-Dri	ve Sirocco	Direct-Dri	ve Sirocco
Exhaust Air Far		Qty	EA		1		2
Exhaust Air Fai		Туре		Direct-Dri	ve Sirocco	Direct-Dri	ve Sirocco
		Qty	EA		2		4
Filters (Default				Cleanable fit	orous fleeces	Cleanable fil	orous fleeces
				1,148 x	6 x 245	1,148 x	6 x 245
		Model		AHFT1	100H1	AHFT	100H1
		Qty		- 2	2		4
Filters (Optiona				F	7	F	7
				520 x 1	92 x 25	520 x 1	92 x 25
Dry Contact		Simple (1 Contact po	oint with case)	PDRYC	^B000	PDRY	CB000

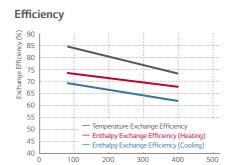
- Note: 1. ERV mode: Total Heat Recovery Ventilation mode
  - 2. \*: Refer to dimensional drawings.
  - 3. Noise level : The operating conditions are assumed to be standard
    - Sound measured at 1.5m below the center the body.
    - Sound level will vary depending on a range of factors such as the construction (acoustic absorption coefficient) of particular room in which the equipment is installed.
  - The sound level at the air discharge port is about 8 dB(A) higher than the unit's operating sound.

    4. Temperature and Enthalpy Exchange Efficiency at cooling Indoor Temperature: 26.5°C DB, 64.5% RH, Outdoor Temperature: 34.5°C DB, 75% RH
  - 5. Temperature and Enthalpy Exchange Efficiency at heating Indoor Temperature : 20.5°C DB, 59.5% RH, Outdoor Temperature : 5°C DB, 65% RH
  - 6. Temperature Exchange efficiency is tested at heating condition. 7. F7 Filter is 2 pieces in 1 filter package

Premium	Stand	lard III	Stano	dard II	CO <sub>2</sub> Sensor
253) = 0 0	> (0)	> < 0 > 0		- A - A - A - A - A - A - A - A - A - A	•
PREMTA000 PREMTA000A PREMTA000B	PREMTB100	PREMTBB10	PREMTBB01	PREMTB001	AHCS100H0 (Internal Type : Default)

### LZ-H025GBA4

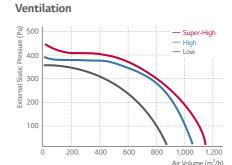


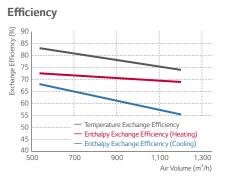


Air Volume (m3/h)

LZ-H100GBA5

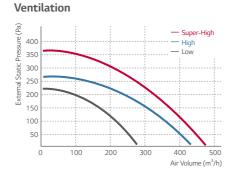


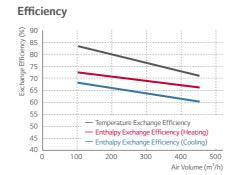




LZ-H035GBA5

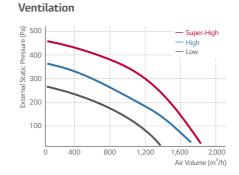


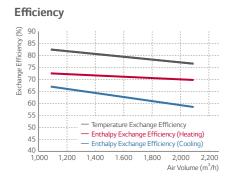




LZ-H150GBA5

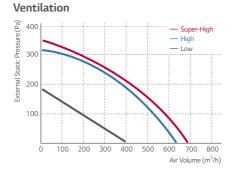


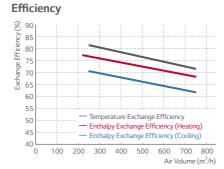




LZ-H050GBA5

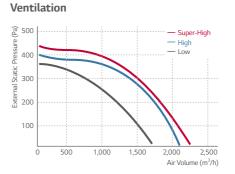


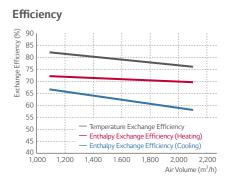




LZ-H200GBA5

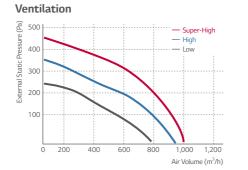


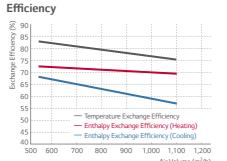




# LZ-H080GBA5







# **ERV** WITH DX COIL

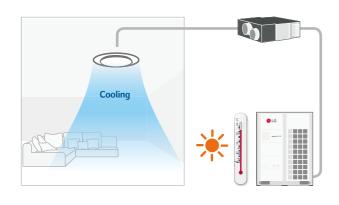
### **VENTILATION SOLUTION SPECIFICATION**

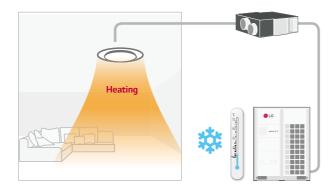
# **ERV** WITH DX COIL

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

# **Providing Cool & Warm Fresh Air**

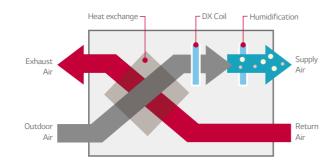
During the summer, ERV DX can transform outdoor warm air into cool air for indoors, and it can prevent cold drafts during the winter by supplying warm air.





# **Total Air Conditioning Solution**

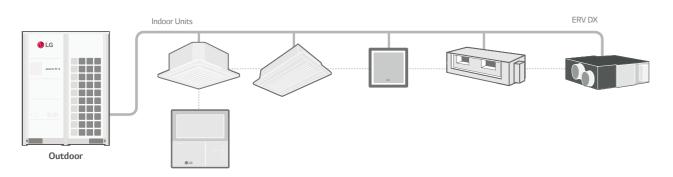
LG ERV DX can be used as a Total Air Conditioning Solution. It can control condition of incoming air with the DX coil and humidifier for making comfortable indoor air. In the summer, LG ERV DX controls the air indoors by cooling and dehumidifying incoming air. In winter, it can provide warm air by heating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



# 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.





Model			LZ-H050GXH4	LZ-H080GXH4	LZ-H100GXH4	LZ-H050GXN4	LZ-H080GXN4	LZ-H100GXN				
Fresh Air	Cooling 1)	kW	4.93	7.46	9.12	4.93	7.46	9.12				
Conditioning Load		kW	6.73	9.80	11.72	6.73	9.80	11.72				
Temperature Exchange Efficiency			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				
	Heating (SH / H / L)		76 / 76 / 77	67 / 67 / 69	64 / 64 / 66	76 / 76 / 77	67 / 67 / 69	64 / 64 / 66				
	Heat Exchange Mode (SH / H / L)	СМН	500 / 500 / 440	800 / 800 / 640	1,000 / 1,000 / 820	500 / 500 / 440	800 / 800 / 640	1,000 / 1,000 / 82				
		CMH	500 / 500 / 440	800 / 800 / 640	1,000 / 1,000 / 820	500 / 500 / 440	800 / 800 / 640	1,000 / 1,000 / 820				
Fan	External Static Pressure (SH / H / L)	Pa	160 / 120 / 100	140 / 90 / 70	110 / 70 / 60	180 / 150 / 110	170 / 120 / 80	150 / 100 / 70				
	System		Natural Evaporating Type			-						
	Amount 3)	kg/h	2.70	4.00	5.40		-					
	Pressure Feed Water	Мра		0.02 ~ 0.49			-					
Sound Pressure	Heat Exchange Mode (SH / H / L)	dB (A)	38 / 36 / 33	39 / 37 / 34	40 / 38 / 35	39 / 37 / 35	41 / 38 / 36	41 / 39 / 36				
	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												
	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				
	Bypass Mode (SH / H / L)		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)		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)		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				
Dimensions				1,667 x 365 x 1,140	0	1,667 x 365 x 1,140						
Net Weight		kg		105			98					
	Liquid			Ø6.35			Ø6.35					
Piping Connection	Gas			Ø12.7		Ø12.7						
r iping connection	Water			Ø6.35		-						
	Drain (Outer Diameter)			Ø25.4		Ø25.4						
Connection Duct Diameter				Ø250			Ø250					
Remote Controller			Refer to the below Wired Remote Controller table									
	Simple (1 Contact Point with Case)		PDRYCB000									
	2 Contact Point		PDRYCB400									
Dry Contact	For Thermostat (On-Off / Mode / Fan	Speed)	PDRYCB300									
	Modbus Communication				PDRY	CB500						
	Mode				AHFT	100H0						
	Qty				-	2						
Filters (Optional)					F	7						
	Size (W x H x D)				520 x 1	92 x 25	520 x 192 x 25					

- 1) Cooling Capacity Test condition Indoor temperature : 27°C DB, 19°C WB / Outdoor temperature : 35°C DB
- 2) Heating Capacity Test condition Indoor temperature : 20°C DB / Outdoor temperature : 7°C DB, 6°C WB
- 3) Humidifying capacity is based on the following conditions Indoor temperature : 20°C DB, 15°C WB / Outdoor temperature : 7°C DB, 6°C WB
- \* Cooling and heating capacities are based on the following conditions. Fan is based on High and Super-high. The figures in the parenthesis indicate the heat reclaimed from the heat recovery ventilator. \* 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 built in accordance with the KS B 6879 conditions
- \* The actual operating sound varies depending on the surrounding conditions (near running unit's sound, reflected sound and so on) and is normally higher than this value.
- \* Air flow rate can be changed over to low mode or high mode.
- \* The specifications, designs and information here are subject to change without notice.
- \* This product contains Fluorinated Greenhouse Gases. (R410A)

4) F7 Filter is 2 pieces in 1 filter package

Premium	Stand	lard III	Stand	fard II	CO <sub>2</sub> S	Sensor
253) **** 0 0	5 ( x > 0	5 ( A > 0		(A)	•16	
PREMTA000 PREMTA000A PREMTA000B	PREMTB100	PREMTBB10	PREMTBB01	PREMTB001	PES-CORVO (External Type)	AHCS100H0 (Internal Type : Default)



# CONTROI SOLUTIOI

# **LG HVAC CONTROL LINE-UP**

	Individual Control				Centralized Control	
	Wired Remote Controller		Wireless Remote	Indoor Unit	Indoor Unit	Indoor Unit
Premium	Standard	Simple	Controller	~ 32	~ 128	~ 8,192
PREMTA000 PREMTA000A PREMTA000B	Standard III (White)  (275)  (275)  PREMTB100	PQRCVCLOQW	PQWRHQ0FDB	AC Ez	AC Smart IV	AC Manager 5  PACM5A000
	Standard III (Black)	PQRCVCLOQ			AC Smart 5	
			Wi-Fi controller	Indoor Unit ~ 64	Indoor Unit ~ 256	
	Standard II (White)  PREMTB001	PQRCHCA0QW (Simple for Hotel)	LG Wi-Fi Modem  To Indoor Unit PWFMDD200	AC Ez Touch	ACP IV	
	Standard II (Black)  PREMTBB0 1	PQRCHCA0Q (Simple for Hotel)	For Indoor Unit LG-RC-WF-1		NEW! ACP 5	
			For Indoor Unit LG-IR-WF-1			

	Centralized Control			Other Integ	ration Device	
	System Integration Device			r Unit	Outdoor Unit	AHU Kit
Facility Integrator PDI	Gateway for Protocol	PI-485	Dry Contact	Control Accessory	IO Module	
(Power Distribution Indicator)	AC Smart BACnet	PI-485		Group Control Wire	(Input / Output Module)	NEW! Communication Kit
• = 50	O		0.1			<b>⊚</b> LG
Premium (8port) PQNUD1S40 Standard (2port) PPWRDB000	PBACNA000	For SINGLE / MULTI / THERMA V PMNFP14A1	Simple Dry Contact PDRYCB000	PZCWRCG3	Demand Controller For MULTI V IV/5 PVDSMN000	Return/Room Air control PAHCMR000
ACS I/O Module (Input / Output Module)	ACP BACnet			Remote Temperature Sensor	Dry Contact for Demand Control	NEW!
2000 1000 2000 1000	**************************************		- U	•to		<b>.</b>
PEXPMB000	PQNFB17C0	For Indoor Unit (Air-Conditioner, ERV) PHNFP14A0	2 Points Dry Contact (For Setback) PDRYCB400	PQRSTA0	Demand Controller for MULTI V III PQDSBCDVM0	Discharge Air control PAHCMS000
Chiller Option Kit	ACP Lonworks			Zone Controller	Variable Water Flow Control kit	Control kit
	•15 ESS		1 200			1
PCHILLN000	PLNWKB000		Dry Contact for Thermostat PDRYCB300	4 Zones by thermostat ABZCA	For MULTI V WATER IV PWFCKN000	PRCKD21E (~ 4 ODUs) PRCKD41E (~ 8 ODUs)
	NEW! Modbus RTU Gateway					EEV Kit (Electronic Expansion Valve)
	Y					<b>⊕</b> re
	PMBUSB00A		For Modbus PDRYCB500		For MULTI V WATER II PRVCO	PRLK048A0 (~ 10HP) PRLK096A0 (~ 20HP)
	KNX Gateway				Low Ambient Kit	TXV Kit (Thermal Expansion Valve)
						_ <b>(b)</b> LG
	LG-AC-KNX4 LG-AC-KNX8 LG-AC-KNX16 LG-AC-KNX64				For MULTI V IV PRVC 2	PATX13A0E (8 ~ 16HP) PATX20A0E (18 ~ 26HP) PATX25A0E (28 ~ 36 HP) PATX35A0E (38 ~ 46 HP) PATX50A0E (48~56 HP)
					Cool / Heat Selector	
					(A)	
					PRDSBM	

\*AC Smart IV & AC Smart BACnet will be replaced by AC Smart 5
\*ACP IV & ACP BACnet will be replaced by ACP 5
\*KNX Gateway is provided by INTESIS

# **INDIVIDUAL CONTROL SOLUTION**



# **LINE-UP**



# Remote Controller Line Up

Model Name	PREMTA000 PREMTA000A PREMTA000B	PREMTB100 PREMTBB10	PREMTB001 PREMTBB01	PQRCVCLOQW PQRCVCLOQ PQRCHCAOQW PQRCHCAOQ	PQWRHQ0FDB	PWFMDD200
	255) 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	) ( ( ( ) > )	• 10 • 10 • 10 • 10 • 10 • 10 • 10 • 10	(a) (b) (c) (c) (c) (c) (c) (c) (c) (c) (c) (c		♥ LG
On / Off	•	•	•	•	•	٠
Mode Change	•	•	•	*	•	•
Temperature Setting	•	•	•	•	•	•
Fan Speed Control	•	•	•	•	•	•
Auto Swing	•	•	•	•*	•	•
Vane Control (Louver Direction)	•	•	٠	•*	•	•
Additional Mode Setting	•	•	•	•	•	-
E.S.P (External Static Pressure)	•	•	•		-	-
Reservation	Weekly / Yearly	Weekly / Yearly	Weekly	-	Sleep, On / Off	Weekly On / Off
Child lock / Total Lock	•	•	•	•	-	-
Advanced Lock (on/off, mode, set point range)		•	Mode only	-	-	-
Electric Failure Compensation	•	•	•	**	-	•
Time Display	•	•	•	-	-	-
Filter Sign	•	•	•	-	-	•
Energy Monitoring**	•	•	•	-	-	•
2 Set Points Control	•	•	-	-	-	-
External Ports	-	DO 1	-	-	-	-

<sup>•</sup> Indoor unit needs to have functions requested by the controller

<sup>\*</sup> PQRCHCAOQW / PQRCHCAOQ doesn't offer this function

<sup>\*\*</sup> LG centralized controller(available from AC Ez Touch or higher model) with PDI (PQNUD1S40 / PPWRDB000) installation is required for this function

# STANDARD III WIRED REMOTE CONTROLLER

### 4.3 inch Color screen with a modern design





PREMTB100 (White) / PREMTBB10 (Black)

### Features 1)

### The Optimized Controller in 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

### External Device On/Off

- Customized Interlocking control with indoor status

### 2 Set Points control<sup>2)</sup>

### Multi Language support

English, French, German, Spanish, Italian, Portuguese, Polish, Czech, Russian, Chinese

Model Name	PREMTB100 / PREMTBB10
On / Off	· ·
Fan Speed Control	· ·
Temperature Setting	· ·
Mode Change	Cooling / Heating / Auto / Dehumidification / Fan
Additional Mode Setting*	Plasma Purification / Energy-Saving Cooling / Robot Cleaning / Heater / Humidification / Comfort Cooling
Auto Swing	•
Vane Control (Louver direction)	•
E.S.P (External Static Pressure)**	•
Reservation	Simple / Sleep / On & Off timer / Weekly / Yearly / Holiday
Time Display	· ·
Electric Failure Compensation	· ·
Lock	All / On & Off / Mode / Set temperature range
Filter Sign	• (Remain time + Alarm)
Energy Management	Check Energy Usage*** / Check Operation Time / Target Setting (Energy, Operation Time) / Time Limit Operation / Alarm Popup / Initialization Usage Data
Operation Status LED	•
Indoor Temperature Display	•
Indoor Humidity Display	•
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	•
Home Leave	2 set points control

\*It might not be indicated or operated at the partial product

\*\* This function is available for certain indoor unit type

\*\*\* LG centralized controller(available from AC Ez Touch or higher model) with PDI (PQNUD1S40 / PPWRDB000) installation is required for this function

Indoor unit needs to have functions requested by the contro

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

# **Fully Support MULTI V 5 functions**

# Comport Level 25.0° 31%

### **Inside Dual Sensing**

Standard III remote controller can do sensing both Temperature and Relative Humidity.



### **Comfort Cooling**

Without cooling operation stopping, this function allows MULTI V 5 IDU to maintain operation at mild cooling mode.

# **Modern Design & Intuitive Interface**



### Colorful Icon

Standard III remote controller is possible to express various colors.



### Weekly / Monthly / Yearly Trend & Target Setting control

Standard III remote controller provides convenient trend & target graph for different period.













# Easy Checking Schedule

Standard III remote controller provides clock type daily schedule.

### External Device On/Off



### **External Equipment Control**

User can turn on or off the external equipment through contact point output.



### **Customized Interlocking Control**

User can make control scenario. example) When temperature is under 10 degree, turn on the external heater.

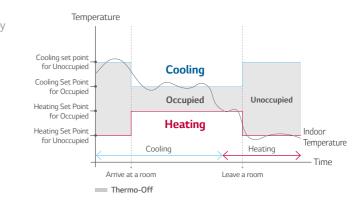
### 2 Set Points Control



# 2 Set Points Control

Ambient indoor temperature is guaranteed by setting two-point temperature for cooling and heating. Standard III remote controller automatically changes from heating to cooling (and vice versa) depending on temperature.





