

HIGHLIGHTS OF MULTI V



DUAL SENSING CONTROL

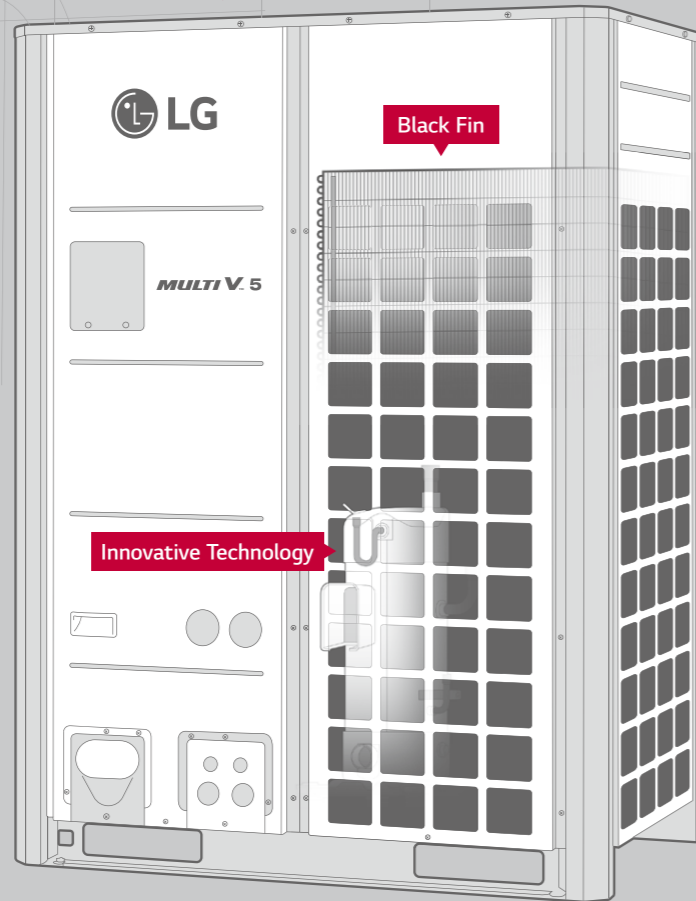
ULTIMATE EFFICIENCY

Ultimate Energy Saving with Dual Sensing Control.



Humidity + Temperature

Ultimate Efficiency



Innovative Technology

Black Fin



Black Fin

SUPERIOR DURABILITY

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

Verified Protection

※ Verification of corrosion resistance performance
- Test Method B of ISO 21207
- ASTM B117 / ISO 9227 (10,000 hours)



R1 Compressor™

INNOVATIVE TECHNOLOGIES

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

DESIGN FLEXIBILITY

Flexible Installation with Large Capacity Outdoor Unit.
MULTI V 5 enables easy type change-over to suit the purpose of any building. MULTI V S allows versatile design with flexible piping locations.



BRAND RELIABILITY

Global production sites facilitate world-class customer service.



R32 APPLICATION

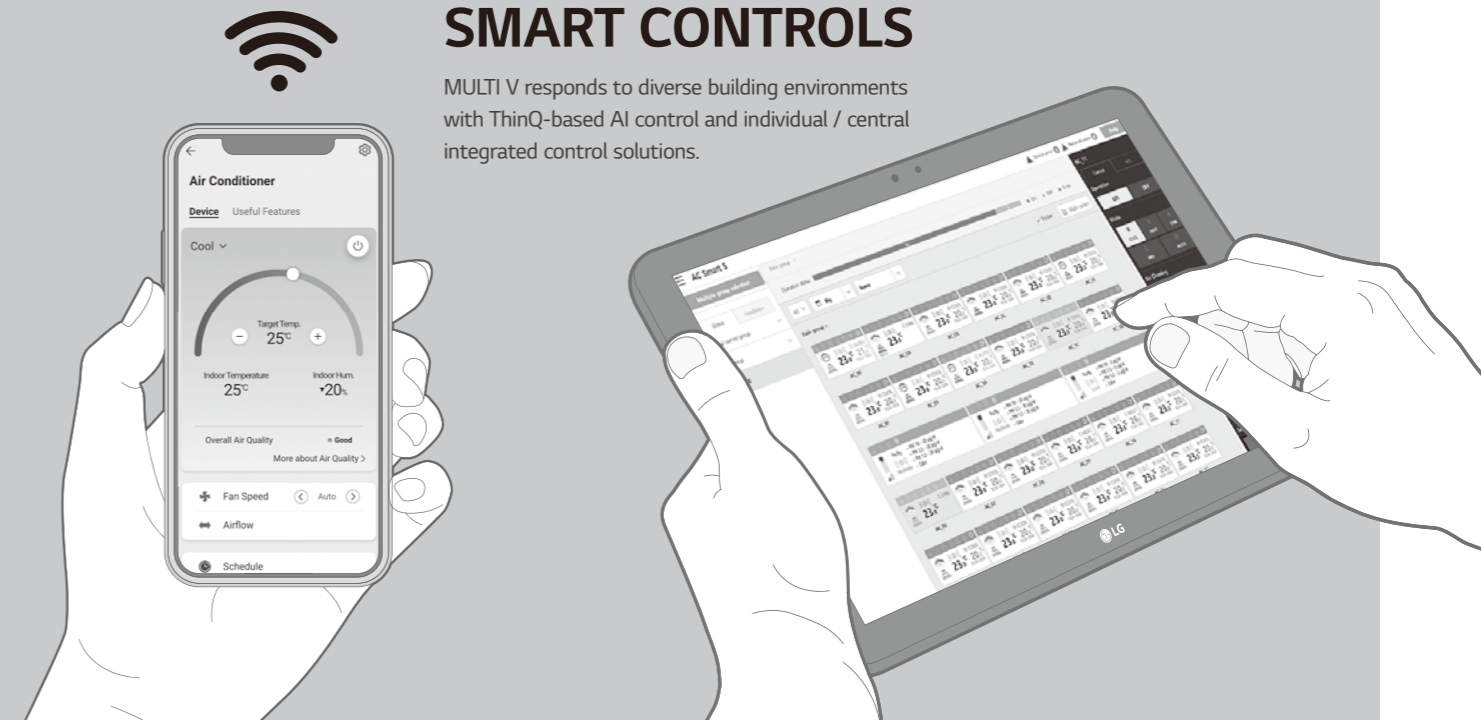
New line-up applying the industry-first mini VRF with R32 refrigerant to MULTI V S.

DIVERSE PRODUCT LINE UP

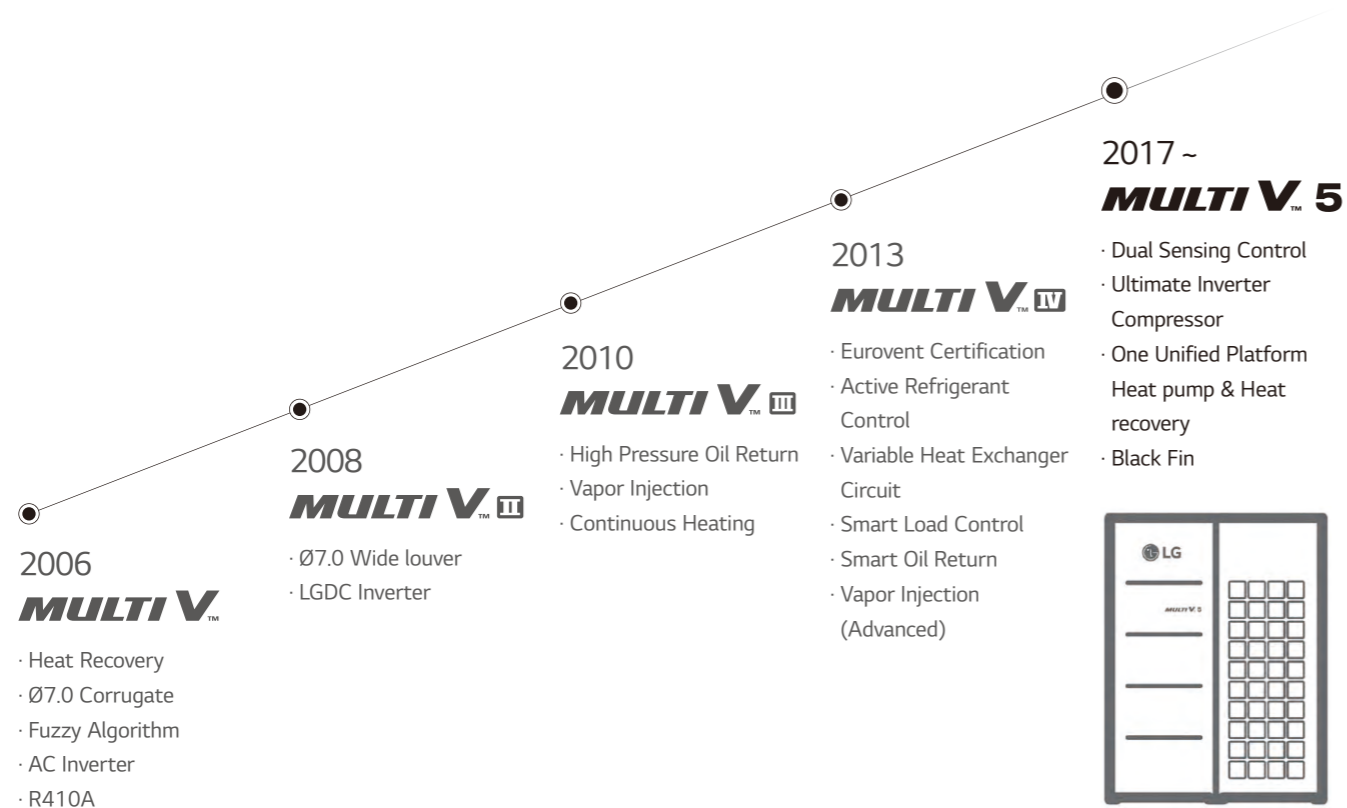
Integrated solution optimized for various business environments, including hot water, AHU, BMS, and EMS.

SMART CONTROLS

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



MULTI V BRAND HISTORY



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

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

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

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

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

INFRASTRUCTURE IN EUROPE






LG Air Conditioning Academy

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



European Air Conditioning Distribution Center

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

-  Air Conditioning Academy
-  Europe Energy Lab
-  European Distribution Center



ENGINEERING TOOLS & SUPPORT

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

Dedicated to provide the best HVAC engineering support, LG Electronics Air Solution Business Unit offers several engineering tools and solutions focused on HVAC, during the overall lifecycle of a building, related to the three categories. Among them, the LATS* Program series has been developed to offer the best tool for LG HVAC systems, providing our customers with a solution that allows for faster, easier and more accurate model selection, draft energy estimations and more.

* LATS : LG Air-conditioner Technical Solution



I

**Energy Estimation
& Energy Modeling**



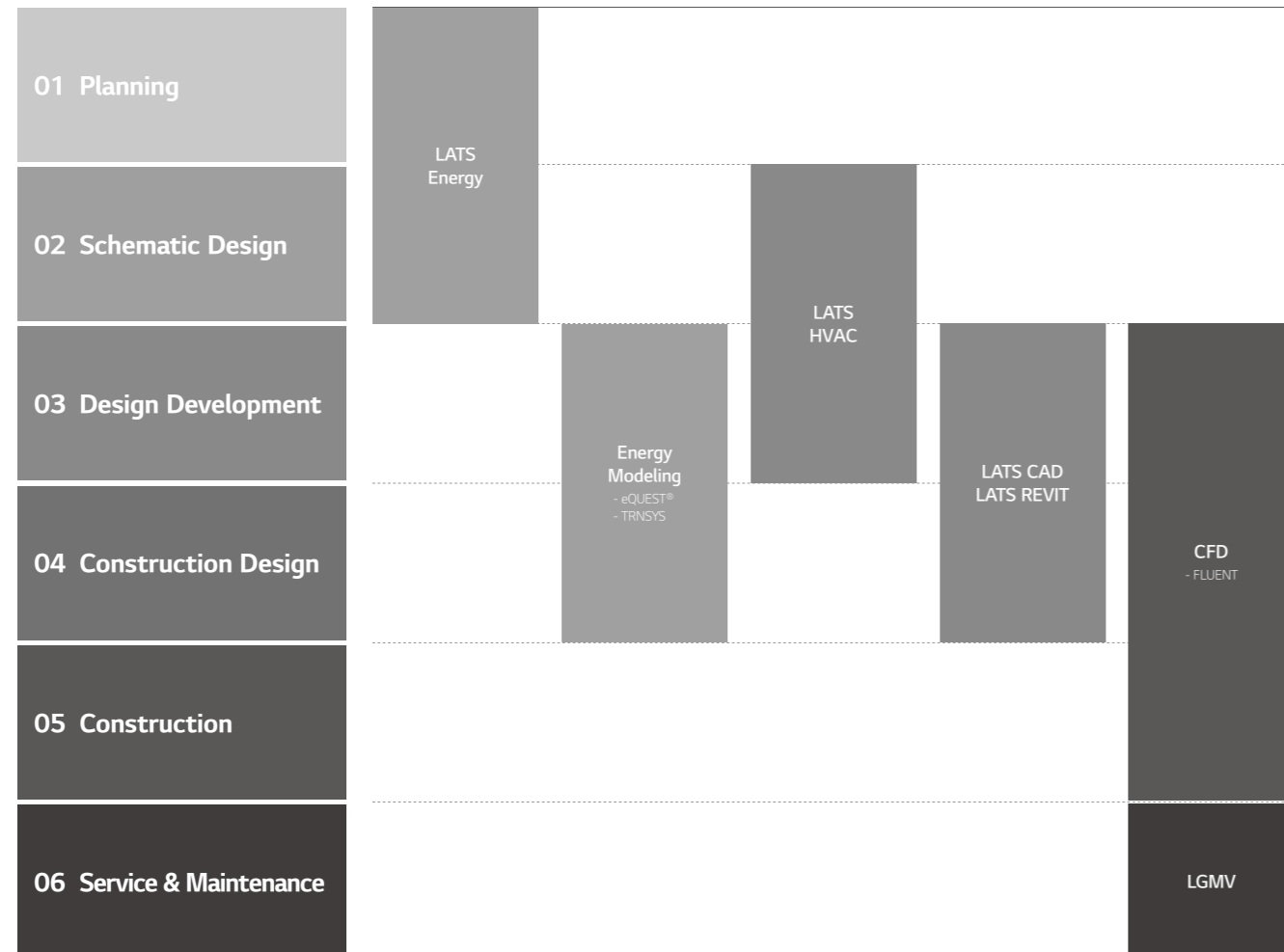
II

**Model Selection
& Design**



III

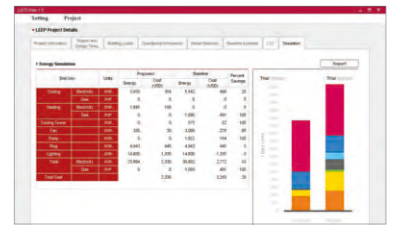
**Installation
Environment
Simulation**



01 Draft Energy Estimation

LATS Energy

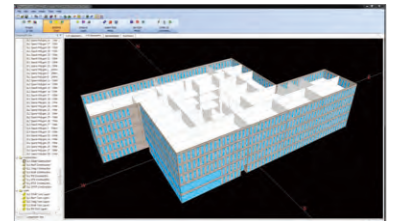
LATS Energy is a program developed by LG to estimate energy consumption and analyze the life cycle cost of LG commercial air conditioning systems during a project's early stages.



02 Building Energy Modeling

eQuest, EnergyPro, Trace700 and More

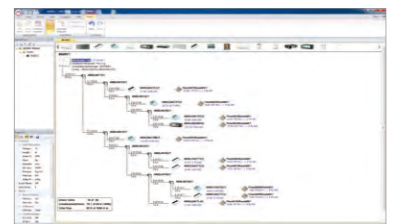
These are certified commercial programs which assess the HVAC system efficiency and building's annual energy savings for building standards or certifications, like LEED. LG HQ supports these programs for the project stages of Design Development and Construction Design wherein the overall designing is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



03 Model Selection

LATS HVAC

LATS HVAC is a model selection program that accurately and quickly selects the most suitable LG commercial air conditioning systems for each design. In addition to model selection, faster estimation on refrigerant piping diameter and additional refrigerant is possible, along with auto printing of reports.



04 Design

LATS CAD

LATS CAD enables faster and more accurate 2D design of LG commercial air conditioning systems. It also enables modules for quotation and installation review that minimize inherent problems during installation and commissioning.

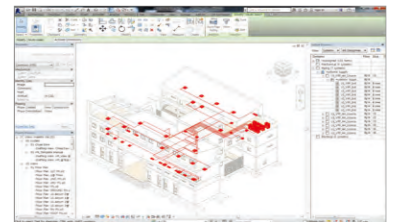
※ AutoCAD program is required.



LATS REVIT

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

※ AutoCAD Revit program is required.



05 Environment Simulation

CFD Analysis

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



06 Service & Maintenance

LGMV

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



BENEFITS OF LG MULTI V

Benefits for Building Owners



Efficient Management & Cost Reduction

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



Reliability at Every Stage

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



Customized Comfort and Solution

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



Benefits for Developers & Construction Companies



Green Solutions

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



Maximizing Space Utilization

- Large capacity in compact size enhances space utilization



Smart Building Solutions

- Seamless integration with current Building Management Systems
- Wi-Fi control available for anytime, anywhere access (via the 'ThinQ' mobile app)
- Energy management and control according to usage and planning is possible with LG's centralized control solution



Benefits for Consultants



Versatile Solutions

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



Professional Design Support

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



Optimized Convenience with HVAC Design

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



Benefits for End-users



Cost Saving Operation

- High efficiency guaranteed throughout product line-up
- Up to 31% cost savings with MULTI V's Smart Load Control*



Comfort Cooling & Heating

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



Convenient Functions

- Low-noise operation provides a pleasant environment

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

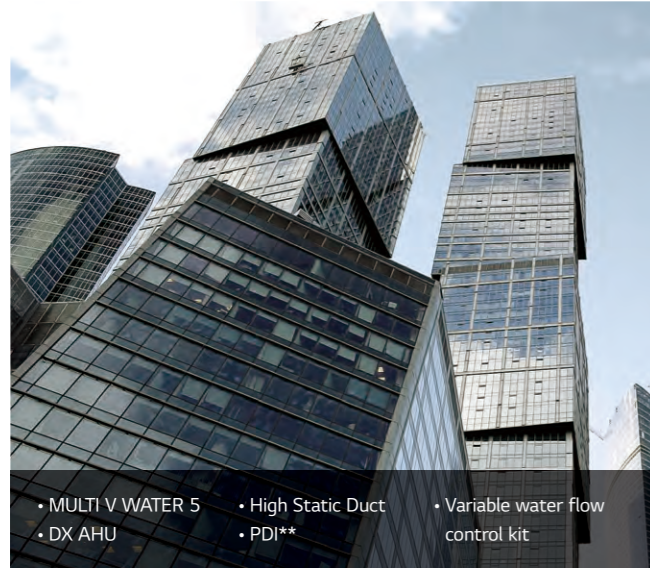


APPLICATION SOLUTIONS

Office

Supporting efficiency with flexibility

High Rise Office Building



- MULTI V WATER 5
- DX AHU
- High Static Duct
- PDI**
- Variable water flow control kit

Small to Medium sized Office Building



- MULTI V 5 / S
- 4 Way CST*
- PDI**

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

Commercial

Maximizing business, minimizing cost

Shopping Mall



- MULTI V 5
- DX AHU

Retail



- MULTI V M
- ERV
- Convertible

Quick Service Restaurant (QSR)



- MULTI V M
- ERV
- Hydro Kit
- 4 Way CST

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

* CST : Cassette ** PDI : Power Distribution Indicator

Residential

Creating a comfortable home

Condominium & Apartments



- MULTI V S HR
- Hydro Kit
- 1/2 Way CST
- 3rd party controller RTU gateway

Single Family House & Villa

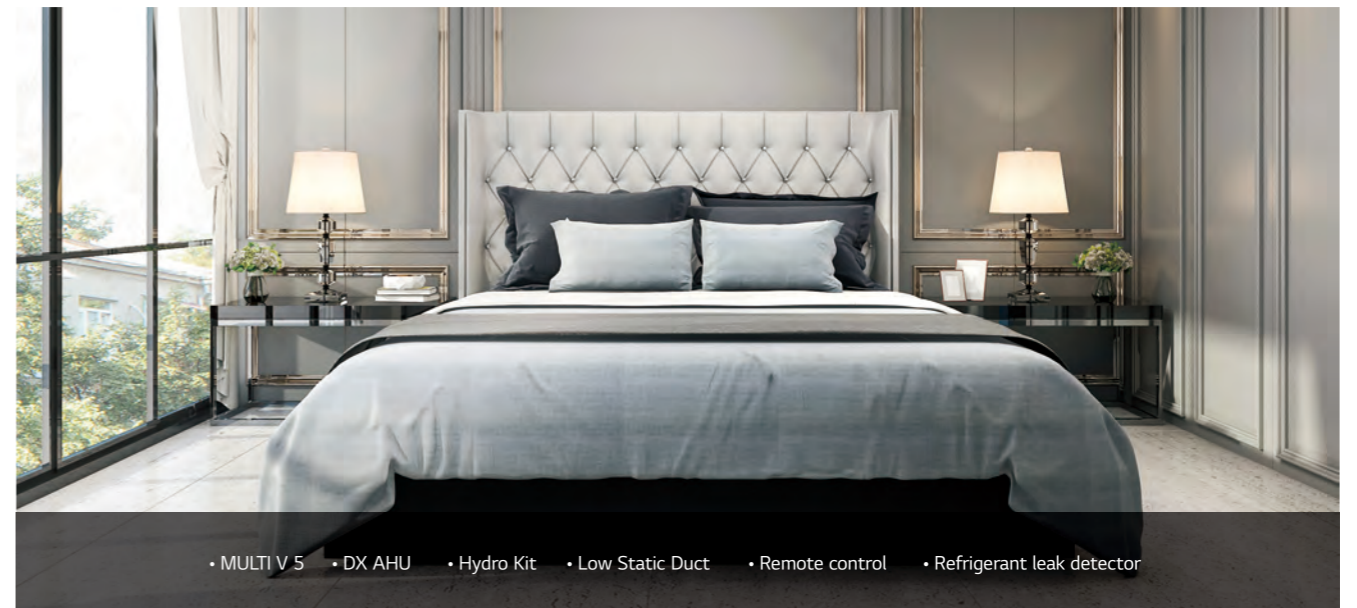


- MULTI V S
- Therma V
- ESS* & PV** Solar

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

Hospitality

Meeting diverse needs



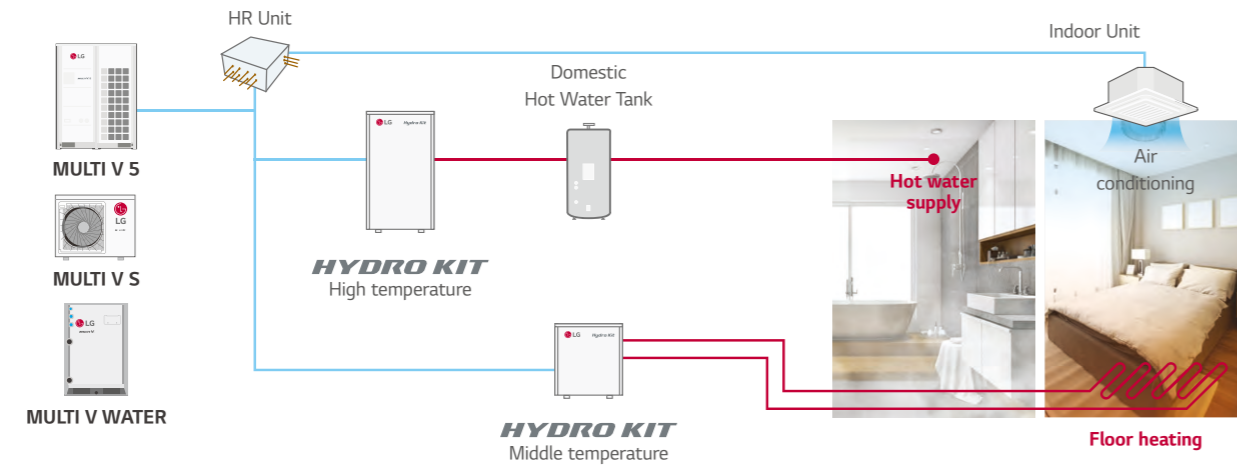
- MULTI V 5
- DX AHU
- Hydro Kit
- Low Static Duct
- Remote control
- Refrigerant leak detector

The diverse applications that Multi V 5 offers bring just the right solution to a sophisticated hotel business.

* ESS : Energy Storage System ** PV : Photovoltaics

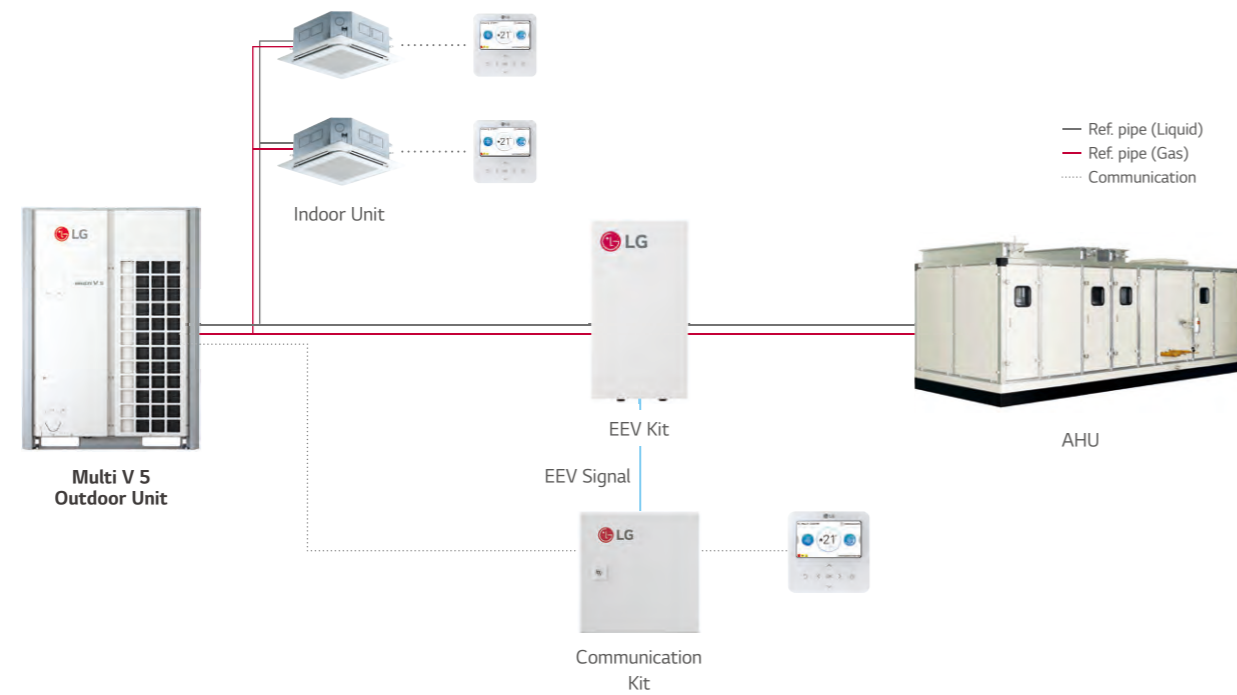
Hot Water Solution

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



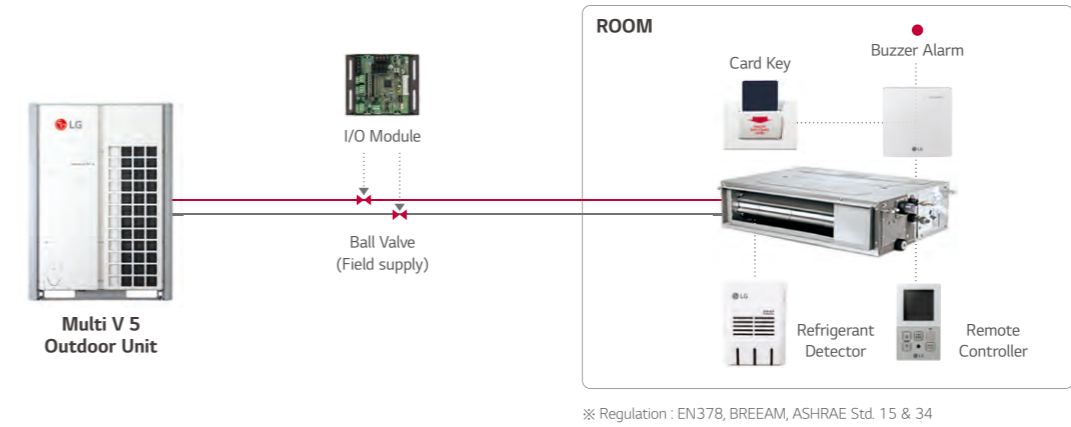
Air Handling Unit (AHU) Solution

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



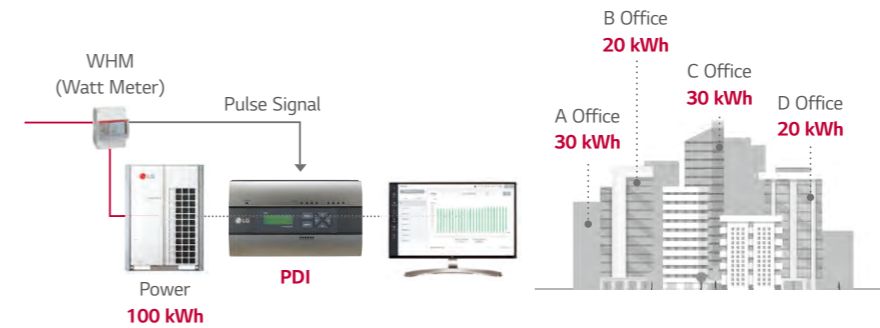
Refrigerant Leak Detection Solution

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



Power Consumption Distribution Solution

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



Total Control via Any Device

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



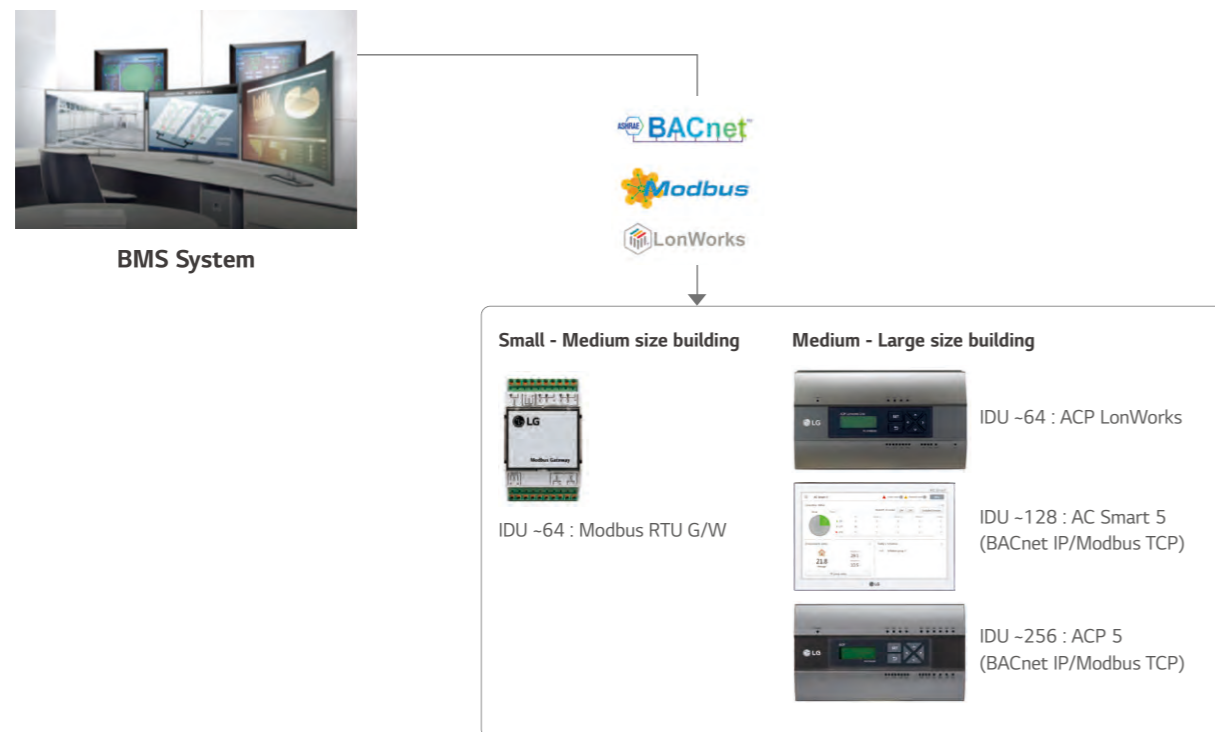
Energy Management Solution

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



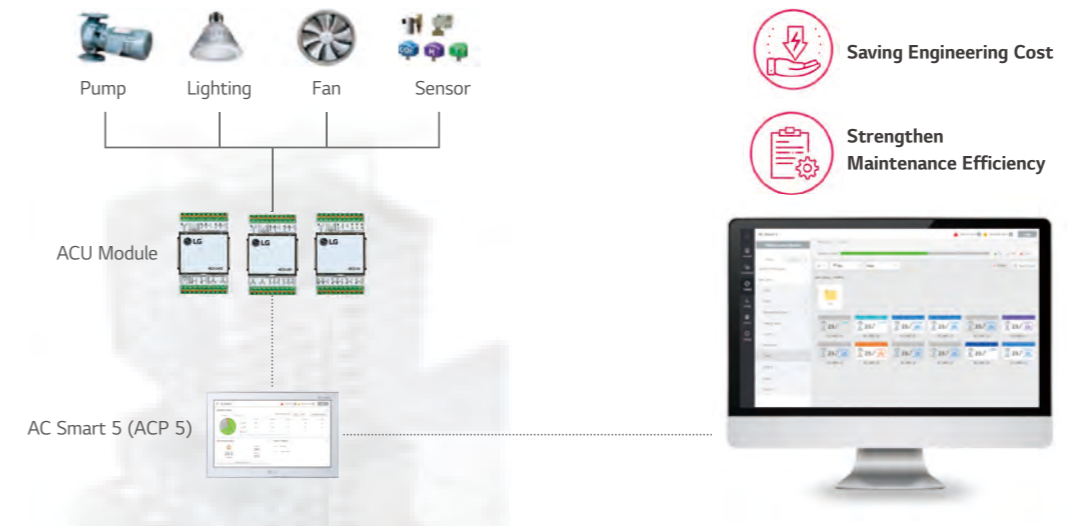
Integration Solution with BMS

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



Interlocking Solution by Using ACU Module

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



Interlocking Solution Using Dry Contact

3rd party thermostats can be used to control LG air conditioners in a room by using a multi point dry contact. The dry contact enables basic control of air conditioners as well as making it possible to report the status and any errors impacting the indoor unit. The Standard III remote control has a DO port. With this DO port, it is possible to interlock the indoor unit with 3rd party devices such as lighting, a fan, or a radiator, based on parameters like operation mode or current temperature. The indoor unit can be interlocked with various types of input such as card key-tag, door sensor, human detection sensor etc. so that the air conditioner is automatically operated. In addition, the dry contact option settings enable operation of air conditioner to maintain proper temperature when the occupant is absent. This solution makes sure that the room does not overheat or become too cold when unoccupied so that energy cost can be saved.



OUTDOOR UNITS LINE-UP

MULTI V™ 5

8 - 12 HP
380V, 3Ø

14 - 20 HP
380V, 3Ø

22 - 40 HP
380V, 3Ø

42 - 60 HP
380V, 3Ø

62 - 80 HP
380V, 3Ø











MULTI V™ M

5 HP
220V, 1Ø
380V, 3Ø

MULTI V™ S

4 HP
220V, 1Ø

5 - 6 HP
220V, 1Ø

4 - 8 HP
380V, 3Ø







10 - 12 HP
380V, 3Ø

6 HP
220V, 1Ø

Heat Recovery

4 - 6 HP
220V, 1Ø
380V, 3Ø

R32



































MULTI V™ WATER 5

8 - 20 HP
380V, 3Ø

22 - 40 HP
380V, 3Ø

42 - 60 HP
380V, 3Ø

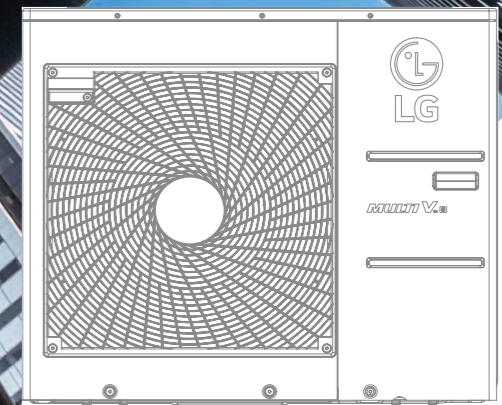
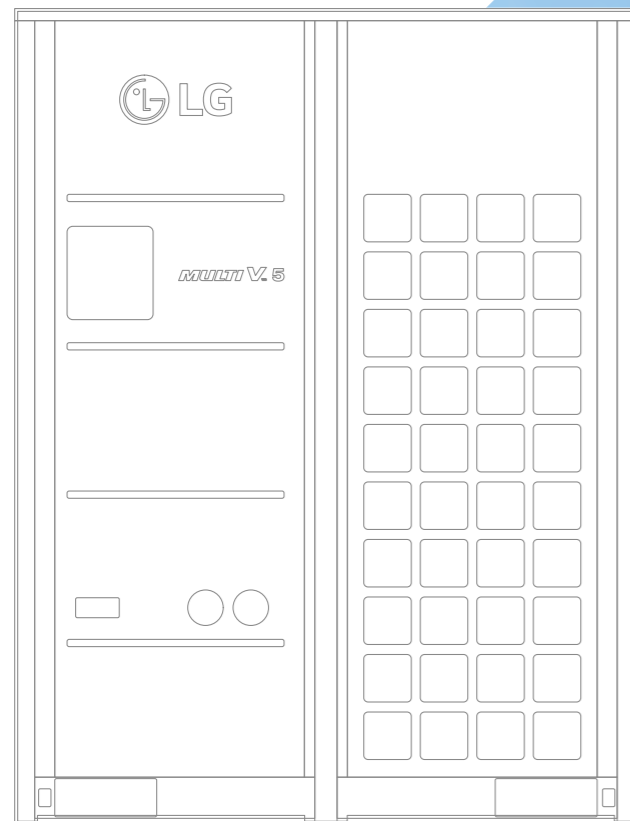
kW		1.5	2.2	2.8	3.6	4.5	5.6	6.2	7.1	8.2	9.0	10.6	12.3	14.1	15.8	22.4	28.0		Energy Monitoring	2 Set Point	Occupied / Unoccupied Scheduling Function	Group Control	Test Run (Cooling)	Test Run (Heating)	Model Information Monitoring	Auto Addressing	Refrigerant Leakage Detection	Thermo On / Off Range Setting (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 Restart Function Disable / Enable	Wi-Fi Ready
		5k	7k	9k	12k	15k	18k	21k	24k	28k	30k	36k	42k	48k	54k	76k	96k																	
4 th generation Wall Mounted	Artcool Gallery 		●	●	●														●	●	●	●	●	●	●	●	●	●		●	●	●	●	
	Artcool Mirror 	●	●	●	●	●	●	●											●	●	●	●	●	●	●	●	●	●		●	●	●	●	
	Standard 	●	●	●	●	●	●	●	●			●	●						●	●	●	●	●	●	●	●	●	●		●	●	●	●	
4 th generation Ceiling Mounted Cassette	4 Way Cassette (570 x 570) 	●	●	●	●	●	●	●											●	●	●	●	●	●	●	●	●	●		●	●	●	●	
	4 Way Cassette (840 x 840) 								●	●	●	●	●	●					●	●	●	●	●	●	●	●	●	●		●	●	●	●	
	4 Way Cassette High Sensible (840 x 840) 	●	●	●	●	●	●	●	●	●		●	●	●					●	●	●	●	●	●	●	●	●	●		●	●	●	●	
	Round Ceiling Cassette 								●			●		●					●	●	●	●	●	●	●	●	●	●		●	●	●	●	
	2 Way Cassette 			●	●		●		●										●	●	●	●	●	●	●	●	●	●		●	●	●	●	
	1 Way Cassette 		●	●	●		●		●										●	●	●	●	●	●	●	●	●	●		●	●	●	●	
4 th generation Ceiling Concealed Duct	Mid / High Statics 		●	●	●	●	●		●	●		●	●	●	●	●	●		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
	Low Static (Slim) 	●	●	●	●	●	●	●	●										●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
	High Sensible 		●	●	●	●	●		●	●		●	●	●					●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
4 th generation Fresh Air Intake 																●	●		●	●	●	●	●	●	●	●	●	●	●	●	●	●		
4 th generation Ceiling & Floor Convertible 			●	●															●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
4 th generation Ceiling Suspended 						●		●			●		●						●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
4 th generation Console 		●	●	●	●														●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
4 th generation Floor Standing	Floor Standing with Case 		●	●	●	●	●	●											●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
	Floor Standing without Case 		●	●	●	●	●	●	●										●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
4 th generation HYDRO KIT	Wall-Mounted 	●	●	●																														
	Low Temperature 											●					●		●			●	●	●	●	●	●	●	●	●	●	●		
	High Temperature 											●				●			●			●	●	●	●	●	●	●	●	●	●	●		
4 th generation Energy Recovery Ventilator with DX Coil	with Humidifier 				●			●		●												●	●	●		●	●		●	●	●	●		
	without Humidifier 				●			●		●												●	●	●		●	●		●	●	●	●		

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

028 - 109

OUTDOOR UNITS





MULTI V 5 / MULTI V S / MULTI V M /
MULTI V WATER 5



MULTI V™ 5

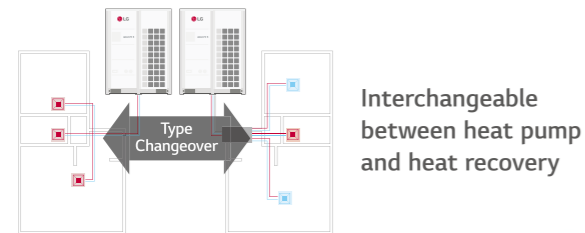
Highlight

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

			
Energy savings	Reliability	Low noise	Advanced performance

How does it work?

	
Dual Sensing	Partial Defrost



Dual Sensing Smart Load Control (SLC)

Enhanced energy saving & increased indoor comfort

Cooling loads vary according to both temperature and humidity. With Dual sensing SLC, the proper amount of work can be exerted to meet the load not only depending on current temperature, but also on humidity. As a result, less work will be needed at the same temperature when humidity is lower. It influences the VRF system main processor's decision on where to set the system's target high or low system pressure values.

Smart Load Control monitors two inputs

- 1) Outdoor ambient dry bulb temperature
- 2) Relative humidity

What are the benefits?

Enhanced energy savings

Cooling Mode

By raising the target low pressure during off-peak cooling operation.

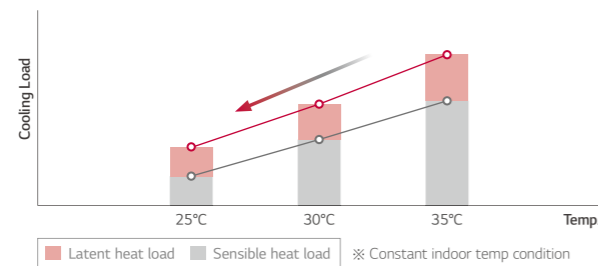
Heating Mode

By lowering the target high pressure during off-peak heating operation.

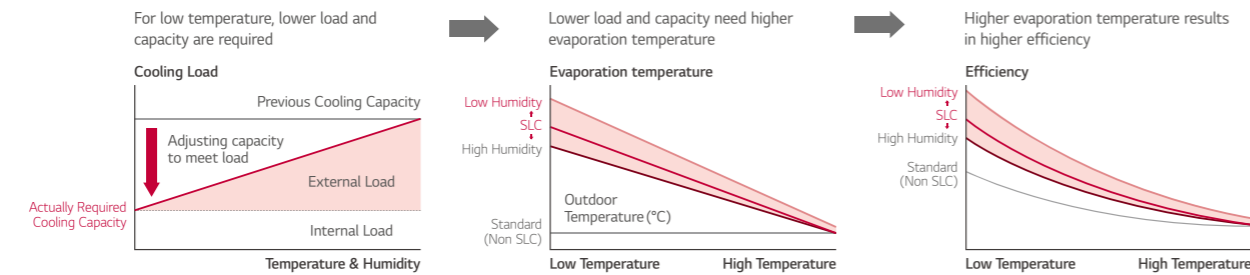
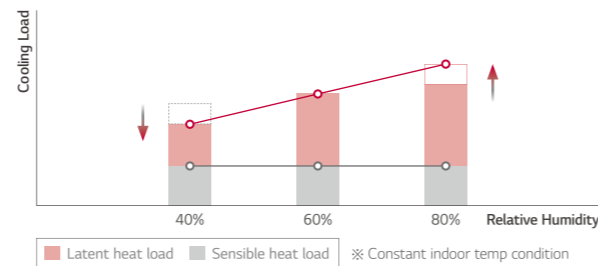
Increased indoor comfort

This function allows MULTI V 5 to maintain operation at mild cooling mode around the set temperature with adjusting compressor's speed by sensing both temperature and humidity.

Cooling load according to temperature change



Cooling load according to humidity change

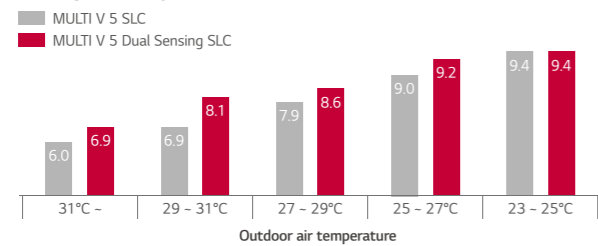


Energy Savings with Dual Sensing Control Temperature & Humidity

Energy Consumption in Cooling Season

Dual sensing SLC control can save 6% more energy compared to SLC. So dual sensing control is more efficient than SLC.

Cooling Efficiency



※ This energy simulation was performed in LG internally based on 16HP model.

Power Consumption in Cooling Season

Yearly Power Input (kWh) - ODU

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

6% more energy saving compared to SLC

Comfort Cooling

Increased indoor comfort & enhanced operating efficiency

MULTI V 5's comfort control algorithm monitors the outdoor air temperature and humidity conditions. When changing weather conditions are deteriorating and there is a high potential the indoor unit's load will remain stable or may increase, comfort cooling delays or abandons raising the target superheat as the room temperature approaches set-point. When changing weather conditions are favorable to raising target superheat, target superheat is moderated.

What are the benefits?

With comfort cooling turned on, the discharged air temperature is controlled. When the IDU controller reduces the fan speed, the potential for cold air falling on occupants located under the cassette IDU or supply air registers is reduced.

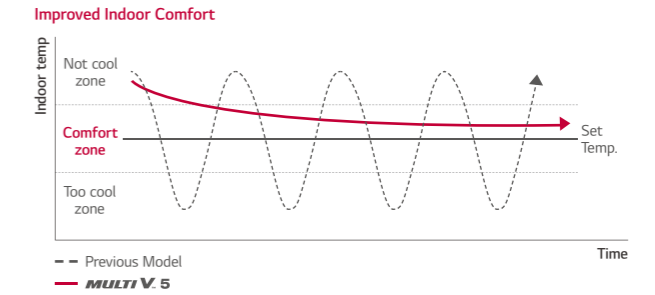
Enhanced operating efficiency

Raising superheat reduces refrigerant volume flowing through the coil.



※ Indoor unit set up available with Standard III Remote Controller

Preventing cold draft & repeated turn On / Off



Intelligent Defrost

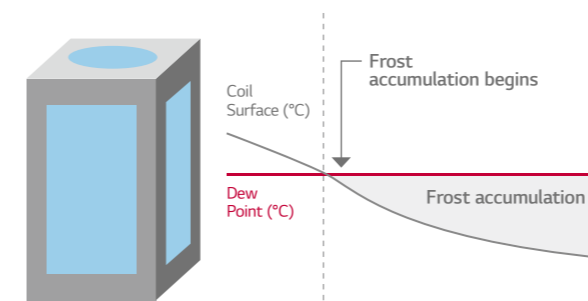
Increased heating run-hours

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

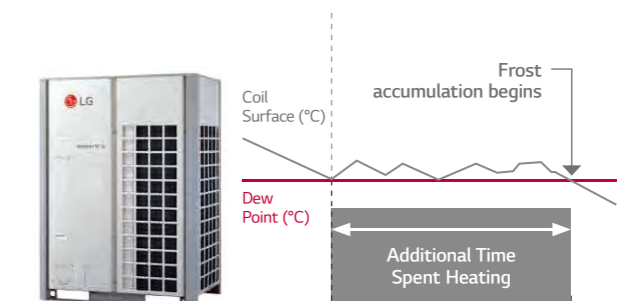
What are the benefits?

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

Conventional Defrost



LG Intelligent Defrost / Smart Heating



※ Increased heating operation time per day : Up to 17%
 • LG Internal Test result,
 • Test condition (MULTI V 5 vs MULTI V IV, 16HP)
 - Outdoor : 2/1°C, Indoor : 20/15°C
 - Humidity : 83%, Dew Point : -0.5°C

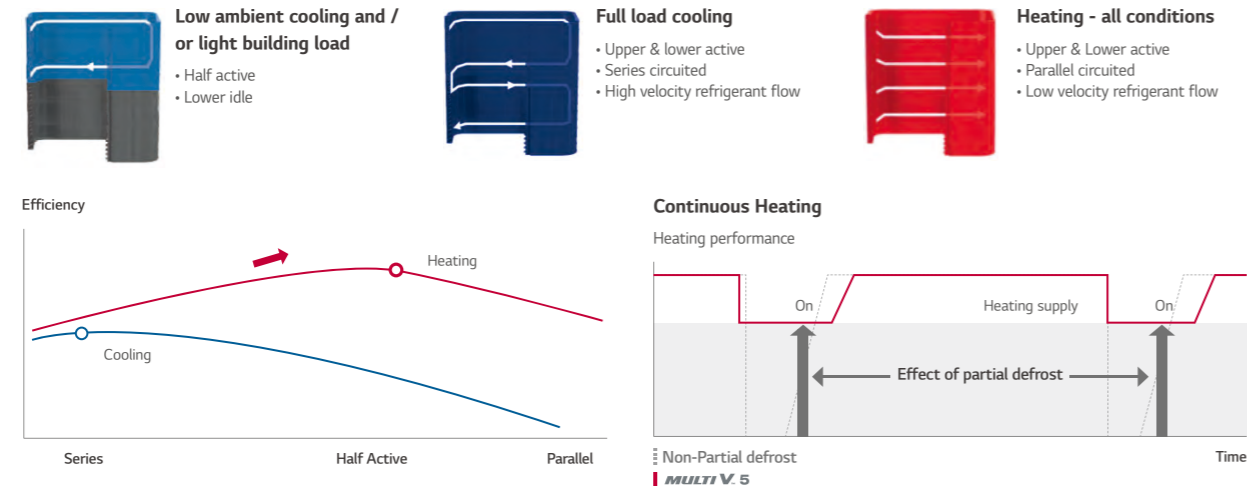
Variable Path Heat Exchanger

Optimized system efficiency & continuous heating

This split coil feature makes it possible for MULTI V 5 to provide continuous heating during defrost. The split coil and valve arrangement also makes it possible for the MULTI V 5 to change the flow path of refrigerant through one of the two coils only, or through both coils in either a series or a parallel arrangement.

What are the benefits?

Optimizes system efficiency regardless of operating modes as ambient weather conditions change. Customizes the used area of the outdoor unit's heat exchange surface.



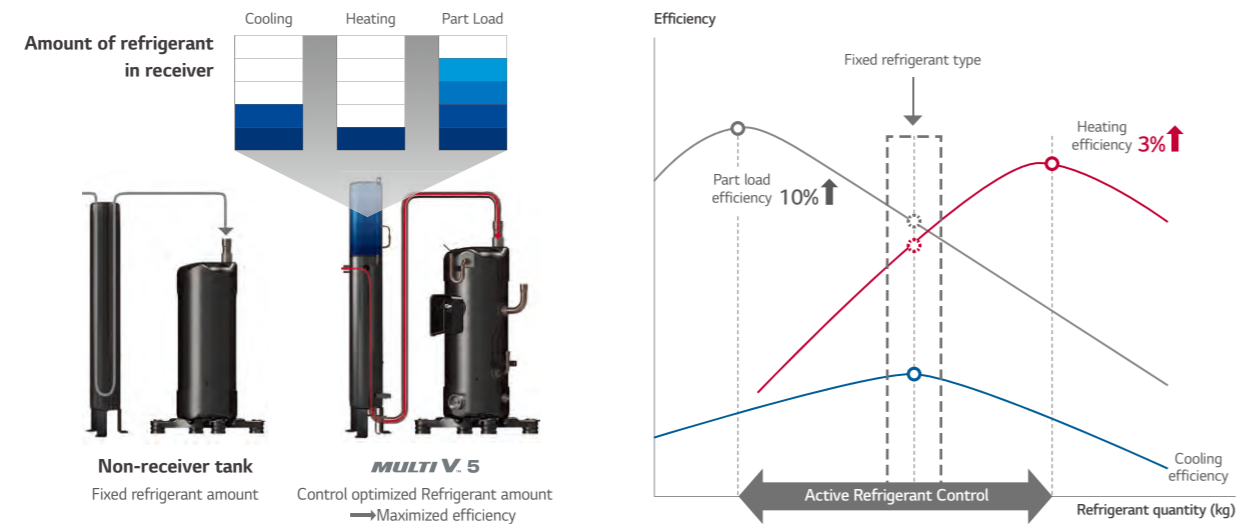
Active Refrigerant Control

Stable operation & sustaining most efficient operation

MULTI V 5 active refrigerant control algorithm goal is to minimize the amount of refrigerant in circulation. The lower the volume in circulation, the lower the cost to move it around the system and the higher the stability of the refrigeration cycle.

What are the benefits?

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



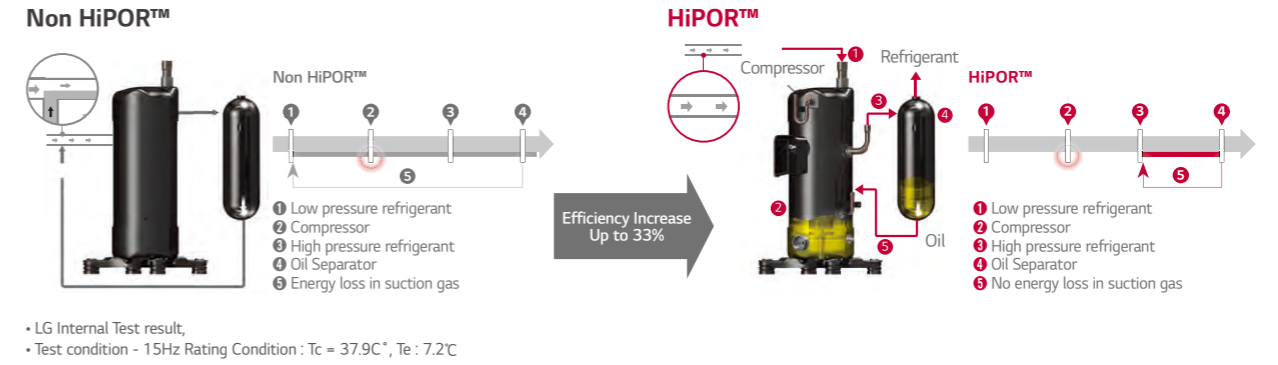
HiPOR™

Advanced compressor reliability & efficiency

HiPOR™ is an LG trademark that stands for High Pressure Oil Return. It consists of an oil separator, oil drain line between the separator and the compressor. HiPOR™ technology enables oil to return directly into the compressor, instead of returning through the refrigerant suction pipe.

What are the benefits?

Maximizes reliability and efficiency of the compressor



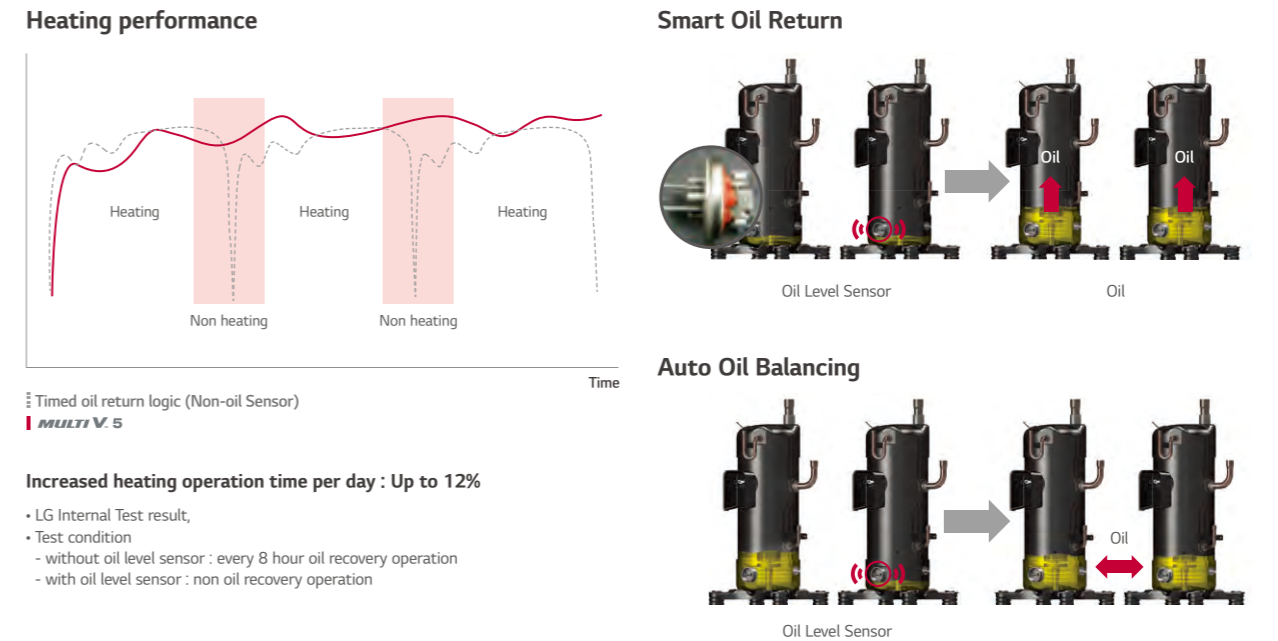
Smart Oil Management

Energy saving, enhanced heating & increased compressor reliability

MULTI V 5 performs oil return when needed under normal operating conditions. An oil level sensor is provided in every LG VRF compressor. If the sensor indicates the compressor oil level is low, the main system processor is notified that an oil return cycle is necessary. LG's unique oil level measuring sensor actively monitors the oil level in each compressor.

What are the benefits?

Energy savings : fewer oil return cycles eliminate unnecessary energy consumption. Increases system heating run-time during winter operation. Increases compressor reliability.



Sub-cooling & Vapor Injection

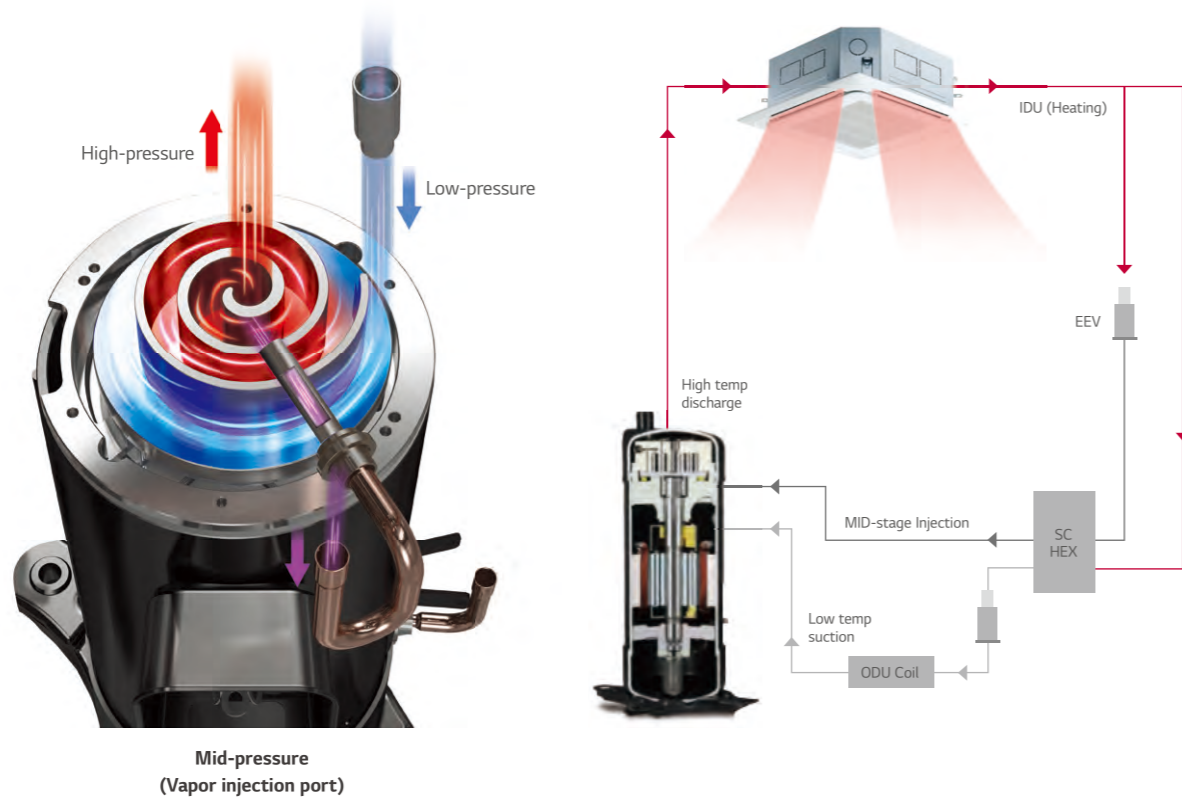
Increased heating performance

MULTI V 5 is equipped with advanced sub-cooler and vapor injection control system. The sub-cooler algorithm sub-cools liquid refrigerant just enough so that it can travel to the farthest IDU in the system operating in cooling mode without changing state. In all cases, the vapor injection increases the compressors cycle efficiency and reduces operating cost.

What are the benefits?

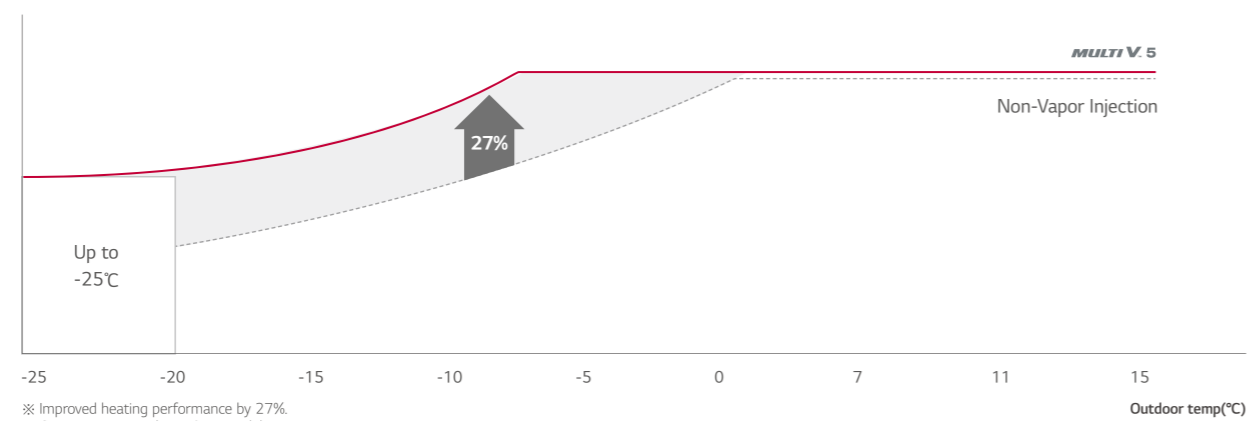
Provides stable refrigeration cycle operation over a wide range of outdoor ambient operating conditions. Increases compressor efficiency when compared to systems without vapor injection technology.