# Home Leave

Changeable setting for occupied / unoccupied status

# 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>

English / Portuguese / Spanish / French
 English / Italian / Russian / Chinese
 English / German / Polish / Czech

# Features 4)

### **Self-Management for Energy Saving**

- Time limit operation / Power consumption monitoring
- Weekly / Monthly / Yearly trend tracking
- Target alert alarm
- Temperature range setting

### **Design with User's Convenience**

- Full touch / Intuitive GUI (Graphic User Interface)
- Main display simple mode / Touch buzzer

### Improved Scheduling

- Timer / Daily / Weekly / Yearly / Holiday

### 2 Set Points Control<sup>5)</sup>

Model Name	PREMTA000 / PREMTA000A / PREMTA000B			
On / Off				
Fan Speed Control				
Temperature Setting				
Mode Change	Cooling / Heating / Auto / Dehumidification / Fan			
Additional Mode Setting*	Plasma Purification / Energy-Saving Cooling / Robot Cleaning / Heater / Humidification			
Vane Control (Louver direction)				
E.S.P (External Static Pressure)**	· ·			
Reservation	Simple / Sleep / On / Off / Weekly / Yearly / Holiday			
Time Display	The second secon			
Electric Failure Compensation				
Child Lock	· ·			
Filter Sign	• (Remain time + Alarm)			
Energy Management	Check Energy Usage*** / Check Operation Time / Target Setting (Energy, Operation Time) / Time Limit Operation / Alarm Popup / Initialization Usage Data			
Operation Status LED				
Indoor Temperature Display				
Wireless Remote Controller Receiver	****			
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				
	2 Set Points Control			

\*It might not be indicated or operated at the partial product

\*\* This function is available for certain indoor unit type

\*\*\* LG centralized controller(available from AC Ez Touch or higher model) with PDI (PQNUD1S40 / PPWRDB000) installation is required for this function \*\*\*\* For ceiling type duct

4) Indoor unit needs to have functions requested by the controller

5) 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

# **Energy Management**



### **Self Energy Management**

After it gathers information about usage time or electricity usage\*, offer periodical history data to users as visual information. By using various setting mode (operation hour / electricity usage etc.), you can manage on your own.

# **User Friendly Design**



### Intuitive UI & GUI Design

It is more easy to use and control various functions.

Standard Mode

# **Enhanced Schedule Function**



Yearly Schedule

### Yearly / Weekly Schedule Function

If you set the schedule all at once, you will be able to effectively manage for various lengths of time. It provides 5 kinds of reservation functions. (Timer, Daily, Weekly, Yearly, Holiday)

# denury 81-67 Tarjet 42 hr. Uses 36 hr. Tarjet 42 hr. Tarjet 43 hr. Tarjet 43 hr. Tarjet 43 hr. Tarjet 44 hr.

### Weekly / Monthly / Yearly Trend & Target Setting Control

Premium remote controller provides convenient trend & target graph for different period.



\* Centralized control (PACS4B000 / PACP4B000 / PQNFB17C0 / PLNWKB000) and PDI (PQNUD1S40 / PPWRDB000) should be installed for this function

### 

### **Display Configuration**

Users can use of five buttons as shortcuts for frequently used features.

Simple Mode

# Weekly schedule Em V. VACATION AUTUAN Empty Empty

### **Easy Pattern Schedule**

It is possible to embody various schedules as pattern setting.

Weekly Schedule Pattern



 Available to save up to a maximum of 20 error histories, 20 holiday reservations and 5 daily event on week

Weekly Schedule

### 2 Set Points Control



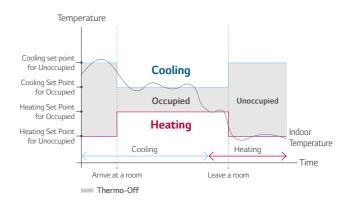
### 2 Set Points Control

Ambient indoor temperature is guaranteed by setting two-point temperature for cooling and heating. New Standard III remote automatically changes from heating to cooling (and vice versa) depending on temperature.



### Home Leave

Changeable setting for occupied / unoccupied status



### INDIVIDUAL CONTROL SOLUTION

# STANDARD II WIRED REMOTE CONTROLLER

# SIMPLE WIRED REMOTE CONTROLLER

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

A simple way to control office or hotel systems in a compact design  $% \left\{ 1,2,\ldots ,n\right\}$ 





Standard II
PREMTB001 (White) / PREMTB001 (Black)

# Features<sup>1)</sup>

Model Name	PREMTB001 / PREMTBB01
On / Off	•
Fan Speed Control	•
Temperature Setting	
Mode Change	Cooling / Heating / Auto / Dehumidification / Fan
Additional Mode Setting	Plasma Purification / Energy-Saving Cooling / Robot Cleaning / Heater / Humidification
Auto Swing	•
Vane Control (Louver direction)	•
E.S.P (External Static Pressure)	•
Reservation	Simple / Sleep / On / Off / Weekly / Holiday
Time Display	•
Electric Failure Compensation	•
Child Lock	•
Filter Sign	• (Remain time + Alarm)
Operation Status LED	•
Indoor Temperature Display	•
Wireless Remote Controller Receiver	**
Size (W x H x D, mm)	120 x 121 x 16
Blacklight	•
Power Consumption Monitoring	e**
Check Model Information	•

<sup>\*</sup> For ceiling type duc

Indoor unit needs to have functions requested by the controller



Simple



Simple for Hotel

### Simple

PQRCVCL0QW (White) /
PQRCVCL0Q (Black)

### Simple for Hotel

PQRCHCA0QW (White) /
PQRCHCA0Q (Black)

# Features<sup>1)</sup>

Model Name	PQRCVCL0QW / PQRCVCL0Q	PQRCHCA0QW / PQRCHCA0Q
On / Off		•
Fan Speed Control		•
Temperature Setting		•
Mode Change	Cooling / Heating / Auto / Dehumidification / Fan	Only Changeable by Central Controller
Auto Swing		-
Vane Control (Louver direction)	•	-
E.S.P (External Static Pressure)	•	•
Electric Failure Compensation	•	-
Child Lock		•
Indoor Temperature Display		•
Wireless Remote Controller Receiver	.*	e <sup>sk</sup>
	70 x 121 x 16	70 x 121 x 16
		•

<sup>\*</sup> For ceiling type duct

<sup>\*\*</sup> LG centralized controller(available from AC Ez Touch or higher model) with PDI (PQNUD1S40 / PPWRDB000) installation is required for this function

<sup>1)</sup> Indoor unit needs to have functions requested by the controller

### INDIVIDUAL CONTROL SOLUTION

# **WIRELESS REMOTE CONTROLLER**

# **LG Wi-Fi MODEM**

Control LG air conditioners via using the internet devices as Android or iOS bases smartphones

PQWRHQ0FDB

E LG

PWFMDD200

### **Features**

Model Name	PQWRHQ0FDB		
On / Off			
Fan Speed Control	·		
Temperature Setting	·		
Mode Change	Cooling / Heating / Auto / Dehumidification / Fan		
Additional Mode Setting	Plasma Purification / Energy-Saving Cooling / Robot Cleaning / Auto Dry		
Auto Swing			
Vane Control (Louver direction)			
Reservation	Sleep / On / Off		
Indoor Temperature Display	·		
Sleep Mode Auto	Max. 7 hours		
	51.4 x 153 x 26		

### **Features**

- Access LG air conditioner anytime and from anywhere with Wi-Fi equipped device
- LG's exclusive Home Appliances control app(SmartThinQ) is available
- Simple operation for various functions
- On/Off - Fan Speed
- Operation Mode
   Vane Control<sup>2)</sup>
- Current/Set Temperature- Reservation (Sleep, Weekly On/Off)
- Energy Monitoring <sup>1)</sup> Filter Management Error check

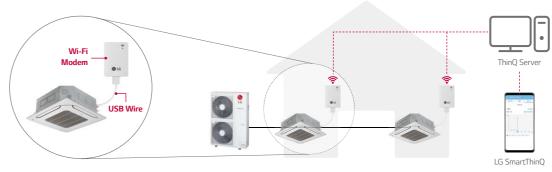
Model Name	PWFMDD200
Size (W x H x D, mm)	48 x 68 x 14
Interfaceable Products	Multi V Indoor unit 3)
Connection Type	Indoor unit 1:1
Communication Frequency	2.4 GHz
Wireless Standards	IEEE 802.11b/g/n
Mobile Application	LG SmartThinQ (Android v4.1(Jellybean) or higher, iPhone iOS 9.0 or higher)
Optional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

- \* Functionality may be different according to each IDU model
- \* User interface of application shall be revised for its design and contents improvement
- \* Application is optimized for smartphone use, so it may not be well functioning with tablet devices

  1) LG Centralized controller and PDI installation is required for this function
- 2) Vane Control may not be possible according to the type of Indoor unit
- 3) For the compatibility with Indoor unit, please contact regional office



# **Overview**



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

CONTROL SOLUTION

### INDIVIDUAL CONTROL SOLUTION

# Wi-Fi CONTROLLER 1)

# Wi-Fi CONTROLLER 1)

IntesisHome\*

### **Features**

- No need external power
- CAC system unit capacity (SCAC, Multi and MULTI V)
- Control and monitor by mobile device
- Additional internet service has to be available and registration user account in IntesisHome cloud to use Wi-Fi controller is mandatory
- IntesisHome cloud application is available for smart devices such as smart phone(Android, iOS), laptop, tablet.

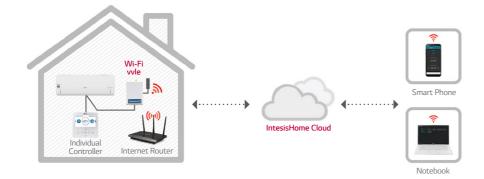
Model Name	LG-RC-WF-1
Start / Stop Operation	
Operation Mode	Cool / Heat / Auto / Fan / Dry
Set Point	•
Ambient Temperature	•
Fan Speed	

LG-RC-WF-1

# **Specifications**

Model Name	LG-RC-WF-1
Enclosure	ABS (UL 94 HB), 2.5 mm thickness
Dimensions (mm)	70 x 108 x 28 mm
Weight (g)	80g
Color	White
Power Supply	12V, 60mA typical Doesn't require external power supply (supplied by the Indoor Unit)
Mounting	Wall
Operating Temperature	From 0°C to 40°C
Operating Humidity	<93% HR, no condensation
Stock Humidity	<93% HR, no condensation
RoHS Conformity	Compliant with RoHS directive (2002/95/CE)
Certifications	CE conformity to EMC directive (2004/108/EC) ,Low-voltage directive (2006/95/EC) EN 60950-1 / EN301489-1 v1.8.1 / EN 301489-17 v2.1.1

### **Overview**



1) This product is provided by Intesis.

# **Models Applied**

- Connectable with the indoor unit having IR receiver Control and monitor
- Power supply includes EU-UK-US-AU heads
- UK-US-AU heads
   Easy to install: Wall or desktop mounted
- On / Off status and mode indicated by LED light
- Automatic firmware Updates\*
- Additional internet service has to be available and registration user account in IntesisHome cloud to use Wi-fi controller is mandatory
- IntesisHome cloud app is available for android phone or iOS phone

# Model Name Start / Stop Operation Operation Mode Cool / Heat / Auto / Fan / Dry Set Point Ambient Temperature Fan Speed .

LG-IR-WF-1

# **Specifications**

Model Name	LG-IR-WF-1
Enclosure	ABS (V-O, 5VB) 2,1 mm thickness PC (V-2) 1mm thickness
Dimensions (mm)	81 × 78 × 28
Weight (g)	76
Color	White
Power Supply	5VDC 0,2 A NEC Class 2 or Limited Power Source (LPS) and SELV Rated Power supply
Mounting	Wall
LED Indicators	1 × Device Status
Operating Temperature	From 0°C to 40°C
Operating Humidity	<93% HR, no Condensation
Stock Humidity	<93% HR, no Condensation
RoHS Conformity	Compliant with RoHS Directive (2002 / 95 / CE)
Certifications	Compliant with RoHS Directive (2002 / 95 / CE) CE Conformity to EMC Directive (2004 /108 / EC) and Low-voltage Directive (2006 / 95 / EC) EN 60950-1 / EN 301489-1 v1.8.1 / EN 300328

### **Overview**

### Case 1. Connection with Indoor Units with IR Receiver



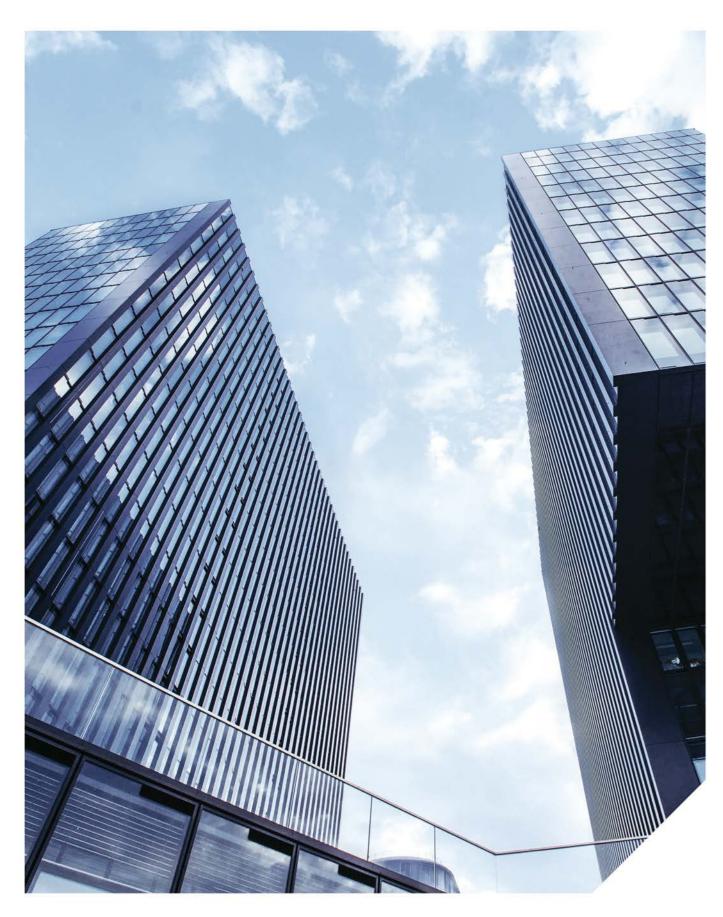
Case 2. Connection with Duct Type Indoor Units



nternet access is necessary

# SOLUTIO

# CENTRALIZED CONTROL SOLUTION



CENTRALIZED CONTROL SOLUTION

# **LINE-UP**



# **Central Controller Line Up**

Model Name	PQCSZ250S0	PACEZA000	PACS5A000 PACS4B000	PACP5A000 PACP4B000	PACM5A000
	2 6 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	ALT STEELS AND STEELS		• u 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	• 10
Maximum number of units	32	64	128	256	8,192
Individual / Group Control	•	•	•	•	•
Individual Controller Lock	•	•	•	•	•
Error Check	•	•	•	•	•
Slave Mode (Interlocking with higher level controller)	•	•	•	-	-
Schedule	Weekly	Yearly	Yearly	Yearly	Yearly
Remote Access	-	By client S/W	Web	Web	Web
Emergency Stop & Alarm Display	-	•	•	•	•
Power Consumption Monitoring (with PDI)	-	•	•	•	•
Auto Changeover / Setback	-	•	•	•	•
Temperature Limit	-	•	•	•	•
Operation Time Limit	-	-	•	•	•
Visual Navigation	-	-	•	•	•
Operation Trend	-	-	•	•	•
Interlock Control	-	-	•	•	•
Virtual Group Control	-	-	•	•	•
ODU Capacity Control*	-	-	•	•	•
Energy Navigation (with PDI)	-	-	•	•	•
ACS IO Module Interlocking	-	-	•	•	•
BMS Integration (BACnet, Modbus protocol)	-	-	• (PACS5A000 only)	• (PACP5A000 only)	-
NEW IPv6 Support	-	•	• (PACS5A000 only)	• (PACP5A000 only)	-

<sup>\*</sup> This function is available for certain prod

# **AC SMART 5**

AVAILABLE FROM MID 2018 ONWARDS

All-in-One solution for BMS integration up to 128 units via BACnet and Modbus protocol as well as its own smart management function with touch screen interface

PACS5A000

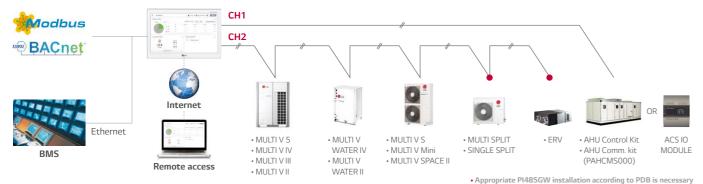


### **Features**

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, Level display (for ERV/ERV DX) / Night Time Free Cooling (for ERV/ERV DX)
Error Check	•
Slave Mode (Interlocking with higher level controller)	
Schedule	Weekly / Monthly / Yearly / Exception day
Web Access	•
Emergency Stop & Alarm Display	•
Power Consumption Monitoring (with PDI)	•
Auto Changeover / Setback	•
Temperature Limit	•
Operation Time Limit	•
Visual Navigation	•
Operation Trend	•
Interlock Control	•
Virtual Group Control	•
ODU Capacity Control	•
Energy Navigation (with PDI)	•
Daylight Saving Time	•
ACS IO Module Interlocking	Max. 9
External IO Port	DI 2 / DO 2
BMS Integration 3)	BACnet IP / Modbus TCP
IPv6 Support	

1) Chiller Option Kit(PCHLLN000) is required 2) It is only available in some products 3) For the detail point list, please refer to the installation manual

# **Installation Scene**



### **Features**



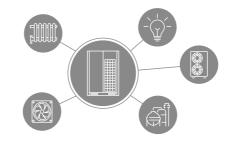
### **BMS** Integration

Without additional device, AC Smart 5 provides BACnet/IP and Modbus TCP/IP interface for BMS(Building Management System) integration as well as its own management function.



### **Energy Management**

Energy navigation function allows air conditioners operation to be managed under the monthly plan of energy usage. By analyzing present energy consumption and comparing with the plan, overuse of system operational costs can be prevented.



### Device Interlock

Building Facility can be interlocked with LG HVAC system on the automated control logic.



### **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. HTML5 makes the web access to AC Smart 5 easier and look good on all devices, especially for mobile.



### **Visualized Control**

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



### **Operation Trend**

Unit's operation status change in the past can be traced to help establishing reasonable operation plan of the site.

# **AC EZ TOUCH**

Smart management with 5 inch touch screen for small site

AC EZ TOUCH

PM 04:03

Alroon control

Vent control

Schedule

Report

Setting

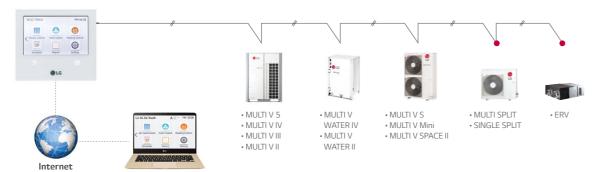
### PACEZA000

### **Features**

Model Name	PACEZA000
Size (W x H x D, mm)	137 x 121 x 25
Interfaceable Products	MULTI V / ERV / ERV DX / Hydro kit / THERMA V
Maximum number of units	64
Individual / Group Control	On & Off / Mode / Temperature / Fan speed
Individual Controller Lock	Temperature / Mode / Fan speed / All
Error Check	
Slave Mode (Interlocking with higher level controller)	
Schedule	Weekly / Monthly / Yearly / Exception day
Remote Access	By client S/W
Emergency Stop & Alarm Display	
Power Consumption Monitoring (with PDI)	•
Auto Changeover / Setback	
Temperature Limit	
Operation History	Error
ODU Low Noise <sup>1)</sup>	
Daylight Saving Time	
External IO Port	DI 1
IPv6 Support	

<sup>1)</sup> It is only available in some products

# **Installation Scene**



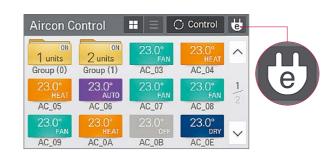
Appropriate PI 485 should be used according to PDB

### **Features**



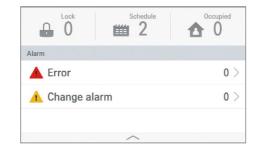
### **PC** Access

Users can control each space efficiently through PC access.



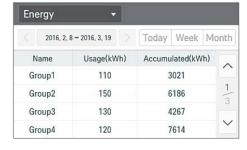
### **Energy Mode**

When using energy mode function, operation mode changes from cooling to fan or heating to off mode by force.
(It is available only air conditioner and 'on' mode indoor unit)



### **Alarm Indicator**

It works when there are some errors or it's time to change the filter. Users can respond immediately according to alarm indicator therefore HVAC system is monitored consistently.



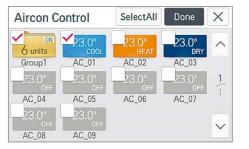
### **Energy Statistics (with PDI)**

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

Schedule_Month ▼ ⊕ Add							
Sun	Mon	Tue	Wed	Thu	Fri	Sat	١
28	29	1	2	3	4	5	^
6	7	8	9	10	11	12	
13	14	15	16	17	18	19	03
20	21	22	23	24	25	26	03
27	28	29	30	31	1	2	
3	4	5	6	7	8	9	~

### 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.



### **Group / Individual Control**

According to the situation, it can be controlled by group or each indoor unit. It is useful to monitor or control for the best fit of request.

# **AC SMART IV**

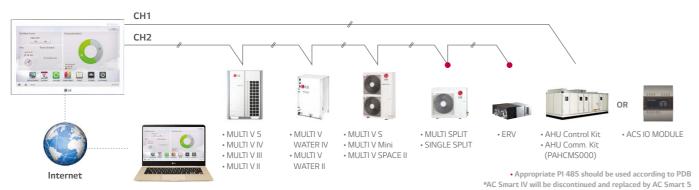
Large 10.2 inch touch screen with intuitive GUI (Graphic User Interface) allows easy control

### **Features**

Model Name	PACS4B000
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 1)
Maximum number of units	128
Individual / Group Control	On & Off / Mode / Temperature / Fan Speed
Individual Controller Lock	Temperature / Mode / Fan speed / All
Error Check	
Slave Mode (Interlocking with Higher Level Controller)	
Schedule	Weekly / Monthly / Yearly / Exception day
Web Access <sup>2)</sup>	
Emergency Stop & Alarm Display	
Power Consumption Monitoring (with PDI)	
Auto Changeover / Setback	·
Temperature Limit	
Operation Time Limit	
Visual Navigation	
Interlock Control	
Virtual Group Control	
ODU Capacity Control	
Energy Navigation (with PDI)	·
Daylight Saving Time	
ACS IO Module Interlocking	Max. 9
External IO Port	DI 2 / DO 2

- 1) Chiller Option Kit (PCHLLN000) is required
  2) Assignment of public IP address is required to access central controller through internet please contact regional office to have detailed Internet connection configuration

### **Installation Scene**



**CENTRALIZED CONTROL SOLUTION** 

# **AC EZ**

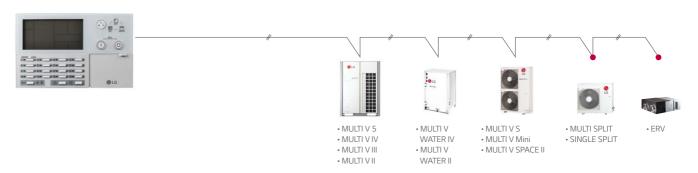
Easy to manage up to 32 indoor unit, including ERV with simple interface



### **Features**

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

# **Installation Scene**



Appropriate PI 485 should be used according to PDB

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PQCSZ250S0

smart management function with web server interface

ACP IV can be integrated to the web system that allows user can access the control system online anytime, anywhere without access to PC or specific application

PACP5A000

PACP4B000



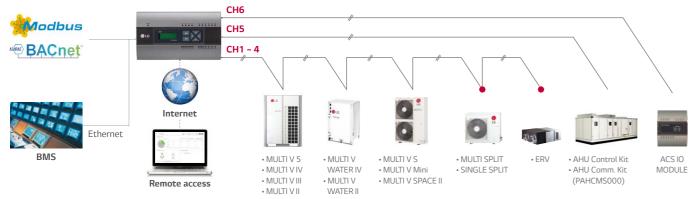
### **Features**

Model Name	PACP5A000
Size (W x H x D, mm)	270 × 155 × 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 2)	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	·
Schedule	Weekly / Monthly / Yearly / Exception day
Web Access	·
Emergency Stop & Alarm Display	·
Power Consumption Monitoring (with PDI)	·
Auto Changeover / Setback	·
Temperature Limit	·
Operation Time Limit	·
Visual Navigation	·
Operation Trend	·
Interlock Control	·
Virtual Group Control	·
ODU Capacity Control	
Energy Navigation (with PDI)	·
Daylight Saving Time	·
ACS IO Module Interlocking	Max. 16
External IO Port	DI 10 / DO 4
BMS Integration 3)	BACnet IP / Modbus TCP
IPv6 Support	·

Advanced solution for BMS integration up to 256 units via BACnet and Modbus protocol as well as its own

1) Chiller Option Kit (PCHLLN000) is required 2) It is only available in some products 3) For the detail point list, please refer to the installation manual

# **Installation Scene**



Appropriate PI485GW installation according to PDB is necessary



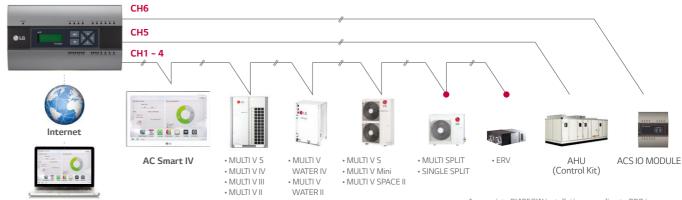
### **Features**

Model Name	PACP4B000	
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	256	
Individual / Group Control	On & Off / Mode / Temperature / Fan Speed	
Individual Controller Lock	Temperature / Mode / Fan Speed / All	
Error Check	•	
Schedule	Weekly / Monthly / Yearly / Exception day	
Web Access <sup>2)</sup>	•	
Emergency Stop & Alarm Display	•	
Power Consumption Monitoring (with PDI)	•	
Auto Changeover / Setback	•	
Temperature Limit	•	
Operation Time Limit	•	
Visual Navigation	•	
Interlock Control	•	
Virtual Group Control	•	
ODU Capacity Control	•	
Energy Navigation (with PDI)	•	
Daylight Saving Time	•	
ACS IO Module Interlocking	Max. 16	
External IO Port	DI 10 / DO 4	

1) Chiller Option Kit(PCHLLN000) is required

2) Assignment of public IP address is required to access central controller through internet please contact regional office to have detailed Internet connection configuration

# **Installation Scene**



Appropriate PI485GW installation according to PDB is necessary

# **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**

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 <sup>1)</sup>	
Maximum number of units	8,192 (supports 32 ACP IV/5 or AC Smart IV/5)**	
ndividual / Group Control	On & Off / Mode / Temperature / Fan speed	
ndividual Controller Lock	Temperature / Mode / Fan speed / All	
Error Check	•	
Schedule	Weekly / Monthly / Yearly / Exception day	
Web Access		
mergency Alarm Display		
Power Consumption Monitoring (with PDI)		
auto Changeover / Setback		
emperature Limit		
Operation Time Limit		
isual Navigation	•	
peration Trend	•	
nterlock Control	•	
/irtual Group Control	•	
DDU Capacity Control		
nergy Navigation (with PDI)	•	
ACS IO Module Interlocking		

\*AC Manager 5 requires ACP IV/5 or AC Smart IV/5
1) Chiller Option Kit (PCHLLN000) is required













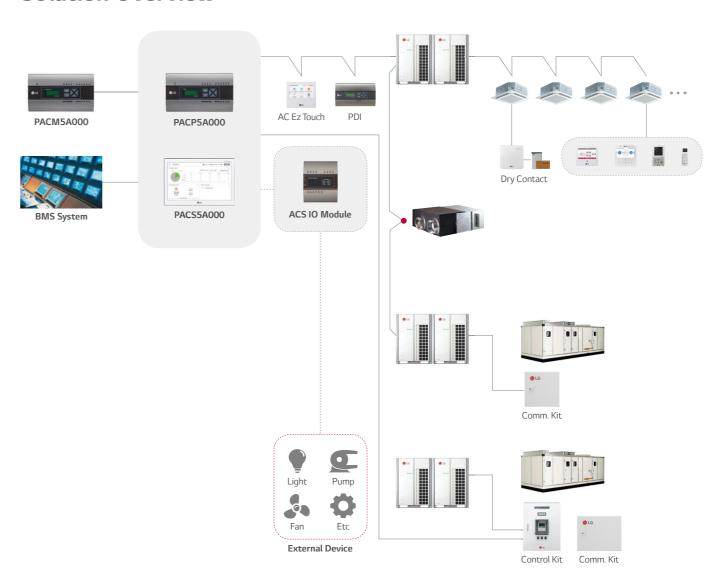




Trending Report



# **Solution Overview**



• Appropriate PI 485 should be used according to PDB

PCHLLN000

# **LINE-UP**

# PDI (POWER DISTRIBUTION INDICATOR)

**Premium** 

PQNUD1S40 (8 port)

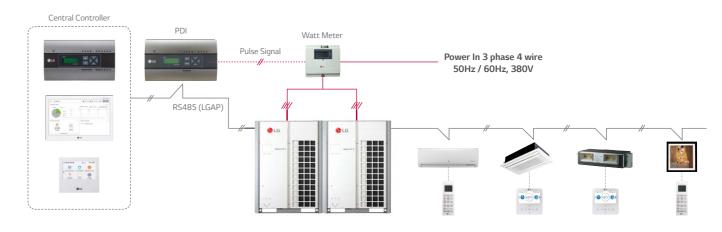
PPWRDB000 (2 port)



### **Features**

Model Name	PQNUD1S40	PPWRDB000
Size (W x H x D, mm)	270 x 155 x 65	
Interfaceable Products	Air conditioner, ERV DX	
Maximum Number of Power Meters	8	2
Maximum Number of Units	128	
Data Backup When Power Outage		
Power Input	PDI : AC 24V, Transformer : AC 220V	

# **Installation Scene**

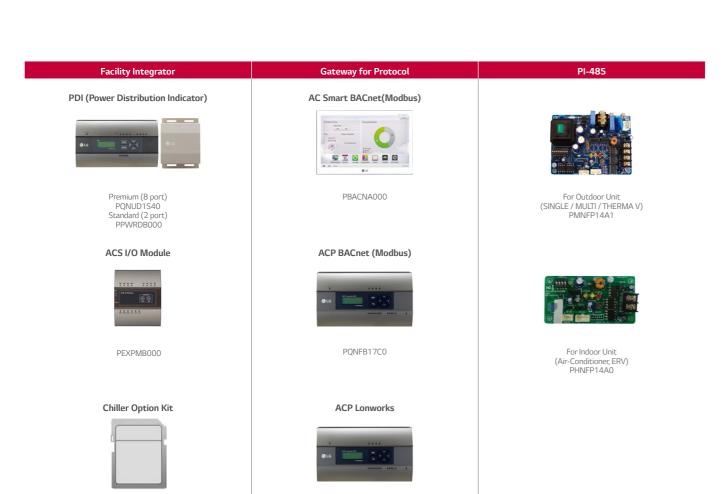


-///-	Power Cable for 3 Phase 4 Wire
	Communication Cable (2 Wire Shielded Cable)
#	Pulse Signal Wire

- \* Power cable and type could be different from this scene depending on the Outdoor unit's specification
- \* Measured power consumption could be different between PDI and Watt meter

  \* Applicable Central Controller: ACP series (IV/5/BACnet/Lonworks), AC Smart series(IV/5/BACnet), AC Ez Touch

Combination : we recommend you to connect separated watt meter for Outdoor units to have correct power distribution value



PLNWKB000

Modbus RTU Gateway

PMBUSB00A

**KNX** Gateway

LG-AC-KNX4 LG-AC-KNX8 LG-AC-KNX16 LG-AC-KNX64

PDI shows distributed power consumption of up to 128 indoor units

# **ACS I/O MODULE**

This module can be connected with ACP IV/5 or AC Smart IV/5 controller if additional I/O points such as DI/DO and AI/AO for 3rd party devices control and monitoring are needed.

UI1 UI2 UI3 UI4 HIGH LOW 0 0 0 0 0 0 DO1 DO2 DO3 DH DI2 DI3

PEXPMB000

177k Ω

1,573  $\Omega$ 1,675.2  $\Omega$ 10V

20mA

30VAC / 30VDC, 2A

 $0.68k\Omega$ 

803  $\Omega$ 

OV 0mA

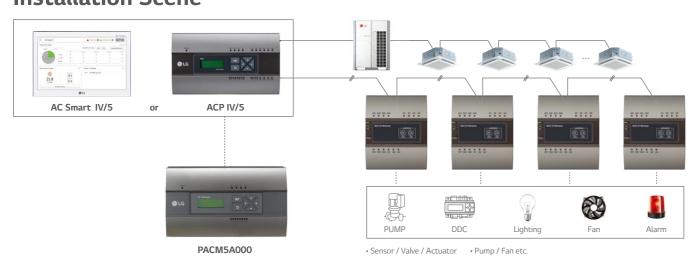
### **Features**

Model Name		РЕХРМВООО
		PACS4B000 PACS5A000 PACP4B000 PACP5A000
		1
	Digital Input	3
	Digital Output	3
1/0	Universal Input 1)	4
	Analog Output	4

	PACS4B000	PACP4B000	PACM5A000
Number of Indoor Units	64 ~ 128	128 ~ 256	8,192
Max. I/O Points	130	238	1,260
Maximum Number of Node	9	16	_

<sup>\*</sup> Maximum number of Indoor units may be reduced by increasing the number of I/O points

# **Installation Scene**



<sup>\*</sup> DI: Digital Input, DO: Digital Output, UI: Universal Input, AO: Analog Output / Please contact our regional office to have connectable relay specification for analog output

SYSTEM INTEGRATION DEVICE

# **CHILLER OPTION KIT**

LG central controller IV and 5 series with Chiller Option Kit can provide LG chiller remote control and cycle monitoring



### **Features**

Model Name	PCHLLN000	
	Evaporator status / Compressor status (Scroll, Screw, Centrifugal chiller only) Condensor status / Generator status (Abs. chiller only)	
On/Off	•	
Mode Change	Scroll chiller only	
	Scroll, Screw, Centrifugal, Absorption (LG Only)	

# Cycle Display Example





PCHLLN000

<sup>1)</sup> The type of UI (Universal Input) is selectable among Digital Input and Analog Input

 $<sup>\</sup>ensuremath{^{*}}$  The type of UI (Universal Input) is selectable among Digital Input and Analog Input

### SYSTEM INTEGRATION DEVICE

# **ACP BACNET GATEWAY**

# **AC SMART BACNET**



Features

Process Ability

- EHP Type : 128 units (Indoor / ERV / ERV DX / Hydro Kit / THERMA V)

- AHU Control kit : Maximum 16 units

 Self installation verification function on touch screen or using Internet (Web Server Included)

- Setting gateway

- Diagnosis of communication status on LG Air-conditioner network

Modbus TCP Protocol Support

• BTL Certified (B-ASC)

 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.

\* In case of using Modbus, the compatibility is different from BACnet. Refer to manual in detail.

Controlling	Monitoring Items
On / Off Command	On / Off Status
Operation Mode Setting	Operation Mode Status
Fan Speed Setting	Fan Speed Status
Lock Setting	Lock Status
Air Flow Setting	Air Flow Setting
Set Temperature Setting	Set Temperature Status
-	Current Space Temperature Status
-	Error Status
User Mode Setting (for only ERV)	User Mode Status (for only ERV)
-	Accumulator Power Distribution Status
Upper Limit Temp. Setting	Upper Limit Temperature Status
Low Limit Temp. Setting	Low Limit Temperature Status
Mode Lock Setting	Mode Lock Status
AC Operation Mode Setting (ERV DX only)	Air Conditioner Operation Mode Status (ERV DX only)
AC On / Off Command (ERV DX only)	Air Conditioner On / Off Status (ERV DX only)

PBACNA000



\* Please refer PDRYCB500 for Modbus RTU

PQNFB17C0

### **Features**

Process Ability

- EHP Type: 256 units (Indoor / ERV / ERV DX / Hydro Kit / THERMA V)

- AHU Control kit: Maximum 16 units

 Self installation verification function using internet (Web Server Included)

- Setting gateway

- Diagnosis of communication status on LG Air-conditioner network

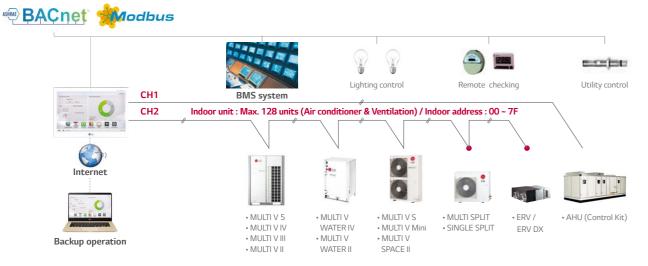
• Modbus TCP Protocol Support

• BTL Certified (B-ASC)

 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.

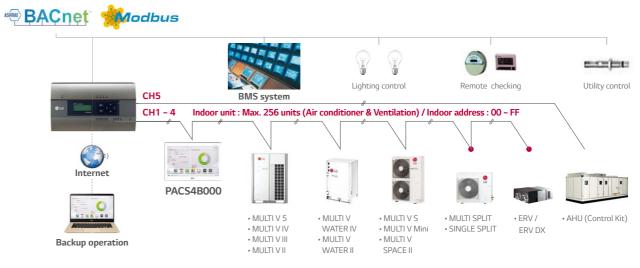
Controlling	Monitoring Items
On / Off Command	On / Off Status
Operation Mode Setting	Operation Mode Status
Fan Speed Setting	Fan Speed Status
Lock Setting	Lock Status
Air Flow Setting	Air Flow Setting
Set Temperature Setting	Set Temperature Status
-	Current Space Temperature Status
-	Error Status
User Mode Setting (for only ERV)	User Mode Status (for only ERV)
-	Accumulator Power Distribution Status
Upper Limit Temp. Setting	Upper Limit Temperature Status
Low Limit Temp. Setting	Low Limit Temperature Status
Mode Lock Setting	Mode Lock Status
AC Operation Mode Setting (ERV DX only)	Air Conditioner Operation Mode Status (ERV DX only)
AC On / Off Command (ERV DX only)	Air Conditioner On / Off Status (ERV DX only)

# **Installation Scene**



<sup>1)</sup> Assignment of public IP address is required to access central controller through internet. \*AC Smart BACnet will be discontinued and replaced by AC Smart 5

### **Installation Scene**



Assignment of public IP address is required to access central controller through internet \*ACP BACnet will be discontinued and replaced by ACP 5

Appropriate PI 485 should be used according to PDB

<sup>\*</sup> In case of using Modbus, the compatibility is different from BACnet. Refer to manual in detail

Appropriate PI 485 should be used according to PDB

**ACP LONWORKS GATEWAY** 

### SYSTEM INTEGRATION DEVICE

# **MODBUS RTU GATEWAY**

AVAILABLE FROM IID 2018 ONWARDS

Providing Modbus RTU connection between LG Air conditioners and BMS

### **Features**

- Process Ability
- EHP Type: 64 units (Indoor / ERV / Hydro Kit / THERMA V)
- AHU Control kit : Maximum 16 units
- Connect to use Lonworks® protocol and LG air conditioner protocol.
- Self installation verification function using internet (Web Server Included)
- Setting gateway

220

- Diagnosis of communication status on LG Air-conditioner network

1) Assignment of public IP address is required to access central controller through internet

• 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.