Technology Mechanism



Performance Comparison

Heating performance



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

Corrosion Resistance Black Fin

Improved durability

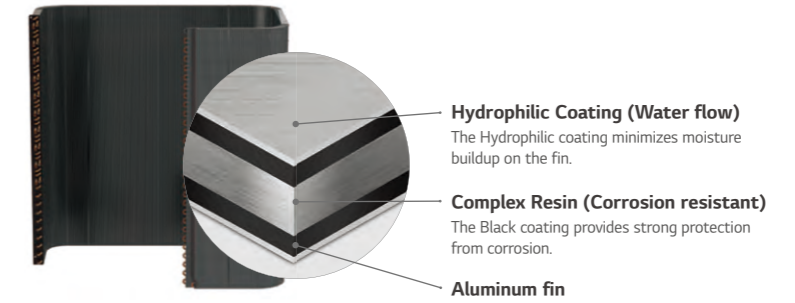
LG Corrosion Resistance solution passed ISO 21207 accelerated corrosion test conducted by an independent test organization and the result has been certified by prestigious global certification organization, TÜV.

What are the benefits?

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



※ Verification of corrosion resistance performance
 - Test Method B of ISO 21207
 - ASTM B117 / ISO 9227 (10,000 hours)



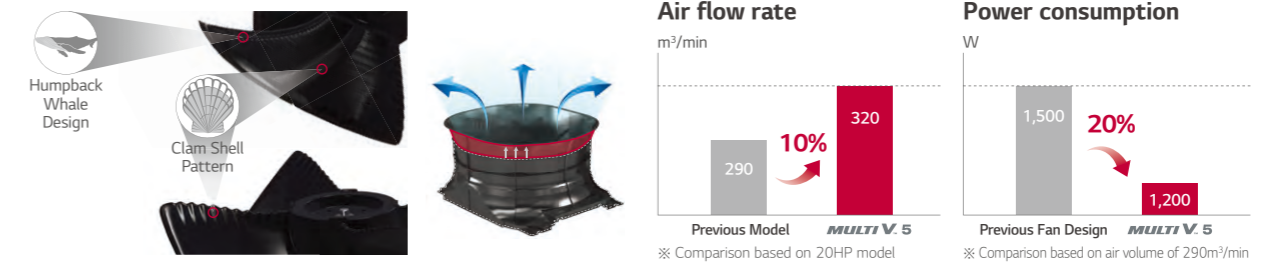
Biomimetic Fan

Maximized performance

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

What are the benefits?

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



One Unified Model

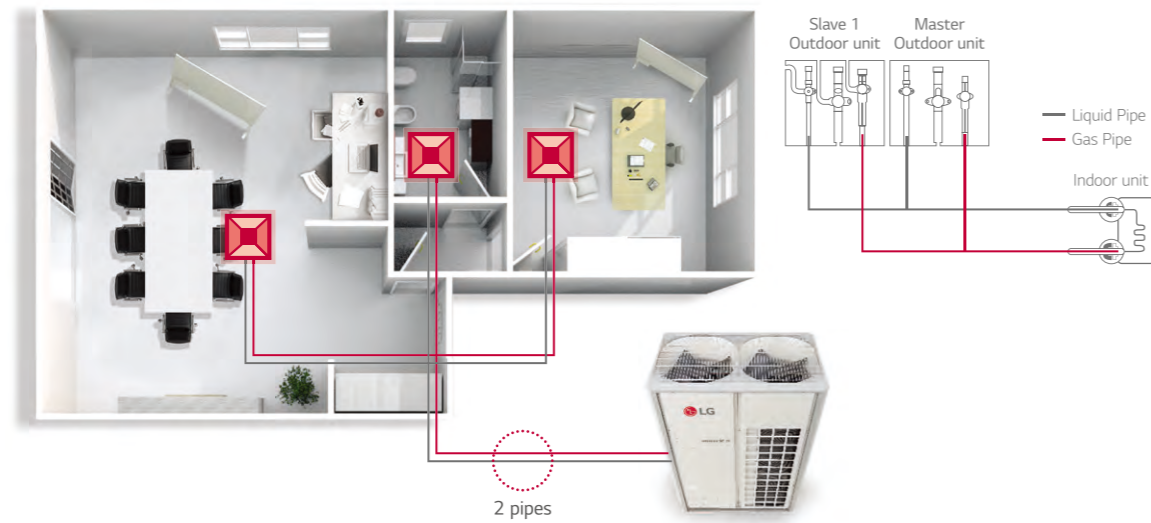
Heat pump / Heat recovery with one platform

LG MULTI V 5 satisfies users' various needs with just one platform.

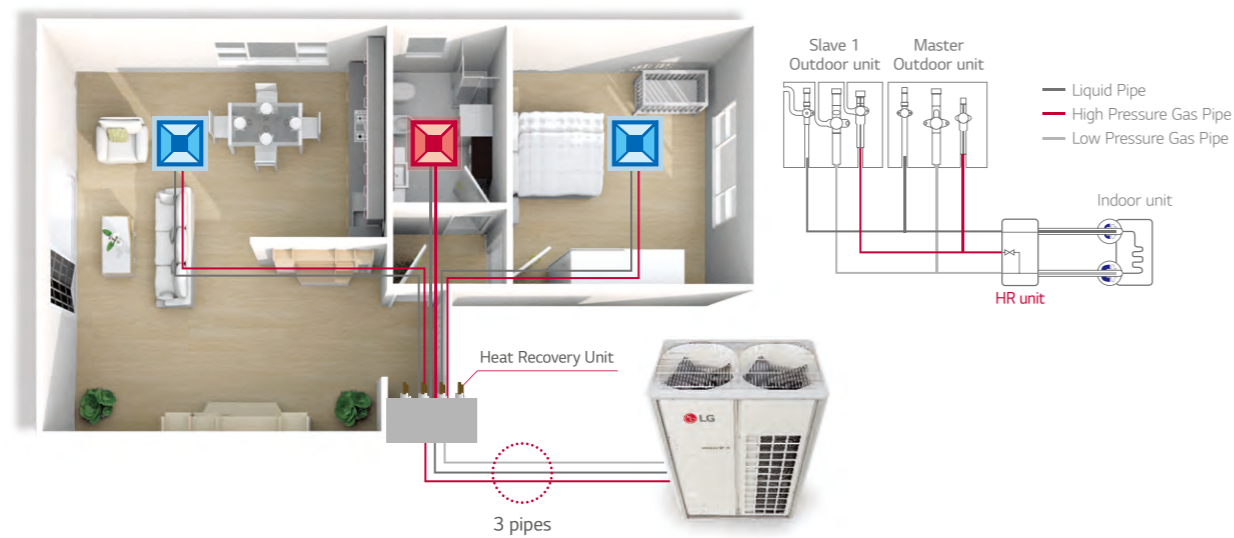
What are the benefits?

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

Heat Pump System



Heat Recovery System

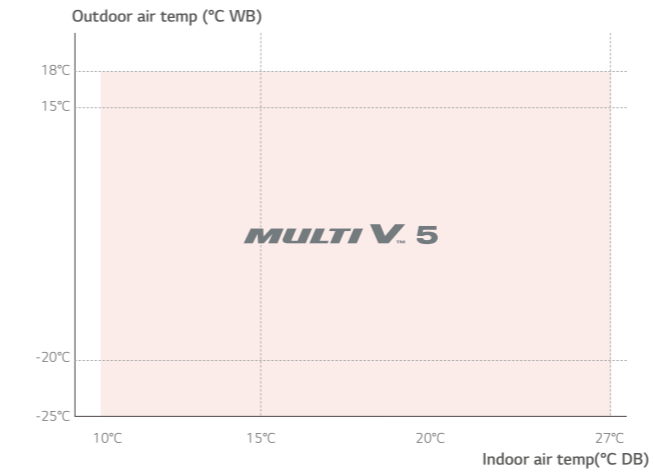


Wider Operation Range

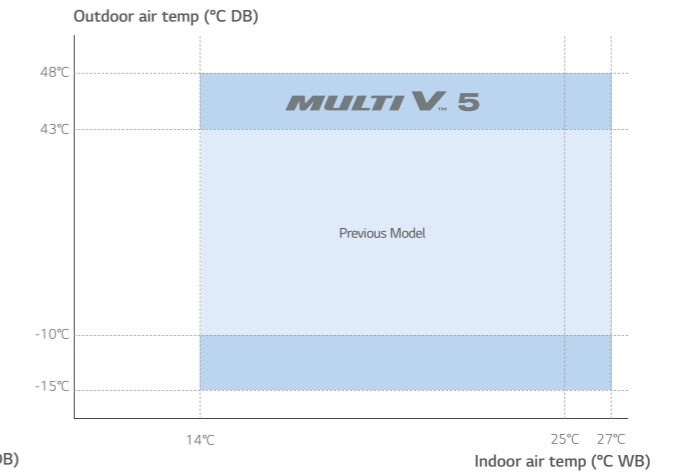
Able to operate at extreme conditions

With improved inverter cooling technology, sub-cooling and vapor injection, MULTI V 5 offers an extended range of heating and cooling operations. Moreover, MULTI V 5's cycle technology with enhanced durability enables optimal cooling performance at high temperature that increases up to 48°C.

Heating



Cooling

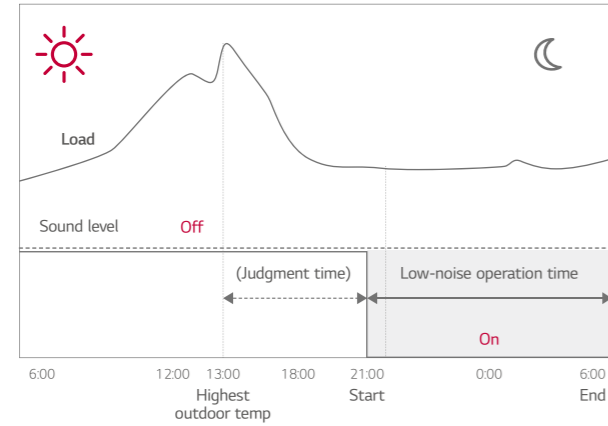


Low-Noise Operation

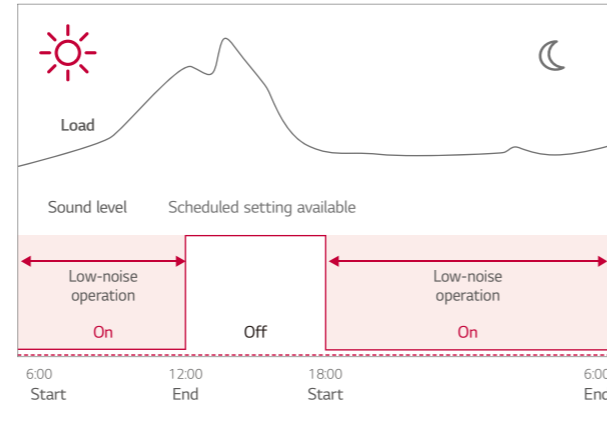
For noise sensitive environment

The Low-Noise Operation of MULTI V 5 can function regardless of the time at the noise sensitive areas.

Previous Model



MULTI V 5



Simple Test Run via LGMV

Increased overall efficiency in installation

With Mobile LGMV of MULTI V 5, fast and accurate auto test run can be executed and the professional installer running the test can receive test results via email, which shortens installation hours and increases overall efficiency in installation processes.

Previous

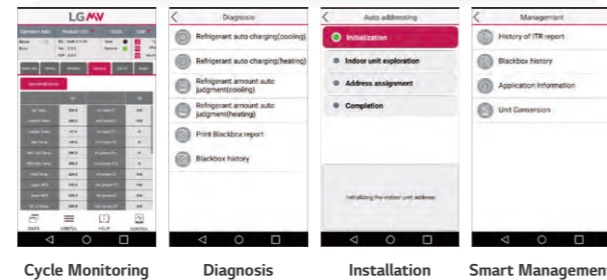


MULTI V 5



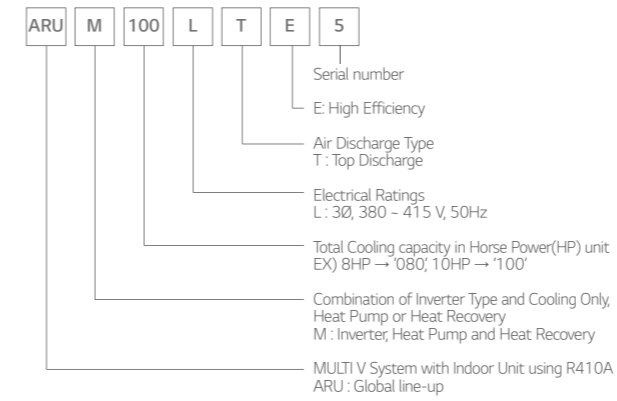
Wi-Fi MV Module

LGMV

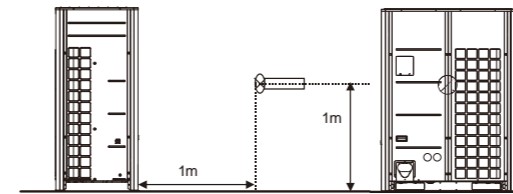


Cycle Monitoring Diagnosis Installation Smart Management

Nomenclature



Position of Sound Pressure Level Measuring

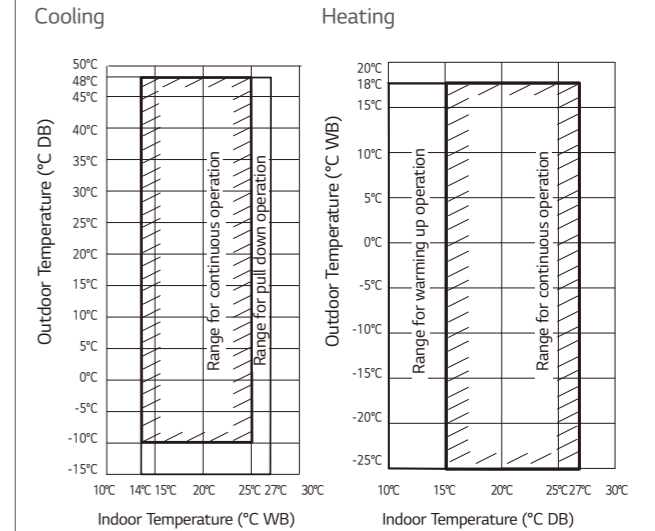


- Data is valid at free field condition
- Data is valid at nominal operating condition
- Sound level will vary depending on a range of factors such as the construction (Acoustic absorption coefficient) of particular room in which the equipment is installed
- Sound level can be increased in static pressure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

Outdoor Units Function

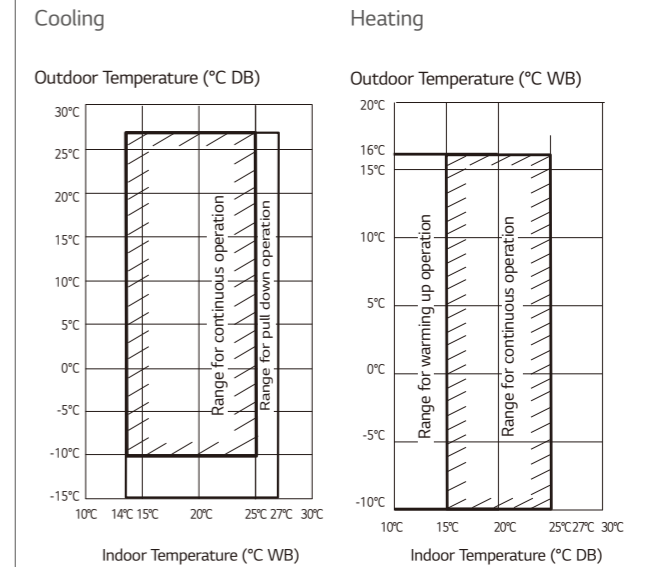
Category	Functions	MULTI V 5	
Key Refrigerant Components	Variable Path of Outdoor Unit HEX	○	
	HiPOR™ (High Pressure Oil Return)	○	
	Humidity Sensor	○	
	Corrosion Resistance Black Fin	○	
	Oil Sensor	○	
Useful Function	Dual Sensing	○	
	Low Noise Operation	○	
	Hgh Static Mode of Outdoor Unit Fan	○	
	Partial Defrosting	○	
	Auto Dust Removal of Outdoor Unit (Fan reverse rotation)	○	
	Indoor Cooling Comfort Mode Based Outdoor Temperature	○	
	Smart Load Control (SLC) (Changing indoor discharge air temperature according to load)	○	
	Outdoor Unit Control Refer to Humidity	○	
	Defrost / Deicing	○	
	High Pressure Switch	○	
Reliability	Phase Protection	○	
	Restart Delay (3-minutes)	○	
	Self Diagnosis	○	
	Soft Start	○	
Central Controller	Test Run Function	○	
	AC Ez (Simple Controller)	PQCSZ250S0	
	AC Ez Touch	PACEZA000	
	AC Smart IV	PACS4B000	
	AC Smart 5	PAC5SA000	
	ACP (Advanced Control Platform) IV	PACP4B000	
	ACP (Advanced Control Platform) 5	PACP5A000	
	AC Manager 5	PACM5A000	
	BNU (Building Network Unit)	ACP Lonworks	PLNWKB000
		ACP BACnet	PQNF17C0
Installation	Refrigerant Charging Kit	PRAC1	
PDI (Power Distribution Indicator)	Standard	PPWRDB000	
	Premium	PQNUD1S40	
Cool / Heat Selector		PRDSBM	
Low Ambient Kit		PRVC2	
IO Module (ODU Dry Contact)		PVDSMN000	
Cycle Monitoring Device	LGMV	PRCTILO	
	Mobile LGMV	PLGMVV100	

Cooling / Heating Operation



- Note
- These figures assume the following operating conditions :
Equivalent piping length : 7.5m
Level difference : 0m
 - Range of pull down operation :
If the relative humidity is too high, cooling capacity can be decreased by the sensible heat reduction.
 - Warming up operation means that the outdoor unit operates to reach the range of continuous operating, however it may not operate continuously due to safety or protection logic.

Simultaneous Cooling / Heating Operation

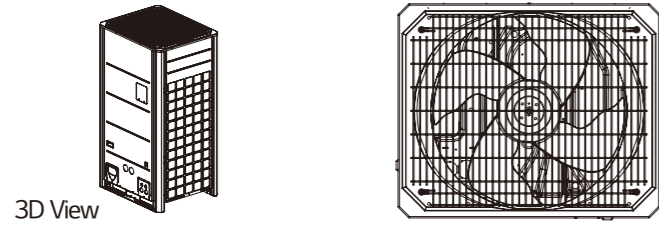


- Note
- These figures assume the following operating conditions :
Equivalent piping length : 7.5m
Level difference : 0m
 - Range of pull down operation :
If the relative humidity is too high, cooling capacity can be decreased by the sensible heat reduction.

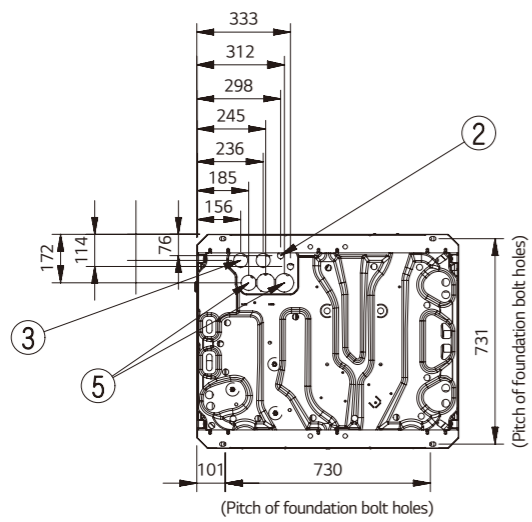
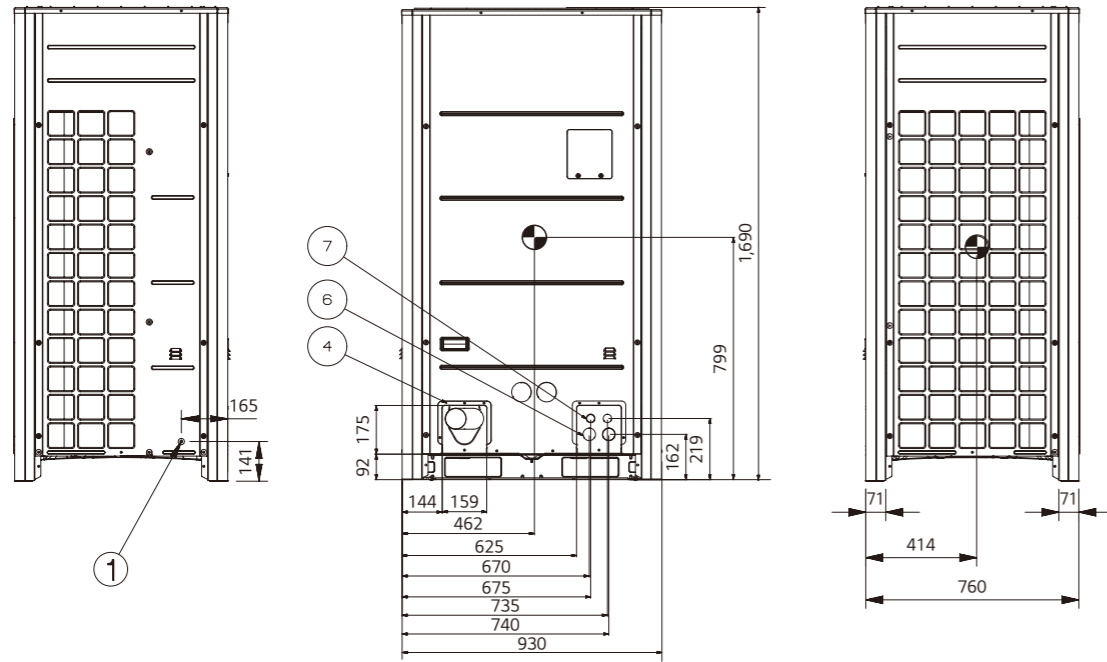
ARUM08OLTE5 / ARUM100LTE5 / ARUM120LTE5

[Unit : mm]

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



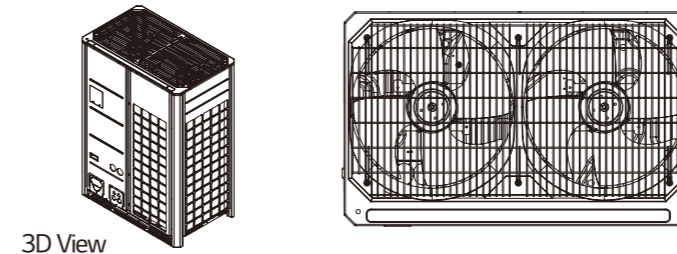
3D View



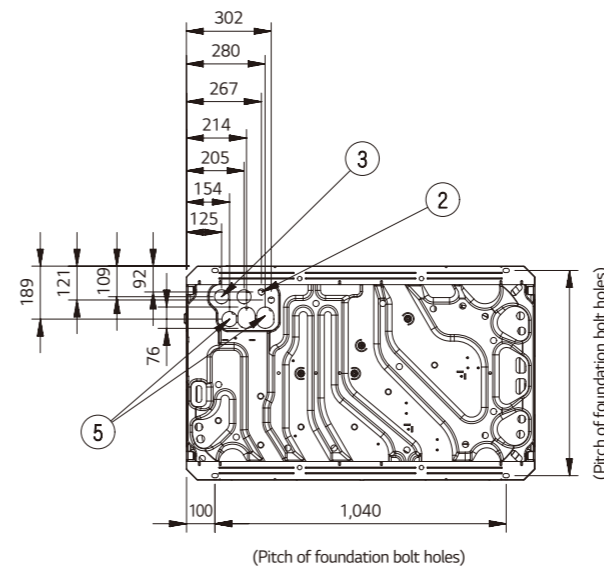
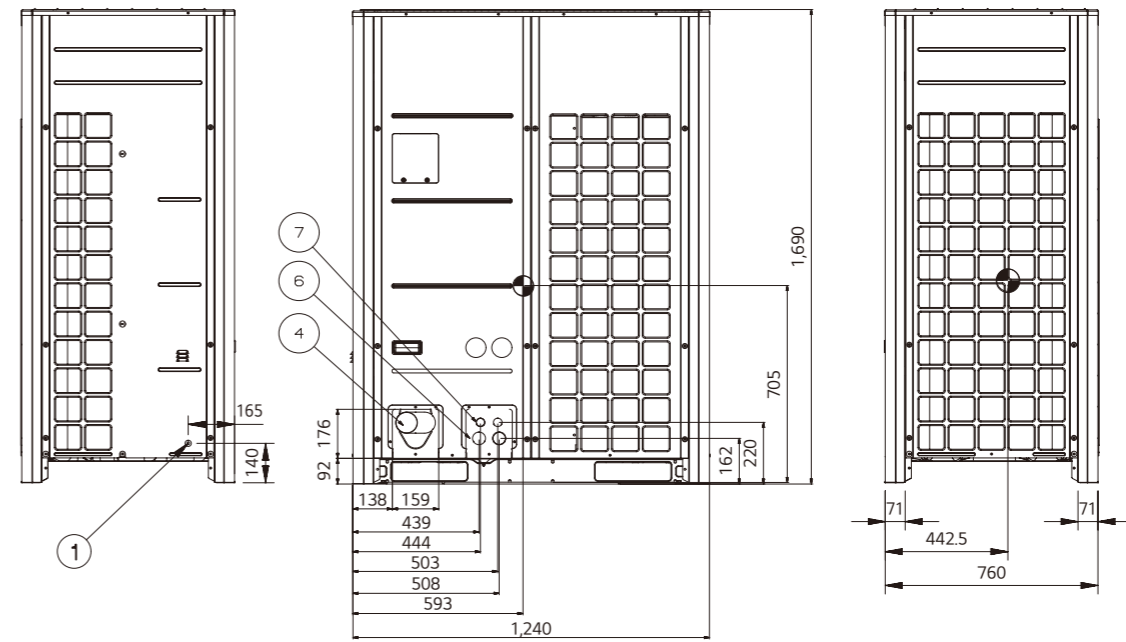
ARUM140LTE5 / ARUM160LTE5 / ARUM180LTE5 / ARUM200LTE5 /

[Unit : mm]

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

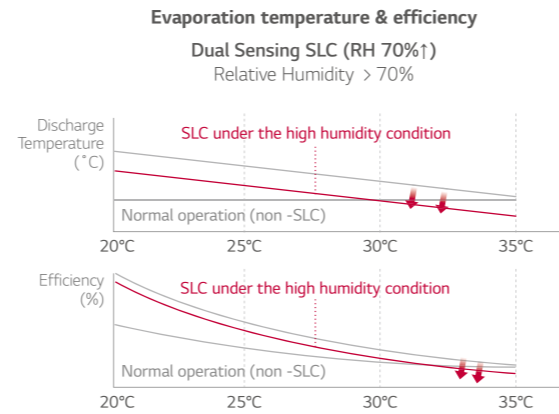
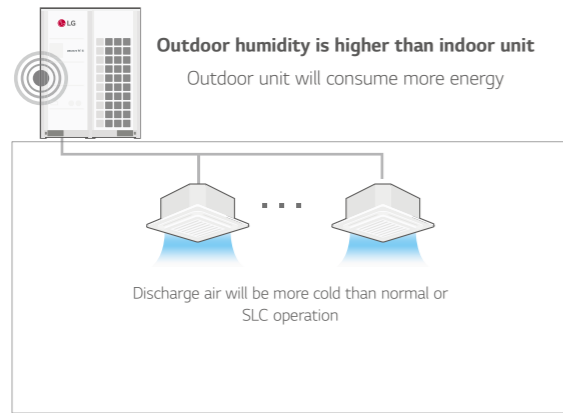


3D View

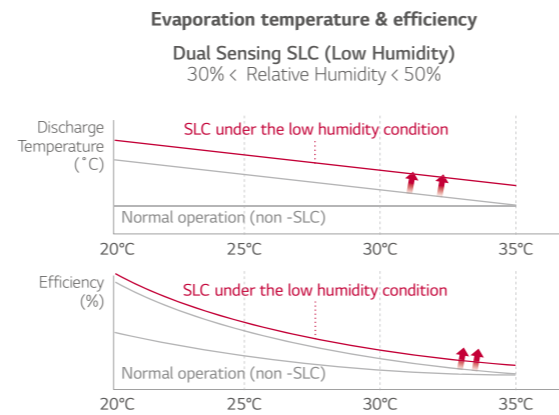
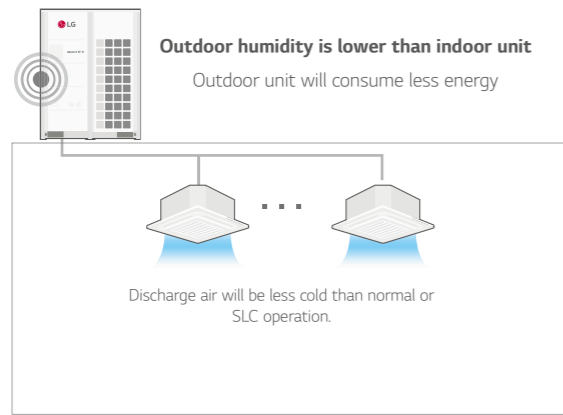


Q1 How does MULTI V 5 operate when humidity reference of the dual sensing SLC is that of the outdoor?

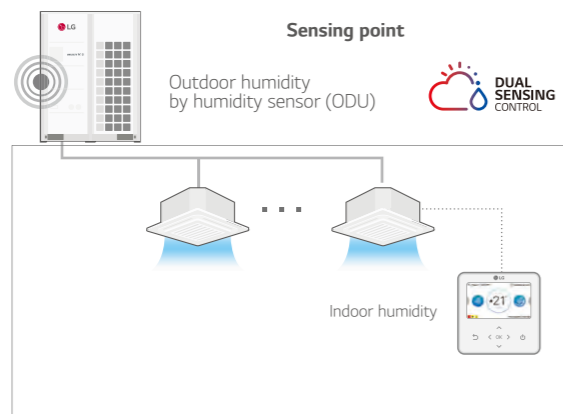
A1 During dual sensing SLC, outdoor unit changes target pressure of the system referring to temperature and humidity in cooling mode.
 - When the humidity of outdoor side is higher than that of indoor side, outdoor unit will lower target pressure to remove humidity, thus outdoor unit will consume more energy and indoor will be more cooled compared to SLC operation but would have higher efficiency as compared to normal operation.



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



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



SLC Setting

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

Setting summary
DIP-SW01 #5 On
Func > Fn14 > Off, op1 - op3

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

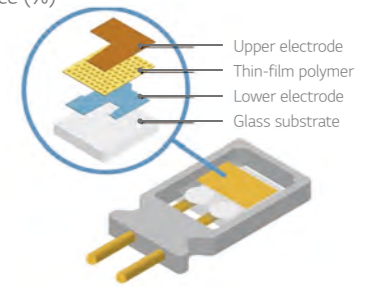
Setting summary
Function > Smart Load Control > Off, op1 - op3

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

Q2 What is the principle and accuracy of humidity sensor?

A2 Total Tolerance (%) = Sensor measurement tolerance (%) + Location of sensor tolerance (%)

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



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

Q3 What is difference in refrigerant piping connection between heat pump and heat recovery?

A3 From MULTI V 5, Low pressure gas pipe in heat pump operation changes to high pressure gas pipe in heat recovery operation due to internal cycle. So for heat pump cycle, no. 1, 3 pipe should be connected and for heat recovery operation, No. 1, 2, 3 pipe is connected. (For the heat pump operation, DO NOT connect No.2 pipe)

	8HP	10HP	20HP
Heat Recovery Installation	9.52	19.05	15.88
Heat Pump Installation	9.52	No Use	19.05
Heat Pump Installation (with Reducer)	15.88	No Use	28.58

Reducer for Gas Pipe

15.88 → 19.05
19.05 → 22.2
22.2 → 28.58

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

ARUM080LTE5 / ARUM100LTE5
ARUM120LTE5 / ARUM140LTE5



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

HP		8	10	12	14	
Model Name	Combination Unit	ARUM080LTE5	ARUM100LTE5	ARUM120LTE5	ARUM140LTE5	
	Independent Unit	ARUM080LTE5	ARUM100LTE5	ARUM120LTE5	ARUM140LTE5	
Capacity	Cooling (Rated) kW	22.4	28.0	33.6	39.2	
	Heating (Rated) kW	22.4	28.0	33.6	39.2	
	Heating (Max) kW	25.2	31.5	37.8	44.1	
Input	Cooling (Rated) kW	7.02	9.30	12.00	12.98	
	Heating (Rated) kW	5.63	6.45	8.00	8.85	
EER		3.19	3.01	2.80	3.02	
SEER		7.90	7.80	7.71	8.22	
COP	Rated Capacity	3.98	4.34	4.20	4.43	
SCOP		4.36	4.39	4.84	4.97	
Exterior	Color	Morning Gray / Dawn Gray	Morning Gray / Dawn Gray	Morning Gray / Dawn Gray	Morning Gray / Dawn Gray	
	RAL Code	RAL 7030 / RAL 7037	RAL 7030 / RAL 7037	RAL 7030 / RAL 7037	RAL 7030 / RAL 7037	
Heat Exchanger	Type	Wide Louver Plus	Wide Louver Plus	Wide Louver Plus	Wide Louver Plus	
Compressor	Type	Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll	
	Combination x No.	(Inverter) x 1	(Inverter) x 1	(Inverter) x 1	(Inverter) x 1	
	Motor Output x Number	W x No.	4,200 x 1	5,300 x 1	5,300 x 1	5,300 x 1
	Oil Type		FW68D	FW68D	FW68D	FW68D
	Oil Charge	cc	3,900	3,900	3,900	3,900
Fan	Type	Propeller fan	Propeller fan	Propeller fan	Propeller fan	
	Motor Output x Number	W x No.	1,200 x 1	1,200 x 1	1,200 x 1	900 x 2
	Air Flow Rate (High)	m ³ /minxNo.	240 x 1	240 x 1	240 x 1	320 x 1
	Drive		DC INVERTER	DC INVERTER	DC INVERTER	DC INVERTER
Pipe Connections for Heat Recovery	Liquid Pipe	mm (inch)	Ø9.52 (3/8)	Ø9.52 (3/8)	Ø12.7 (1/2)	Ø12.7 (1/2)
	Low Pressure Gas Pipe	mm (inch)	Ø19.05 (3/4)	Ø22.2 (7/8)	Ø28.58 (1-1/8)	Ø28.58 (1-1/8)
	High Pressure Gas Pipe	mm (inch)	Ø15.88 (5/8)	Ø19.05 (3/4)	Ø19.05 (3/4)	Ø22.2 (7/8)
Pipe Connections for Heat Pump	Liquid Pipe	mm (inch)	Ø9.52 (3/8)	Ø9.52 (3/8)	Ø12.7 (1/2)	Ø12.7 (1/2)
	Gas Pipe	mm (inch)	Ø19.05 (3/4)	Ø22.2 (7/8)	Ø28.58 (1-1/8)	Ø28.58 (1-1/8)
Dimensions (W x H x D)	mm x No.	(930 x 1,690 x 760) x 1	(930 x 1,690 x 760) x 1	(930 x 1,690 x 760) x 1	(1,240 x 1,690 x 760) x 1	
Dimensions (W x H x D) - Shipping	mm x No.	(960 x 1,825 x 796) x 1	(960 x 1,825 x 796) x 1	(960 x 1,825 x 796) x 1	(1,280 x 1,825 x 796) x 1	
Net Weight	kg x No.	198 x 1	215 x 1	215 x 1	237 x 1	
Shipping Weight	kg x No.	208 x 1	225 x 1	225 x 1	250 x 1	
Sound Pressure Level	Cooling	dB(A)	58.0	58.0	59.0	60.0
	Heating	dB(A)	59.0	59.0	60.0	61.0
Sound Power Level	Cooling	dB(A)	79.0	80.0	81.0	82.0
	Heating	dB(A)	79.0	80.0	83.0	82.0
Communication Cable	mm ² x No. (VCTF-SB)	2C x 1.0 - 1.5	2C x 1.0 - 1.5	2C x 1.0 - 1.5	2C x 1.0 - 1.5	
Refrigerant	Refrigerant Name		R410A	R410A	R410A	
	Precharged Amount in Factory	kg	7.5	9.5	9.5	13.5
	t-CO ₂ eq		15.656	19.831	19.831	28.181
	Control		Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve
Power Supply	Ø, V, Hz	380-400-415, 3, 50/60	380-400-415, 3, 50/60	380-400-415, 3, 50/60	380-400-415, 3, 50/60	
Number of Maximum Connectable Indoor Units ¹⁾		13 (20)	16 (25)	20 (30)	23 (35)	

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

ARUM160LTE5 / ARUM180LTE5
ARUM200LTE5 / ARUM221LTE5



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HP		16	18	20	22	
Model Name	Combination Unit	ARUM160LTE5	ARUM180LTE5	ARUM200LTE5	ARUM221LTE5	
	Independent Unit	ARUM160LTE5	ARUM180LTE5	ARUM200LTE5	ARUM120LTE5 ARUM100LTE5	
Capacity	Cooling (Rated) kW	44.8	50.4	56.0	61.6	
	Heating (Rated) kW	44.8	50.4	56.0	61.6	
	Heating (Max) kW	50.4	56.7	63.0	69.3	
Input	Cooling (Rated) kW	17.23	14.82	18.06	21.30	
	Heating (Rated) kW	10.59	10.91	13.02	14.45	
EER		2.60	3.40	3.10	2.89	
SEER		7.74	8.50	8.17	7.76	
COP	Rated Capacity	4.23	4.62	4.30	4.26	
SCOP		5.30	4.67	4.98	4.61	
Exterior	Color	Morning Gray / Dawn Gray	Morning Gray / Dawn Gray	Morning Gray / Dawn Gray	Morning Gray / Dawn Gray	
	RAL Code	RAL 7030 / RAL 7037	RAL 7030 / RAL 7037	RAL 7030 / RAL 7037	RAL 7030 / RAL 7037	
Heat Exchanger	Type	Wide Louver Plus	Wide Louver Plus	Wide Louver Plus	Wide Louver Plus	
Compressor	Type	Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll	
	Combination x No.	(Inverter) x 1	(Inverter) x 2	(Inverter) x 2	(Inverter) x 2	
	Motor Output x Number	W x No.	5,300 x 1	(5,300 x 1) + (4,200 x 1)	(5,300 x 1) + (4,200 x 1)	5,300 x 2
	Oil Type		FW68D	FW68D	FW68D	FW68D
	Oil Charge	cc	3,900	5,200	5,200	7,800
Fan	Type	Propeller fan	Propeller fan	Propeller fan	Propeller fan	
	Motor Output x Number	W x No.	900 x 2	900 x 2	900 x 2	(1200 x 1) + (1,200 x 1)
	Air Flow Rate (High)	m ³ /minxNo.	320 x 1	320 x 1	320 x 1	(240 x 1) + (240 x 1)
	Drive		DC INVERTER	DC INVERTER	DC INVERTER	DC INVERTER
Pipe Connections for Heat Recovery	Liquid Pipe	mm (inch)	Ø12.7 (1/2)	Ø15.88 (5/8)	Ø15.88 (5/8)	Ø15.88 (5/8)
	Low Pressure Gas Pipe	mm (inch)	Ø28.58 (1-1/8)	Ø28.58 (1-1/8)	Ø28.58 (1-1/8)	Ø28.58 (1-1/8)
	High Pressure Gas Pipe	mm (inch)	Ø22.2 (7/8)	Ø22.2 (7/8)	Ø22.2 (7/8)	Ø28.58 (1-1/8)
Pipe Connections for Heat Pump	Liquid Pipe	mm (inch)	Ø12.7 (1/2)	Ø15.88 (5/8)	Ø15.88 (5/8)	Ø15.88 (5/8)
	Gas Pipe	mm (inch)	Ø28.58 (1-1/8)	Ø28.58 (1-1/8)	Ø28.58 (1-1/8)	Ø28.58 (1-1/8)
Dimensions (W x H x D)	mm x No.	(1,240 x 1,690 x 760) x 1	(1,240 x 1,690 x 760) x 1	(1,240 x 1,690 x 760) x 1	((930 x 1,690 x 760) x 1) + ((930 x 1,690 x 760) x 1)	
Dimensions (W x H x D) - Shipping	mm x No.	(1,280 x 1,825 x 796) x 1	(1,280 x 1,825 x 796) x 1	(1,280 x 1,825 x 796) x 1	((960 x 1,825 x 796) x 1) + ((960 x 1,825 x 796) x 1)	
Net Weight	kg x No.	237 x 1	300 x 1	300 x 1	(215 x 1) + (215 x 1)	
Shipping Weight	kg x No.	250 x 1	312 x 1	312 x 1	(225 x 1) + (225 x 1)	
Sound Pressure Level	Cooling	dB(A)	60.5	61.0	62.0	61.5
	Heating	dB(A)	61.5	62.0	64.5	63.0
Sound Power Level	Cooling	dB(A)	86.0	87.0	87.0	84.0
	Heating	dB(A)	86.0	87.0	90.0	85.0
Communication Cable	mm ² x No. (VCTF-SB)	2C x 1.0 - 1.5	2C x 1.0 - 1.5	2C x 1.0 - 1.5	2C x 1.0 - 1.5	
Refrigerant	Refrigerant Name		R410A	R410A	R410A	
	Precharged Amount in Factory	kg	13.5	16.0	16.0	19.0
	t-CO ₂ eq		28.181	33.400	33.400	39.663
	Control		Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve
Power Supply	Ø, V, Hz	380-400-415, 3, 50/60	380-400-415, 3, 50/60	380-400-415, 3, 50/60	380-400-415, 3, 50/60	
Number of Maximum Connectable Indoor Units ¹⁾		26 (40)	29 (45)	32 (50)	35 (44)	

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

2) Applying to 16, 18, 20HP outdoor units only.

ARUM241LTE5 / ARUM261LTE5
ARUM280LTE5 / ARUM300LTE5



HP			24	26	28	30
Model Name	Combination Unit		ARUM241LTE5	ARUM261LTE5	ARUM280LTE5	ARUM300LTE5
	Independent Unit		ARUM120LTE5 ARUM120LTE5	ARUM140LTE5 ARUM120LTE5	ARUM160LTE5 ARUM120LTE5	ARUM180LTE5 ARUM120LTE5
Capacity	Cooling (Rated)	kW	67.2	72.8	78.4	84.0
	Heating (Rated)	kW	67.2	72.8	78.4	84.0
	Heating (Max)	kW	75.6	81.9	88.2	94.5
Input	Cooling (Rated)	kW	24.00	24.98	24.23	26.82
	Heating (Rated)	kW	16.00	16.85	18.59	18.91
EER			2.80	2.91	2.68	3.13
SEER			7.71	7.97	7.72	8.16
COP	Rated Capacity		4.20	4.32	4.22	4.44
SCOP			4.84	4.91	5.08	4.73
Exterior	Color		Morning Gray / Dawn Gray	Morning Gray / Dawn Gray	Morning Gray / Dawn Gray	Morning Gray / Dawn Gray
	RAL Code		RAL 7030 / RAL 7037	RAL 7030 / RAL 7037	RAL 7030 / RAL 7037	RAL 7030 / RAL 7037
Heat Exchanger	Type		Wide Louver Plus	Wide Louver Plus	Wide Louver Plus	Wide Louver Plus
	Type		Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll
Compressor	Combination x No.		(Inverter) x 2	(Inverter) x 2	(Inverter) x 2	(Inverter) x 3
	Motor Output x Number	W x No.	5,300 x 2	5,300 x 2	5,300 x 2	(5,300 x 2) + (4,200 x 1)
	Oil Type		FW68D	FW68D	FW68D	FW68D
	Oil Charge	cc	7,800	7,800	7,800	9,100
	Type		Propeller fan	Propeller fan	Propeller fan	Propeller fan
Fan	Motor Output x Number	W x No.	(1,200 x 1) + (1,200 x 1)	(900 x 2) + (1,200 x 1)	(900 x 2) + (1,200 x 1)	(900 x 2) + (1,200 x 1)
	Air Flow Rate (High)	m ³ /minxNo.	(240 x 1) + (240 x 1)	(320 x 1) + (240 x 1)	(320 x 1) + (240 x 1)	(320 x 1) + (240 x 1)
	Drive		DC INVERTER	DC INVERTER	DC INVERTER	DC INVERTER
	Discharge	Side / Top	TOP	TOP	TOP	TOP
Pipe Connections for Heat Recovery	Liquid Pipe	mm (inch)	Ø15.88 (5/8)	Ø19.05 (3/4)	Ø19.05 (3/4)	Ø19.05 (3/4)
	Low Pressure Gas Pipe	mm (inch)	Ø34.9 (1-3/8)	Ø34.9 (1-3/8)	Ø34.9 (1-3/8)	Ø34.9 (1-3/8)
	High Pressure Gas Pipe	mm (inch)	Ø28.58 (1-1/8)	Ø28.58 (1-1/8)	Ø28.58 (1-1/8)	Ø28.58 (1-1/8)
Pipe Connections for Heat Pump	Liquid Pipe	mm (inch)	Ø15.88 (5/8)	Ø19.05 (3/4)	Ø19.05 (3/4)	Ø19.05 (3/4)
	Gas Pipe	mm (inch)	Ø34.9 (1-3/8)	Ø34.9 (1-3/8)	Ø34.9 (1-3/8)	Ø34.9 (1-3/8)
Dimensions (W x H x D)	mm x No.	((930 x 1,690 x 760) x 1) + ((930 x 1,690 x 760) x 1)	((1,240 x 1,690 x 760) x 1) + ((930 x 1,690 x 760) x 1)	((1,240 x 1,690 x 760) x 1) + ((930 x 1,690 x 760) x 1)	((1,240 x 1,690 x 760) x 1) + ((930 x 1,690 x 760) x 1)	
Dimensions (W x H x D) - Shipping	mm x No.	((960 x 1,825 x 796) x 1) + ((960 x 1,825 x 796) x 1)	((1,280 x 1,825 x 796) x 1) + ((960 x 1,825 x 796) x 1)	((1,280 x 1,825 x 796) x 1) + ((960 x 1,825 x 796) x 1)	((1,280 x 1,825 x 796) x 1) + ((960 x 1,825 x 796) x 1)	
Net Weight	kg x No.	(215 x 1) + (215 x 1)	(237 x 1) + (215 x 1)	(237 x 1) + (215 x 1)	(300 x 1) + (215 x 1)	
Shipping Weight	kg x No.	(225 x 1) + (225 x 1)	(250 x 1) + (225 x 1)	(250 x 1) + (225 x 1)	(312 x 1) + (225 x 1)	
Sound Pressure Level	Cooling	dB(A)	62.0	63.0	63.0	63.0
	Heating	dB(A)	63.0	64.0	64.0	64.0
Sound Power Level	Cooling	dB(A)	84.0	85.0	87.0	88.0
	Heating	dB(A)	86.0	86.0	88.0	88.0
Communication Cable	mm ² x No. (VCTF-SB)		2C x 1.0 - 1.5	2C x 1.0 - 1.5	2C x 1.0 - 1.5	2C x 1.0 - 1.5
Refrigerant	Refrigerant Name		R410A	R410A	R410A	R410A
	Precharged Amount in Factory	kg	19.0	23.0	23.0	25.5
	t-CO ₂ eq		39.663	48.013	48.013	53.231
	Control		Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve
Power Supply	Ø, V, Hz		380-400-415, 3, 50/60	380-400-415, 3, 50/60	380-400-415, 3, 50/60	380-400-415, 3, 50/60
Number of Maximum Connectable Indoor Units ¹⁾			39 (48)	42 (52)	45 (56)	49 (60)

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

ARUM320LTE5 / ARUM340LTE5
ARUM360LTE5 / ARUM380LTE5



HP			32	34	36	38
Model Name	Combination Unit		ARUM320LTE5	ARUM340LTE5	ARUM360LTE5	ARUM380LTE5
	Independent Unit		ARUM200LTE5 ARUM120LTE5	ARUM200LTE5 ARUM140LTE5	ARUM200LTE5 ARUM160LTE5	ARUM200LTE5 ARUM180LTE5
Capacity	Cooling (Rated)	kW	89.6	95.2	100.8	106.4
	Heating (Rated)	kW	89.6	95.2	100.8	106.4
	Heating (Max)	kW	100.8	107.1	113.4	119.7
Input	Cooling (Rated)	kW	30.06	31.04	35.29	32.88
	Heating (Rated)	kW	21.02	21.87	23.61	23.92
EER			2.98	3.07	2.86	3.24
SEER			7.98	8.19	7.97	8.32
COP	Rated Capacity		4.26	4.35	4.27	4.45
SCOP			4.93	4.98	5.11	4.83
Exterior	Color		Morning Gray / Dawn Gray	Morning Gray / Dawn Gray	Morning Gray / Dawn Gray	Morning Gray / Dawn Gray
	RAL Code		RAL 7030 / RAL 7037	RAL 7030 / RAL 7037	RAL 7030 / RAL 7037	RAL 7030 / RAL 7037
Heat Exchanger	Type		Wide Louver Plus	Wide Louver Plus	Wide Louver Plus	Wide Louver Plus
	Type		Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll
Compressor	Combination x No.		(Inverter) x 3	(Inverter) x 3	(Inverter) x 3	(Inverter) x 4
	Motor Output x Number	W x No.	(5,300 x 2) + (4,200 x 1)	(5,300 x 2) + (4,200 x 1)	(5,300 x 2) + (4,200 x 1)	(5,300 x 2) + (4,200 x 2)
	Oil Type		FW68D	FW68D	FW68D	FW68D
	Oil Charge	cc	9,100	9,100	9,100	10,400
	Type		Propeller fan	Propeller fan	Propeller fan	Propeller fan
Fan	Motor Output x Number	W x No.	(900 x 2) + (1,200 x 1)	900 x 4	900 x 4	900 x 4
	Air Flow Rate (High)	m ³ /minxNo.	(320 x 1) + (240 x 1)	320 x 2	320 x 2	320 x 2
	Drive		DC INVERTER	DC INVERTER	DC INVERTER	DC INVERTER
	Discharge	Side / Top	TOP	TOP	TOP	TOP
Pipe Connections for Heat Recovery	Liquid Pipe	mm (inch)	Ø19.05 (3/4)	Ø19.05 (3/4)	Ø19.05 (3/4)	Ø19.05 (3/4)
	Low Pressure Gas Pipe	mm (inch)	Ø34.9 (1-3/8)	Ø34.9 (1-3/8)	Ø41.3 (1-5/8)	Ø41.3 (1-5/8)
	High Pressure Gas Pipe	mm (inch)	Ø28.58 (1-1/8)	Ø28.58 (1-1/8)	Ø28.58 (1-1/8)	Ø34.9 (1-3/8)
Pipe Connections for Heat Pump	Liquid Pipe	mm (inch)	Ø19.05 (3/4)	Ø19.05 (3/4)	Ø19.05 (3/4)	Ø19.05 (3/4)
	Gas Pipe	mm (inch)	Ø34.9 (1-3/8)	Ø34.9 (1-3/8)	Ø41.3 (1-5/8)	Ø41.3 (1-5/8)
Dimensions (W x H x D)	mm x No.	((1,240 x 1,690 x 760) x 1) + ((930 x 1,690 x 760) x 1)	((1,240 x 1,690 x 760) x 1) + ((1,240 x 1,690 x 760) x 1)	((1,240 x 1,690 x 760) x 1) + ((1,240 x 1,690 x 760) x 1)	((1,240 x 1,690 x 760) x 1) + ((1,240 x 1,690 x 760) x 1)	
Dimensions (W x H x D) - Shipping	mm x No.	((1,280 x 1,825 x 796) x 1) + ((960 x 1,825 x 796) x 1)	((1,280 x 1,825 x 796) x 1) + ((1,280 x 1,825 x 796) x 1)	((1,280 x 1,825 x 796) x 1) + ((1,280 x 1,825 x 796) x 1)	((1,280 x 1,825 x 796) x 1) + ((1,280 x 1,825 x 796) x 1)	
Net Weight	kg x No.	(300 x 1) + (215 x 1)	(300 x 1) + (237 x 1)	(300 x 1) + (237 x 1)	(300 x 1) + (300 x 1)	
Shipping Weight	kg x No.	(312 x 1) + (225 x 1)	(312 x 1) + (250 x 1)	(312 x 1) + (250 x 1)	(312 x 1) + (312 x 1)	
Sound Pressure Level	Cooling	dB(A)	64.0	64.0	64.0	65.0
	Heating	dB(A)	66.0	64.0	66.0	66.0
Sound Power Level	Cooling	dB(A)	88.0	88.0	90.0	90.0
	Heating	dB(A)	91.0	91.0	91.0	92.0
Communication Cable	mm ² x No. (VCTF-SB)		2C x 1.0 - 1.5	2C x 1.0 - 1.5	2C x 1.0 - 1.5	2C x 1.0 - 1.5
Refrigerant	Refrigerant Name		R410A	R410A	R410A	R410A
	Precharged Amount in Factory	kg	25.5	29.5	29.5	32.0
	t-CO ₂ eq		53.231	61.581	61.581	66.800
	Control		Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve
Power Supply	Ø, V, Hz		380-400-415, 3, 50/60	380-400-415, 3, 50/60	380-400-415, 3, 50/60	380-400-415, 3, 50/60
Number of Maximum Connectable Indoor Units ¹⁾			52 (64)	55 (64)	58 (64)	61 (64)

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

ARUM400LTE5 / ARUM420LTE5
ARUM440LTE5



HP			40	42	44
Model Name	Combination Unit		ARUM400LTE5	ARUM420LTE5	ARUM440LTE5
	Independent Unit		ARUM200LTE5 ARUM200LTE5	ARUM180LTE5 ARUM120LTE5 ARUM120LTE5	ARUM200LTE5 ARUM120LTE5 ARUM120LTE5
Capacity	Cooling (Rated)	kW	112.0	117.6	123.2
	Heating (Rated)	kW	112.0	117.6	123.2
	Heating (Max)	kW	126.0	132.3	138.6
Input	Cooling (Rated)	kW	36.12	38.82	42.06
	Heating (Rated)	kW	26.04	26.91	29.02
EER			3.10	3.03	2.93
SEER			8.17	8.02	7.90
COP	Rated Capacity		4.30	4.37	4.25
SCOP			4.98	4.76	4.90
Exterior	Color		Morning Gray / Dawn Gray	Morning Gray / Dawn Gray	Morning Gray / Dawn Gray
	RAL Code		RAL 7030 / RAL 7037	RAL 7030 / RAL 7037	RAL 7030 / RAL 7037
Heat Exchanger	Type		Wide Louver Plus	Wide Louver Plus	Wide Louver Plus
	Type		Hermetically Sealed Scroll (Inverter) x 4	Hermetically Sealed Scroll (Inverter) x 4	Hermetically Sealed Scroll (Inverter) x 4
Compressor	Combination x No.		(5,300 x 2) + (4,200 x 2)	(5,300 x 3) + (4,200 x 1)	(5,300 x 3) + (4,200 x 1)
	Motor Output x Number	W x No.			
	Oil Type		FW68D	FW68D	FW68D
	Oil Charge	cc	10,400	13,000	13,000
Fan	Type		Propeller fan	Propeller fan	Propeller fan
	Motor Output x Number	W x No.	900 x 4	(900 x 2) + (1,200 x 2)	(900 x 2) + (1,200 x 2)
	Air Flow Rate (High)	m ³ /min x No.	320 x 2	(320 x 1) + (240 x 2)	(320 x 1) + (240 x 2)
	Drive		DC INVERTER	DC INVERTER	DC INVERTER
Pipe Connections for Heat Recovery	Liquid Pipe	mm (inch)	Ø19.05 (3/4)	Ø19.05 (3/4)	Ø19.05 (3/4)
	Low Pressure Gas Pipe	mm (inch)	Ø41.3 (1-5/8)	Ø41.3 (1-5/8)	Ø41.3 (1-5/8)
	High Pressure Gas Pipe	mm (inch)	Ø34.9 (1-3/8)	Ø34.9 (1-3/8)	Ø34.9 (1-3/8)
Pipe Connections for Heat Pump	Liquid Pipe	mm (inch)	Ø19.05 (3/4)	Ø19.05 (3/4)	Ø19.05 (3/4)
	Gas Pipe	mm (inch)	Ø41.3 (1-5/8)	Ø41.3 (1-5/8)	Ø41.3 (1-5/8)
Dimensions (W x H x D)	mm x No.	((1,240 x 1,690 x 760) x 1) + ((1,240 x 1,690 x 760) x 1)	((1,240 x 1,690 x 760) x 1) + ((930 x 1,690 x 760) x 1) + ((930 x 1,690 x 760) x 1)	((1,240 x 1,690 x 760) x 1) + ((930 x 1,690 x 760) x 1) + ((930 x 1,690 x 760) x 1)	
Dimensions (W x H x D) - Shipping	mm x No.	((1,280 x 1,825 x 796) x 1) + ((1,280 x 1,825 x 796) x 1)	((1,280 x 1,825 x 796) x 1) + ((960 x 1,825 x 796) x 1) + ((960 x 1,825 x 796) x 1)	((1,280 x 1,825 x 796) x 1) + ((960 x 1,825 x 796) x 1) + ((960 x 1,825 x 796) x 1)	
Net Weight	kg x No.	(300 x 1) + (300 x 1)	(300 x 1) + (215 x 1) + (215 x 1)	(300 x 1) + (215 x 1) + (215 x 1)	
Shipping Weight	kg x No.	(312 x 1) + (312 x 1)	(312 x 1) + (225 x 1) + (225 x 1)	(312 x 1) + (225 x 1) + (225 x 1)	
Sound Pressure Level	Cooling	dB(A)	65.0	65.0	65.0
	Heating	dB(A)	68.0	66.0	67.0
Sound Power Level	Cooling	dB(A)	90.0	89.0	89.0
	Heating	dB(A)	93.0	90.0	91.0
Communication Cable	mm ² x No. (VCTF-SB)		2C x 1.0 - 1.5	2C x 1.0 - 1.5	2C x 1.0 - 1.5
Refrigerant	Refrigerant Name		R410A	R410A	R410A
	Precharged Amount in Factory	kg	32.0	35.0	35.0
	t-CO ₂ eq		66.800	73.063	73.063
	Control		Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve
Power Supply	Ø, V, Hz		380-400-415, 3, 50/60	380-400-415, 3, 50/60	380-400-415, 3, 50/60
Number of Maximum Connectable Indoor Units ¹⁾			64	64	64

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

ARUM460LTE5 / ARUM480LTE5
ARUM500LTE5



HP			46	48	50
Model Name	Combination Unit		ARUM460LTE5	ARUM480LTE5	ARUM500LTE5
	Independent Unit		ARUM200LTE5 ARUM140LTE5 ARUM120LTE5	ARUM200LTE5 ARUM160LTE5 ARUM120LTE5	ARUM200LTE5 ARUM180LTE5 ARUM120LTE5
Capacity	Cooling (Rated)	kW	128.8	134.4	140.0
	Heating (Rated)	kW	128.8	134.4	140.0
	Heating (Max)	kW	144.9	151.2	157.5
Input	Cooling (Rated)	kW	43.04	47.29	44.88
	Heating (Rated)	kW	29.87	31.61	31.93
EER			2.99	2.84	3.12
SEER			7.58	7.38	8.16
COP	Rated Capacity		4.31	4.25	4.39
SCOP			4.94	5.04	4.83
Exterior	Color		Morning Gray / Dawn Gray	Morning Gray / Dawn Gray	Morning Gray / Dawn Gray
	RAL Code		RAL 7030 / RAL 7037	RAL 7030 / RAL 7037	RAL 7030 / RAL 7037
Heat Exchanger	Type		Wide Louver Plus	Wide Louver Plus	Wide Louver Plus
	Type		Hermetically Sealed Scroll (Inverter) x 4	Hermetically Sealed Scroll (Inverter) x 4	Hermetically Sealed Scroll (Inverter) x 5
Compressor	Combination x No.		(5,300 x 3) + (4,200 x 1)	(5,300 x 3) + (4,200 x 1)	(5,300 x 3) + (4,200 x 2)
	Motor Output x Number	W x No.			
	Oil Type		FW68D	FW68D	FW68D
	Oil Charge	cc	13,000	13,000	14,300
Fan	Type		Propeller fan	Propeller fan	Propeller fan
	Motor Output x Number	W x No.	(900 x 4) + (1,200 x 1)	(900 x 4) + (1,200 x 1)	(900 x 4) + (1,200 x 1)
	Air Flow Rate (High)	m ³ /min x No.	(320 x 2) + (240 x 1)	(320 x 2) + (240 x 1)	(320 x 2) + (240 x 1)
	Drive		DC INVERTER	DC INVERTER	DC INVERTER
Pipe Connections for Heat Recovery	Liquid Pipe	mm (inch)	Ø19.05 (3/4)	Ø19.05 (3/4)	Ø19.05 (3/4)
	Low Pressure Gas Pipe	mm (inch)	Ø41.3 (1-5/8)	Ø41.3 (1-5/8)	Ø41.3 (1-5/8)
	High Pressure Gas Pipe	mm (inch)	Ø34.9 (1-3/8)	Ø34.9 (1-3/8)	Ø34.9 (1-3/8)
Pipe Connections for Heat Pump	Liquid Pipe	mm (inch)	Ø19.05 (3/4)	Ø19.05 (3/4)	Ø19.05 (3/4)
	Gas Pipe	mm (inch)	Ø41.3 (1-5/8)	Ø41.3 (1-5/8)	Ø41.3 (1-5/8)
Dimensions (W x H x D)	mm x No.	((1,240 x 1,690 x 760) x 1) + ((1,240 x 1,690 x 760) x 1) + ((930 x 1,690 x 760) x 1)	((1,240 x 1,690 x 760) x 1) + ((1,240 x 1,690 x 760) x 1) + ((930 x 1,690 x 760) x 1)	((1,240 x 1,690 x 760) x 1) + ((1,240 x 1,690 x 760) x 1) + ((930 x 1,690 x 760) x 1)	
Dimensions (W x H x D) - Shipping	mm x No.	((1,280 x 1,825 x 796) x 1) + ((1,280 x 1,825 x 796) x 1) + ((960 x 1,825 x 796) x 1)	((1,280 x 1,825 x 796) x 1) + ((1,280 x 1,825 x 796) x 1) + ((960 x 1,825 x 796) x 1)	((1,280 x 1,825 x 796) x 1) + ((1,280 x 1,825 x 796) x 1) + ((960 x 1,825 x 796) x 1)	
Net Weight	kg x No.	(300 x 1) + (237 x 1) + (215 x 1)	(300 x 1) + (237 x 1) + (215 x 1)	(300 x 1) + (300 x 1) + (215 x 1)	
Shipping Weight	kg x No.	(312 x 1) + (250 x 1) + (225 x 1)	(312 x 1) + (250 x 1) + (225 x 1)	(312 x 1) + (312 x 1) + (225 x 1)	
Sound Pressure Level	Cooling	dB(A)	65.0	65.0	66.0
	Heating	dB(A)	67.0	67.0	67.0
Sound Power Level	Cooling	dB(A)	89.0	90.0	91.0
	Heating	dB(A)	91.0	92.0	92.0
Communication Cable	mm ² x No. (VCTF-SB)		2C x 1.0 - 1.5	2C x 1.0 - 1.5	2C x 1.0 - 1.5
Refrigerant	Refrigerant Name		R410A	R410A	R410A
	Precharged Amount in Factory	kg	39.0	39.0	41.5
	t-CO ₂ eq		81.413	81.413	86.631
	Control		Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve
Power Supply	Ø, V, Hz		380-400-415, 3, 50/60	380-400-415, 3, 50/60	380-400-415, 3, 50/60
Number of Maximum Connectable Indoor Units ¹⁾			64	64	64