Controlling	Monitoring Items
On / Off Command	On / Off Status
Operation Mode Setting	Operation Mode Status
Fan Speed Setting	Fan Speed Status
Lock Setting	Lock Status
Air Flow Setting	Air Flow Setting
Set Temperature Setting	Set Temperature Status
-	Current Space Temperature Status
-	Error Status
-	Accumulator Power Distribution Status
Upper Limit Temperature Setting	Accumulator Power Distribution Status
Low Limit Temperature Setting	Low Limit Temperature Setting
Mode Lock Setting	Mode Lock Status
Peak Operation Ratio Setting	Peak Operation Ratio Setting
All On / Off Setting	-
-	Total Accumulate Power Status

### **Installation Scene**



### • Appropriate PI 485 should be used according to PDB

PMBUSB00A

# **LG**

### **Features**

- Function
- MODBUS RTU communication with MODBUS master controller
- Applicable for MULTI V
- Max. 16 IDUs with single module / Max. 64 IDUs with 4 modules
- MODBUS RTU slave (RS485) / 9,600 bps
- Size (W\*H\*D): 53.6 x 89.7 x 60.7
- Power: DC 12V

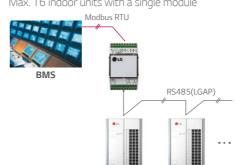
### Modbus Memory Map\*

Register	Read	Write	Description	Notes
00001	•	•	Operation	0: Off / 1: On
00002	•	•	Total Lock	0 : Unlock / 1 : Lock
00005	•	•	Auto Swing	0 : Manual / 1 : Auto
00006	•	•	Operation Mode Lock	0 : Unlock / 1 : Lock
00007	•	•	Fan Speed Lock	0 : Unlock / 1 : Lock
00008	•	•	Set Temperature Lock	0 : Unlock / 1 : Lock
10001	•	-	Error Alarm	0 : Normal / 1 : Error
10002	•	-	Thermo On / Off	0 : Thermo Off / 1 : Thermo On
30001	•	-	Error Code	0 ~ 255
30002	•	-	Pipe In Temperature	Degrees C x 10
30003	•	-	Pipe Out Temperature	Degrees C x 10
30004	•	-	Room Temperature	Degrees C x 10
40001	•	•	Operation Mode	0 : Cooling / 1 : Dry / 2 : Fan / 3 : Auto / 4 : Heating
40002	•	•	Set Temperature	Degrees C x 10
40003	•	•	Fan Speed	1 : Low / 2 : Medium / 3 : High / 4 : Auto

# **Installation Scene**

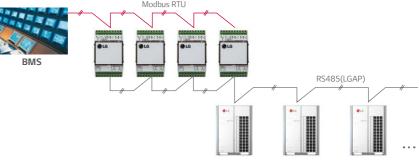
### Single module

Max. 16 indoor units with a single module



### Multiple module

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



Max. 16 outdoor units in one RS485(LGAP) line

# **KNX GATEWAY** 1)

Specially designed to allow monitoring and bidirectional control of all the parameters and functionality of LG air conditioners from KNX installations

LG-AC-KNX4 / LG-AC-KNX8 LG-AC-KNX16 / LG-AC-KNX64

### **Features**

- Easy installation, direct connection to all outdoor units (communication interface PMNFP14A1, when needed) and Heat recovering units (communication interface PHNFP14A0, when needed) through the RS485 Bus.
- Great integration flexibility. Using the supplied software LinkBoxEIB, a complete set of communication objects can be accessed.
- Direct connection to KNX bus
- Independent management of communications
- Power supply: 9 to 24V DC or 24V AC
- Standard DIN-Rail 6 modules enclosure
- Maximum connection unit
- LG Slave Central controller (for example, AC Smart) and PDI can be operated with KNX gateway.

# Model Name Max. Connection Units LG-AC-KNX4 4 LG-AC-KNX8 8 LG-AC-KNX16 16 LG-AC-KNX64 64

# Link BoxEIB Configuration Software for IntesisBox® KNX serious

Easy to use tool for the configuration of intesisBox, in a fast and effective way.

It offers the maximum integration possibilities with a minimal knowledge required on the system to be integrated.



- Only needed during configuration.
- One single tool for the configuration of the whole range of IntesisBox KNX series gateways.
- Supplied with IntesisBox with no additional cost.
- Configuration examples for all systems that can be integrated.
- Mapping table editable using excel, allowing a simple and fast association of KNX Group Addresses, exported from ETS, to IntesisBox's datapoints.
- Includes powerful and useful features for configuration, setup and troubleshooting.

### **Installation Scene**

Configuration Software LinkBoxEIB (above 1.1.22)  Conly Needed For Configuration)  EIB Bus	KNX
RS232 RS485	
IntesisBox LG-AC-KNX4 LG-AC-KNX8 LG-AC-KNX16	
LG-AC-KNX64 • AC Smart I	V •PDI •MULTI V 5 •MULTI V •MULTI V S •MULTI SPLIT •ERV •MULTI V IV WATER IV •MULTI V Mini •SINGLE SPLIT
This product is provided by INTESIS.     Appropriate PI 485 should be used according to PDB	MULTI V III

SYSTEM INTEGRATION DEVICE

# PI 485

PI 485 converts LG air conditioner's protocol to the RS485 protocol for the central controller



### **Features**



- Model Name: PMNFP14A1
- Power : Single Phase AC 220V 50/60Hz
- 1 for Each Outdoor Unit
- MULTI V MINI (ARUN40GS2A / ARUV40GS2A Only needs PI485)
- SINGLE SPILIT MULTI SPLIT THERMA V



- Model Name: PHNFP14A0
- Power: Connected with the Indoor Units
- 1 for Each Indoor Unit
- Indoor Unit (Air-Conditioner, ERV)
- \* MULTI V PLUS II & MULTI V III & MULTI V IV series do not require any other PI 485 since these series have PI 485 in its outdoor unit PCB.

PMMFP14A1 / PHNFP14A0

# CONTROL SOLUTION

# OTHER INTEGRATION CONTROL SOLUTION



### OTHER INTEGRATION CONTROL SOLUTION

# **LINE-UP**

Indoor Unit				
Dry Contact	Control Accessory	Outdoor Unit	AHU Kit	
Simple Dry Contact	Group Control Wire	IO Module (Input / Output Module)	Communication Kit	
			<b>⊕</b> LG	
			*	
PDRYCB000	PZCWRCG3	PVDSMN000	PAHCMR000	
PDRICEOUU	PZCVVRCG3	PVD3IVIIVOOO	PARCIVIRUUU	
2 Points Dry Contact	Remote Temperature Sensor	Dry Contact for Demand Control		
41110	Thereton There		<b>⊕</b> LG	
••			•	
PDRYCB400	PQRSTA0	PQDSBCDVM0	PAHCMS000	
Dry Contact for Thermostat	Zone Controller	Variable Water Flow Control Kit	Control Kit	
			(AND DESCRIPTION OF THE PARTY O	
			1	
DDDVCD200	AD7CA	DIAFECIALOGO	DDC/D245	
PDRYCB300	ABZCA	PWFCKN000	PRCKD21E PRCKD41E	
For Modbus			EEV Kit (Electronic Expansion Val	
name.		<b>: 1</b>	<b>6</b> LG	
Control of the contro				
<b>♦</b> 10				
PDRYCB500		PRVCO	PRLK048A0 / PRLK096A0	
		Low Ambient Kit	TXV Kit (Thermal Expansion Valv	
			<b>(</b> LG	
			772 27	
			DATIMAN OF ADATMAN	
		PRVC2	PATX13A0E / PATX20A0E PATX25A0E / PATX35A0E PATX50A0E	
		Cool / Heat Selector		
		<b>0</b> 12		
		₩ <sup>-</sup>		
		PRDSBM		

# **DRY CONTACT**

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

PDRYCB000





# **Features**

Model Name	PDRYCB000
Contact Point	1 Contact Point
Contact Voltage Rating	AC 220V
On / Off Control	·
Error Alarm Output	
Operation On / Off Output	·
Rotary Switch 1 (Set Temperature selection)	
Rotary Switch 2 (Operation Logic selection)	
Size (W x H, mm)	120 x 120

# **Signal Point**



# **Installation Scene**

226



PDRYCB400



### **Features**

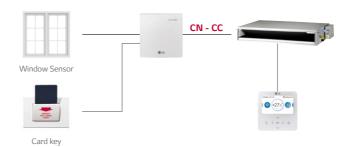
Model Name	PDRYCB400	
Contact Point	2 Contact Point	
Contact Voltage Rating	DC 5 ~ 12V / Non Voltage	
On / Off Control	•	
Error Alarm Output		
Operation On / Off Output		
Rotary Switch 1 (Set Temperature selection)		
Rotary Switch 2 (Operation Logic selection)	•	
Size (W x H, mm)	120 x 120	

# **Signal Point**

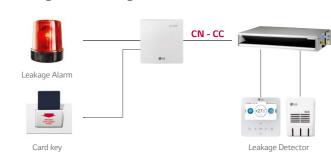


# **Installation Scene**

### 2 inputs interworking



### Refrigerant leakage detection alarm



# **DRY CONTACT**

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

PDRYCB300 PDRYCB500



### **Features**

Model Name	PDRYCB300	
Contact Voltage Rating	DC 5 ~ 12V / Non Voltage	
On / Off Control		
Mode Control	·	
Fan Speed Setting	·	
Thermo Off	· ·	
Error Alarm Output	·	
Operation On / Off Output	·	
Rotary Switch 1 (Set Temperature Selection)		
Rotary Switch 2 (Operation Logic Selection)	·	
Size (W x H, mm)	120 x 120	

# **Signal Point**



# **Installation Scene**



<sup>\*</sup> Please contact our regional office to have full compatible room controller list



# **Features**

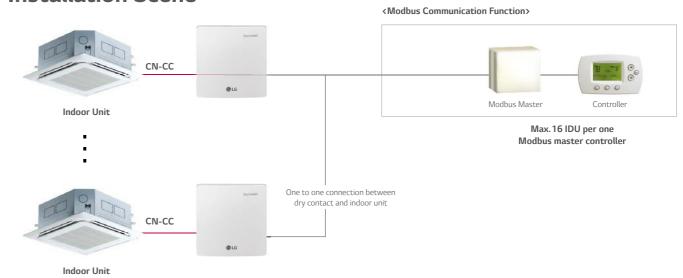
### **Function**

- MODBUS communicate with MODBUS master controller
- MODBUS RTU slave / 2 wire RS485 / 9,600bps
- Max.16 IDUs can be connected with one MODBUS master controller Size (W x H x D): 120mm x 120mm x 36.5mm

### Memory map

Register	Name	Range	Notes
00001	Operation	0 1	0 : Stop, 1 : Run
30003	Indoor temperature	100 400	Degrees C x 10
30100	Error alarm	0 1	0 : No Error, 1 : Error
40001	Set run mode	0 ··· 4	0 : Cooling, 1 : Dry, 2 : Fan, 3 : AI, 4 : Heating
40002	Set temperature	180 300	Degrees C x 10
40015	Set fan speed	1 3	1 : Low, 2 : Middle, 3 : High

# **Installation Scene**



<sup>\*</sup> Please contact out regional office to check the compatibility with 3rd party room controller

### OTHER INTEGRATION CONTROL SOLUTION

# **GROUP CONTROL WIRE**

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

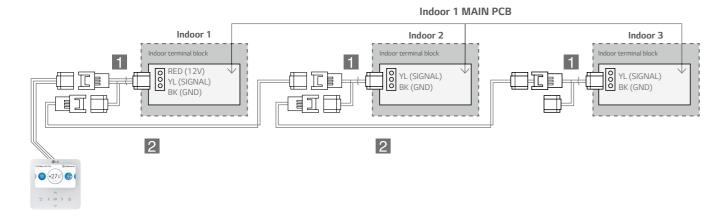




### **Features**

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

# **Installation Scene**



Note: 1 Y type Cable assembly for connecting indoor unit and low cable.

2 Long Cable assembly for connecting indoor to indoor.

- Please connect cable assembly Y type Cable with already connected indoor unit.

### Sensor for detecting the room temperature

PQRSTA0

# Features

**G**LG

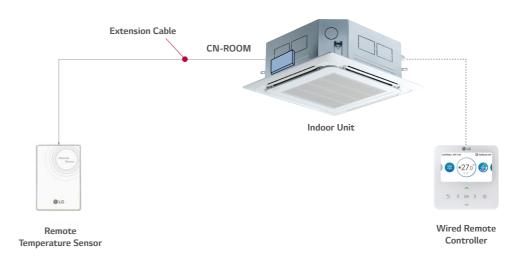
- It detects the exact room temperature instead of indoor unit's air temperature sensor
- Applied to Ceiling Mounted Cassette, Ceiling Concealed Duct, THERMA V and Hydro Kit
- Extension cable (15m) is included

# **Installation Scene**

1. Wire to the control box in the indoor unit by removing the existing thermistor and connect the extension cable its place.

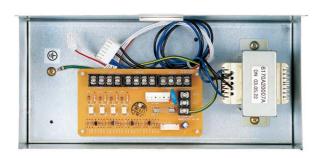
REMOTE TEMPERATURE SENSOR

2. Cut the extension cable to the appropriate length and connect the screw terminal of the remote sensor.



# **ZONE CONTROLLER**

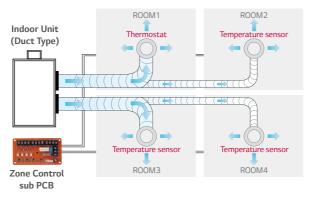
Controls air conditioning in up to 4 zones by external thermostat



ABZCA

### **Features**

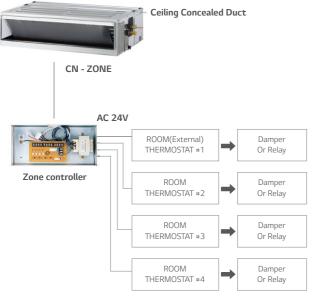
- Controls different zones (up to 4 zones) by external thermostat (AC a24V)
- Maintain proper air volume of each zone
- Auto variation of dampers
- Auto control of fan speed and On / Off operation

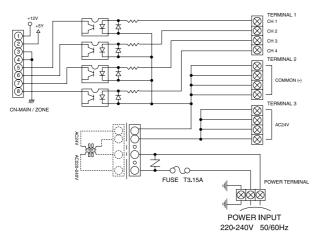


# **Models Applied**

• Ceiling Concealed Duct (refer to PDB for applicable models)

# **Wiring Diagram**





SOLUTION

# **IO MODULE**

Interface module between system air conditioner's outdoor unit and external device



# Features

### Function

- Demand control

- Low noise operation

- Output outdoor or indoor unit operation status

- Output error status

### Description

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

Note : IO Module is not compatible for MULTI V III

# **Models Applied**

• MULTI V 5

- MULTI V IV
- MULTI V WATER IV
- MULTI V S

### **Part Description**

### 1) Digital Input Part (DI: Dry Contact Input)

- Demand control by contact input (3 Step)
- Low Noise Operation input
- Priority Setting input:
- Setting the priority of demand control command
  (Capacity control for external signal from DDC vs Peak control by LG Central controller)
- Open: External signal has priority to central controller (Default)
- Close: Central controller has priority to external signal

### 2) Analog Input Part (AI: DC 0 ~ 10V)

• Demand control by analog input (10 Step)

### 3) Digital Output Part (DO: 250VAC, Max 1A)

- Error status relay output
- Operation status relay output
- Valve control

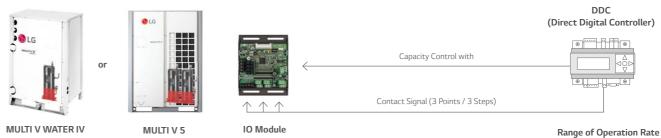
# 3 8 9 000 000 000 2

### Installation Scene

### **Demand Control**

PVDSMN000

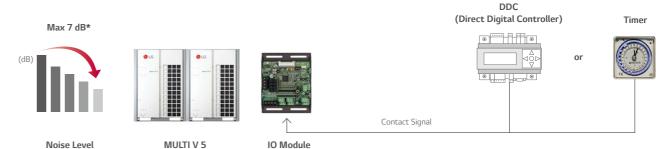
Provides variable setting for demand control according to input method to reduce power consumption. This function supports 2 types of input signal: Al  $(0 \sim 10\text{V}, 10\text{ Step})$  and contact signal (3 Step).



Al 0 ~ 10V : 0%, 40% ~ 100% Contact signal (3 steps) : 0%, 40% ~ 80%

### **Low Noise Operation**

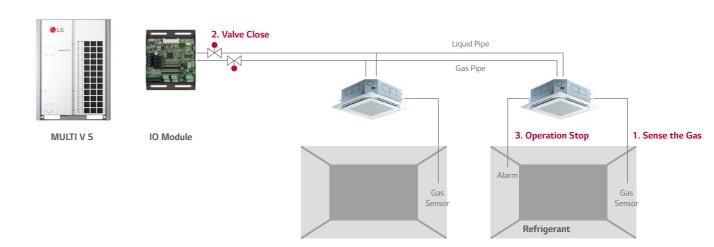
To reduce noise level, control outdoor unit's fan speed by dry contact input.



<sup>\* 8</sup> HP model, Sound power level can be changed by outdoor unit operation status and low noise operation input signal.

### Refrigerant Leakage detection with Pump-down

For safety, IO module close refrigerant valve with Pump-down



# VARIABLE WATER FLOW CONTROL KIT

Accessory developed for controlling the water flow

PWFCKN000 (MULTI V WATER IV)



PRVC0 (MULTI V WATER II)





OTHER INTEGRATION CONTROL SOLUTION

**LOW AMBIENT KIT** 

External integration module for cooling operation with -25°C low ambient temperature.

### **Features**

### Function

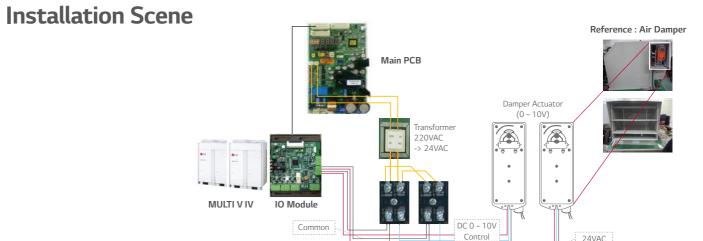
- 25°C Low ambient cooling operation by Low ambient kit and hood with damper (Analog output 0 ~ 10V)
- Demand control - Low noise operation
- Output outdoor or indoor unit operation status (250VAC, Max 1A)
- Output error status (250VAC, Max 1A)

### 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.
- \* Before apply this accessory, please contact regional sales office

# **Models Applied**

• MULTI V IV



Front

: Field Supply item

Note: The IO Module can control maximum three actuators. Please, review damper actuator's installation manual.

# **Features**

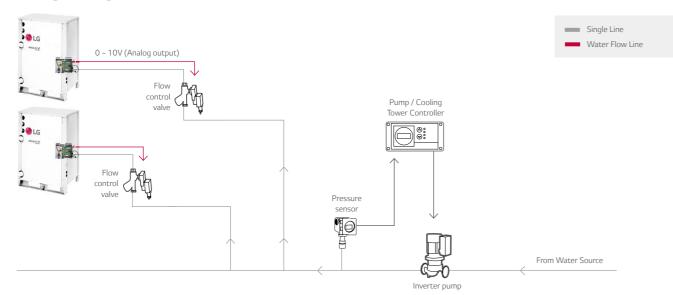
### Function

- Water pump or valve control (0 ~ 10V)
- Minimum output voltage setting available
- Operation, error output (250VAC, Max 1A)
- Dry contact input and analog output for demand control
- Digital output for operation, error status (250VAC, 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.)

236

237

Back

# **COOL / HEAT SELECTOR**

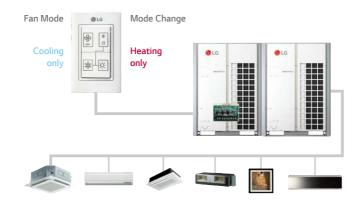
Cooling, heating, or fan mode can be selected to prevent cooling and heating mixing errors during seasonal changes



PRDSBM

# **Features**

- Indoor unit mode control without central controller
- Select operation mode : Cooling, Heating, Fan mode
- Mode lock for cooling & heating mixing error-proof during the change of season



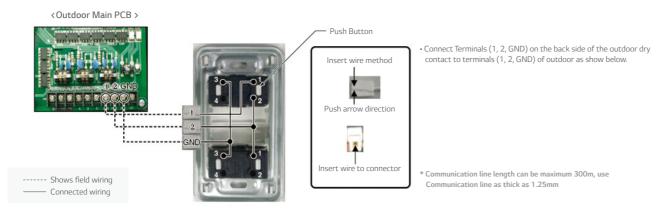
# **Models Applied**

• MULTI V 5

• MULTI V WATER II

- MULTI V IV
- MULTI V S
- MULTI V SPACE II MULTI V WATER IV
- MULTI V WATER S
- MUL TI V PLUS II, MULTI V PLUS
- MULTI V MINI

# Wiring Diagram



 $^{18}$  2

# **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**





# **CONTROL KIT**

PRCKD21E / PRCKD41E



# **EEV KIT**

PRLK048A0



### TXV Kit (Thermal Expansion Valve)

PATX13A0E / PATX20A0E PATX25A0E / PATX35A0E PATX50A0E



# **Specifications**

### **Communication & Control Kit**

			Combi	nation			Dime	mm)	
Туре	Model	Outdoor Unit	EEV Kit	TXV Kit	Centralized Controller	Description	w	н	D
	PAHCMR000	Multi V	٠	•	•	Return / room air temperature control by DDC or	200	200	155
Communication	PARCIVIRUUU	Single Split	-	-	•	LG individual / centralized controller	300	300	155
kit	DALICATOOO	Multi V	۰	٠	•	Discharge air temperature control by DDC or		200	455
	PAHCMS000	Single Split	-	-	•	LG individual / centralized controller	380	300	155
Cantonallia	PRCKD21E	Multi V	-	٠	•	Max capacity 1-4 master outdoor unit	600	750	285
Control kit	PRCKD41E	Multi V	-	•	•	Max capacity 5-8 master outdoor unit	600	750	285

### **Expansion Valves**

				Pipe Diam	eter (mm)		Dim	mm)	
Туре	Model	Capacity Range	Liquid (ODU)	Liquid (AHU)	Gas (ODU)	Gas (AHU)	w	н	D
EEV Kit	PRLK048A0	1.3 - 10 HP	12.7	12.7	-	-	217	404	83
(Electronic Expansion Valve)	PRLK096A0	12 - 20HP	12.7	12.7	-	-	217	404	83
	PATX13A0E	8 ~ 16HP	15.88	15.88	22.22	22.22	491	238	174
	PATX20A0E	18 - 26HP	15.88	22.22	28.58	28.58	491	238	174
TXV Kit (Thermal	PATX25A0E	28 - 36HP	22.22	28.58	34.92	34.92	491	238	174
	PATX35A0E	38 - 46HP	28.58	34.92	41.3	41.3	491	238	174
	PATX50A0E	48 ~ 56HP	28.58	34.92	41.3	41.3	561	291	192

### **Communication Kit**

### HIGH ENERGY EFFICIENCY

LG's DX AHU solutions are capable of performing all indoor air conditioning tasks with success under all operating conditions thanks to their superior performance with high efficiency heat

Solution benefits offer the following advantages:

- High energy efficiency inverter system
- Large range of expansion valves
- : 1.3 ~ 20 HP EEV Kit, 8 ~ 56 HP TXV Kit
- Connected to various heat sources
- : MULTI V, MULTI V WATER, MULTI V S, SINGLE SPLIT



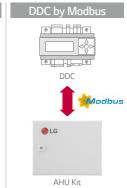
### **DIVERSE OPTIONS FOR CONTROL**

AHU communication kit can be connected to various control system such as LG individual/central controller and DDC\*. 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.

- Direct wiring between DDC and AHU communication kit
- Embedded Digital I/O and Analog Input
- Modbus RTU protocol supported
- LG Individual/Central controller supported
- LG controller stand alone or combination with DDC

\*DDC : Direct Digital Controller

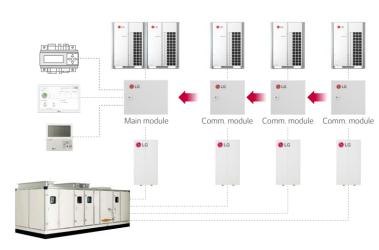
# Controller Controller DDC



### **EXPANDABLE SYSTEM DESIGN**

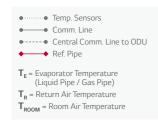
LG AHU system can be a suitable solution for various sites due to its application flexibility and wide range of line up with large capacity models. According to the required capacity, a single or multiple module combination is possible thanks to AHU communication kit's modular design.

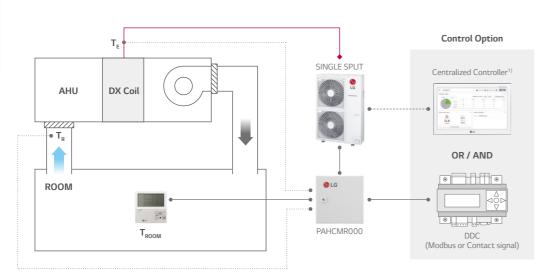
• Multiple module combination for large capacity AHU



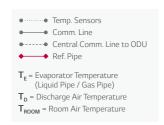
# **Communication Kit Application**

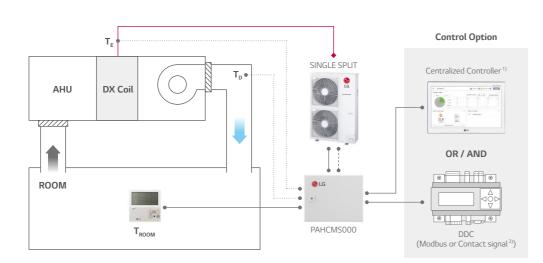
Small Capacity with Single Split + Return / Room Air Temperature Control





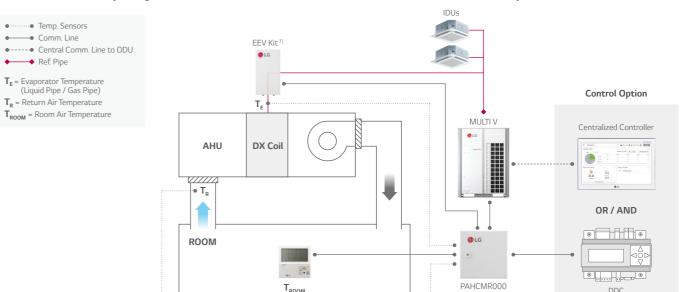
### Small Capacity with Single Split + Discharge Air Temperature Control



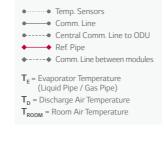


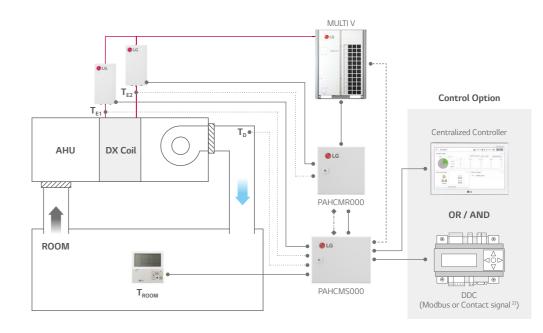
# **Communication Kit Application**

Small-Medium Capacity with MULTI V + EEV Kit + IDU + Return / Room Air Temperature Control



### Small-Medium Capacity with MULTI V + EEV Kit + Discharge Air Temperature Control





### Note

ONTROL

(Modbus or Contact signal)

<sup>1)</sup> PI485(PMNFP14A1) is required for centralized controller

<sup>2)</sup> In case of applying DDC with contact signal, discharge air temperature should be measured and controlled by DDC

<sup>3)</sup> For more detail, please refer to the PDB

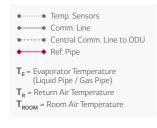
<sup>1)</sup> Multiple EEV kits can be applicable with multiple DX Coils and PAHCMR000s

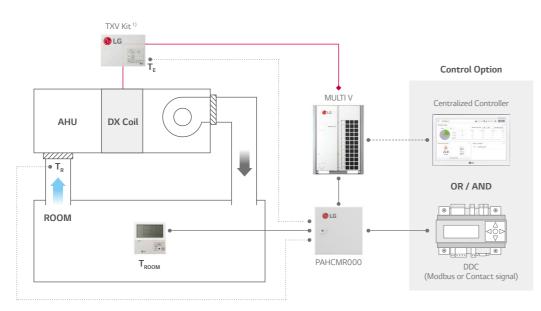
<sup>2)</sup> In case of applying DDC with contact signal, discharge air temperature should be measured and controlled by DDC

<sup>3)</sup> For more detail, please refer to the PDB

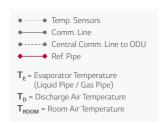
# **Communication Kit Application**

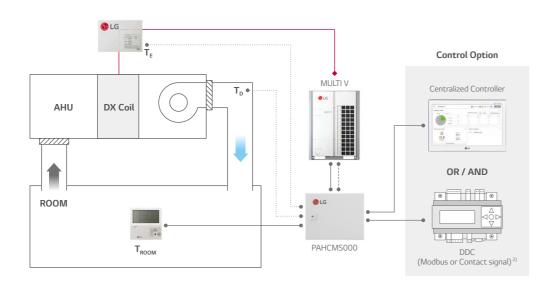
Large Capacity with MULTI V + TXV Kit + Return / Room Air Temperature Control





### Large Capacity with MULTI V + TXV Kit + Discharge Air Temperature Control





# **Communication Kit Function**

### Communication with DDC via Contact Signal

Function	List	PAHCMR000	PAHCMS000	Туре	Electric Spec.
	Comm. Kit Operation	On	/ Off	Digital Input	Non voltage
	Operation Mode 1)	Cooling	/ Heating	Digital Input	Non voltage
		16~30°C	-	Analog Input	DC 0~10 V / 20 mA
Control			-		
		-	Low / Middle / High	Digital Input	Non voltage
	Forced Thermal On / Off	On / Off	-	Digital Input	Non voltage
	Capacity Control	-	•	Analog Input	DC 0~10 V / 20 mA
	Comm. Kit Operation 2)	On	/ Off	Digital Output	Max : DC 12 V / 1A, AC 250 V / 3A
	Operation Mode		-		It needs to be checked through control signal
			-		
			-		
		Low / Mic	ddle / High	Digital Output	Max : DC 12 V / 1A, AC 250 V / 3A
	Defrost Operation 2)	Defrost	/ Normal	Digital Output	Max : DC 12 V / 1A, AC 250 V / 3A
		Error /	Normal	Digital Output	Relay C contact (Max : DC 30 V / 5A, AC 250 V / 5A)
	Compressor On / Off	-	On / Off	Digital Output	Max : DC 12 V / 1A, AC 250 V / 3A

- 1) Available operation mode can be varied depending on the setting of Communication Kit
- 2) This function may not be possible depending on the setting of Communication Kit. For more details, please refer to the product data book
- 3) Discharge air temperature should be controlled directly through DDC
- 4) To control the fan speed using contact signal, DO ports for the status of fan speed needs to be connected with the fan unit

### Communication with DDC via Modbus protocol

Function	List	PAHCMR000	PAHCMS000	Note
	Comm. Kit Operation	On /	Off	
	Operation Mode 1)	Cooling /	Heating	
		16~30°C	-	
Control		-	16~30°C	
		Low / Middle / High	-	
	Forced Thermal On / Off			
	Capacity Control		•	
	Comm. Kit Operation	On /	Off	
	Operation Mode 1)	Cooling /	Heating	
		-50~100°C	-	Corresponding air temperature sensor connected to AHU comm
		-	-50~100°C	kit is required
		Low / Middle / High	-	
	Defrost Operation	On /	Off	
		Error Alarn	n & Code	
	Compressor On / Off	On /	Off	

- 1) Available operation mode can be varied depending on the setting of Communication Kit
- 2) To control the fan speed using Modbus, DO ports for the status of fan speed needs to be connected with the fan unit

Note

 $<sup>\</sup>ensuremath{\mbox{*}}$  For the Modbus memory map, pleases refer to the product data book

TXV Kit should be connected with outdoor unit 1:1

<sup>2)</sup> In case of applying DDC with contact signal, discharge air temperature should be measured and controlled by DDC

<sup>3)</sup> For more detail, please refer to the PDB

# **Communication Kit Function**

### With LG Control system (Individual & Centralized Controller)

Function I	List	PAHCMR000	PAHCMS000	Note
	Comm. Kit Operation	On /	Off	
	Operation Mode 1)	Cooling /	Heating	
	Return (room) Air Temperature	16~30°C	-	
Control*		-	16~30°C	In case of using PAHCMS000, control function is available
	Fan Speed <sup>3)</sup>	Low / Mid	ldle / High	only with Individual Controller.
	Forced Thermal On / Off			
	Capacity Control			
	Comm. Kit Operation	On /	Off	
	Operation Mode 1)	Cooling /	Heating	
		11~39.5°C / -50.0~100.0°C	-	By Individual controller : 11-39.5°C By Centralized controller : -50.0-100.0°C
Monitor	Discharge Air Temperature		-50.0~100.0°C	Only with Centralized Controller
	Fan Speed <sup>3)</sup>	Low / Mid	ldle / High	
	Defrost Operation	On /	Off	Only with Individual Controller
	Error Alarm	Error Alai	rm / Code	
	Compressor On / Off	On /	Off	Only with Individual Controller

- 1) Available operation mode can be varied depending on the setting of Communication Kit. For more details, please refer to the product data book
- 2) This range may differ depending on the type of controller
- 3) To control the fan speed using contact signal, DO ports for the status of fan speed needs to be connected with the fan unit
- \* Control function is unavailable in case of using together with DDC via contact signal

### Compatibility with LG HVAC Controllers

	Ind	ividual Contro	ller		Cent	tralized Contr	oller		BMS G	ateway	PDI
	Premium	Standard III	Standard II	AC Ez	Ez AC Ez Touch AC Smart ACP AC Manager 1)			ACP BACnet ACP Lonworks	AC Smart BACnet	Premium Standard	
Controller	255) = 0 0	270 6 (	(A. (B. (A. (A. (A. (A. (A. (A. (A. (A. (A. (A		## @ @ @ @ @ @ @ @ @ @ @ @ @ @ @ @ @ @		**   Top   100   1	To the second se		- O	
Model no.	PREMTA000 PREMTA000A PREMTA000B	PREMTB100 PREMTBB10	PREMTB001	PQCSZ250S0	PACEZA000	PACS5A000 PACS4B000	PACP5A000 PACP4B000	PACM5A000	PQNFB17C0 PLNWKB000	PBACNA000	PQNUD1S40 PPWRDB000
PAHCMR000		•	•	•	•	•	•	•	•	•	•
PAHCMS000	Х	Х	e 2)	Х	Х	•	•	•	Х	Х	Х

- 1) AC Manager is an integrator, so the installation with AC Smart or ACP is required
- 2) Set temperature range of this model shall be extended in the future \* Dry contact for indoor unit(PDRYCB000/400/300/500) is not applied
- \* For more details, please refer to the product data book

### **Communication Kit Function**

### **Outdoor Unit Compatibility**

Multi V

Model			MUI	TI V	MULTI V WATER				
Wodet		5	IV	III	S	IV	II	S	
ALULG	PAHCMR000					•		•	
AHU Controller	PAHCMS000		•					X	

### Single Split

	Standard Inverter (1-phase)													
Caracita	Cooling kW	4.7	7.7	8.0	10.0	12.5	13.9	14.6						
Capacity	Heating kW	5.5	8.0	9.0	11.0	14.0	15.4	16.9						
ALILLIZ:	PAHCMR000													
	PAHCMS000				-	-	-	-						

Standard Inverter (3-phase)													
Cooling		10.0	12.5	13.9	14.6	19.0	23.0						
		11.0	14.0	15.4	16.9	22.4	27.0						
PAHCMR0													
PAHCMS0		-	-	-	-								

 $<sup>\</sup>ensuremath{^{*}}$  Table of the outdoor unit compatibility is based on European regional model.

### Expansion valves for MULTI V system

FEV//:													F	PRLK096A	0	
EEV Kit		PRLK048A0														
HP	1.3	1.6	2	2.5	3	3.5	4	5	6	8	10	12	14	16	18	20
Cooling (kW)	3.6	4.5	5.6	7.1	8.2	10.6	12.3	14.1	15.8	22.4	28	33.6	39.2	44.8	50.4	56
Heating (kW)	4	5	6.3	8	9.2	11.9	13.8	15.9	18	25.2	31.5	37.8	44.1	50.4	56.7	63

					PATX50A0E
				PATX35A0E	
TXV Kit			PATX25A0E		
		PATX20A0E			
	PATX13A0E				
HP	8 ~ 16	18 ~ 26	28~36	38~46	48~56
Cooling (kW)	22.4 ~ 44.8	50.4 ~ 72.8	78.4 ~ 100.8	106.4 ~ 128.8	134.4 ~ 156.8
Heating (kW)	25.2 ~ 50.4	56.7 ~ 81.9	88.2 ~ 112.1	118.4 ~ 143.6	148.5 ~ 175.1

- \* Capacities are based on the following conditions:

   Cooling: Indoor 27°C(80.6°F) DB / 19°C(66.2°F) WB Outdoor 35°C(95°F) DB / 24°C(75.2°F) WB

  Condensing temperature (tc) 46°C, Subcool (SC) 3 K, Evaporating temperature (te) 6°C, Superheat (SH) 5 K

   Heating: Indoor 20°C(68°F) DB / 15°C(59°F) WB Outdoor 7°C(44.6°F) DB / 6°C(42.8°F) WB
- Hot gas inlet temperature 70°C, Condensing temperature (tc) 46°C, Subcool (SC) 3 K
- Piping Length : Interconnected Pipe Length = 7.5m
- Difference Limit of Elevation (Outdoor ~ Indoor Unit) is zero

When connecting outdoor units in other areas, please check whether they are compatible or not.