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

ARUM52OLTE5 / ARUM54OLTE5
ARUM56OLTE5



HP			52	54	56
Model Name	Combination Unit		ARUM52OLTE5	ARUM54OLTE5	ARUM56OLTE5
	Independent Unit		ARUM200LTE5 ARUM200LTE5 ARUM120LTE5	ARUM200LTE5 ARUM200LTE5 ARUM140LTE5	ARUM200LTE5 ARUM200LTE5 ARUM160LTE5
Capacity	Cooling (Rated)	kW	145.6	151.2	156.8
	Heating (Rated)	kW	145.6	151.2	156.8
	Heating (Max)	kW	163.8	170.1	176.4
Input	Cooling (Rated)	kW	48.12	49.10	53.35
	Heating (Rated)	kW	34.04	34.89	36.63
EER			3.03	3.08	2.94
SEER			8.05	7.79	7.67
COP	Rated Capacity		4.28	4.33	4.28
SCOP			4.95	4.98	5.06
Exterior	Color		Morning Gray / Dawn Gray	Morning Gray / Dawn Gray	Morning Gray / Dawn Gray
	RAL Code		RAL 7030 / RAL 7037	RAL 7030 / RAL 7037	RAL 7030 / RAL 7037
Heat Exchanger	Type		Wide Louver Plus	Wide Louver Plus	Wide Louver Plus
	Type		Hermetically Sealed Scroll (Inverter) x 5	Hermetically Sealed Scroll (Inverter) x 5	Hermetically Sealed Scroll (Inverter) x 5
Compressor	Combination x No.		(5,300 x 3) + (4,200 x 2)	(5,300 x 3) + (4,200 x 2)	(5,300 x 3) + (4,200 x 2)
	Motor Output x Number	W x No.			
	Oil Type		FW68D	FW68D	FW68D
	Oil Charge	cc	14,300	14,300	14,300
Fan	Type		Propeller fan	Propeller fan	Propeller fan
	Motor Output x Number	W x No.	(900 x 4) + (1,200 x 1)	900 x 6	900 x 6
	Air Flow Rate (High)	m ³ /min x No.	(320 x 2) + (240 x 1)	320 x 3	320 x 3
	Drive		DC INVERTER	DC INVERTER	DC INVERTER
Pipe Connections for Heat Recovery	Liquid Pipe	mm (inch)	Ø19.05 (3/4)	Ø19.05 (3/4)	Ø19.05 (3/4)
	Low Pressure Gas Pipe	mm (inch)	Ø41.3 (1-5/8)	Ø41.3 (1-5/8)	Ø41.3 (1-5/8)
	High Pressure Gas Pipe	mm (inch)	Ø34.9 (1-3/8)	Ø34.9 (1-3/8)	Ø34.9 (1-3/8)
Pipe Connections for Heat Pump	Liquid Pipe	mm (inch)	Ø19.05 (3/4)	Ø19.05 (3/4)	Ø19.05 (3/4)
	Gas Pipe	mm (inch)	Ø41.3 (1-5/8)	Ø41.3 (1-5/8)	Ø41.3 (1-5/8)
Dimensions (W x H x D)	mm x No.	((1,240 x 1,690 x 760) x 1) + ((1,240 x 1,690 x 760) x 1) + ((930 x 1,690 x 760) x 1)	((1,240 x 1,690 x 760) x 1) + ((1,240 x 1,690 x 760) x 1) + ((1,240 x 1,690 x 760) x 1)	((1,240 x 1,690 x 760) x 1) + ((1,240 x 1,690 x 760) x 1) + ((1,240 x 1,690 x 760) x 1)	
Dimensions (W x H x D) - Shipping	mm x No.	((1,280 x 1,825 x 796) x 1) + ((1,280 x 1,825 x 796) x 1) + ((960 x 1,825 x 796) x 1)	((1,280 x 1,825 x 796) x 1) + ((1,280 x 1,825 x 796) x 1) + ((1,280 x 1,825 x 796) x 1)	((1,280 x 1,825 x 796) x 1) + ((1,280 x 1,825 x 796) x 1) + ((1,280 x 1,825 x 796) x 1)	
Net Weight	kg x No.	(300 x 1) + (300 x 1) + (215 x 1)	(300 x 1) + (300 x 1) + (237 x 1)	(300 x 1) + (300 x 1) + (237 x 1)	
Shipping Weight	kg x No.	(312 x 1) + (312 x 1) + (225 x 1)	(312 x 1) + (312 x 1) + (250 x 1)	(312 x 1) + (312 x 1) + (250 x 1)	
Sound Pressure Level	Cooling	dB(A)	66.0	66.0	66.0
	Heating	dB(A)	68.0	67.0	68.0
Sound Power Level	Cooling	dB(A)	91.0	91.0	91.0
	Heating	dB(A)	93.0	93.0	94.0
Communication Cable	mm ² x No. (VCTF-SB)		2C x 1.0 - 1.5	2C x 1.0 - 1.5	2C x 1.0 - 1.5
Refrigerant	Refrigerant Name		R410A	R410A	R410A
	Precharged Amount in Factory	kg	41.5	45.5	45.5
	t-CO ₂ eq		86.631	94.981	94.981
	Control		Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve
Power Supply	Ø, V, Hz		380-400-415, 3, 50/60	380-400-415, 3, 50/60	380-400-415, 3, 50/60
Number of Maximum Connectable Indoor Units ¹⁾			64	64	64

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

ARUM58OLTE5 / ARUM60OLTE5
ARUM62OLTE5



HP			58	60	62
Model Name	Combination Unit		ARUM58OLTE5	ARUM60OLTE5	ARUM62OLTE5
	Independent Unit		ARUM200LTE5 ARUM200LTE5 ARUM180LTE5	ARUM200LTE5 ARUM200LTE5 ARUM200LTE5	ARUM200LTE5 ARUM180LTE5 ARUM120LTE5 ARUM120LTE5
Capacity	Cooling (Rated)	kW	162.4	168.0	173.6
	Heating (Rated)	kW	162.4	168.0	173.6
	Heating (Max)	kW	182.7	189.0	195.3
Input	Cooling (Rated)	kW	50.94	54.18	56.90
	Heating (Rated)	kW	36.95	39.06	39.93
EER			3.19	3.10	3.05
SEER			8.27	8.17	8.07
COP	Rated Capacity		4.40	4.30	4.35
SCOP			4.88	4.98	4.83
Exterior	Color		Morning Gray / Dawn Gray	Morning Gray / Dawn Gray	Morning Gray / Dawn Gray
	RAL Code		RAL 7030 / RAL 7037	RAL 7030 / RAL 7037	RAL 7030 / RAL 7037
Heat Exchanger	Type		Wide Louver Plus	Wide Louver Plus	Wide Louver Plus
	Type		Hermetically Sealed Scroll (Inverter) x 6	Hermetically Sealed Scroll (Inverter) x 6	Hermetically Sealed Scroll (Inverter) x 6
Compressor	Combination x No.		(5,300 x 3) + (4,200 x 3)	(5,300 x 3) + (4,200 x 3)	(5,300 x 4) + (4,200 x 2)
	Motor Output x Number	W x No.			
	Oil Type		FW68D	FW68D	FW68D
	Oil Charge	cc	15,600	15,600	18,200
Fan	Type		Propeller fan	Propeller fan	Propeller fan
	Motor Output x Number	W x No.	900 x 6	900 x 6	(900 x 4) + (1,200 x 2)
	Air Flow Rate (High)	m ³ /min x No.	320 x 3	320 x 3	(320 x 2) + (240 x 2)
	Drive		DC INVERTER	DC INVERTER	DC INVERTER
Pipe Connections for Heat Recovery	Liquid Pipe	mm (inch)	Ø19.05 (3/4)	Ø19.05 (3/4)	Ø22.2 (7/8)
	Low Pressure Gas Pipe	mm (inch)	Ø41.3 (1-5/8)	Ø41.3 (1-5/8)	Ø41.3 (1-5/8)
	High Pressure Gas Pipe	mm (inch)	Ø34.9 (1-3/8)	Ø34.9 (1-3/8)	Ø34.9 (1-3/8)
Pipe Connections for Heat Pump	Liquid Pipe	mm (inch)	Ø19.05 (3/4)	Ø19.05 (3/4)	Ø22.2 (7/8)
	Gas Pipe	mm (inch)	Ø41.3 (1-5/8)	Ø41.3 (1-5/8)	Ø41.3 (1-5/8)
Dimensions (W x H x D)	mm x No.	((1,240 x 1,690 x 760) x 1) + ((1,240 x 1,690 x 760) x 1) + ((1,240 x 1,690 x 760) x 1) + ((1,240 x 1,690 x 760) x 1)	((1,240 x 1,690 x 760) x 1) + ((1,240 x 1,690 x 760) x 1) + ((1,240 x 1,690 x 760) x 1)	((1,240 x 1,690 x 760) x 1) + ((1,240 x 1,690 x 760) x 1) + ((1,240 x 1,690 x 760) x 1) + ((930 x 1,690 x 760) x 1)	
Dimensions (W x H x D) - Shipping	mm x No.	((1,280 x 1,825 x 796) x 1) + ((1,280 x 1,825 x 796) x 1) + ((1,280 x 1,825 x 796) x 1) + ((1,280 x 1,825 x 796) x 1)	((1,280 x 1,825 x 796) x 1) + ((1,280 x 1,825 x 796) x 1) + ((1,280 x 1,825 x 796) x 1) + ((1,280 x 1,825 x 796) x 1)	((1,280 x 1,825 x 796) x 1) + ((1,280 x 1,825 x 796) x 1) + ((1,280 x 1,825 x 796) x 1) + ((960 x 1,825 x 796) x 1) + ((960 x 1,825 x 796) x 1)	
Net Weight	kg x No.	(300 x 1) + (300 x 1) + (300 x 1) + (300 x 1)	(300 x 1) + (300 x 1) + (300 x 1)	(300 x 1) + (300 x 1) + (215 x 1) + (215 x 1)	
Shipping Weight	kg x No.	(312 x 1) + (312 x 1) + (312 x 1) + (312 x 1)	(312 x 1) + (312 x 1) + (312 x 1)	(312 x 1) + (312 x 1) + (225 x 1) + (225 x 1)	
Sound Pressure Level	Cooling	dB(A)	66.0	67.0	66.0
	Heating	dB(A)	69.0	69.0	68.0
Sound Power Level	Cooling	dB(A)	92.0	92.0	91.0
	Heating	dB(A)	94.0	95.0	93.0
Communication Cable	mm ² x No. (VCTF-SB)		2C x 1.0 - 1.5	2C x 1.0 - 1.5	2C x 1.0 - 1.5
Refrigerant	Refrigerant Name		R410A	R410A	R410A
	Precharged Amount in Factory	kg	48.0	48.0	51.0
	t-CO ₂ eq		100.200	100.200	106.463
	Control		Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve
Power Supply	Ø, V, Hz		380-400-415, 3, 50/60	380-400-415, 3, 50/60	380-400-415, 3, 50/60
Number of Maximum Connectable Indoor Units ¹⁾			64	64	64

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

ARUM64OLTE5 / ARUM66OLTE5
ARUM68OLTE5



HP			64	66	68
Model Name	Combination Unit		ARUM64OLTE5	ARUM66OLTE5	ARUM68OLTE5
	Independent Unit		ARUM20OLTE5 ARUM20OLTE5 ARUM12OLTE5 ARUM12OLTE5	ARUM20OLTE5 ARUM20OLTE5 ARUM14OLTE5 ARUM12OLTE5	ARUM20OLTE5 ARUM20OLTE5 ARUM16OLTE5 ARUM12OLTE5
Capacity	Cooling (Rated)	kW	179.2	184.8	190.4
	Heating (Rated)	kW	179.2	184.8	190.4
	Heating (Max)	kW	201.6	207.9	214.2
Input	Cooling (Rated)	kW	60.12	61.10	65.35
	Heating (Rated)	kW	42.04	42.89	44.63
EER			2.98	3.02	2.91
SEER			7.98	7.78	7.63
COP	Rated Capacity		4.26	4.31	4.27
SCOP			4.93	4.95	5.02
Exterior	Color		Morning Gray / Dawn Gray	Morning Gray / Dawn Gray	Morning Gray / Dawn Gray
	RAL Code		RAL 7030 / RAL 7037	RAL 7030 / RAL 7037	RAL 7030 / RAL 7037
Heat Exchanger	Type		Wide Louver Plus	Wide Louver Plus	Wide Louver Plus
	Type		Hermetically Sealed Scroll (Inverter) x 6	Hermetically Sealed Scroll (Inverter) x 6	Hermetically Sealed Scroll (Inverter) x 6
Compressor	Combination x No.		(5,300 x 4) + (4,200 x 2)	(5,300 x 4) + (4,200 x 2)	(5,300 x 4) + (4,200 x 2)
	Motor Output x Number	W x No.			
	Oil Type		FW68D	FW68D	FW68D
	Oil Charge	cc	18,200	18,200	19,500
Fan	Type		Propeller fan	Propeller fan	Propeller fan
	Motor Output x Number	W x No.	(900 x 4) + (1,200 x 2)	(900 x 6) + (1,200 x 1)	(900 x 6) + (1,200 x 1)
	Air Flow Rate (High)	m ³ /min x No.	(320 x 2) + (240 x 2)	(320 x 3) + (240 x 1)	(320 x 3) + (240 x 1)
	Drive		DC INVERTER	DC INVERTER	DC INVERTER
	Discharge	Side / Top	TOP	TOP	TOP
Pipe Connections for Heat Recovery	Liquid Pipe	mm (inch)	Ø22.2 (7/8)	Ø22.2 (7/8)	Ø22.2 (7/8)
	Low Pressure Gas Pipe	mm (inch)	Ø41.3 (1-5/8)	Ø53.98 (2-1/8)	Ø53.98 (2-1/8)
	High Pressure Gas Pipe	mm (inch)	Ø34.9 (1-3/8)	Ø41.3 (1-5/8)	Ø41.3 (1-5/8)
Pipe Connections for Heat Pump	Liquid Pipe	mm (inch)	Ø22.2 (7/8)	Ø22.2 (7/8)	Ø22.2 (7/8)
	Gas Pipe	mm (inch)	Ø41.3 (1-5/8)	Ø53.98 (2-1/8)	Ø53.98 (2-1/8)
Dimensions (W x H x D)		mm x No.	((1,240 x 1,690 x 760) x 1) + ((1,240 x 1,690 x 760) x 1) + ((930 x 1,690 x 760) x 1) + ((930 x 1,690 x 760) x 1)	((1,240 x 1,690 x 760) x 1) + ((1,240 x 1,690 x 760) x 1) + ((1,240 x 1,690 x 760) x 1) + ((930 x 1,690 x 760) x 1)	((1,240 x 1,690 x 760) x 1) + ((1,240 x 1,690 x 760) x 1) + ((1,240 x 1,690 x 760) x 1) + ((930 x 1,690 x 760) x 1)
Dimensions (W x H x D) - Shipping		mm x No.	((1,280 x 1,825 x 796) x 1) + ((1,280 x 1,825 x 796) x 1) + ((960 x 1,825 x 796) x 1) + ((960 x 1,825 x 796) x 1)	((1,280 x 1,825 x 796) x 1) + ((1,280 x 1,825 x 796) x 1) + ((1,280 x 1,825 x 796) x 1) + ((960 x 1,825 x 796) x 1)	((1,280 x 1,825 x 796) x 1) + ((1,280 x 1,825 x 796) x 1) + ((1,280 x 1,825 x 796) x 1) + ((960 x 1,825 x 796) x 1)
Net Weight		kg x No.	(300 x 1) + (300 x 1) + (215 x 1) + (215 x 1)	(300 x 1) + (300 x 1) + (237 x 1) + (215 x 1)	(300 x 1) + (300 x 1) + (237 x 1) + (215 x 1)
Shipping Weight		kg x No.	(312 x 1) + (312 x 1) + (225 x 1) + (225 x 1)	(312 x 1) + (312 x 1) + (250 x 1) + (225 x 1)	(312 x 1) + (312 x 1) + (250 x 1) + (225 x 1)
Sound Pressure Level	Cooling	dB(A)	67.0	67.0	67.0
	Heating	dB(A)	69.0	69.0	69.0
Sound Power Level	Cooling	dB(A)	91.0	91.0	92.0
	Heating	dB(A)	94.0	94.0	94.0
Communication Cable		mm ² x No. (VCTF-SB)	2C x 1.0 - 1.5	2C x 1.0 - 1.5	2C x 1.0 - 1.5
Refrigerant	Refrigerant Name		R410A	R410A	R410A
	Precharged Amount in Factory	kg	51.0	55.0	55.0
	t-CO ₂ eq		106.463	114.813	114.813
	Control		Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve
Power Supply		Ø, V, Hz	380-400-415, 3, 50/60	380-400-415, 3, 50/60	380-400-415, 3, 50/60
Number of Maximum Connectable Indoor Units ¹⁾			64	64	64

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

ARUM70OLTE5 / ARUM72OLTE5
ARUM74OLTE5



HP			70	72	74
Model Name	Combination Unit		ARUM70OLTE5	ARUM72OLTE5	ARUM74OLTE5
	Independent Unit		ARUM20OLTE5 ARUM20OLTE5 ARUM18OLTE5 ARUM12OLTE5	ARUM20OLTE5 ARUM20OLTE5 ARUM20OLTE5 ARUM12OLTE5	ARUM20OLTE5 ARUM20OLTE5 ARUM20OLTE5 ARUM14OLTE5
Capacity	Cooling (Rated)	kW	196.0	201.6	207.2
	Heating (Rated)	kW	196.0	201.6	207.2
	Heating (Max)	kW	220.5	226.8	233.1
Input	Cooling (Rated)	kW	62.94	66.18	67.16
	Heating (Rated)	kW	44.95	47.06	47.91
EER			3.11	3.05	3.09
SEER			8.16	8.08	7.91
COP	Rated Capacity		4.36	4.28	4.32
SCOP			4.87	4.96	4.98
Exterior	Color		Morning Gray / Dawn Gray	Morning Gray / Dawn Gray	Morning Gray / Dawn Gray
	RAL Code		RAL 7030 / RAL 7037	RAL 7030 / RAL 7037	RAL 7030 / RAL 7037
Heat Exchanger	Type		Wide Louver Plus	Wide Louver Plus	Wide Louver Plus
	Type		Hermetically Sealed Scroll (Inverter) x 7	Hermetically Sealed Scroll (Inverter) x 7	Hermetically Sealed Scroll (Inverter) x 7
Compressor	Combination x No.		(5,300 x 4) + (4,200 x 3)	(5,300 x 4) + (4,200 x 3)	(5,300 x 4) + (4,200 x 3)
	Motor Output x Number	W x No.			
	Oil Type		FW68D	FW68D	FW68D
	Oil Charge	cc	19,500	19,500	19,500
Fan	Type		Propeller fan	Propeller fan	Propeller fan
	Motor Output x Number	W x No.	(900 x 6) + (1,200 x 1)	(900 x 6) + (1,200 x 1)	(900 x 8)
	Air Flow Rate (High)	m ³ /min x No.	(320 x 3) + (240 x 1)	(320 x 3) + (240 x 1)	(320 x 4)
	Drive		DC INVERTER	DC INVERTER	DC INVERTER
	Discharge	Side / Top	TOP	TOP	TOP
Pipe Connections for Heat Recovery	Liquid Pipe	mm (inch)	Ø22.2 (7/8)	Ø22.2 (7/8)	Ø22.2 (7/8)
	Low Pressure Gas Pipe	mm (inch)	Ø53.98 (2-1/8)	Ø53.98 (2-1/8)	Ø53.98 (2-1/8)
	High Pressure Gas Pipe	mm (inch)	Ø41.3 (1-5/8)	Ø41.3 (1-5/8)	Ø41.3 (1-5/8)
Pipe Connections for Heat Pump	Liquid Pipe	mm (inch)	Ø22.2 (7/8)	Ø22.2 (7/8)	Ø22.2 (7/8)
	Gas Pipe	mm (inch)	Ø53.98 (2-1/8)	Ø53.98 (2-1/8)	Ø53.98 (2-1/8)
Dimensions (W x H x D)		mm x No.	((1,240 x 1,690 x 760) x 1) + ((1,240 x 1,690 x 760) x 1) + ((1,240 x 1,690 x 760) x 1) + ((930 x 1,690 x 760) x 1)	((1,240 x 1,690 x 760) x 1) + ((1,240 x 1,690 x 760) x 1) + ((1,240 x 1,690 x 760) x 1) + ((930 x 1,690 x 760) x 1)	((1,240 x 1,690 x 760) x 1) + ((1,240 x 1,690 x 760) x 1) + ((1,240 x 1,690 x 760) x 1) + ((1,240 x 1,690 x 760) x 1)
Dimensions (W x H x D) - Shipping		mm x No.	((1,280 x 1,825 x 796) x 1) + ((1,280 x 1,825 x 796) x 1) + ((1,280 x 1,825 x 796) x 1) + ((960 x 1,825 x 796) x 1)	((1,280 x 1,825 x 796) x 1) + ((1,280 x 1,825 x 796) x 1) + ((1,280 x 1,825 x 796) x 1) + ((960 x 1,825 x 796) x 1)	((1,280 x 1,825 x 796) x 1) + ((1,280 x 1,825 x 796) x 1) + ((1,280 x 1,825 x 796) x 1) + ((1,280 x 1,825 x 796) x 1)
Net Weight		kg x No.	(300 x 1) + (300 x 1) + (300 x 1) + (215 x 1)	(300 x 1) + (300 x 1) + (300 x 1) + (215 x 1)	(300 x 1) + (300 x 1) + (300 x 1) + (237 x 1)
Shipping Weight		kg x No.	(312 x 1) + (312 x 1) + (312 x 1) + (225 x 1)	(312 x 1) + (312 x 1) + (312 x 1) + (225 x 1)	(312 x 1) + (312 x 1) + (312 x 1) + (250 x 1)
Sound Pressure Level	Cooling	dB(A)	67.0	67.0	68.0
	Heating	dB(A)	69.0	70.0	69.0
Sound Power Level	Cooling	dB(A)	92.0	92.0	92.0
	Heating	dB(A)	94.0	95.0	95.0
Communication Cable		mm ² x No. (VCTF-SB)	2C x 1.0 - 1.5	2C x 1.0 - 1.5	2C x 1.0 - 1.5
Refrigerant	Refrigerant Name		R410A	R410A	R410A
	Precharged Amount in Factory	kg	57.5	57.5	61.5
	t-CO ₂ eq		120.031	120.031	128.381
	Control		Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve
Power Supply		Ø, V, Hz	380-400-415, 3, 50/60	380-400-415, 3, 50/60	380-400-415, 3, 50/60
Number of Maximum Connectable Indoor Units ¹⁾			64	64	64

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

**ARUM76OLTE5 / ARUM78OLTE5
ARUM80OLTE5**



HP			76	78	80	
Model Name	Combination Unit		ARUM76OLTE5	ARUM78OLTE5	ARUM80OLTE5	
	Independent Unit		ARUM200LTE5 ARUM200LTE5 ARUM200LTE5 ARUM160LTE5	ARUM200LTE5 ARUM200LTE5 ARUM200LTE5 ARUM180LTE5	ARUM200LTE5 ARUM200LTE5 ARUM200LTE5 ARUM200LTE5	
Capacity	Cooling (Rated)	kW	212.8	218.4	224.0	
	Heating (Rated)	kW	212.8	218.4	224.0	
	Heating (Max)	kW	239.4	245.7	252.0	
Input	Cooling (Rated)	kW	71.41	69.00	72.24	
	Heating (Rated)	kW	49.65	49.97	52.08	
EER			2.98	3.17	3.10	
SEER			7.77	8.24	8.17	
COP		Rated Capacity	4.29	4.37	4.30	
SCOP			5.04	4.91	4.98	
Exterior	Color		Morning Gray / Dawn Gray	Morning Gray / Dawn Gray	Morning Gray / Dawn Gray	
	RAL Code		RAL 7030 / RAL 7037	RAL 7030 / RAL 7037	RAL 7030 / RAL 7037	
Heat Exchanger	Type		Wide Louver Plus	Wide Louver Plus	Wide Louver Plus	
	Type		Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll	
Compressor	Combination x No.		(Inverter) x 7	(Inverter) x 8	(Inverter) x 8	
	Motor Output x Number	W x No.	(5,300 x 4) + (4,200 x 3)	(5,300 x 4) + (4,200 x 4)	(5,300 x 4) + (4,200 x 4)	
	Oil Type		FW68D	FW68D	FW68D	
	Oil Charge	cc	19,500	20,800	20,800	
Fan	Type		Propeller fan	Propeller fan	Propeller fan	
	Motor Output x Number	W x No.	(900 x 8)	(900 x 8)	(900 x 8)	
	Air Flow Rate (High)	m ³ /min x No.	(320 x 4)	(320 x 4)	(320 x 4)	
	Drive		DC INVERTER	DC INVERTER	DC INVERTER	
Pipe Connections for Heat Recovery	Discharge		Side / Top	TOP	TOP	
	Liquid Pipe	mm (inch)	Ø22.2 (7/8)	Ø22.2 (7/8)	Ø22.2 (7/8)	
	Low Pressure Gas Pipe	mm (inch)	Ø53.98 (2-1/8)	Ø53.98 (2-1/8)	Ø53.98 (2-1/8)	
Pipe Connections for Heat Pump	High Pressure Gas Pipe	mm (inch)	Ø41.3 (1-5/8)	Ø41.3 (1-5/8)	Ø41.3 (1-5/8)	
	Liquid Pipe	mm (inch)	Ø22.2 (7/8)	Ø22.2 (7/8)	Ø22.2 (7/8)	
Dimensions (W x H x D)	Gas Pipe		mm (inch)	Ø53.98 (2-1/8)	Ø53.98 (2-1/8)	
	mm x No.			((1,240 x 1,690 x 760) x 1) + ((1,240 x 1,690 x 760) x 1) + ((1,240 x 1,690 x 760) x 1) + ((1,240 x 1,690 x 760) x 1)	((1,240 x 1,690 x 760) x 1) + ((1,240 x 1,690 x 760) x 1) + ((1,240 x 1,690 x 760) x 1) + ((1,240 x 1,690 x 760) x 1)	
Dimensions (W x H x D) - Shipping	mm x No.			((1,280 x 1,825 x 796) x 1) + ((1,280 x 1,825 x 796) x 1) + ((1,280 x 1,825 x 796) x 1) + ((1,280 x 1,825 x 796) x 1)	((1,280 x 1,825 x 796) x 1) + ((1,280 x 1,825 x 796) x 1) + ((1,280 x 1,825 x 796) x 1) + ((1,280 x 1,825 x 796) x 1)	
	kg x No.			(300 x 1) + (300 x 1) + (300 x 1) + (237 x 1)	(300 x 1) + (300 x 1) + (300 x 1) + (300 x 1)	
Shipping Weight	kg x No.			(312 x 1) + (312 x 1) + (312 x 1) + (250 x 1)	(312 x 1) + (312 x 1) + (312 x 1) + (312 x 1)	
	kg x No.			(312 x 1) + (312 x 1) + (312 x 1) + (312 x 1)	(312 x 1) + (312 x 1) + (312 x 1) + (312 x 1)	
Sound Pressure Level	Cooling	dB(A)	68.0	68.0	68.0	
	Heating	dB(A)	70.0	70.0	71.0	
Sound Power Level	Cooling	dB(A)	93.0	93.0	93.0	
	Heating	dB(A)	95.0	95.0	96.0	
Communication Cable		mm ² x No. (VCTF-SB)	2C x 1.0 - 1.5	2C x 1.0 - 1.5	2C x 1.0 - 1.5	
Refrigerant	Refrigerant Name		R410A	R410A	R410A	
	Precharged Amount in Factory		kg	61.5	64.0	64.0
	t-CO ₂ eq			128.381	133.600	133.600
	Control			Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve
Power Supply		Ø, V, Hz	380-400-415, 3, 50/60	380-400-415, 3, 50/60	380-400-415, 3, 50/60	
Number of Maximum Connectable Indoor Units ¹⁾			64	64	64	

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

1. Eurovent Test Condition : For more info regarding program consult www.eurovent-certification.com

2. 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
- 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
- Piping Length : Interconnected Pipe Length = 7.5m
- Elevation Difference (Outdoor ~ Indoor Unit) is 0m.

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

4. Sound pressure level is measured at the rated condition in the anechoic rooms according to ISO 3745 standard. Sound power level is measured at the rated condition in the semi-anechoic rooms according to ISO 9614 standard. Therefore, these values can vary due to different operation conditions .

5. Explanation of Terms

- EER : Energy Efficiency Ratio (Cooling)
- SEER : Seasonal Energy Efficiency Ratio (Refer to Typical Cooling Season)
- COP : Coefficient Of Performance (Heating)
- SCOP : Seasonal Coefficient Of Performance (Refer to Typical Heating Season)

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

7. This product contains Fluorinated greenhouse gas. (R410A, GWP (Global warming potential) = 2,087.5)

MULTI VTM S

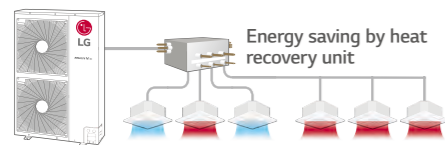
Highlight

- Air cooled VRF Heat pump & Heat Recovery
- 12.1 ~ 33.6kW (Cooling capacity based)
- Both 1Ø, 220 ~ 240V, 50Hz and 3Ø, 380 ~ 415V, 50Hz
- Side discharge outdoor unit
- Includes the industry's first single phase Heat Recovery system
- Includes the industry's first R32 side discharge

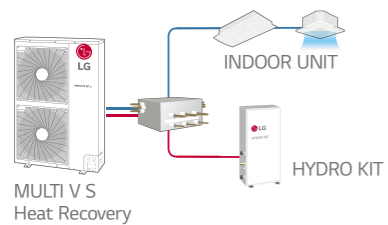
		
Energy savings	Reliability	Convenience

How does it work?

Available in Heat Pump and Heat Recovery Models



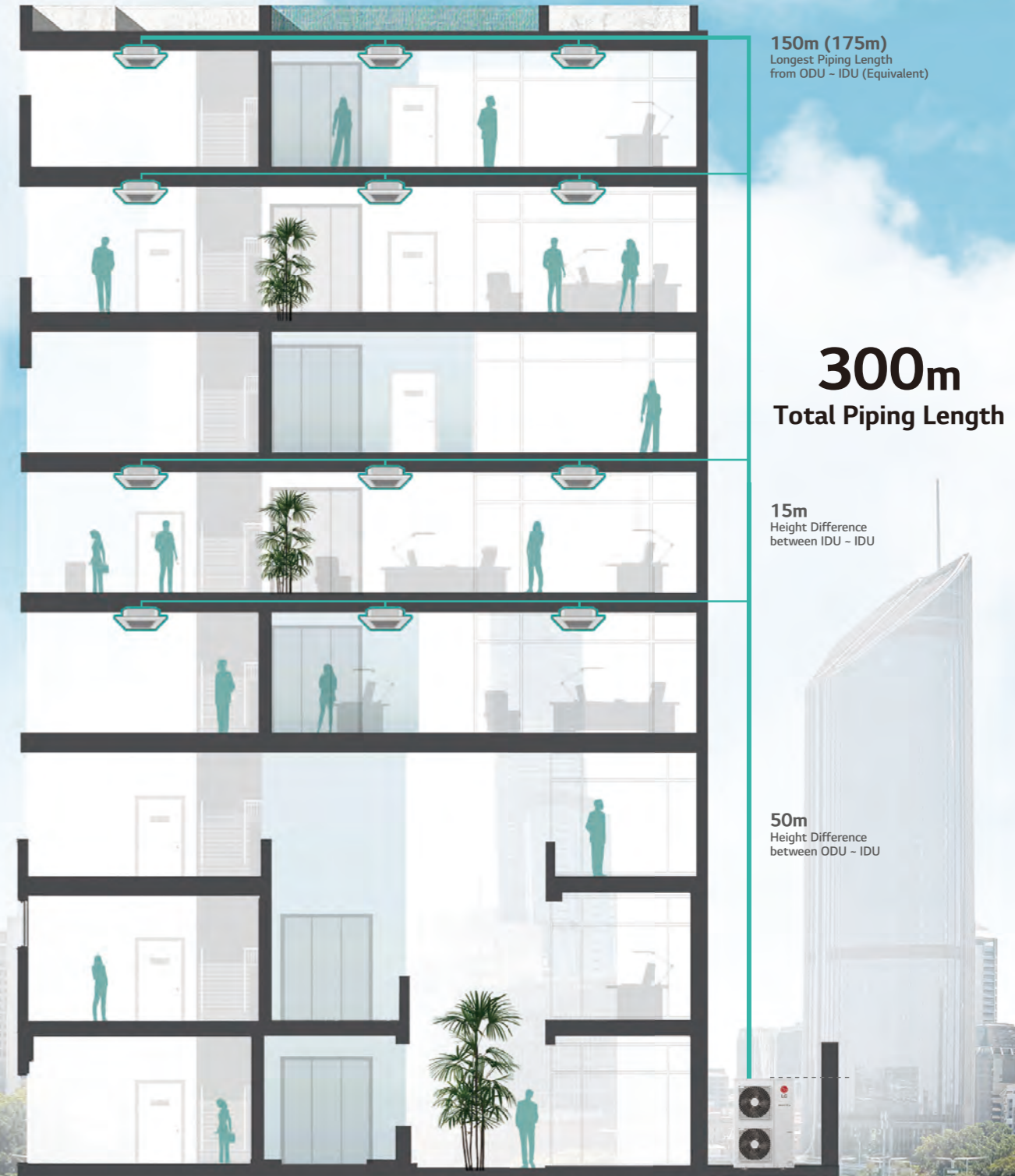
Combination of Cooling, Heating and Hot Water Solution



※ Heat Pump and Recovery are separated models.



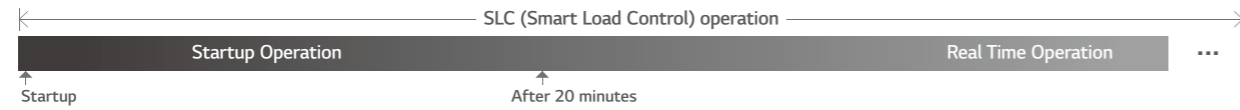
※ Only applies to Multi V S with R410A refrigerant.