# **Control Kit**

List	Required Item			
Heating / Cooling	SA / RA temperature sensor (or SA / RA temperature & humidity sensor)			
Automatic Ventilation	SA / RA temperature, CO <sub>2</sub> sensor, Damper actuator (OA, EA, MA)			
Energy Saving (Cooling Mode Only)	SA temperature, OA / RA temp&humidity sensor, Damper actuator (OA, EA, MA)			
Humidification	SA temperature, RA temperature & humidity sensor, Humidifier			
Inverter Fan Control	SA / RA temperature, Static pressure sensor, Inverter driver for fan control			
Filter Alarm	Difference pressure sensor			
Smoke Detecting	Smoke detection sensor			

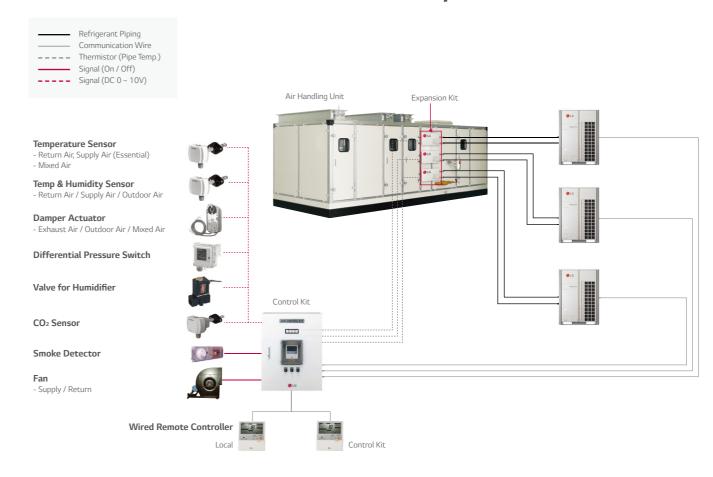
RA: Return Air, EA: Exhaust Air, OA: Outdoor Air, SA: Supply Air, MA: Mix air (RA + OA)

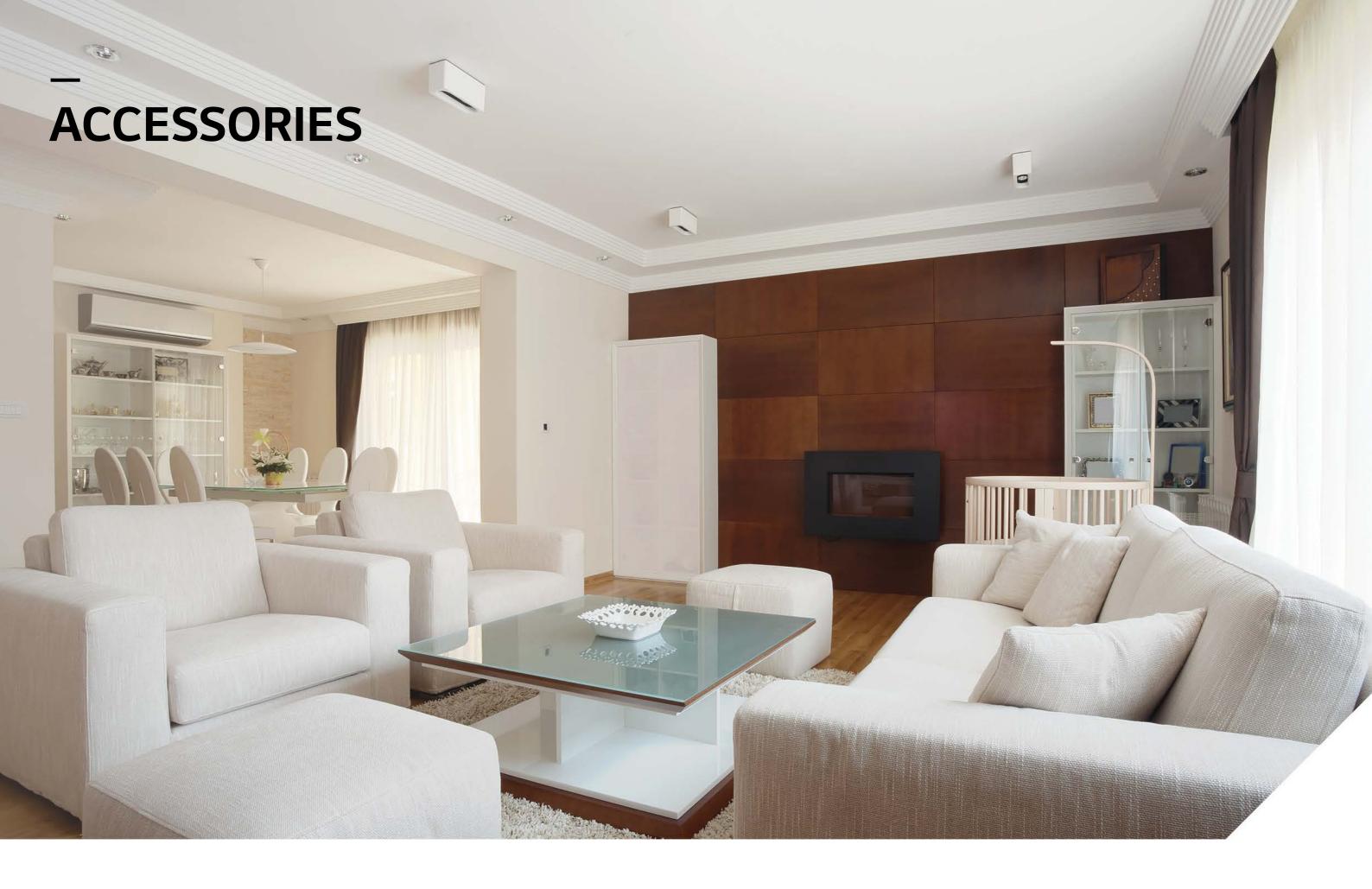
# Field Supplied Item

List	Required Specification	Apply Location
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 - Torque : 15 Nm, Operation time : 150sec. - Rotation angle : 90°	- Apply to OA, EA, MA damper
Difference Pressure Sensor (for Filter)	- Power : AC 24V, Output signal : DC 0 ~ 10V * Boundary : 0 ~ 1000Pa - Switch type : Relay Open / Close	- Apply to filter
Static Pressure Sensor	- Power : AC 24V, Output signal : DC 0 ~ 10V - Boundary : 0 ~ 1000pa	- Apply to SA (for inverter control)
CO <sub>2</sub> Sensor	- Power : AC 24V, Output signal : DC 0 ~ 10V - Boundary : 0 ~ 2000ppm	- Apply to RA duct
Smoke Detection Sensor	- Power : AC 24V, From : Contact point type	- Apply to RA duct

Note: Boundary of specification can be changed through LGAV software. However, please make a specification referring to the above table

# Various Control with Control kit – Multiple MULTI Vs + TXV Kits





### MECHANICAL ACCESSORIES

# **CASSETTE PANEL**

Stylish designed panels make more unique space by various applications





4 Way Cassette PT-MCHW0 PT-QCHW0 PT-UQC / PT-UMC1

> 2 Way Cassette PT-HLC / PT-USC

1 Way Cassette (Grill Type) PT-UUC / PT-UUC1 / PT-UTC

> (Panel Type) PT-UUD / PT-UTD

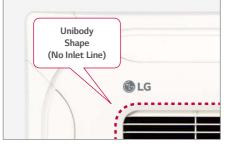
### **Features**

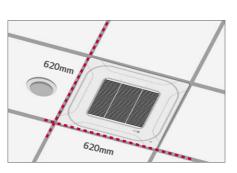
- · Independent vane operation uses separate motors, making it Possible to control all four vanes independently.
- The detachable corner design makes it easy to adjust the hanger during installation and to check for leakages in the drain connection pipe.

# 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







# **Specifications**

		6 .: =	Color	C.	Weight		nension (r	nm)	Applied model		
Model name		Suction Type	(RAL)	Gloss	(kg)	w	Н	D	SINGLE SPLIT	MULTI SPLIT	MULTI V
	PT-QCHW0	Horizontal Grill	Morning Fog (RAL 120-4)	Х	3.0	620	20	620	2.5 ~ 5.0kw	2.5 ~ 5.0kw	1.5 ~ 5.0kw
4.107	PT-MCHW0	Horizontal Grill	Morning Fog (RAL 120-4)	Х	6.3	950	35	950	7.1 ~ 15.0kw	7.1kw	7.1 ~ 14.0kw
4 Way	PT-UQC	Horizontal Grill	Morning Fog (RAL 120-4)	Х	3.0	700	22	700	2.5 ~ 5.0kw	1.5 ~ 5.0kw	1.5 ~ 5.0kw
	PT-UMC1	Horizontal Grill	Morning Fog (RAL 120-4)	Х	5.6	950	25	950	7.1 ~ 15.0kw	7.1kw	7.1 ~ 14.0kw
2111		Grill	Morning Fog (RAL 120-4)	Х	4.0	1,050	28	640	-	-	5.0 ~ 7.1kw
2 Way		Grill	Morning Fog (RAL 120-4)	Х	4.7	1,100	33	690	-	-	5.0 ~ 7.1kw
	PT-UUC	Grill	Noble White (RAL 110-1)	0	4.6	1,100	34	500	-	-	2.1 ~ 3.5kw
	PT-UUC1	Grill	Morning Fog (RAL 120-4)	Х	4.4	1,100	34	500		2.5 ~ 3.5kw	2.5 ~ 3.5kw
1 Way		Grill	Noble White (RAL 110-1)	0	5.5	1,420	34	500	-	-	5.0 ~ 7.1kw
	PT-UUD	Panel	Noble White (RAL 110-1)	0	4.6	1,100	34	500	-	-	2.1 ~ 3.5kw
		Panel	Noble White (RAL 110-1)	0	5.5	1,420	34	500	-	-	5.0 ~ 7.1kw

### Air purifying filter to prevent dust and allergens

Air purifying filter to repel dust and allergens

PTDCM / PTDCQ

**CASSETTE COVER / PLASMA KIT** 

PTPKM0 / PTPKQ0



### **Features**

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

# **Models Applied**

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

# **Models Applied**

It can remove microscopic contaminants such as

\* Plasma kit and Auto Elevation Grille are not applicable at the same time

dust and pollen to help reduce allergies.

**Features** 

Туре	SINGLE SPLIT	MULTI SPLIT	MULTI V
4 Way Cassette	Option (2.5 / 3.5 / 5.0kw : PTPKQ0) (7.1kw ~ 15.0kw : PTPKM0)	Option (1.5 / 2.1kw : PTPKQ0)	Built-in
2 Way Cassette	-	-	-
1 Way Cassette	-	Built-in	Built-in

### Parts Included

- Cover A (4EA), Cover B (4EA)
- Cover C (4EA), Cover D (4EA)
- Screws
- Installation Manual (1EA)

# **Accessory Model Name**

No. 4-1	F	December 1	Weigl	nt (kg)	Dimensions (mm)		
Model	Front	Panel	NET	Gross	w	н	D
PTDCM	PT-UMC /	TP/TN	5.9	8.8	1,157	1,157	268
	PT-UMC1	TM	5.9	8.8	1,157	1,157	310
		TR	5.0	7.2	907	907	268
PTDCQ		TQ	5.0	7.2	907	907	310

# Parts Included

- Plasma Kit (1EA)
- $\bullet \, \mathsf{Screws}$
- Installation Manual (1EA)

### MECHANICAL ACCESSORIES

# **DRAIN PUMP KIT**

Drains away condensed water

### Easy filter cleaning with the elevation grille

**AUTO ELEVATION GRILLE** 



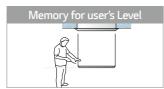


### **Features**

### **Easy Filter Cleaning with Elevation Grill**

- Installation inside main body - Memory for user's level
- Auto horizontal control
- Max 4.5m length

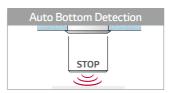




- 4 points support structure

controller

- Model: PTEGM0 (for chassis TM, TN, TP)



PTEGM0

ller\* and wireless remote controller included in PTEGMO. \* PREMTB001, PREMTBB01

# **Models Applied**

• 4 Way Cassette : Refer to PDB for applicable models

### **Parts Included**

• Inlet Grille (1EA)

- Screws (4EA)
- Auto Elevation Grille Kit (1EA)
- Installation Manual (1EA)
- Wireless Remote Controller (1EA)

# **Application**



**Features** 

- In some places where natural drainage is not possible, a drain pump is very useful to pump out condensed water from indoor units.
- Drain pump assembly (AC 220 ~ 240V, 50 / 60Hz)

# **Models Applied**

• Ceiling Concealed Duct (Refer to PDB for applicable models)

# **Accessory Model Name**

Ceiling Concealed Duct (Refer to PDB for applicable models)

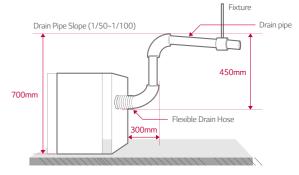
Product	Model		Drain Pump
	H-INVERTER		Included
		CB**L	Included
SINGLE / MULTI SPLIT	Standard Inverter	CM** / UM**	ABDPG
		UB70 / UB85	PBDP9
	Compact Inverter		ABDPG
MULTI V			Included

# **Application**

High head drain pump automatically drains water up to 700mm of drain-head height. It provides perfect solution for water drainage.

### High Head Drain Pump





ABDPG PBDP9

# CO<sub>2</sub> SENSOR

CO<sub>2</sub> sensor in ventilation system.



**Features** 

Specification

Applied Model: ERV, ERV DX

Function

- Supply Vottage : DV 12V ± 5%

- Output : 0 ~ 5V

(Linear output, 1 ~ 2,000ppm CO<sub>2</sub>)

- Accuracy : 30ppm ± 5% of reading

Description

The product is especially designed to detect CO<sub>2</sub> concentration in ERV system.

• Operation Table

CO <sub>2</sub> Sensor Reading	ERV Fan Operation		
<500ppm	Off		
500 ~ 700ppm	Low Speed		
700 ~ 900ppm	High Speed		
>900ppm	Super High Speed		

**Features** 

PES-CORVO

Specification

• Applied Model : ERV (Default), ERV DX (Optional)

• Supply voltage : DV12V ± 5%

• Output : 0.6 ~ 4.4V (Linear output, 240 ~ 1,760 ppm CO<sub>2</sub>)

• Accuracy : ± 10% (2 days after installation)

Description

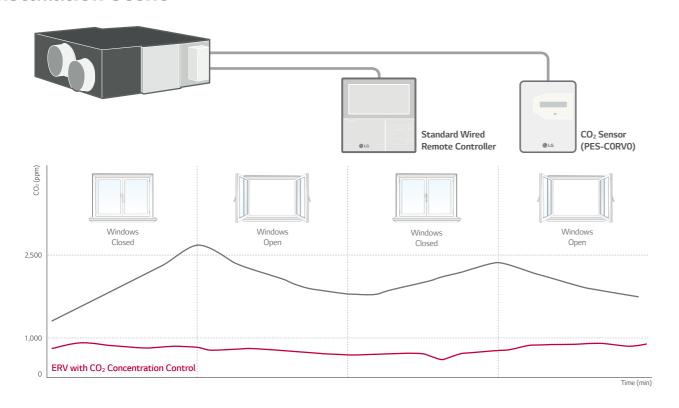
• The product is especially designed to detect CO

• This model requires Standard III Wired Remote Controller for display

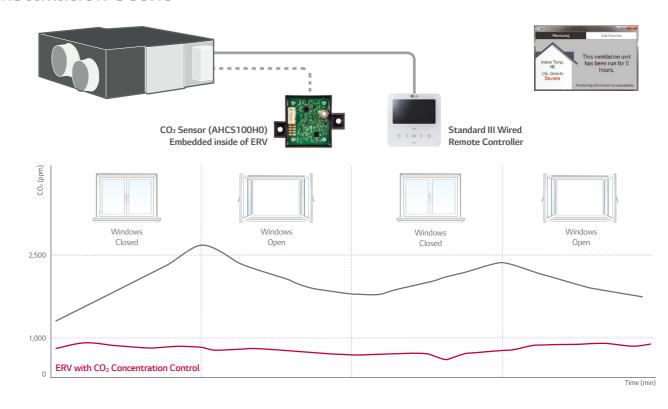
• Operation Table

CO <sub>2</sub> Sensor Reading	ERV Fan Operation
<500ppm	Off
500 ~ 700ppm	Low Speed
700 ~ 900ppm	High Speed
>900ppm	Super High Speed

### **Installation Scene**



### **Installation Scene**



257

AHCS100H0

# F7 FILTER

F7 filter for ventilation system

MECHANICAL ACCESSORIES

# REFRIGERANT LEAKAGE DETECTOR

R410A refrigerant leakage detector makes our space safer



AHFT035H0

AHFT050H0

AHFT100H0

# **Specification**

### For ERV

Filter Mode	l	AHFT035H0 AHFT050H0 AHFT100H0		100Н0	AHFT100H0				
Product Mode			LZ-H025GBA4	LZ-H035GBA5	LZ-H050GBA5	LZ-H080GBA5	LZ-H100GBA5	LZ-H150GBA5	LZ-H200GBA5
			423.5	423.5	425	520	520	520	520
Dimension			132	132	194	192	192	192	192
			25	25	25	25	25	25	25
Quantity			2	2	2	2	2	4	4

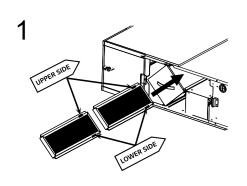
\* 2 pieces in 1 filter package

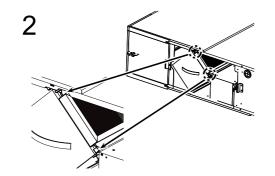
### For ERV DX

Filter Mode	l		AHFT100H0						
Product Model		LZ-H050GXH4	LZ-H080GXH4	LZ-H100GXH4	LZ-H050GXN4	LZ-H080GXN4	LZ-H100GXN4		
				520					
Dimension					19	92			
					2	.5			
Quantity		EA	2						

\* 2 pieces in 1 filter package

# Installation





- 1. Please check the direction of the filter's label.
- 2. Insert the filters on the right upper side of the total heat exchanger.
- \* Maintain once every 6 months
- \* The part and standard of installation is designed for LG product, it is not allowed them to adapt non LG product.

### **Features**

**LG** 

- This detector senses refrigerant leakage and when the refrigerant concentration exceeds 6,000ppm not only it will stop indoor unit operation, but also it will give an alarm using buzzer and sensor LED. (The green and red LED lights blink simultaneously.)
- Alarm is "ON" over 6,000ppm has been maintained 5 seconds, and on the contrary to this, Alarm is "OFF" under 6,000ppm has been maintained 5 seconds.
- When the alarm of the refrigerant leak detector is switched on the user must ventilate until the alarm is disabled.
- The detector has to be installed inside the room and it can be installed 300 ~ 500mm from floor.

# **Specifications**

Parts		Specifications					
		Rated Voltage (V)	DC 5.0 ± 5%				
		Dimensions (W x H x D, mm)	31 x 44 x 20				
	100	Weight (g)	22				
Sensor		Detectable Refrigerant	R410A				
Selisul		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				
	0.00	Dimensions of Front Plate (W $\times$ H $\times$ D, mm)	80 x 110 x 44.6				
Sensor Protective Cover	600	Dimension of Backplate (W $\times$ H $\times$ D, mm)	80 x 110 x 6.5				

# **Application**



# **EEV KIT**

MULTI V EEV KIT is specially designed to reduce noise and make comfort environment

**MECHANICAL ACCESSORIES** 



### **Features**

• MULTI V Indoors (Ceiling concealed duct, Floor standing units)

• Designed for wireless control to operate Ceiling concealed duct Operation of Indication lamp (3 colors) Self-diagnosis function

# **Models Applied**

# **Application**

260

**Features** 

**Models Applied** 

• Ceiling Cassette (up to 15kBtu)

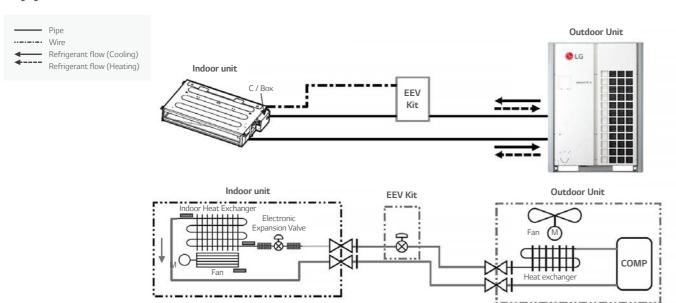
\* Fresh Air intake Unit is not able to connect this Kit

• Wall mounted (up to 24kBtu)

• Decreasing noise level of Multi V Indoor units Easy installation

• Floor Standing Unit (with case / without case) (up to 15kBtu)

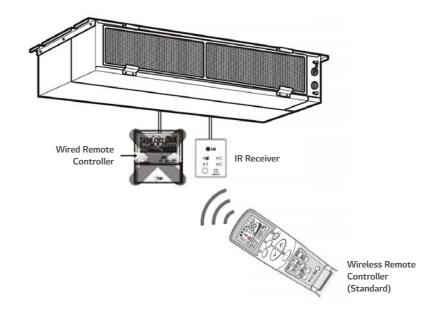
• Convertible (up to 12kBtu, Ceiling Suspended Type is not able to connect this Kit)



• Ceiling concealed duct (up to 18kBtu)

• Console (up to 15kBtu)

# **Application**



Note: If you don't use EEV of same specification, Cooling (Heating) capacity may decrease

Note: Do not install both the IR Receiver and Wired Remote Controller. This may cause malfunction

### MECHANICAL ACCESSORIES

# INDEPENDENT POWER MODULE

# **SOLARS HEATING KIT**

EEV full close function in case of power cut

Air discharge in difficult to access areas



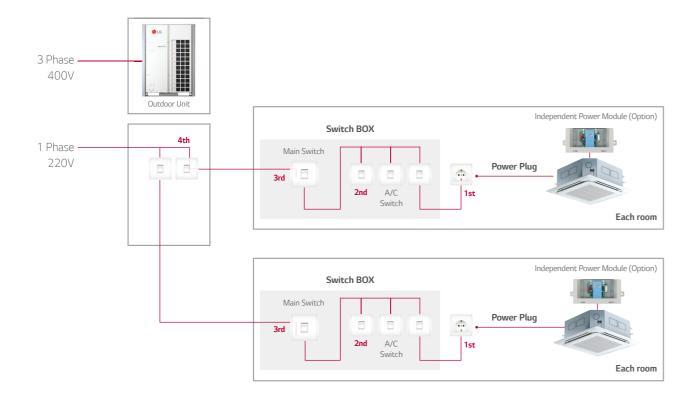
# **Features**

Independent Power Module is specially designed to close the Indoor EEV at power cut-Off.

- Supply Voltage : DC 12V ± 50%

# **Models Applied**

MULTI V Indoors





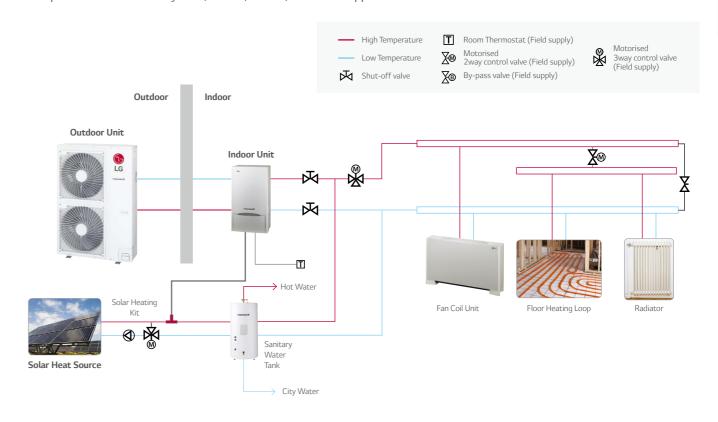
PRIP0

### **Features**

- Interface for solar-thermal system with split-type THERMA V and double coil sanitary tank
- Installed at the water pipe, between sanitary tank and solar-thermal system
- Dimensions (H x W x D, mm) : 110 x 55 x 22
- According to solar system's water temperature, THERMA V controls 3 way valve's direction

### **Installation Scene**

• Components: THERMA V system, PHLTA, PHLTC, and field-supplied items.



PHLLA

### MECHANICAL ACCESSORIES

# **SANITARY TANK KIT**

# **DOMESTIC HOT WATER TANK**



PHLTA (1Ø, Spilt) / PHLTC (3Ø, Spilt) PHLTB (Monobloc)

\* The sensor (PHRSTAO) can be purchased separately in case of using other brand's sanitary tank. PHRSTAO is included in PHLTA, PHLTC, PHLTB.

### **Features**

### Spilt

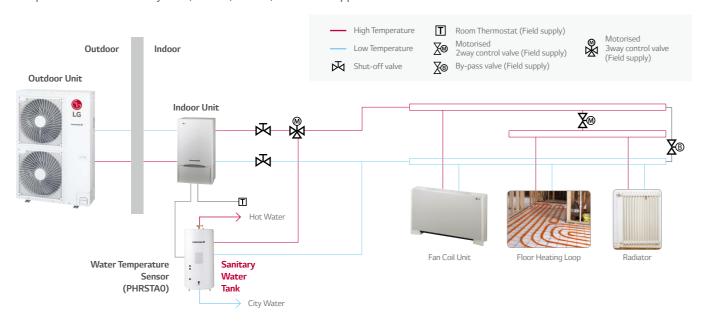
- PHLTA (1Ø) / PHLTC (3Ø)
- To control sanitary tank temperature and sanitary tank electric heater for split models.
- This unit will be installed inside indoor unit.

### Monobloc

- PHLTB
- Easy to install sanitary water tank for monobloc.
- There is a MCCB (Mold Case Current Breaker) to protect the product.
- Dimensions (H x W x D, mm) : 250 x 170 x 110
- Weight (kg): 2.1
- This unit will be installed outdoor.

# **Installation Scene**

Components: THERMA V system, PHLTA, PHLTC, and field-supplied items.





### SINGLE COIL

LGRTV200E (198 LITERS) LGRTV300E (287 LITERS)

### **DOUBLE COIL**

LGRTV200VE (198 LITERS) LGRTV300VE (287 LITERS)

### **Features**

Store and provide hot water for sanitation

### **Installation Scene**

### Domestic Hot Water Tank - Single Coil

Domestic Hot Water Tank			LGRTV200E	LGRTV300E
	Water Volume	L	198	287
	Diameter		580	580
	Height		1,230	1,680
General Characteristics	Empty Weight	kg	45	59
	Tank - Materials		Stainless steel	Stainless steel
	Outer Skin - Materials		Paint Epoxy	Paint Epoxy
	Color - White RAL		White NC	White NC
	Additional Electric Heater		3	3
Characteristics of Electrical Back-up	Adjustable Thermostat	°C	60-90	60-90
	Exchanger Type		Single	Single
Characteristics of Exchanger	Material Exchanger		LDX 2101 - Stainless Steel	LDX 2101 - Stainless Steel
	Maximum Water Temperature	°C	80	80
	THERMA V Entry		25	25
Hydraulic Connections - Heat Pump	THERMA V Exit		25	25
	City Water Entry		22	22
Hydraulic Connections - Domestic Hot Water Tank	Hot Water Exit		22	22
	Suppy		1 / 220-240 / 50	1 / 220-240 / 50
MANDATORY OPTIONAL ACCESSORIES				
Domestic Hot Water Tank Installation Kit			PHLTA	PHLTA

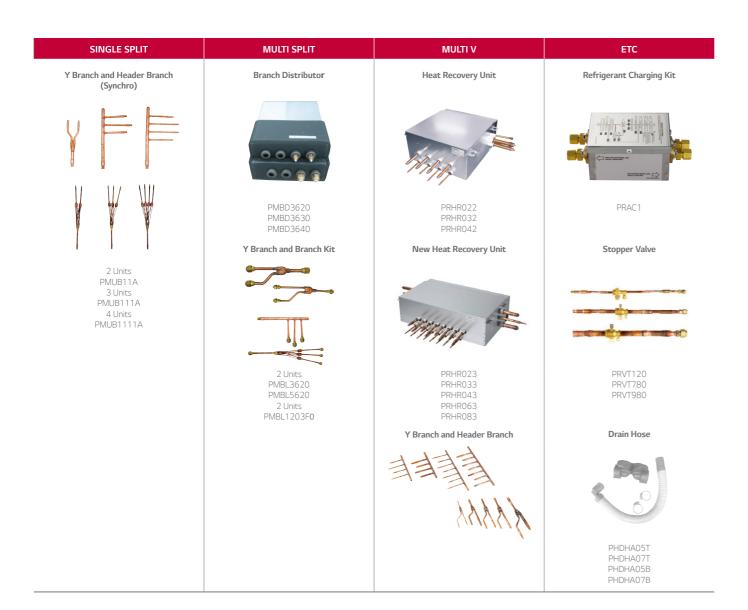
### Domestic Hot Water Tank - Double Coil

Domestic Hot Water Tank			LGRTV200VE	LGRTV300VE
	Water Volume	L	198	287
	Diameter		580	580
			1,230	1,680
General Characteristics	Empty Weight		49	64
	Tank - Materials		Stainless steel	Stainless steel
	Outer Skin - Materials		Paint Epoxy	Paint Epoxy
	Color - White RAL		White NC	White NC
	Additional Electric Heater	kW	3	3
Characteristics of Electrical Back-up			60-90	60-90
	Exchanger Type		Double	Double
Characteristics of Exchanger	Material Exchanger		LDX 2101 - Stainless Steel	LDX 2101 - Stainless Steel
			80 (With an Heat Pump)	80 (With an Heat Pump)
	THERMA V Entry		25	25
Hydraulic Connections - Heat Pump	THERMA V Exit		25	25
	City Water Entry		22	22
Hydraulic Connections - Domestic Hot Water Tank	Hot Water Exit		22	22
Electric Connection	Suppy	Ø / V / Hz	1 / 220-240 / 50	1 / 220-240 / 50
MANDATORY OPTIONAL ACCESSORIES				
Domestic Hot Water Tank Installation Kit			PHLTA	PHLTA

# **LINE-UP**

# Y BRANCH AND HEADER BRANCH

Refrigerant distribution channel



# **Mechanical Accessories Line up and Application**

Model name	SINGLE SPLIT	MULTI	MULTI V	Remark
Y Branch and Header Branch (Synchro)		-	-	-
Branch Distributor (MULTI)	-	•	-	MULTI F DX systems
Y Branch and Branch Kit (MULTI)	-	•	-	MULTI F DX systems
New Heat Recovery Unit (Multi V)	-	-	•	MULTI V 5
Hear Recovery Unit (Multi V)		-		MULTI V 5 / MULTI V IV HR / MULTI V III HR MULTI V S HR / MULTI V SYNC II / MULTI V SYNC MULTI V WATER IV HR / MULTI V WATER II HR
Y Branch and Header Branch (MULTI V)	-	_		Various type of MULTI V Series



2 UNITS
PMUB11A
3 UNITS
PMUB111A
4 UNITS

PMUB1111A

# **Features**

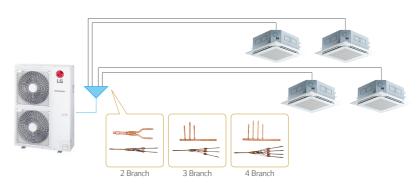
- · Various Y Branch pipes of different capacities make installation easier
- Y Branch and header branch for both gas and liquid are provided
- Insulation material is also provided for covering the branches

# **Models Applied**

• H-inverter : 10.0 / 12.5 / 13.4kw

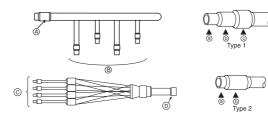
• Standard inverter: 12.5 / 14.0 / 15.0 / 20.0 / 25.0kw

# **Application**



# **Accessory Model Name**

Model name	SINGLE SPLIT	Remark
2 Units	PMUB11A	50:50 (1:1)
3 Units	PMUB111A	33:33:33 (1:1:1)
4 Units	PMUB1111A	25:25:25:25 (1:1:1:1)



	a	ь	С	Туре
А	Ø15.88 (5/8)	Ø19.05 (3/4)	Ø25.4 (1)	1
В	Ø9.52 (3/8) Ø12.7 (1/2)	Ø12.7 (1/2) Ø15.88 (5/8)	-	2
С	Ø6.35 (1/4)	Ø9.52 (3/8)	-	2
D	Ø9.52 (3/8)	Ø12.7 (1/2)	-	2

# Y BRANCH AND BRANCH KIT MULTI F DX

Refrigerant distribution channel

### Effective way of distributing refrigerant





BRANCH DISITRIBUTOR DISTRIBUTOR BOX



PMBD3620 PMBD3630 PMBD3640

### **Features**

- Distribution of refrigerant to various indoor units
- 3 models (2, 3, 4 indoor units)
- Consists of LEVs inside it
- Controlling PCB inside the unit

- Internally insulated (Prevents any chances of drainage)
- Flare joints for easy and clean installation
- Compact design (Low height)
- Flexible installation

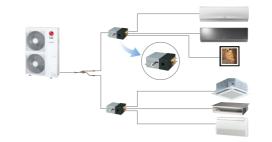
# **Models Applied**

• MULTI F DX systems (Refer to PDB for applicable models)

### **Parts Included**

- BD (Banch Distributor) unit (1EA) Brackets (4EA)
- Screws (8EA)

• Installation Manual (1EA)



# **Models Applied**

Model Name		PMBD3620	PMBD3630	PMBD3640
Connectable Indoor Units	Number of Indoor Units	1~2	1~3	1~4
Capacity	(Btu/hr)	5k / 7k / 9k / 12k / 18k / 24k	5k / 7k / 9k / 12k / 18k / 24k	5k / 7k/9k / 12k / 18k / 24k
Casing Colour		Paintingless	Paintingless	Paintingless
Power Source	Ø / V / Hz	1 / 220-240 / 50	1 / 200-240 / 50	1 / 200-240 / 50
Power Consumption		10	10	10
Running Current	(A)	0.05	0.05	0.05
Dimensions	(W x H x D) (mm)	302 x 143 x 252	302 x 143 x 252	302 x 143 x 252
Packing Dimensions		422 x 202 x 300	422 x 202 x 300	422 x 202 x 300
Net Weight		4.8	4.9	5.0
		4 x 0.75	4 x 0.75	4 x 0.75
Connecting Cable	Outdoor Unit No. x mm²	4 x 0.75	4 x 0.75	4 x 0.75
Piping Connection		9.52	9.52	9.52
(Outdoor Unit)	Gas (mm)	19.05	19.05	19.05
Piping Connection		6.35 x 2	6.35 x 3	6.35 x 4
(Indoor Unit)	Gas (mm)	9.52 x 2	9.52 x 3	9.52 x 4
	Hanger (EA)	4	4	4
Parts	Screw (EA)	8	8	8
	Manual (EA)	1	1	1

2 UNITS PMBL3620 / PMBL5620

> 2 UNITS PMBL1203F0

### **Features**

- · Y Branch and Branch kit make Multi F DX installation easier
- Y Branch and Branch kit for both gas and liquid are provided
- Insulation material is also provided for covering the branches

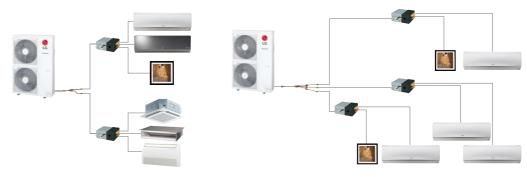
# **Models Applied**

• MULTI F DX systems (refer to PDB for applicable models)

# **Parts Included**

- Y Branch for gas side and liquid side (1set)
- Installation manual (1EA)

# **Application**



# **Accessory Model Name**

Mandal Nicora	No. of Branch	A - Parkla Madel	Specifi	ications
Model Name	Distribution Units	Applicable Model	Gas	Liquid
PMBL3620	2 units	Only 3ø, 36k Btu/h	Ø 15.88 Ø 15.88	0635 0635 0635
PMBL5620	2 units	1ø, 3ø	Ø 15.88 Ø 15.88	Ø 6.35 Ø 6.35
	3 units	1ø, 3ø	01905	0952 0952

# **HEAT RECOVERY UNIT**







# **Features**

- Max. 32 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

# **Models Applied**

• MULTI V WATER II Heat Recovery

• MULTI V 5

• MULTI V IV Heat Recovery

• MULTI V SYNC II

- MULTI V SYNC
- MULTI V S Heat Recovery
- MULTI V III Heat Recovery
- MULTI V WATER IV Heat Recovery

PRHR022 (2 branch Unit)

PRHR032 (3 branch Unit) PRHR042 (4 branch Unit)

# **Specifications**

Model name				PRHR022	PRHR032	PRHR042
Number of Branch			EA	2	3	4
Maximum Connect	able Capacity of Indoor U	nits (Per branch / unit)		16 / 32	16 / 48	16 / 58
				8	8	8
				0.026	0.040	0.040
				0.026	0.040	0.040
			18	20	22	
Dimensions (W x H	1 x D)			831 x 218 x 617	831 x 218 x 617	831 x 218 x 617
				9.52 (3/8)	9.52 (3/8)	9.52 (3/8)
				15.88 (5/8)	15.88 (5/8)	15.88 (5/8)
Piping connections			mm (inch)	9.52 (3/8)	12.7 (1/2)	15.88 (5/8)
	Outdoor Unit		mm (inch)	22.2 (7/8)	28.58 (11/8)	28.58 (11/8)
				19.05 (3/4)	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

# **Parts Included**

- HR unit (1EA) • Washers M10 (8EA)
- Hanging bolts M10 or M8 (4EA)
- Nut M8 or M10 (8EA)

Reducers

# Reducers for Indoor Unit and HR Unit

Model Name		Liquid	High pressure	Low pressure
Indoor Unit Reducer		OD9.52 Ø6.35		OD15.88 Ø12.7
	PRHR022	OD9.52 Ø6.35	OD19.05 Ø15.88 Ø12.7 OD12.7 Ø9.52	OD22.2 Ø19.05 Ø15.88
HR Unit Reducer	PRHR032 / PRHR042	OD15.88 Ø12.7 Ø9.52	OD222 Ø19.05 Ø15.88  OD15.88 Ø12.7	OD28.58 Ø22.2 Ø19.05  OD19.05 Ø15.88

# **Convenient Free Zoning**

MULTI V Heat Recovery provides flexible control over individual zones for the user's convenience

### • Individual Control

- Perfect individual control over spaces ventilation needed

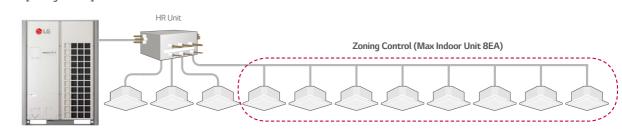
### Zone Control

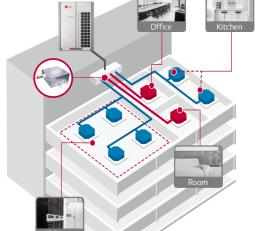
- Max. of 8 indoor units can be connected for one branch
- Max. of 32 indoor units can be connected for one HR unit
- Same opeational model can be operated by indoor units with zone control function installed

### Combination of Individual and Zoning Installations

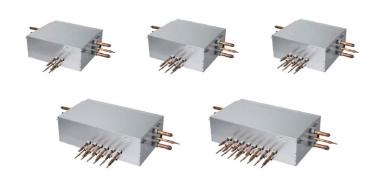
- Flexible piping design
- Save Product and Installation Cost