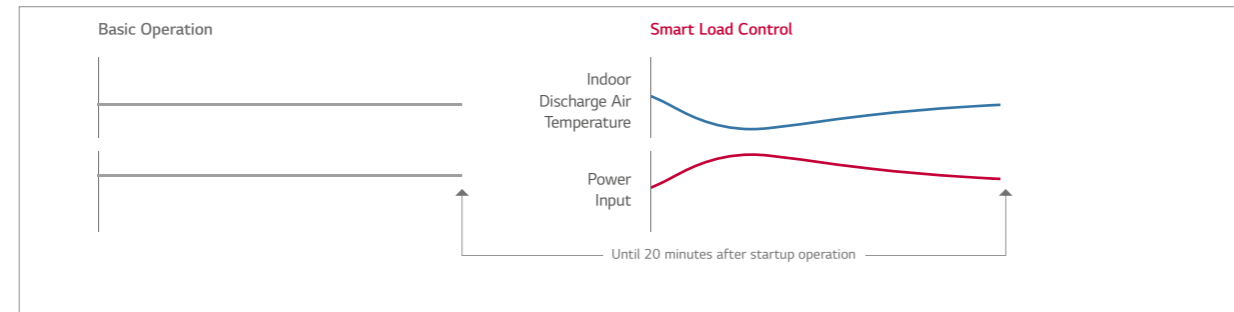
Smart Load Control Applied

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

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



Startup Operation

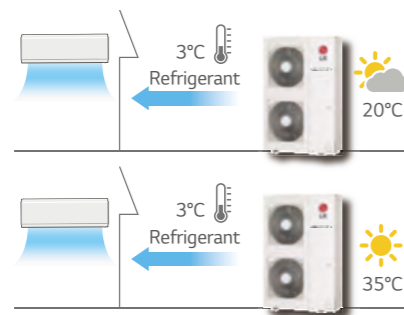


Max 10% Energy saving

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

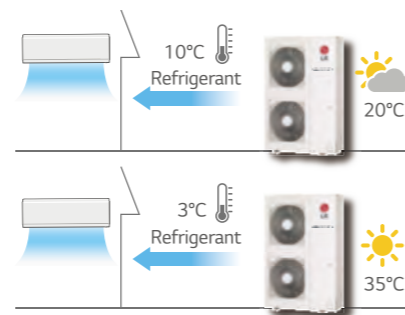
Real Time Operation

Basic Operation



Fixed refrigerant temperature

Smart Load Control



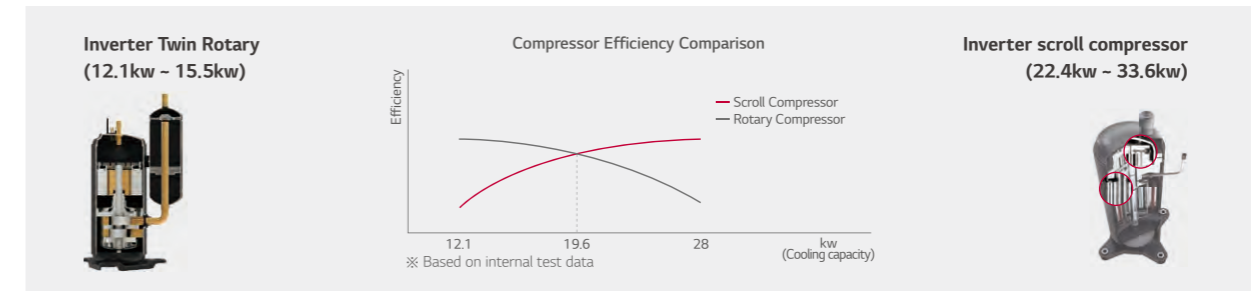
Fixed refrigerant temperature

Max 13% Energy saving

※ How to set up : By dip switch in outdoor unit (Referred to Product Data Book) Factory default setting is Off
 - Outdoor temperature condition : EER 100% / 75% / 50% / 25% = 35°C (DB) / 30°C (DB) / 25°C (DB) / 20°C (DB)
 - Indoor temperature condition : 27°C (DB) / 19°C (WB)
 ※ Dual sensing (Temperature & humidity) smart load control is possible with Remote controller
 PTEMTB100 (White) / PREMTBB10 (Black)

Inverter Twin Rotary & Inverter Scroll Compressor

Adapted high efficient compressor according to capacity



Inverter Twin Rotary

Concentrated Winding Motor

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



Twin Rotary Rotor

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



Surface Coating

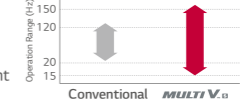
Surface coating of outstanding abrasion resistance property on vane and crank shaft.



Inverter scroll compressor

Best-in-class Compressor Speed

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



6 Bypass Valve

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



Direct Oil Injection

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

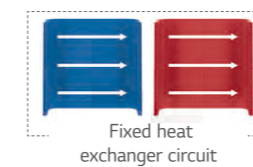
Scroll Profile

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

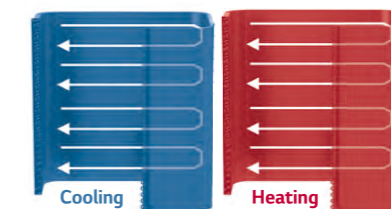
Optimal Heat Exchanger

Maximize efficiency according to different heat exchanger path by cooling and heating

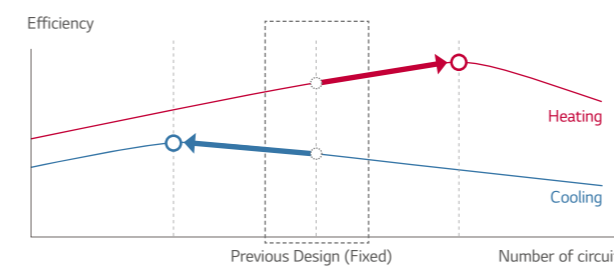
Variable Heat Exchanger Circuit intelligently selects the optimal path. With this smart path selection technology, an average of 6% increase in the efficiency of both operations has been achieved.



Fixed heat exchanger circuit

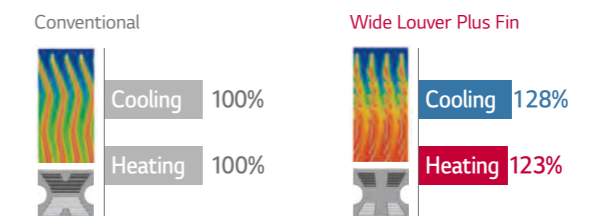


Efficiency performance



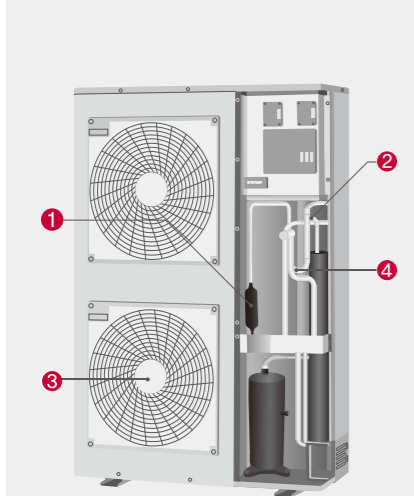
Efficiency up due to Fin shape

Improved heat exchanger efficiency of up to 28%



Reliable Refrigerant Components


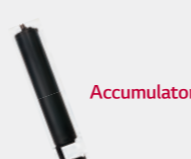
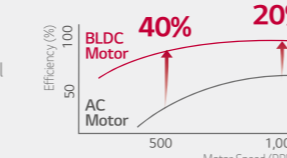
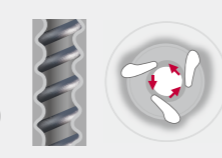
LG technology allows for superior performance and component durability



MULTI V S improved reliability with advanced technology :

- Oil separator
- Accumulator
- Sub-cooling

- 1 Cyclonic oil separator**
 - Highly reliable and efficient oil separation by centrifuge using cyclonic methods
 - High collection efficiency as well as outstanding resistance to high temperature and pressure
- 2 Large Volume Accumulator**
 - Improved reliability by adopting the large volume accumulator (38% volume up compared to conventional)
 - Prevents the liquid refrigerant entering the compressor suction
 - Maximize efficiency by optimal amount of refrigerant
 - Protects compressor breakdown to increase product lifetime
- 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)
 - Reduction of indoor refrigerant noise level
 - * Based on equivalent pipe length

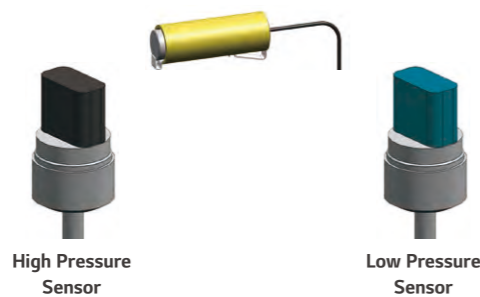





Smart Control

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

Temperature + Pressure Control

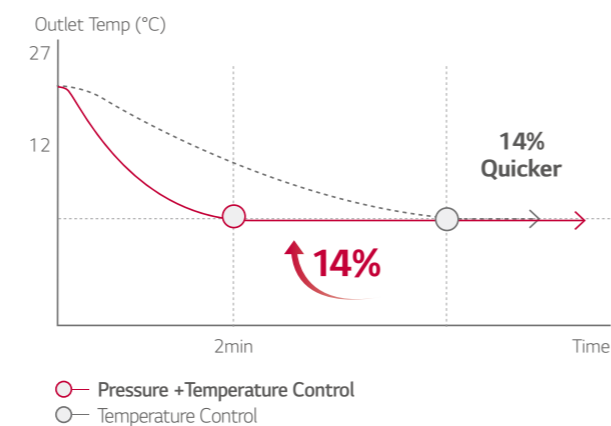
Senses and controls pressure directly using pressure sensor for faster and more precise response to load variation.



Quick Operating Response

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

* Specifications may vary for each model



Corrosion Resistance Black Fin

Strong durability against high salinity and heavily polluted air

Black Fin ensures continued operation of MULTI V S in highly corrosive environments such as salt laden atmosphere in coastal towns or severe air pollution in industrial cities. 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 21207 accelerated corrosion test conducted by an independent test organization and the result has been certified by prestigious global certification organization, TÜV.

Certified protection



* Verification of corrosion resistance performance
 - Test Method B of ISO 21207
 - ASTM B117 / ISO 9227 (10,000 hours)

Enhanced Coating Layers

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

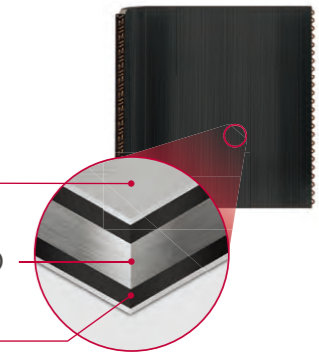
Hydrophilic Coating (Water flow)

The Hydrophilic coating minimizes moisture buildup on the fin.

Complex Resin (Corrosion resistant)

The Black coating provides strong protection from corrosion.

Aluminum fin



Sufficient Piping Length

Increased piping length allows for flexible design and installation

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

Piping Capabilities

150m (175m) Longest pipe length (Equivalent)

300m Total piping length

50m ODU - IDU Height difference

15m IDU - IDU Height difference

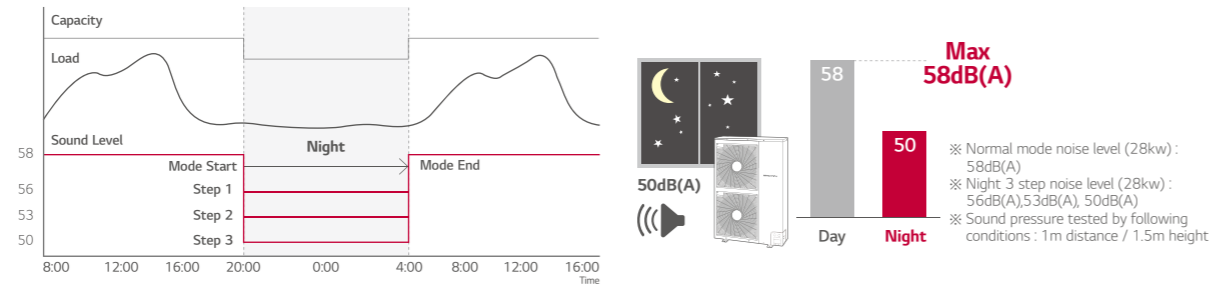
4 Way Piping

- Free design and installation by 4 way piping.

Low Noise Operation

Decreased noise during operation with low noise functionality

At night low noise mode, the noise level can reduce up to 14% in comparison with normal operation mode.



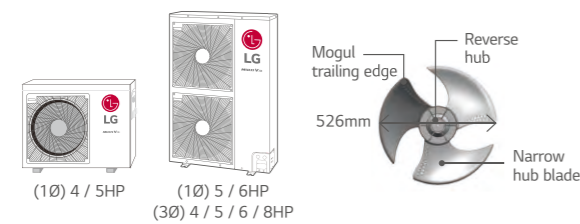
Fan Technology and RPM Control

External static pressure control enables outdoor unit to offer more flexibility in installations.

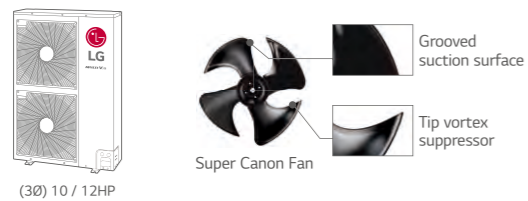
New axial fan offers higher air volume, increased static pressure, decreased noise and enhanced efficiency.

Fan Technology

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

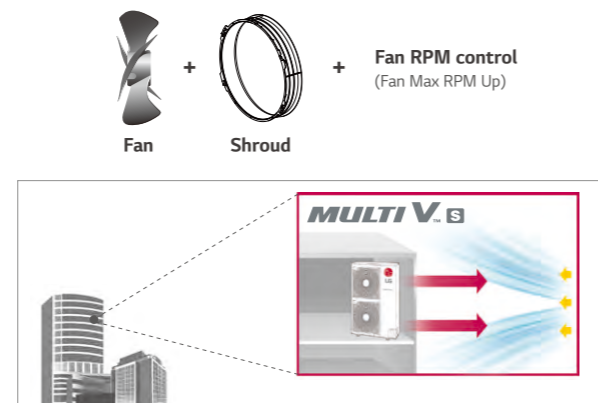


Super canon fan increases the air volume in 50 CMM and the noise level is decreased by 4dB(A).



Fan RPM control

Due to the new shroud and ROM control, the air flows straight away from the fan even in high-rise buildings.



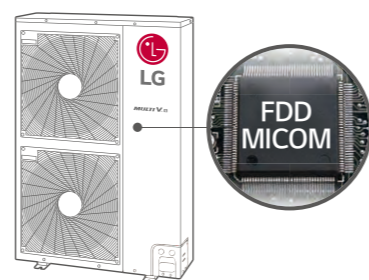
- Straight air flow
- New shroud adopted
- Performs high static pressure

Upgraded Fault Detection and Diagnosis

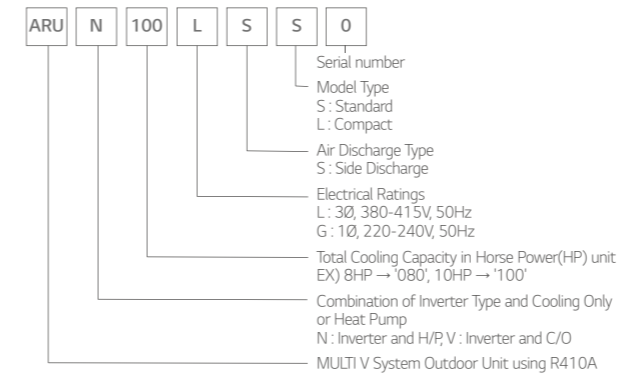
Easy and convenient maintenance with self-diagnosis

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

- Auto commissioning mode
- Auto refrigerant collection
- Auto evaluation of refrigerant amount and charging
- Able to access LGMV (LG Monitoring View) by smartphone
- Black box function
- Piping & wiring error check-up
- FDD (Fault Detection and Diagnosis)



Nomenclature

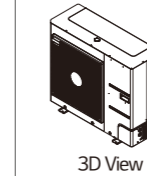
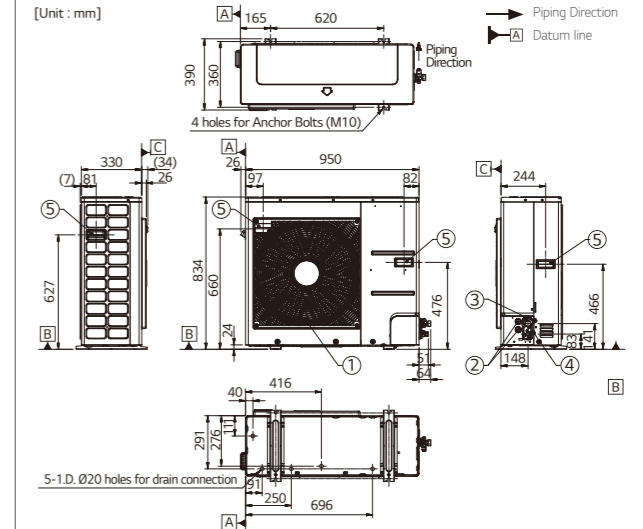


Outdoor Units Function

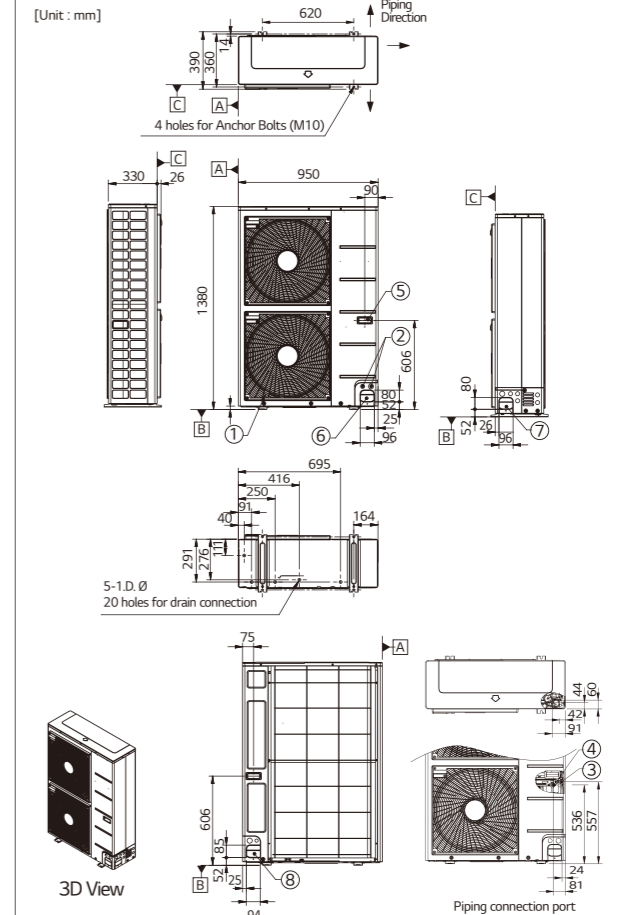
Category	Functions	MULTI V S
Key Refrigerant Components	Variable Path of Outdoor Unit	-
	HEX	-
	HiPOR™ (High Pressure Oil Return)	-
	Humidity Sensor	ARUB060GSS4 only
	Corrosion Resistance Black Fin	○
Oil Sensor	-	-
	Dual Sensing	ARUB060GSS4 only
Special Function	Low Noise Operation	○
	High Static Mode of Outdoor Unit Fan	○
	Partial Defrosting	-
	Auto Dust Removal of Outdoor Unit (Fan reverse rotation)	-
Basic Function	Indoor Cooling Comfort Mode Based Outdoor Temperature	○
	Smart Load Control (SLC) (Changing indoor discharge air temperature according to load)	○
	Outdoor Unit Control Refer to Humidity	ARUB060GSS4 only
	Defrost / Deicing	○
	High Pressure Switch	○
Test Run Function	Phase Protection	○
	Restart Delay (3-minutes)	○
Central Controller	Self Diagnosis	○
	Soft Start	○
	AC Ez (Simple Controller)	PQCSZ250S0
	AC Ez Touch	PACEZA000
	AC Smart IV	PACS4B000
	AC Smart 5	PACSSA000
	ACP (Advanced Control Platform) IV	PACP4B000
	ACP (Advanced Control Platform) S	PACPSA000
	AC Manager 5	PACMSA000
	BNU (Building Network Unit)	ACP Lonworks PLNVKB000 ACP BACnet PQNFB17C0
IO Module (ODU Dry Contact)	Standard	PVDSMN000
	Premium	PQNUD1S40
Cool / Heat Selector	Standard	PRDSBM
	Mobile LGMV	PRCTILO
Cycle Monitoring Device	Standard	PLGMVW100
	Mobile LGMV	PLGMVW100
Additional kit	Refrigerant Charging Kit	○ (Logical operation) Not applied to ARUB060GSS4
	Low Ambient Kit	-
	Variable Water Flow Valve Control Kit	-

※ ○ : Applied, - : Not Applied

ARUN040GSS0



ARUN080LSS0



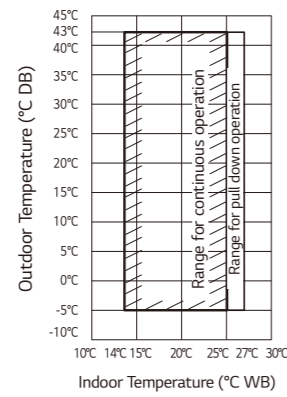
Note

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

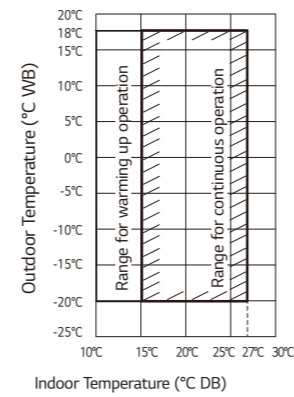
No.	Part Name	Description
1	Air Outlet	-
2	Power and communication cable Hole	-
3	Gas Pipe Connection	Welding joint
4	Liquid Pipe Connection	Welding joint
5	Handle	-
6	Pipe routing hole (front)	-
7	Pipe routing hole (side)	-
8	Pipe routing hole (back)	-

Heat Pump

Cooling

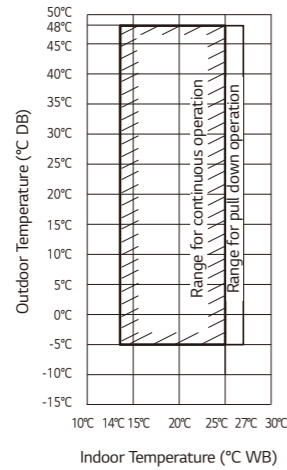


Heating

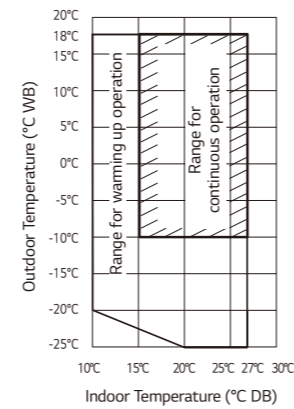


Heat Recovery

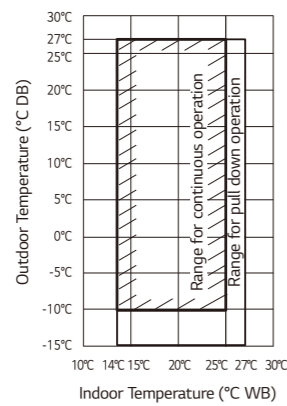
Cooling



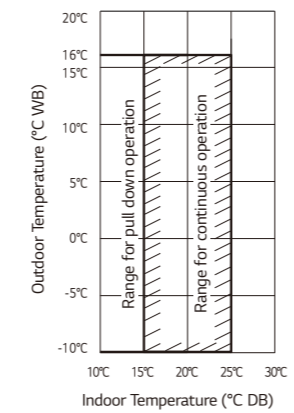
Heating



Simultaneous Cooling

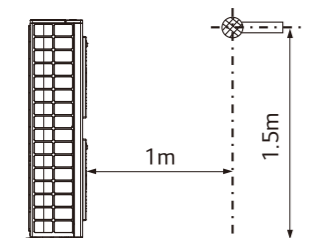


Simultaneous Heating



Note
 1. These figures assume the following operating conditions : Equivalent piping length : 7.5m
 Level difference : 0m
 2. Range of pull down operation : If the relative humidity is too high, cooling capacity can be decreased by the sensible

Position of Sound Level Measuring



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

ARUN040GSS0



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

HP		4	
Model Name		ARUN040GSS0	
Capacity	Cooling (Rated)	kW	12.1
	Heating (Rated)	kW	12.5
Input	Cooling (Rated)	kW	4.03
	Heating (Rated)	kW	3.10
EER		3.00	
SEER		5.63	
COP		Rated Capacity	4.03
SCOP		3.97	
Exterior	Color (General)	Warm Gray	
	RAL Code (Classic)	RAL 7044	
Heat Exchanger	Type	Wide Louver Plus	
	Type	BLDC Inverter Twin Rotary	
Compressor	Combination x No.	(Inverter) x 1	
	Motor Output x Number	W x No.	4,000 x 1
	Oil Type	FW68D (PVE)	
Fan	Oil Charge	cc	1,300
	Type	Axial Flow Fan	
	Motor Output x Number	W x No.	124 x 1
Pipe Connection	Air Flow Rate (High)	m ³ /min x No.	60
	Drive	DC INVERTER	
Dimensions (W x H x D)	Discharge	Side / Top	Side
	Liquid Pipe	mm (inch)	Ø9.52 (3/8)
Dimensions (W x H x D) - Shipping	Gas Pipe	mm (inch)	Ø15.88 (5/8)
	mm x No.		950 x 834 x 330
Net Weight		kg x No.	(1,065 x 918 x 461) x 1
Shipping Weight		kg x No.	70
Sound Pressure Level	Cooling	dB(A)	
	Heating	50	
Sound Power Level	Cooling	dB(A)	
	Heating	52	
Communication Cable		mm ² x No. (VCTF-SB)	72
Refrigerant	mm ² x No. (VCTF-SB)		75
	Refrigerant Name	2C x 1.0 - 1.5	
	Precharged Amount in factory	kg	R410A
Control		1.8	
Power Supply	t-CO ₂ eq	3.758	
	Control		Electronic Expansion Valve
Number of Maximum Connectable Indoor Units		8	

Note
 1. Eurovent Test Condition : Type of indoor unit connected is only Ceiling Concealed Duct.
 - Refer to EUROVENT certification regulation for more detail test conditions.
 - Refer to EUROVENT website for test values connected Ceiling Cassette type indoors.
 2. Performances are based on the following conditions :
 - Cooling Temperature : Indoor 27°C (80.6°F) DB / 19°C (66.2°F) WB / Outdoor 35°C (95°F) DB / 24°C (75.2°F) WB
 - Heating Temperature : Indoor 20°C (68°F) DB / 15°C (59°F) WB / Outdoor 7°C (44.6°F) DB / 6°C (42.8°F) WB
 3. The maximum combination ratio is 160%.
 4. Wiring cable size must comply with the applicable local and national codes.
 5. Due to our policy of innovation some specifications may be changed without notification.
 6. Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard.
 Sound power level is measured on the rated condition in the semi-anechoic rooms by ISO 9614 standard.
 Therefore, these values can be increased owing to ambient conditions during operation.
 7. Power factor could vary less than ±1% according to the operating conditions.
 8. This product contains Fluorinated greenhouse gases. (R410A, GWP(Global warming potential) = 2087.5)

ARUN050GSS0 / ARUN060GSS0



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

HP			5	6
Model Name			ARUN050GSS0	ARUN060GSS0
Capacity	Cooling (Rated)	kW	14.0	15.5
	Heating (Rated)	kW	16.0	18.0
Input	Cooling (Rated)	kW	4.59	5.17
	Heating (Rated)	kW	4.18	5.00
EER			3.05	3.00
SEER			7.40	7.53
COP Rated Capacity			3.83	3.60
SCOP			4.16	4.35
Exterior	Color (General)		Warm Gray	Warm Gray
	RAL Code (Classic)		RAL 7044	RAL 7044
Heat Exchanger	Type		Wide Louver Plus	Wide Louver Plus
	Type		BLDC Inverter Twin Rotary	BLDC Inverter Twin Rotary
Compressor	Combination x No.		(Inverter) x 1	(Inverter) x 1
	Motor Output x Number	W x No.	4,000 x 1	4,000 x 1
	Oil Type		FW68D (PVE)	FW68D (PVE)
	Oil Charge	cc	1,300	1,300
	Type		Axial Flow Fan	Axial Flow Fan
Fan	Motor Output x Number	W x No.	124 x 2	124 x 2
	Air Flow Rate (High)	m ³ /min x No.	110	110
	Drive		DC INVERTER	DC INVERTER
	Discharge	Side / Top	Side	Side
Pipe Connection	Liquid Pipe	mm (inch)	Ø9.52 (3/8)	Ø9.52 (3/8)
	Gas Pipe	mm (inch)	Ø15.88 (5/8)	Ø19.05 (3/4)
Dimensions (W x H x D)			950 x 1,380 x 330	950 x 1,380 x 330
Dimensions (W x H x D) - Shipping			(1,065 x 918 x 461) x 1	(1,065 x 918 x 461) x 1
Net Weight			94	94
Shipping Weight			106	106
Sound Pressure Level	Cooling	dB(A)	51	52
	Heating	dB(A)	53	54
Sound Power Level	Cooling	dB(A)	72	72
	Heating	dB(A)	76	77
Communication Cable			2C x 1.0 - 1.5	2C x 1.0 - 1.5
Refrigerant	Refrigerant Name		R410A	R410A
	Precharged Amount in factory	kg	3.0	3.0
	t-CO ₂ eq		6.263	6.263
	Control		Electronic Expansion Valve	Electronic Expansion Valve
Power Supply			220-240, 1, 50	220-240, 1, 50
Number of Maximum Connectable Indoor Units			10	13

- Note
- Eurovent Test Condition : Type of indoor unit connected is only Ceiling Concealed Duct.
 - Refer to EUROVENT certification regulation for more detail test conditions.
 - Refer to EUROVENT website for test values connected Ceiling Cassette type indoors.
 - Performances are based on the following conditions :
 - Cooling Temperature : Indoor 27°C (80.6°F) DB / 19°C (66.2°F) WB / Outdoor 35°C (95°F) DB / 24°C (75.2°F) WB
 - Heating Temperature : Indoor 20°C (68°F) DB / 15°C (59°F) WB / Outdoor 7°C (44.6°F) DB / 6°C (42.8°F) WB
 - The maximum combination ratio is 160%.
 - Wiring cable size must comply with the applicable local and national codes.
 - Due to our policy of innovation some specifications may be changed without notification.
 - Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard. Sound power level is measured on the rated condition in the semi-anechoic rooms by ISO 9614 standard. Therefore, these values can be increased owing to ambient conditions during operation.
 - Power factor could vary less than ±1% according to the operating conditions.
 - This product contains Fluorinated greenhouse gases. (R410A, GWP(Global warming potential) = 2087.5)

ARUN040LSS0 / ARUN050LSS0
ARUN060LSS0



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

HP			4	5	6
Model Name			ARUN040LSS0	ARUN050LSS0	ARUN060LSS0
Capacity	Cooling (Rated)	kW	12.1	14.0	15.5
	Heating (Rated)	kW	12.5	16.0	18.0
Input	Cooling (Rated)	kW	3.39	4.59	5.17
	Heating (Rated)	kW	2.75	4.18	5.00
EER			3.57	3.05	3.00
SEER			7.42	7.40	7.53
COP Rated Capacity			4.55	3.83	3.60
SCOP			4.30	4.16	4.35
Exterior	Color (General)		Warm Gray	Warm Gray	Warm Gray
	RAL Code (Classic)		RAL 7044	RAL 7044	RAL 7044
Heat Exchanger	Type		Wide Louver Plus	Wide Louver Plus	Wide Louver Plus
	Type		BLDC Inverter Twin Rotary	BLDC Inverter Twin Rotary	BLDC Inverter Twin Rotary
Compressor	Combination x No.		(Inverter) x 1	(Inverter) x 1	(Inverter) x 1
	Motor Output x Number	W x No.	4,000 x 1	4,000 x 1	4,000 x 1
	Oil Type		FW68D (PVE)	FW68D (PVE)	FW68D (PVE)
	Oil Charge	cc	1,300	1,300	1,300
	Type		Axial Flow Fan	Axial Flow Fan	Axial Flow Fan
Fan	Motor Output x Number	W x No.	124 x 2	124 x 2	124 x 2
	Air Flow Rate (High)	m ³ /min x No.	110	110	110
	Drive		DC INVERTER	DC INVERTER	DC INVERTER
	Discharge	Side / Top	Side	Side	Side
Pipe Connection	Liquid Pipe	mm (inch)	Ø9.52 (3/8)	Ø9.52 (3/8)	Ø9.52 (3/8)
	Gas Pipe	mm (inch)	Ø15.883(5/8)	Ø15.88 (5/8)	Ø19.05 (3/4)
Dimensions (W x H x D)			950 x 1,380 x 330	950 x 1,380 x 330	950 x 1,380 x 330
Dimensions (W x H x D) - Shipping			(1,065 x 918 x 461) x 1	(1,065 x 918 x 461) x 1	(1,065 x 918 x 461) x 1
Net Weight			96	96	96
Shipping Weight			108	108	108
Sound Pressure Level	Cooling	dB(A)	50	51	52
	Heating	dB(A)	52	53	54
Sound Power Level	Cooling	dB(A)	72	72	72
	Heating	dB(A)	76	76	77
Communication Cable			2C x 1.0 - 1.5	2C x 1.0 - 1.5	2C x 1.0 - 1.5
Refrigerant	Refrigerant Name		R410A	R410A	R410A
	Precharged Amount in factory	kg	3.0	3.0	3.0
	t-CO ₂ eq		6.263	6.263	6.263
	Control		Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve
Power Supply			380-415, 3, 50	380-415, 3, 50	380-415, 3, 50
Number of Maximum Connectable Indoor Units			8	10	13

- Note
- Eurovent Test Condition : Type of indoor unit connected is only Ceiling Concealed Duct.
 - Refer to EUROVENT certification regulation for more detail test conditions.
 - Refer to EUROVENT website for test values connected Ceiling Cassette type indoors.
 - Performances are based on the following conditions :
 - Cooling Temperature : Indoor 27°C (80.6°F) DB / 19°C (66.2°F) WB / Outdoor 35°C (95°F) DB / 24°C (75.2°F) WB
 - Heating Temperature : Indoor 20°C (68°F) DB / 15°C (59°F) WB / Outdoor 7°C (44.6°F) DB / 6°C (42.8°F) WB
 - The maximum combination ratio is 160%.
 - Wiring cable size must comply with the applicable local and national codes.
 - Due to our policy of innovation some specifications may be changed without notification.
 - Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard. Sound power level is measured on the rated condition in the semi-anechoic rooms by ISO 9614 standard. Therefore, these values can be increased owing to ambient conditions during operation.
 - Power factor could vary less than ±1% according to the operating conditions.
 - This product contains Fluorinated greenhouse gases. (R410A, GWP(Global warming potential) = 2087.5)

ARUN080LSS0 / ARUN100LSS0
ARUN120LSS0



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

HP			8	10	12
Model Name			ARUN080LSS0	ARUN100LSS0	ARUN120LSS0
Capacity	Cooling (Rated)	kW	22.4	28.0	33.6
	Heating (Rated)	kW	24.5	30.6	36.7
Input	Cooling (Rated)	kW	8.45	12.44	15.27
	Heating (Rated)	kW	6.96	8.50	12.23
EER			2.65	2.25	2.20
SEER			7.13	6.28	6.50
COP			Rated Capacity	3.52	3.60
SCOP			4.53	4.21	4.32
Exterior	Color (General)		Warm Gray	Warm Gray	Warm Gray
	RAL Code (Classic)		RAL 7044	RAL 7044	RAL 7044
Heat Exchanger	Type		Wide Louver Plus	Wide Louver Plus	Wide Louver Plus
	Type		Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll
Compressor	Combination x No.		(Inverter) x 1	(Inverter) x 1	(Inverter) x 1
	Motor Output x Number	W x No.	4,200 x 1	5,300 x 1	5,300 x 1
	Oil Type		FW68D (PVE)	FW68D (PVE)	FW68D (PVE)
	Oil Charge	cc	2,400	2,600	3,400
	Type		Propeller fan	Propeller fan	Propeller fan
Fan	Motor Output x Number	W x No.	124 x 2	250 x 2	250 x 2
	Air Flow Rate (High)	m ³ /min x No.	140	190	190
	Drive		DC INVERTER	DC INVERTER	DC INVERTER
	Discharge	Side / Top	Side	Side	Side
Pipe Connection	Liquid Pipe	mm (inch)	Ø9.52 (3/8)	Ø9.52 (3/8)	Ø12.7 (1/2)
	Gas Pipe	mm (inch)	Ø19.05 (3/4)	Ø22.2 (7/8)	Ø28.58 (1-1/8)
Dimensions (W x H x D)		mm x No.	950 x 1,380 x 330	1,090 x 1,625 x 380	1,090 x 1,625 x 380
Dimensions (W x H x D) - Shipping		mm x No.	(1,065 x 918 x 461) x 1	(1,065 x 918 x 461) x 1	(1,065 x 918 x 461) x 1
Net Weight		kg x No.	115	142	155
Shipping Weight		kg x No.	127	158	171
Sound Pressure Level	Cooling	dB(A)	57	58	60
	Heating	dB(A)	57	58	60
Sound Power Level	Cooling	dB(A)	78	77	78
	Heating	dB(A)	81	79	82
Communication Cable		mm ² x No. (VCTF-SB)	2C x 1.0 - 1.5	2C x 1.0 - 1.5	2C x 1.0 - 1.5
Refrigerant	Refrigerant Name		R410A	R410A	R410A
	Precharged Amount in factory	kg	3.5	4.5	6.0
	t-CO ₂ eq		7.306	9.394	12.525
	Control		Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve
Power Supply		Ø, V, Hz	380-415, 3, 50	380-415, 3, 50	380-415, 3, 50
Number of Maximum Connectable Indoor Units			13	16	20

Note
 1. Eurovent Test Condition : Type of indoor unit connected is only Ceiling Concealed Duct.
 - Refer to EUROVENT certification regulation for more detail test conditions.
 - Refer to EUROVENT website for test values connected Ceiling Cassette type indoors.
 2. Performances are based on the following conditions :
 - Cooling Temperature : Indoor 27°C (80.6°F) DB / 19°C (66.2°F) WB / Outdoor 35°C (95°F) DB / 24°C (75.2°F) WB
 - Heating Temperature : Indoor 20°C (68°F) DB / 15°C (59°F) WB / Outdoor 7°C (44.6°F) DB / 6°C (42.8°F) WB
 3. The maximum combination ratio is 160%.
 4. Wiring cable size must comply with the applicable local and national codes.
 5. Due to our policy of innovation some specifications may be changed without notification.
 6. Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard.
 Sound power level is measured on the rated condition in the semi-anechoic rooms by ISO 9614 standard.
 Therefore, these values can be increased owing to ambient conditions during operation.
 7. Power factor could vary less than ±1% according to the operating conditions.
 8. This product contains Fluorinated greenhouse gases. (R410A, GWP(Global warming potential) = 2087.5)

ARUB060GSS4



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

HP			6
Model Name			ARUB060GSS4
Capacity	Cooling (Rated)	kW	15.5
	Heating (Rated)	kW	18.0
Input	Cooling (Rated)	kW	5.74
	Heating (Rated)	kW	5.14
EER			2.70
SEER			5.92
COP			Rated Capacity
SCOP			3.79
Exterior	Color		Warm Gray
	RAL Code (Classic)		RAL 7044
Heat Exchanger	Type		Wide Louver Plus
	Type		Hermetically Sealed Scroll
Compressor	Combination x No.		(Inverter) x 1
	Motor Output x Number	W x No.	4,200 x 1
	Oil Type		FW68D (PVE)
	Oil Charge	cc	1,700
	Type		Axial Flow Fan
Fan	Motor Output x Number	W x No.	124 x 2
	Air Flow Rate (High)	m ³ /min x No.	110
	Drive		DC INVERTER
	Discharge	Side / Top	Side
Pipe Connection #1	Liquid Pipe	mm (inch)	Ø9.52 (3/8)
	Low Pressure Gas Pipe	mm (inch)	Ø19.05 (3/4)
	High Pressure Gas Pipe	mm (inch)	Ø15.88 (5/8)
Dimensions (W x H x D)		mm x No.	950 x 1,380 x 330
Dimensions (W x H x D) - shipping		mm x No.	(1,140 x 1,549 x 466) x 1
Net Weight		kg x No.	118
Shipping Weight		kg x No.	132
Sound Pressure Level	Cooling	dB(A)	56
	Heating	dB(A)	58
Sound Power Level	Cooling	dB(A)	76
	Heating	dB(A)	78
Communication Cable		mm ² x No. (VCTF-SB)	2C x 1.0 - 1.5
Refrigerant	Refrigerant Name		R410A
	Precharged Amount in factory	kg	3.5
	t-CO ₂ eq		7.306
	Control		Electronic Expansion Valve
Power Supply		Ø, V, Hz	220-230-240, 1, 50/60
Number of Maximum Connectable Indoor Units			13

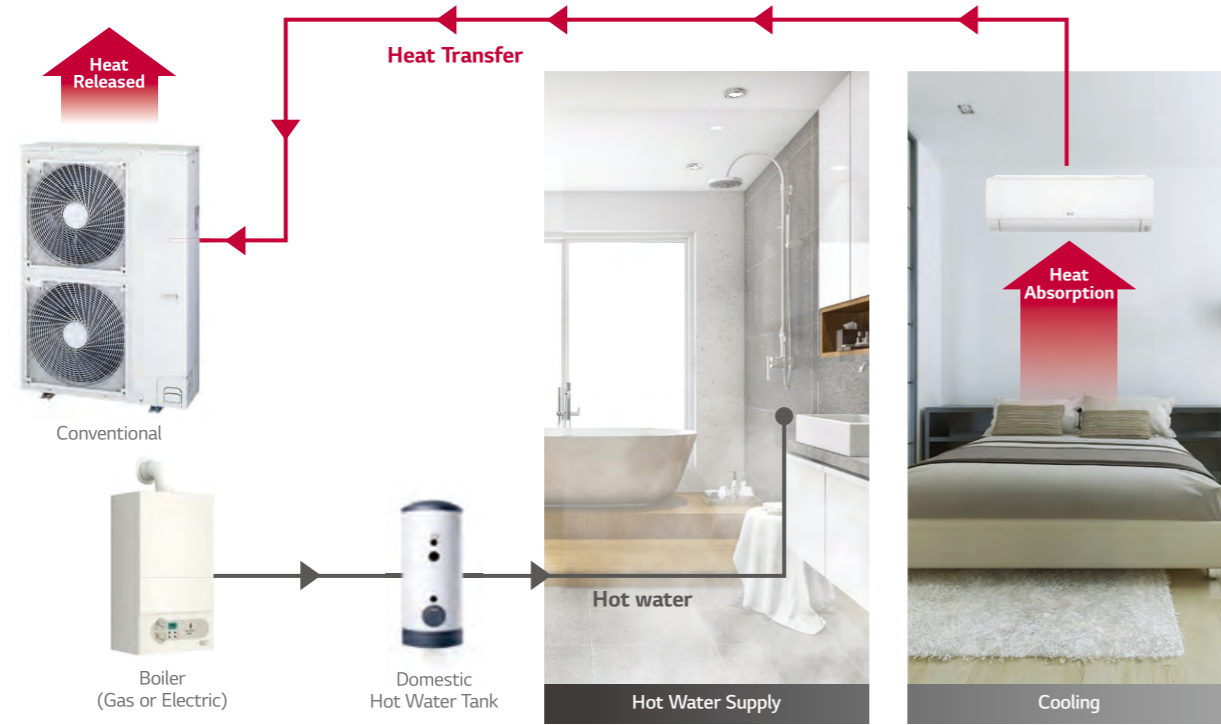
Note
 1. Eurovent Test Condition : Type of indoor unit connected is only Ceiling Concealed Duct.
 - Refer to EUROVENT certification regulation for more detail test conditions.
 - Refer to EUROVENT website for test values connected Ceiling Cassette type indoors.
 2. Performances are based on the following conditions :
 - Cooling Temperature : Indoor 27°C (80.6°F) DB / 19°C (66.2°F) WB / Outdoor 35°C (95°F) DB / 24°C (75.2°F) WB
 - Heating Temperature : Indoor 20°C (68°F) DB / 15°C (59°F) WB / Outdoor 7°C (44.6°F) DB / 6°C (42.8°F) WB
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 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)

Energy Savings

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

Conventional

Absorbed heat is released to outdoor air.



Energy Savings

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

MULTI V S Heat Recovery with HYDRO KIT

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



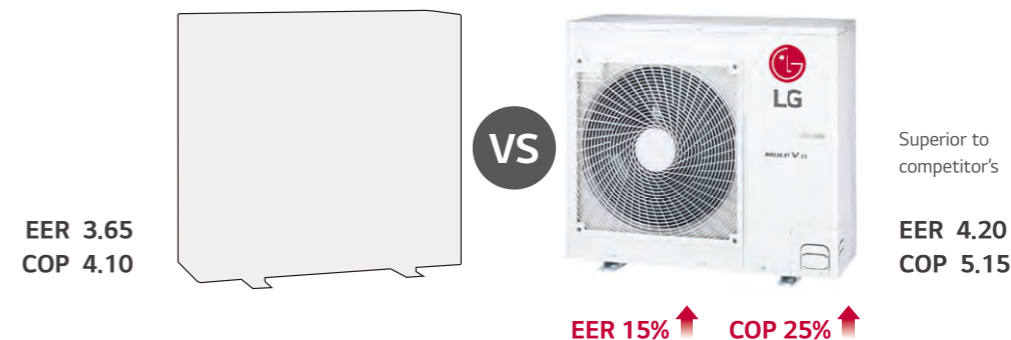
MULTI V™ S R32

- Air cooled VRF Heat pump
- 12.1 ~ 15.5kW (based on cooling capacity)
- Both 1Ø, 220 ~ 240V, 50Hz and 3Ø, 380 ~ 415V, 50Hz
- Side discharge outdoor unit



Higher Efficiency

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



※ The values based on 5HP model

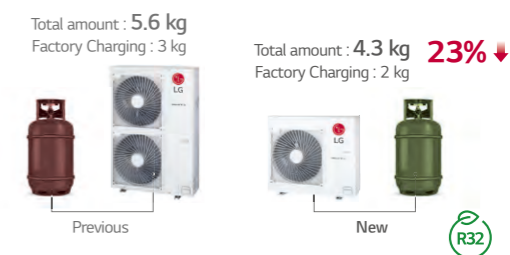
Compact Size & Light Weight

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



Less Refrigerant Charge

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

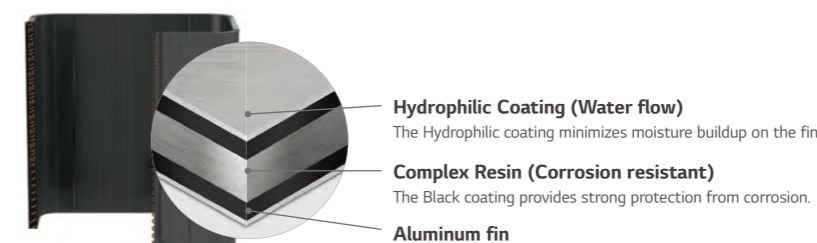


※ IDU (Wall Mounted Unit) : 5 kBTu/h, 8 EA
※ This result can be different depending on actual environment

Corrosion Resistance Black Fin

Enhanced Coating Layers

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

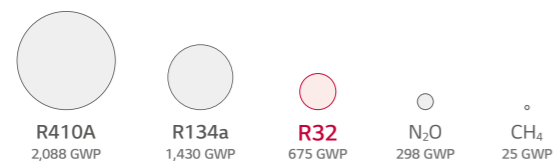


※ Verification of corrosion resistance performance
- Test Method B of ISO 21207
- ASTM B117 / ISO 9227 (10,000 hours)

Lower Global Warming Potential (GWP)

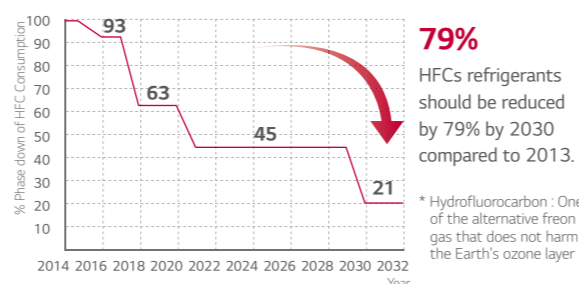
What is GWP?

Global Warming Potential is a measure that allows for an accurate comparison of the environmental impact of different gases. GWP measures how much energy the emissions of 1 ton of a gas will absorb over a given period of time, relative to the emissions of 1 ton of carbon dioxide (CO₂).



Global Trend and EU Regulation for F-Gas

HFC* Phase Down 79% by 2030.



Cost Savings with R32

Higher Efficiency

Savings on cost of energy consumption.



Reduced Equipment Sizes

Savings on product purchase and labor cost for installation and maintenance.



Less Refrigerant Charge

Savings on cost of injecting & replacing refrigerant.



Reduced Refrigerant Volume

Savings on refrigerant purchase and recycling costs.



ZRUN040GSS0 / ZRUN050GSS0
ZRUN060GSS0



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

HP			4	5	6	
Model Name			ZRUN040GSS0	ZRUN050GSS0	ZRUN060GSS0	
Capacity	Cooling (Rated)	kW	12.1	14.0	15.5	
	Heating (Rated)	kW	12.1	14.0	15.5	
	Heating (Max)	kW	14.2	16.0	18.0	
Input	Cooling (Rated)	kW	4.26	4.90	5.64	
	Heating (Rated)	kW	3.03	3.48	3.95	
EER (Rated)			2.84	2.86	2.75	
SEER			6.69	6.44	6.59	
COP (Rated)			4.00	4.02	3.92	
SCOP			3.87	3.81	4.07	
Exterior	Color		Warm Gray	Warm Gray	Warm Gray	
	RAL Code		RAL 7044	RAL 7044	RAL 7044	
Heat Exchanger	Type		Wide Louver Plus	Wide Louver Plus	Wide Louver Plus	
	Type		LG Inverter Scroll	LG Inverter Scroll	LG Inverter Scroll	
Compressor	Combination x No.		(Inverter) x 1	(Inverter) x 1	(Inverter) x 1	
	Motor Output x Number	W x No.	3,198 x 1	3,198 x 1	3,198 x 1	
	Oil Type		FW68D (PVE)	FW68D (PVE)	FW68D (PVE)	
	Oil Charge	cc	1,100	1,100	1,100	
	Type		Axial Flow Fan	Axial Flow Fan	Axial Flow Fan	
Fan	Motor Output x Number	W x No.	124 x 1	198 x 1	198 x 1	
	Air Flow Rate (High)	m ³ /min x No.	60	80	80	
	Drive		DC INVERTER	DC INVERTER	DC INVERTER	
	Discharge	Side / Top	Side	Side	Side	
Pipe Connection	Liquid Pipe	mm (inch)	Ø9.52 (3/8)	Ø9.52 (3/8)	Ø9.52 (3/8)	
	Gas Pipe	mm (inch)	Ø15.88 (5/8)	Ø15.88 (5/8)	Ø19.05 (3/4)	
Dimensions (W x H x D)		mm x No.	950 x 834 x 330	950 x 834 x 330	950 x 834 x 330	
Dimensions (W x H x D) - Shipping		mm x No.	1,147 x 919 x 461	1,147 x 919 x 461	1,147 x 919 x 461	
Net Weight		kg x No.	64.7	71.6	71.6	
Shipping Weight		kg x No.	73.7	79.6	79.6	
Sound Pressure Level	Cooling	dB(A)	51	57	57	
	Heating	dB(A)	55	60	60	
Sound Power Level	Cooling	dB(A)	67	70	71	
	Heating	dB(A)	71	74	75	
Communication Cable		mm ² x No. (VCTF-SB)	2C x 1.0 - 1.5	2C x 1.0 - 1.5	2C x 1.0 - 1.5	
Refrigerant	Refrigerant name		R32	R32	R32	
	Precharged Amount		kg	1.5	2.0	2.0
	t-CO ₂ eq			1.013	1.350	1.350
	Control			Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve
Power Supply		Ø, V, Hz	220 - 230 - 240, 1, 50	220 - 230 - 240, 1, 50	220 - 230 - 240, 1, 50	
Number of maximum connectable indoor units			8	10	13	

Note
 1. Due to our policy of innovation some specifications may be changed without notification.
 2. Wiring cable size must comply with the applicable local and national codes. And "Electric characteristics" chapter should be considered for electrical work and design. Especially the power cable and circuit breaker should be selected in accordance with that.
 3. Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard. Sound power level is measured on the rated condition in the semi-anechoic rooms by ISO 9614 standard. Therefore, these values can be increased owing to ambient conditions during operation.

4. Performances are based on the following conditions :
 • Cooling : Indoor Ambient Temp 27°CDB / 19°CWB, Outdoor Ambient Temp 35°CDB / 24°CWB
 • Heating : Indoor Ambient Temp 20°CDB / 15°CWB, Outdoor Ambient Temp 7°CDB / 6°CWB
 • Interconnected Pipe Length is 7.5m and difference of Elevation (Outdoor - Indoor Unit) is 0m.
 5. EUROVENT Test Condition :
 • Performance values on the this PDB are based on Ceiling mounted cassette combination.
 • Refer to EUROVENT web site(www.eurovent-certification.com) for other indoor unit combination and more detail test conditions.
 6. The maximum combination ratio is 160%.
 7. This product contains Fluorinated greenhouse gases. (R32, GWP (Global warming potential) = 675)

ZRUN040LSS0 / ZRUN050LSS0
ZRUN060LSS0



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

HP			4	5	6	
Model Name			ZRUN040LSS0	ZRUN050LSS0	ZRUN060LSS0	
Capacity	Cooling (Rated)	kW	12.1	14.0	15.5	
	Heating (Rated)	kW	12.1	14.0	15.5	
	Heating (Max)	kW	14.2	16.0	18.0	
Input	Cooling (Rated)	kW	4.26	4.90	5.64	
	Heating (Rated)	kW	3.03	3.48	3.95	
EER (Rated)			2.84	2.86	2.75	
SEER			6.69	6.44	6.59	
COP (Rated)			4.00	4.02	3.92	
SCOP			3.87	3.81	4.07	
Exterior	Color		Warm Gray	Warm Gray	Warm Gray	
	RAL Code		RAL 7044	RAL 7044	RAL 7044	
Heat Exchanger	Type		Wide Louver Plus	Wide Louver Plus	Wide Louver Plus	
	Type		LG Inverter Scroll	LG Inverter Scroll	LG Inverter Scroll	
Compressor	Combination x No.		(Inverter) x 1	(Inverter) x 1	(Inverter) x 1	
	Motor Output x Number	W x No.	3,198 x 1	3,198 x 1	3,198 x 1	
	Oil Type		FW68D (PVE)	FW68D (PVE)	FW68D (PVE)	
	Oil Charge	cc	1,100	1,100	1,100	
	Type		Axial Flow Fan	Axial Flow Fan	Axial Flow Fan	
Fan	Motor Output x Number	W x No.	124 x 1	198 x 1	198 x 1	
	Air Flow Rate (High)	m ³ /min x No.	60	80	80	
	Drive		DC INVERTER	DC INVERTER	DC INVERTER	
	Discharge	Side / Top	Side	Side	Side	
Pipe Connection	Liquid Pipe	mm (inch)	Ø9.52 (3/8)	Ø9.52 (3/8)	Ø9.52 (3/8)	
	Gas Pipe	mm (inch)	Ø15.88 (5/8)	Ø15.88 (5/8)	Ø19.05 (3/4)	
Dimensions (W x H x D)		mm x No.	950 x 834 x 330	950 x 834 x 330	950 x 834 x 330	
Dimensions (W x H x D) - Shipping		mm x No.	1,147 x 919 x 461	1,147 x 919 x 461	1,147 x 919 x 461	
Net Weight		kg x No.	64.7	71.6	71.6	
Shipping Weight		kg x No.	73.7	79.6	79.6	
Sound Pressure Level	Cooling	dB(A)	51	57	57	
	Heating	dB(A)	55	60	60	
Sound Power Level	Cooling	dB(A)	67	70	71	
	Heating	dB(A)	71	74	75	
Communication Cable		mm ² x No. (VCTF-SB)	2C x 1.0 - 1.5	2C x 1.0 - 1.5	2C x 1.0 - 1.5	
Refrigerant	Refrigerant name		R32	R32	R32	
	Precharged Amount		kg	1.5	2.0	2.0
	t-CO ₂ eq			1.013	1.350	1.350
	Control			Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve
Power Supply		Ø, V, Hz	380 - 400 - 415, 3, 50	380 - 400 - 415, 3, 50	380 - 400 - 415, 3, 50	
Number of maximum connectable indoor units			8	10	13	

Note
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 2. Wiring cable size must comply with the applicable local and national codes. And "Electric characteristics" chapter should be considered for electrical work and design. Especially the power cable and circuit breaker should be selected in accordance with that.
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 • Interconnected Pipe Length is 7.5m and difference of Elevation (Outdoor - Indoor Unit) is 0m.
 5. EUROVENT Test Condition :
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 • Refer to EUROVENT web site(www.eurovent-certification.com) for other indoor unit combination and more detail test conditions.
 6. The maximum combination ratio is 160%.
 7. This product contains Fluorinated greenhouse gases. (R32, GWP (Global warming potential) = 675)

MULTI V™ M

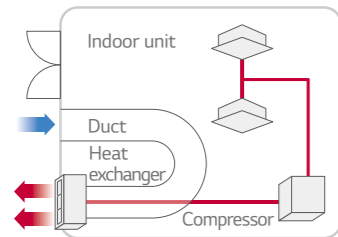
Highlight

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

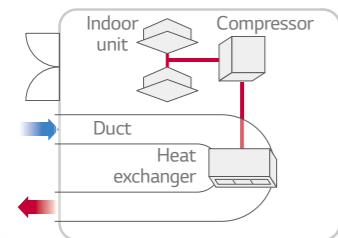
Flexible design	Cost savings	Space savings	Easy maintenance

How does it work?

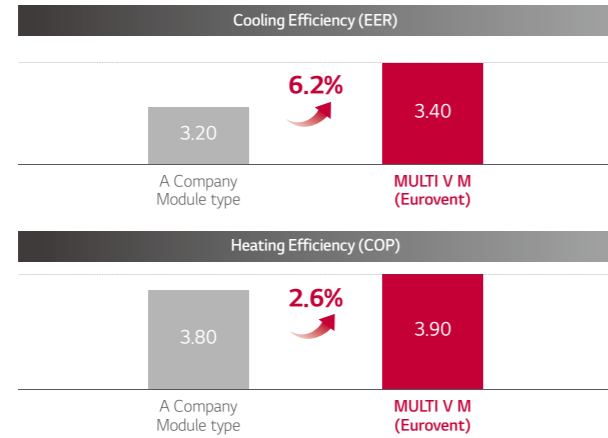
Direct Inlet / Outlet Case



Duct Connected Case

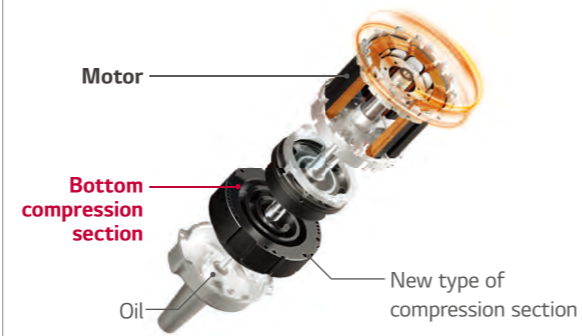


Energy Efficiency



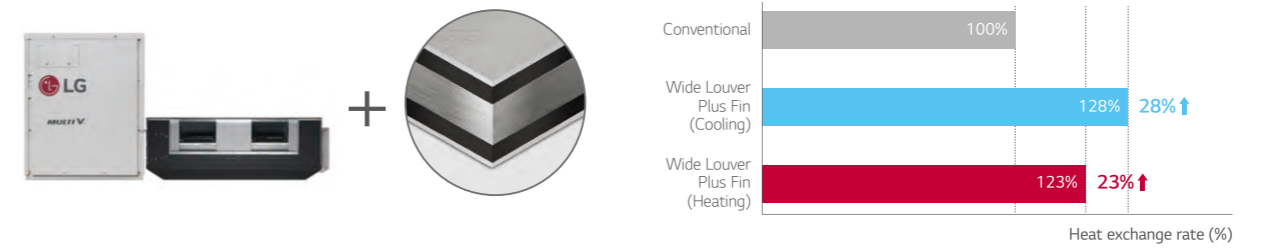
R1 Compressor™

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



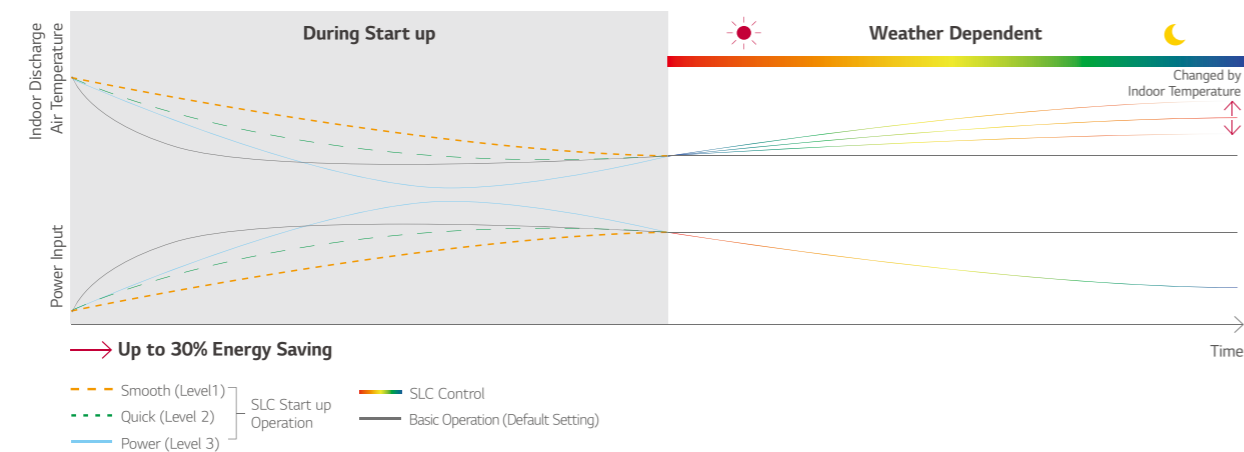
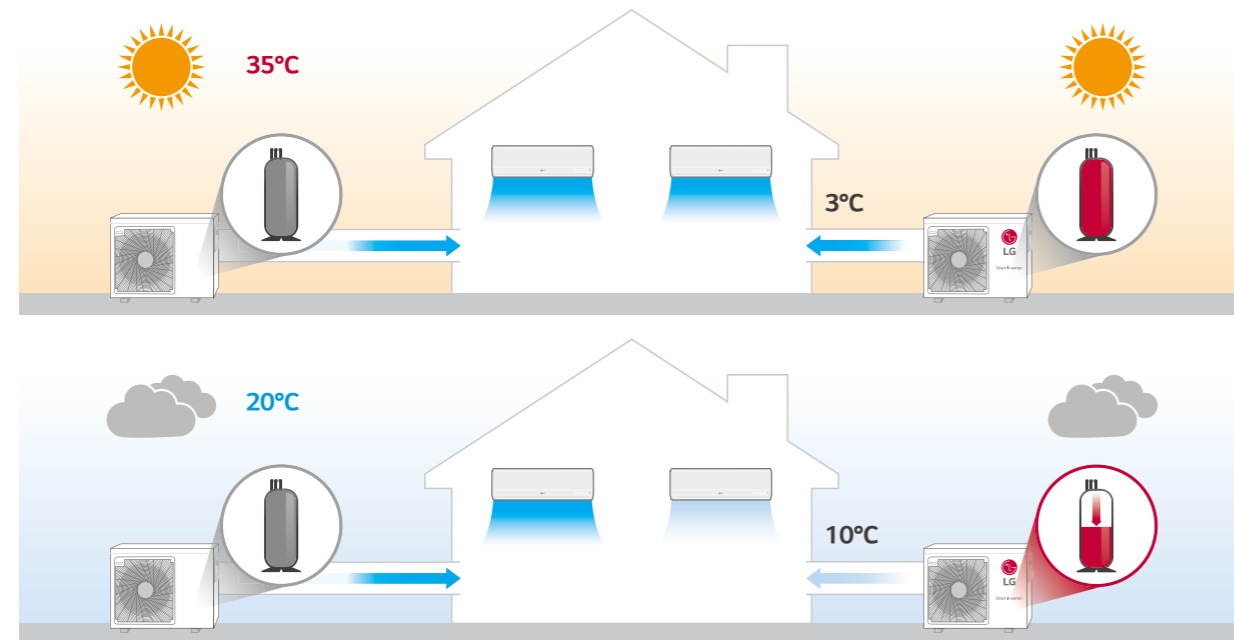
Wide Louver Plus Fin + Corrosion Resistance