### [Zoning Control]





# **NEW HEAT RECOVERY UNIT**



PRHR023 (2 Branch Unit) PRHR033 (3 Branch Unit) PRHR043 (4 Branch Unit) PRHR063 (6 Branch Unit) PRHR083 (8 Branch Unit)

### **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

# **Models Applied**

• MULTI V 5 Heat Recovery

# **Specifications**

Model name			PRHR023	PRHR033	PRHR043	PRHR063	PRHR083	
Number of Branch			EA	2	3	4	6	8
Maximum Connect	table Capacity of Indoor l			17.5/35	17.5/52.5	17.5/69.5	17.5/69.5	17.5/69.5
Maximum Number				8	8	8	8	8
Newboller				0.040	0.040	0.040	0.076	0.076
Nominal Input				0.038	0.038	0.038	0.072	0.072
Net. Weight	Net. Weight kg			18.5	20.3	22.0	28.3	31.8
Dimensions (W x H	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
				9.52 (3/8)	9.52 (3/8)	9.52 (3/8)	9.52 (3/8)	9.52 (3/8)
				15.88 (5/8)	15.88 (5/8)	15.88 (5/8)	15.88 (5/8)	15.88 (5/8)
Piping connections				9.52 (3/8)	12.7 (1/2)	15.88 (5/8)	15.88 (5/8)	15.88 (5/8)
	Outdoor Unit			22.2 (7/8)	28.58 (11/8)	28.58 (11/8)	28.58 (11/8)	28.58 (11/8)
		High Pressure		19.05 (3/4)	22.2 (7/8)	22.2 (7/8)	22.2 (7/8)	22.2 (7/8)
Power supply				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

### **Parts Included**

HR unit (1EA)

- Hanging bolts M10 or M8 (4EA)
- Nut M8 or M10 (8EA)

- Washers M10 (8EA)
- Reducers

### Reducers for Indoor Unit and HR Unit

Model Name		Liquid	High pressure	Low pressure
Indoor Unit Reducer		OD9.52 Ø6.35		OD15.88 012.7
	PRHR023	OD9.52 Ø6.35	OD19.05 Ø15.88 Ø12.7 OD19.05 Ø15.88 Ø12.7	OD22.2 Ø19.05 Ø15.88  OD15.88 Ø12.7
PRH PRH	PRHR033 PRHR043 PRHR063 PRHR083	OD15.88 Ø12.7 Ø9.52	OD222 Ø19.05 Ø15.88	OD28.58 Ø 22.2 Ø 19.05  OD19.05 Ø 15.88

# **Convenient Free Zoning**

MULTI V Heat Recovery provides flexible control over individual zones for the user's convenience

### • Individual Control

- Perfect individual control over spaces ventilation needed

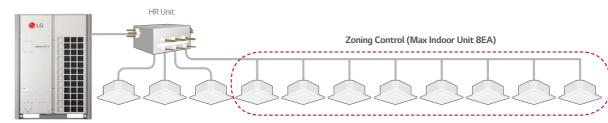
### Zone Control

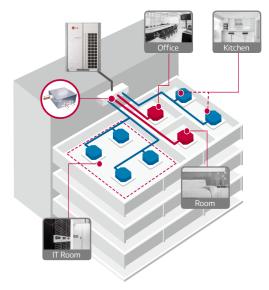
- Max. of 8 indoor units can be connected for one branch
- $\mbox{\rm Max}.$  of 64 indoor units can be connected for one HR unit
- Same opeational model can be operated by indoor units with zone control function installed

### Combination of Individual and Zoning Installations

- Flexible piping design
- Save Product and Installation Cost

### [Zoning Control]

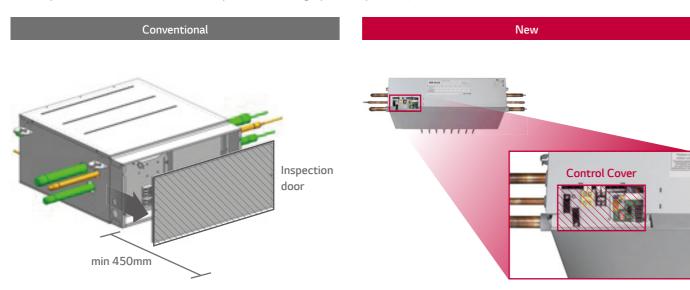




# **NEW HEAT RECOVERY UNIT**

# Improving Service Workability

Can inspect valves and PCBs under the product.(looking up at the product)

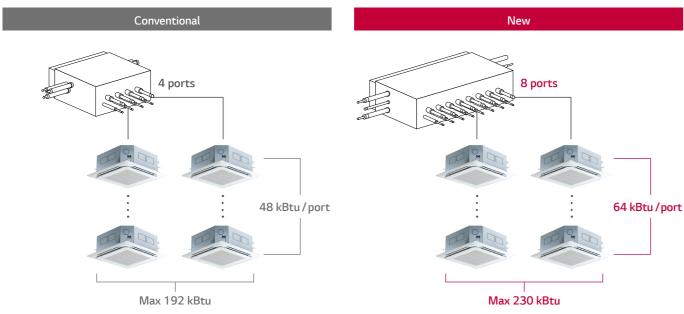


At least 450 mm of space is required to open the control cover and to inspect or repair the product.

The control cover can be opened(disassembled) in the downward direction. → Error code check and simple check & repair are possible.

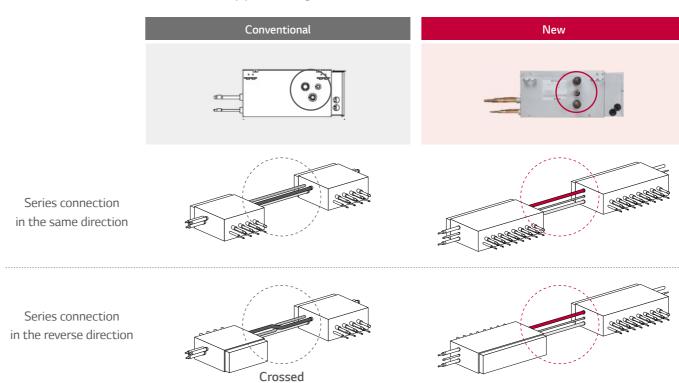
# **Expansion of connection capacity**

- Expansion of connection capacity per port : (old) 48 kBtu  $\rightarrow$  (new) 64 kBtu
- Expansion of total connectable capacity : (old) 192 kBtu  $\rightarrow$  (new) 230 kBtu



# **Easy Series Connection**

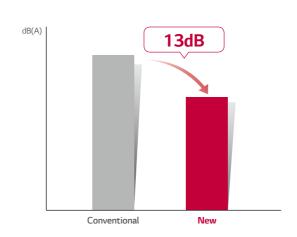
Series connection can be installed without pipes crossing.



piping

# **Reduce Noise**

Cooling ← Heating changeover noise improvement



# Y BRANCH AND HEADERBRANCH

MULTI V.

For refrigerant distribution of indoor units

Y Branch Header Branch

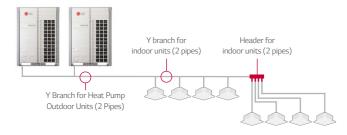


# **Features**

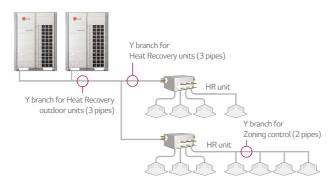
- · Various Y Branch pipe of different capacities make MULTI V installation much easier.
- Y Branch and header branch for both gas and liquid are provided.
- Insulation material is also provided for covering the branches.

# **Piping Diagram**

### **Heat Pump System**



### Heat Recovery system



# **Models Applied**

- 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
- MULTI V SPACE II
- MULTI V MINI

# **Details of Model Name**

### Header Branch

R410A

Model Name	Gas Pipe	(Unit: mm)  Liquid Pipe
4 Branch / ARBL054	015.88 015.88 019.05 15.88 12.7	05,35 09.52 0012.7 9.52
7 Branch / ARBL057	012.7 015.88 015.88 019.05 15.88 12.7	06.35 09.52 09.52 09.35 0012.7 9.52
4 Branch / ARBL104	Q15.88 Q15.88 Q15.88 Q15.88 Q28.58 Q28.58	08.35 09.52 0012.7 9.52
7 Branch / ARBL107	015.88 015.88 015.88 018.05 018.05 0028.58 0028.58 0028.58	09.55 08.35 09.52 0012.7 9.52
10 Branch / ARBL1010	015.88 019.05 028.58 22.2	96.35 99.52 90.27 912.7 912.7
10 Branch / ARBL2010	015.88 012.7 015.88 019.05 031.8 038.1 0038.1 34.9 28.58	09.52 015.88 019.05 0019.05 15.88

### Y Branch pipe for connection of outdoor units

### **Heat Pump**

R410A

MULTI V 5, MULTI V IV, MULTI V III, MULTI V WATER IV, MULTI V WATER II

	(Unit : mm  2 Outdoor Units			
Model Name	High Pressure Gas Pipe	Liquid Pipe		
ARCNN21	0.0. 222 1D.19.05  0.0. 222 1D.19.05  0.0. 222 1D.19.05  0.0. 222 1D.19.05  1D.28.58  1D.28.58  1D.28.58	OD 15.88 LD 19.05  331  LD 15.68  LD 19.05  LD 12.7 LD 15.68  LD 12.7 LD 15.68  OD 27 LD 15.68  OD 27 LD 15.68  OD 27 LD 15.68		

3 Outdoor Units			
Model Name	High Pressure Gas Pipe	Liquid Pipe	
ARCNN31	1.D.222 0.D.28.58 1.D.34.9  48. 48. 1.D.28.58	0.0.19.05   1.0.12.7   0.0.19.05   1.0.22.2   1.0.19.05   1.0.22.2   1.0.19.05   1.0.22.2   1.0.19.05	

	4 Outdoor Units			
Model Name	High Pressure Gas Pipe	Liquid Pipe		
ARCNN41	10.53.96 10.44.5 00.41.3 10.24.56 10.24.5 10.34.9 00.29.58 10.22.2	0.0.19.05 LD.22.2 LD.28.58  3.34 289 LD.22 LD.19.05 8.3 LD.31.8 LD.28.58 LD.19.05		

### **Heat Recovery**

R410A

MULTI V 5, MULTI V IV Heat Recovery, MULTI V III Heat Recovery, MULTI V WATER IV Heat Recovery, MULTI V WATER II Heat Recovery

2 Outdoor Units

Model Name High Pressure Gas Pipe Liquid Pipe Low Pressure Gas Pipe

ARCNB21

ARCNB21

ARCNB21

Liquid Pipe Low Pressure Gas Pipe

Liquid Pipe Low Pressure Gas Pipe Company Gas Pipe Co

3 Outdoor Units			
Model Name	High Pressure Gas Pipe	Liquid Pipe	Low Pressure Gas Pipe
ARCNB31	1D.22.2 OD.85.56 1D.34.9  68.5  69.5  1D.28.58  1D.31.6 1D.34.9 1D.28.56 1D.22.2  1D.31.6 1D.34.9 1D.28.56 1D.22.2	0.0.19/05 LD.12.7 0.0.19/05 LD.22.2  10.15.88 LD.12.7 0.0.19/05 LD.22.2  10.22.2 LD.19/05 LD.12.7 LD.15/05 LD.22.2  10.15.88 LD.12.7 LD.15.88 LD.12.7 LD.15.88 LD.19/05	0.0349 ID.2858 ID.413 0.0349 ID.2858 ID.349 ID.2858 ID.349 ID.2858 ID.349 ID.2858 ID.349

4 Outdoor Units			
Model Name	High Pressure Gas Pipe	Liquid Pipe	Low Pressure Gas Pipe
ARCNB41	0.0349 1.0445  341 278  1.0349 1.0349 1.0345  1.0349 0.02858 1.0222	0.019.05 1.0222 10.28.58 334 281 10.222 10.19.05 10.15.88 10.12.7 0.0.15.88 1.0.19.05	0.0.413 I.0.44.5 I.0.53.98 415 375 I.0.44.8 I.0.53.98 I.0.222 0.0.28.58 I.0.34.9

\_

Y Branch pipe for connection of outdoor units

### Heat Pump, Heat Recovery zone control

R410A

MULTI V 5, MULTI V IV, MULTI V III, MULTI V PLUS II, MULTI V PLUS, MULTI V S, MULTI V MINI, MULTI V SPACE II, MULTI V WATER IV, MULTI V WATER S, MULTI V WATER II

		(Unit:mm)
Model Name	Gas Pipe	Liquid Pipe
ARBLN01621	D127 D1588 D1588  D1588 D1588	D952 D635 D635 D752 D535
ARBLN03321	0254 01905 01905 01905 01905 01905 01905 01905 01905 01905 01905 01905 01905	D635 D127 D127 D127 D635

Model Name	Gas Pipe	Liquid Pipe
ARBLN07121	ID31.8 ID322 ID1905 ID31.8 ID322 ID1588 ID34.9 ID36.5 ID32.8 ID32	(D127 ID1588 ID1588 ID127 ID127 ID127 ID127 ID127 ID127 ID127 ID127 ID127 ID128 ID1905 ID1905 ID1905 ID1952
ARBLN14521	10349 10413 103881 102858 10381 102858 10381 102858 10381 102858 10222 101588 10325 10222 101905 100258 101905 101905	1.015.88 1.009.05 1.0

Model Name	Gas Pipe	Liquid Pipe
ARBLN23220	1053.98 1044.89 1038.1	10222 10254 10222 103905 103905 10254 2030 1027 0027 1035

### **Heat Recovery**

R410A

MULTI V 5, MULTI V IV Heat Recovery, MULTI V III Heat Recovery, MULTI V WATER IV Heat Recovery, MULTI V WATER II Heat Recovery

			(Unit : mm)
Model Name	High Pressure Gas Pipe	Liquid Pipe	Low Pressure Gas Pipe
ARBLB01621	ID. 15.58 ID. 12.7 ID. 15.58 ID. 12.7 ID. 15.58 ID. 12.7 ID. 15.88 ID. 12.7 ID. 15.88 ID. 12.7 ID. 10. 12.7 ID. 10. 10. 10. 10. 10. 10. 10. 10. 10. 10	10952 10952 10635 10127 00952 10535	D1588 D1588 D1588
ARBLB03321	ID. 15.88 ID. 19.05 ID. 19.05 ID. 12.7 ID. 9.05 ID. 19.05 ID. 19.0	10952 10635 10127 10635	00222 101905 101588 101905 10127 10127 101905 1019005 101905 101905 101905 101905 101905 101905 101905 101905 1019
ARBLB07121	ID 1905 ID 2858 ID 2858 ID 1588 ID 1905 ID 1905 ID 1905 ID 1905 ID 1905 ID 1905 ID 127	ID1905  ID127  ID1588  ID1588  ID127	ID31.8 ID31.8 ID32.2 ID38.8 ID32.2 ID38.8 ID32.2 ID38.8 ID38.5 ID
ARBLB14521	ID. 34.9 ID. 19.05 ID. 28.58 ID. 25.4 OD. 28.58 ID. 25.4 ID. 25.4 ID. 25.4 ID. 12.7	115.88 LD19.05	10349 10413 10381 103858 10385

Model Name	High Pressure Gas Pipe	Liquid Pipe	Low Pressure Gas Pipe
ARBLB23220	1D349 1D2589 1D3259 1D3	1D254 1D222 1D222 1D1905 96 1D1905 96 379 1D1905 1D1952 1D635	1D.5398 1D.134 8 1D.1398 1D.104.48 1D.398 1D.104.48 1D.398 1D.104.48 1D.398 1D.104.48 1D.398 1D.104.48 1D.398 1D.254 1D.222 1D.202.48 1D.222 1D.222 1D.222 1D.222 1D.105.105 1D.1588 1

# **STOPPER VALVES**

# **REFRIGERANT CHARGING KIT**

Recharging refrigerant after a pump down or when refrigerant is either insufficient or excessive

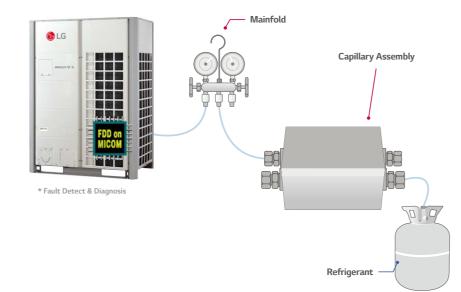


### **Features**

- 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

# **Models Applied**

- 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





UNDER 1 / 2 (INCH) PRVT120

UNDER 7 / 8 (INCH) PRVT780

----

UNDER 9 / 8 (INCH) PRVT980

### **Features**

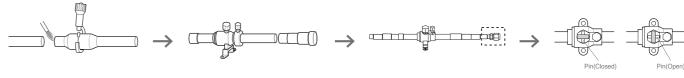
PRAC1

Model Name	Specification		
PRVT120	Input → Output(Indoor unit)  ID6.35 009.52 ID12.7 ID6.35		
PRVT780	Input → → Output(Indoor unit)  ID15,88 ID22,2 ID19,05 ID15,88		
PRVT980	Input   Continut(Indoor unit)  Continut(Indoor unit)		

# Usage

- This unit can be applied for the additional indoor unit's installation.
- This unit can be applied for each indoor unit's service.

### Installation



- 1. Cut the inlet side of the connector, and weld the pipe
- 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.

<sup>\*</sup> When welding, service valve shoud be wrapped by wet cloth.

# **STOPPER VALVES**

PIPING ACCESSORIES

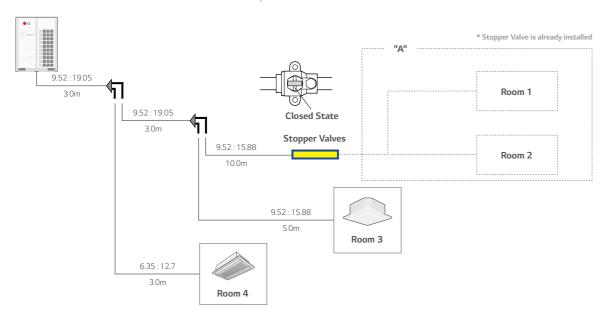
# **DRAIN HOSE**

### Easy drain installation

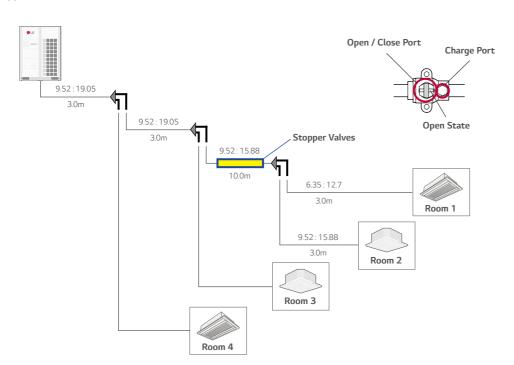
### **Details of Model Name**

### • Case1

(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.





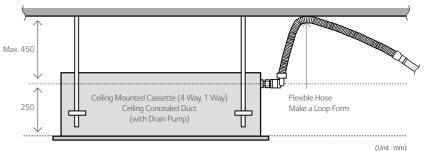
PHDHA05T PHDHA07T PHDHA05B PHDHA07B

# **Features**

- It reduces the installation time by over 40% with elbow-less drain hose.
- Midget drain pump covers maximum 800mm high, featuring easy piping installation.

# **Models Applied**

 Ceiling Mounted Cassette and Ceiling Concealed Duct (refer to PDB for applicable model)



# **Accessory Model Name**

Model Name	Length	Quantity
PHDHA05T	500mm	30EA
PHDHA07T	700mm	30EA
PHDHA05B	500mm	5EA
PHDHA07B	700mm	5EA

MEMO	MEMO