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



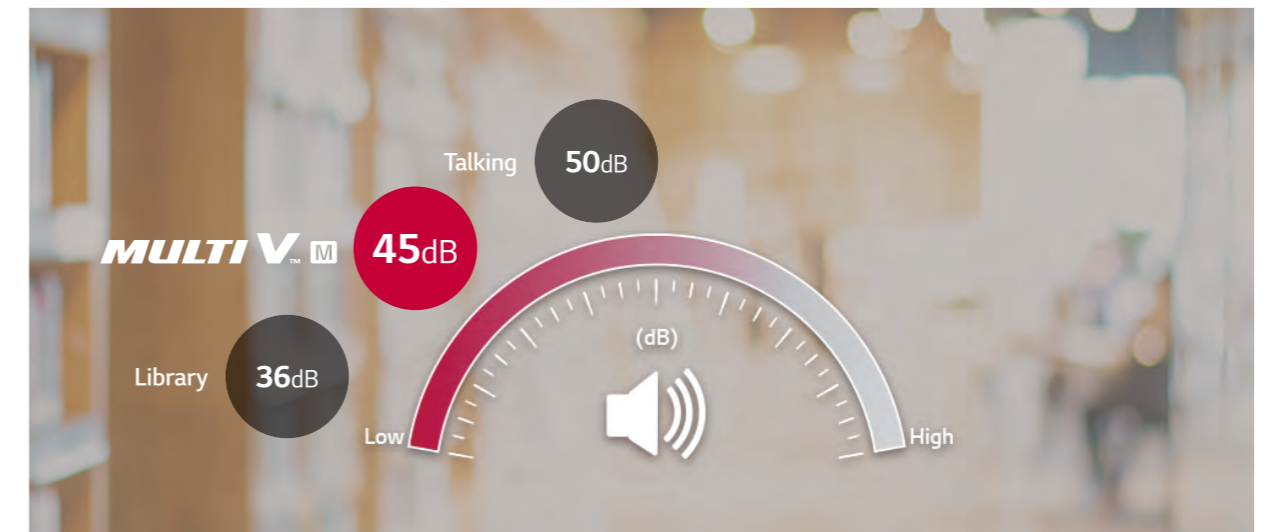
Smart Load Control

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



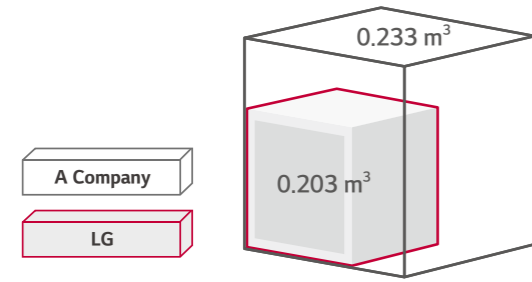
Quiet Operation

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

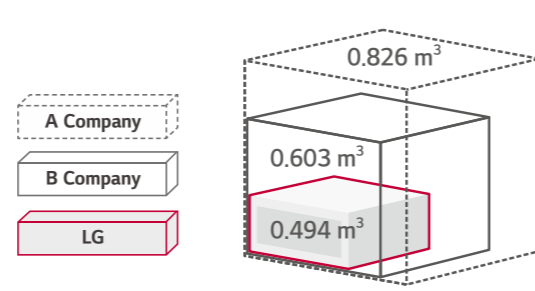


Volume

Compressor Module



Heat Exchanger Module



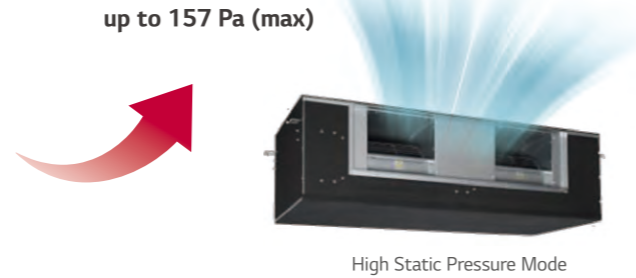
ESP Control

(External Static Pressure)

up to 30 Pa



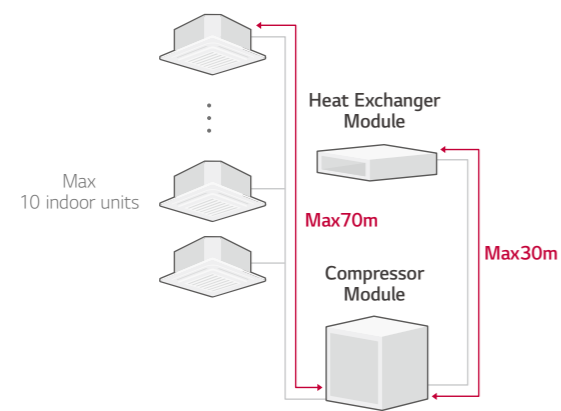
up to 157 Pa (max)



Module Type

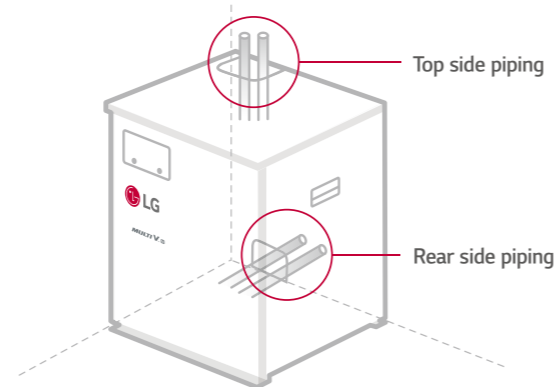
Increased design freedom

- Additional structure installation and ceiling construction not required
- Ease of service
- Compressor replacement
- Low noise with module
- Low noise by module (vs Integrated Type)



Flexible Piping Location

Tidy & simple installation with flexible piping location.



Increased Design Freedom

Additional structure installation or ceiling construction is not required, making compressor replacement and general maintenance easier. Split module provides low noise operation compared to integrated type.



Conventional Outdoor Unit



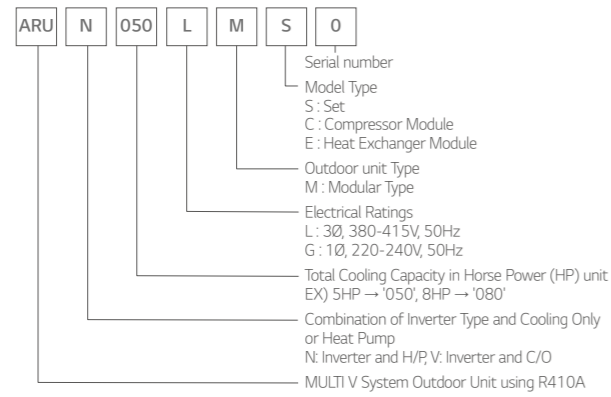
MULTI V M

Heat exchanger module can be installed in false ceiling spaces

Compressor module can be installed anywhere indoors



Nomenclature

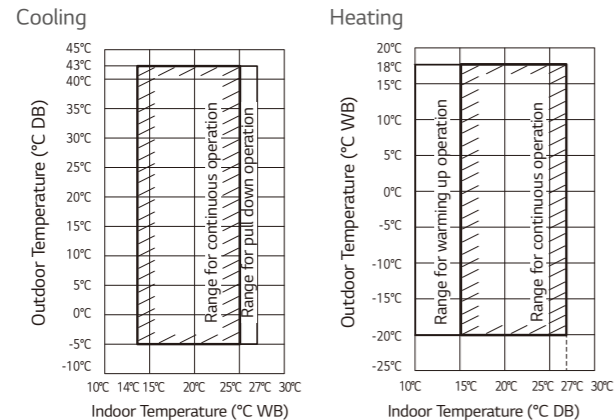


Outdoor Units Function

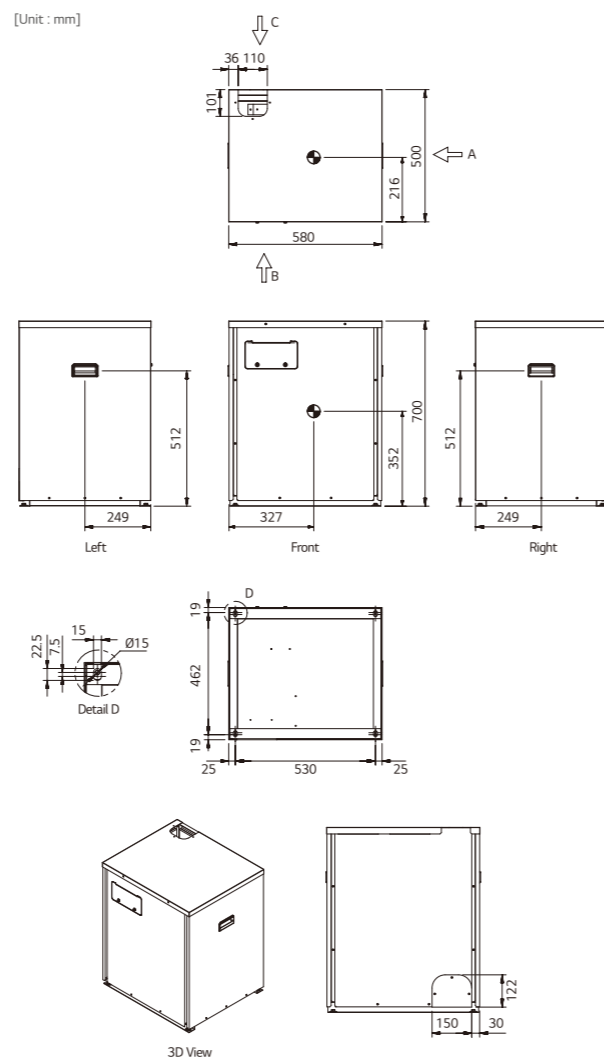
Category	Functions	Modular
Key Refrigerant Components	Variable Path of Outdoor Unit HEX	-
	HiPOR™ (High Pressure Oil Return)	-
	Humidity Sensor	-
	Corrosion Resistance Black Fin	○
Useful Function	Oil Sensor	-
	Dual Sensing	-
	Low Noise Operation	○
	High Static Mode of Outdoor Unit Fan	○
	Partial Defrosting	-
	Auto Dust Cleaning of Outdoor Unit (Fan reverse rotation)	-
	Indoor Cooling Comfort Mode Based Outdoor Temperature	-
	Smart Load Control (SLC) (Changing indoor discharge air temperature according to load)	○
	Outdoor Unit Control Refer to Humidity	-
	Defrost / Deicing	○
Reliability	High Pressure Switch	○
	Phase Protection	○
	Restart Delay (3-minutes)	○
	Self Diagnosis	○
Central Controller	Soft Start	○
	Test Run Function	-
	AC Ez (Simple Controller)	PQCSZ250S0
	AC Ez Touch	PACEZA000
	AC Smart IV	PACS4B000
BNU (Building Network Unit)	AC Smart 5	PACSSA000
	ACP (Advanced Control Platform) IV	PACP4B000
	ACP (Advanced Control Platform) 5	PACP5A000
Installation	AC Manager 5	PACM5A000
	ACP Lonworks	PLNWKB000
PDI (Power Distribution Indicator)	ACP BACnet	PQNFB17C0
	Refrigerant Charging Kit	-
Cool / Heat Selector	Variable Water Flow Valve Control Kit	-
	Standard	-
IO Module (ODU Dry Contact)	Premium	-
	PRDSBM	-
Cycle Monitoring Device	Low Ambient Kit	-
	IO Module	PVDSMN000
Mobile LGMV	LGVM	PRCTILO
	Mobile LGMV	PLGMVV100

※ ○ : Applied, - : Not Applied

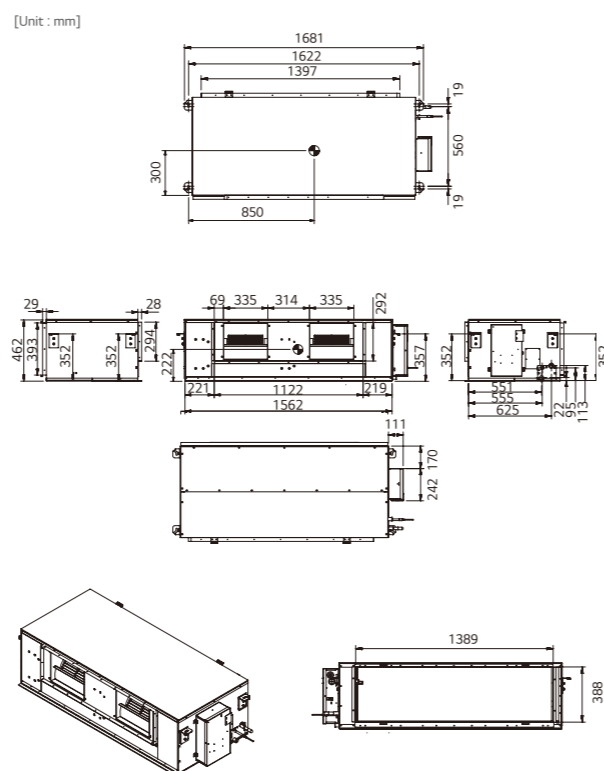
Heat Pump



Compressor Module

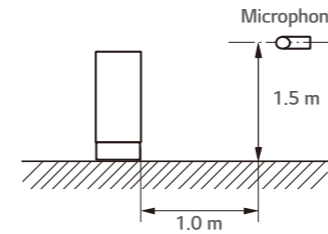


Heat Exchanger Module



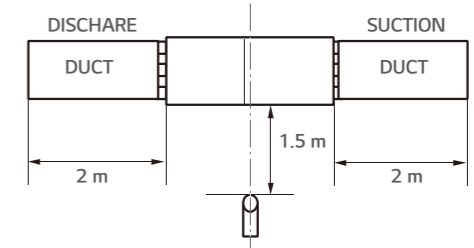
Position of Sound Pressure Level Measuring

Compressor Module



※ Measuring place : Anechoic chamber

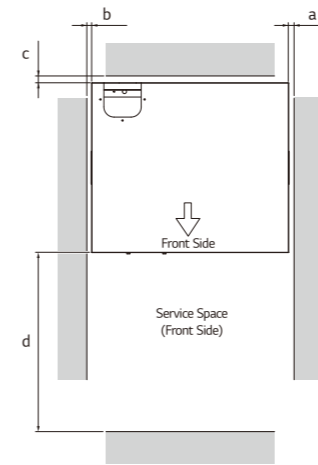
Heat Exchanger Module



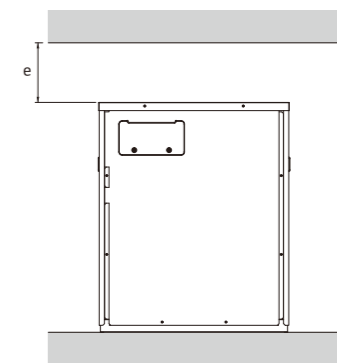
※ Measuring place : Anechoic chamber

Installation Space for Compressor Module

Top View



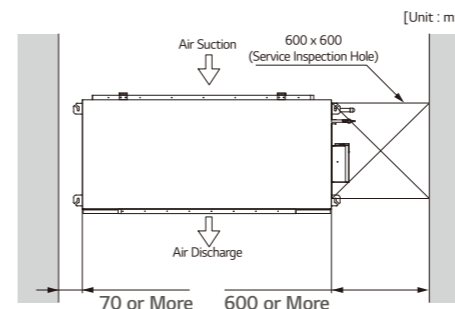
Front View



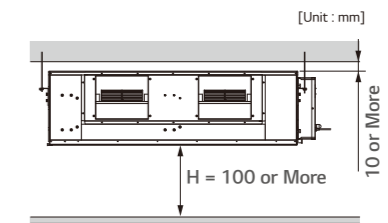
Category	Mark	Description	Installation Space (mm)
Compressor Module	a	Right	10 or More
	b	Left	10 or More
	c	Rear	10 or More
	d	Front	500 or More
	e	Top	200 or More

Installation Space for Compressor Module

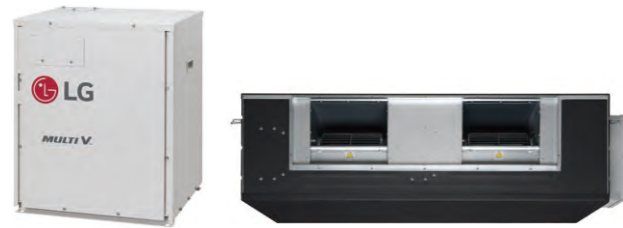
Top View



Front View



ARUN050LMCO / ARUN050GME0



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System

HP		5	
Model Name	Set	ARUN050LMS0	
	Compressor Module	ARUN050LMCO	
	Heat Exchanger Module	ARUN050GME0	
Capacity	Cooling (Rated) kW	14.0	
	Heating (Rated) kW	14.0	
	Heating (Max) kW	16.0	
Input	Cooling (Rated) kW	5.07	
	Heating (Rated) kW	3.71	
	Heating (Max) kW	4.32	
EER	Based on Rated Capacity	2.76	
SEER		5.26	
COP	Based on Rated Capacity	3.77	
	Based on Max Capacity	3.70	
SCOP		3.85	
Number of Maximum Connectable Indoor Units		10	

※ ○ : Applied, - : Not Applied

Note

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- Wiring cable size must comply with the applicable local and national codes. And "Electric characteristics" chapter should be considered for electrical work and design. Especially the power cable and circuit breaker should be selected in accordance with that.
- Power factor could vary less than ±1% according to the operating conditions.
- Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard. Sound power level is measured on the rated condition in the semi-anechoic rooms by ISO 9614 standard. Therefore, these values can be increased owing to ambient conditions during operation.
- Performances are based on the following conditions :
 - Cooling : Indoor Ambient Temp 27°CDB / 19°CWB, Outdoor Ambient Temp 35°CDB / 24°CWB
 - Heating : Indoor Ambient Temp 20°CDB / 15°CWB, Outdoor Ambient Temp 7°CDB / 6°CWB
 - Interconnected Pipe Length and Difference of Elevation : - Heat Exchanger Module - Compressor Module = 5m
 - Compressor Module - Indoor Unit = 7.5m
 - Difference of Elevation (Heat Exchanger Module- Compressor Module - Indoor Unit) is Zero
- The maximum combination ratio is 130%.
- This product contains Fluorinated greenhouse gases. (R410A, GWP(Global warming potential) = 2,087.5)

ARUN050LMCO / ARUN050GME0



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Module

HP		5	
Model Name		Compressor Module	Heat Exchanger Module
		ARUN050LMCO	ARUN050GME0
Exterior	Color	Morning Gray	Galvanized Steel Plate
	RAL Code (Classic)	RAL 7030	-
Dimensions (W x H x D)	Net	mm x No.	580 x 700 x 500
	Shipping	mm x No.	618 x 833 x 564
Weight	Net	kg x No.	69.0
	Shipping	kg x No.	76.0
Compressor	Type	Hermetic Motor Compressor	
	Combination x No.	(Inverter) x 1	
	Motor Output	W x No.	3,200
	Oil Type		FW68D (PVE)
Heat Exchanger	Oil Charge	cc	1,300
	Type		Wide Louver Plus
Fan	Type		Sirocco Fan
	Motor Output x Number	W x No.	400 x 2
	Air Flow Rate (Rated)	m ³ /min x No.	60
External Static Pressure	Nominal (Rated, Factory Set)	mmAq (Pa)	3 (29)
	Max	mmAq (Pa)	16 (157)
Pipe Connection	Liquid	mm (inch)	Ø9.52 (3/8) to IDU
	Gas	mm (inch)	Ø15.88 (5/8) to IDU
	Drain	mm (inch)	Ø19.05 (3/4) to Comp. Module
Sound Pressure Level	Cooling (Rated)	dB(A)	45
	Heating (Rated)	dB(A)	45
Sound Power Level		dB(A)	-
Communication Cable		mm ² x No. (VCTF-SB)	2C x 1.0 - 1.5 to IDU
Refrigerant			2C x 1.0 - 1.5 to Comp. Module
	Refrigerant Name		R410A
	Precharged Amount	kg	2.0
	t-CO ₂ eq		4.175
Control			Electronic Expansion Valve
Power Supply		V, Ø, Hz	380-415, 3, 50
			220-240, 1, 50

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- This product contains Fluorinated greenhouse gases. (R410A, GWP(Global warming potential) = 2,087.5)

MULTI V™ WATER 5

NEW

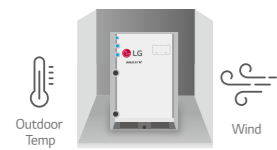
Highlight

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

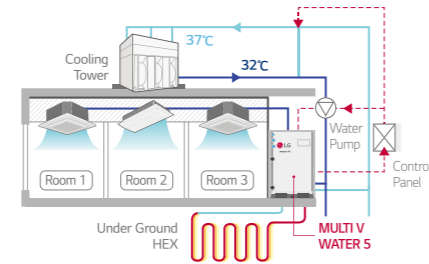
		
Energy savings	Space savings	Convenient installation

How does it work?

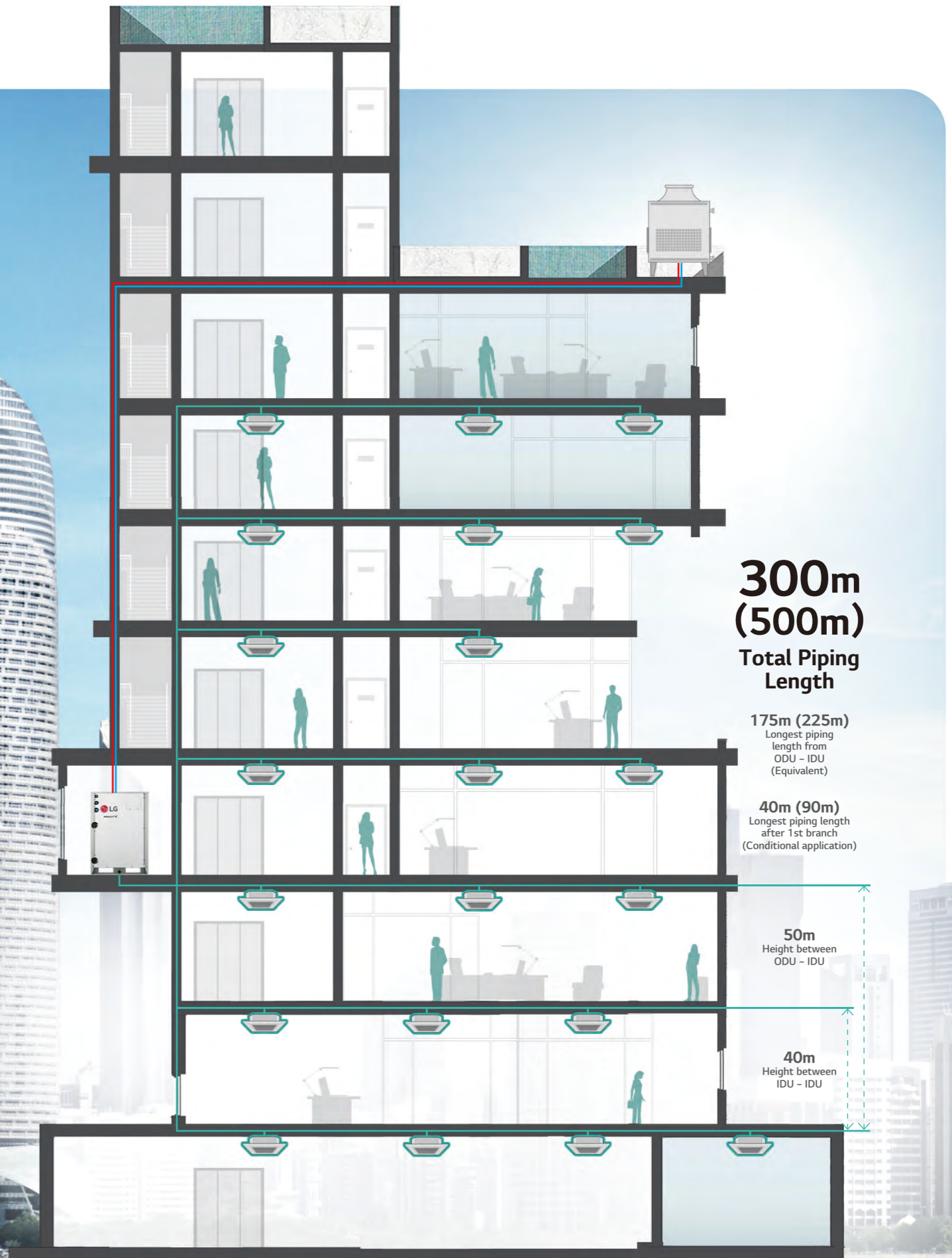
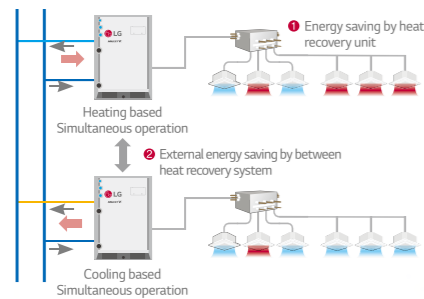
Operation independent of weather conditions



Geothermal Application



Available in Heat Pump & Heat Recovery Configuration



300m (500m)
Total Piping Length

175m (225m)
Longest piping length from ODU - IDU (Equivalent)

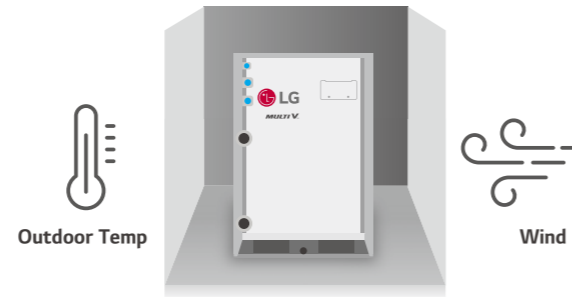
40m (90m)
Longest piping length after 1st branch (Conditional application)

50m
Height between ODU - IDU

40m
Height between IDU - IDU

High Efficiency System Regardless of External Conditions

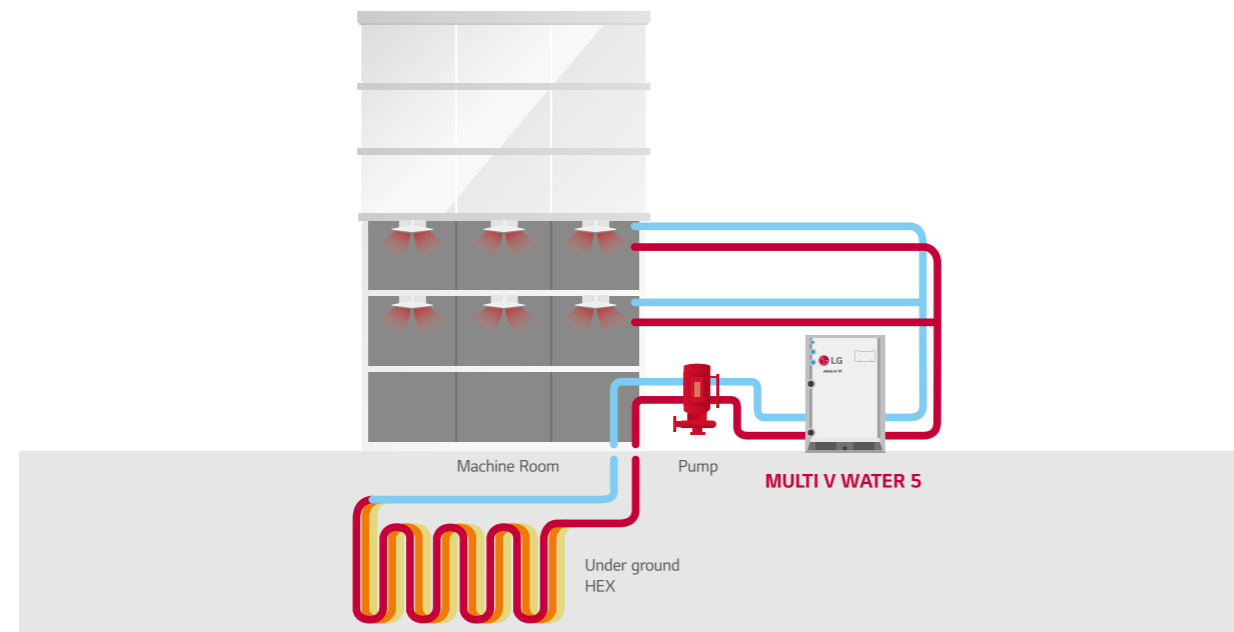
Regardless of outdoor temperature and other environmental conditions, MULTI V WATER 5 is the optimal solution.



MULTI V WATER 5 System for Geothermal Applications

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

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



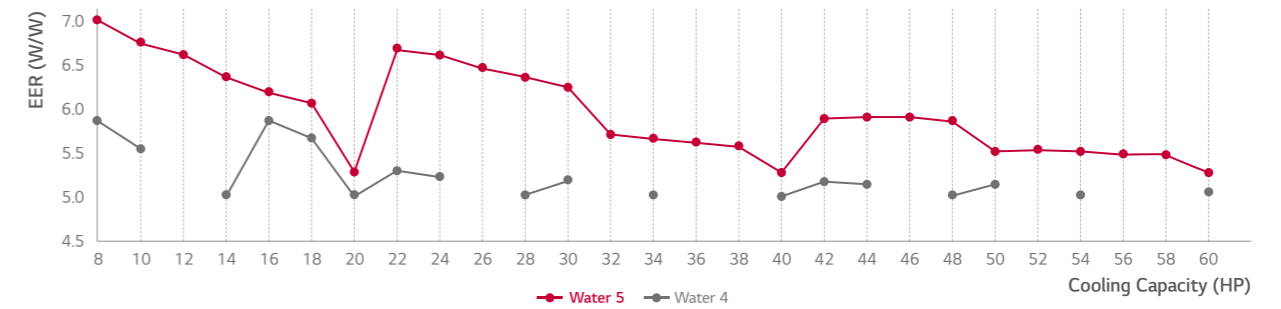
Economical, Highly Efficient System

LG's key technologies are integrated to inverter compressor

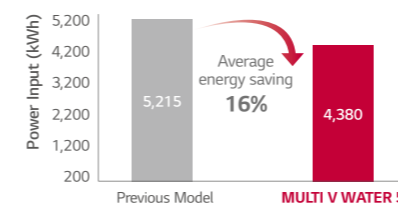
With 5th generation inverter compressor, the Multi V Water 5 boasts top-class energy efficiency.

- 6 By-pass Valve**
 - Maximize part load efficiency through 6 By-pass Valve
 - High pressure loss reduction in part load operation
- Enhanced Bearing Technology**
 - High lubricity PEEK (Polyether ether kePE) bearing → Outer bearing
 - Compact, less vibration and bearing loading
 - Increased bearing performance in oil-less operation
- Extended Compressor Speed 20Hz ~ 150Hz**
 - Rapid operation response
 - Capable of reaching required temperature quickly
 - Increase part load efficiency
- HiPOR™ (High Pressure Oil Return)**
 - Eliminating loss in suction gas by returning oil directly to compressor
 - Resolve compressor efficiency loss caused by oil return
- Active Oil Control (Oil Level Sensor)**
 - Oil recovery operation occurs only when required
 - Enhanced compressor reliability & continuous heating
 - Oil distribution between compressors

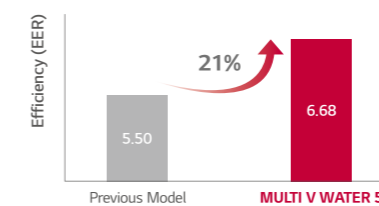
EER Comparison



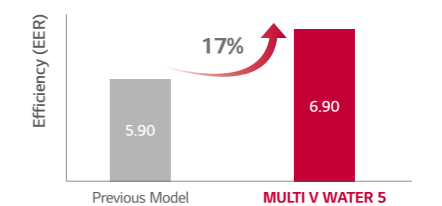
Economical, Highly Efficient System



Energy Efficiency Ratio (Cooling)



Coefficient of Performance (Heating)

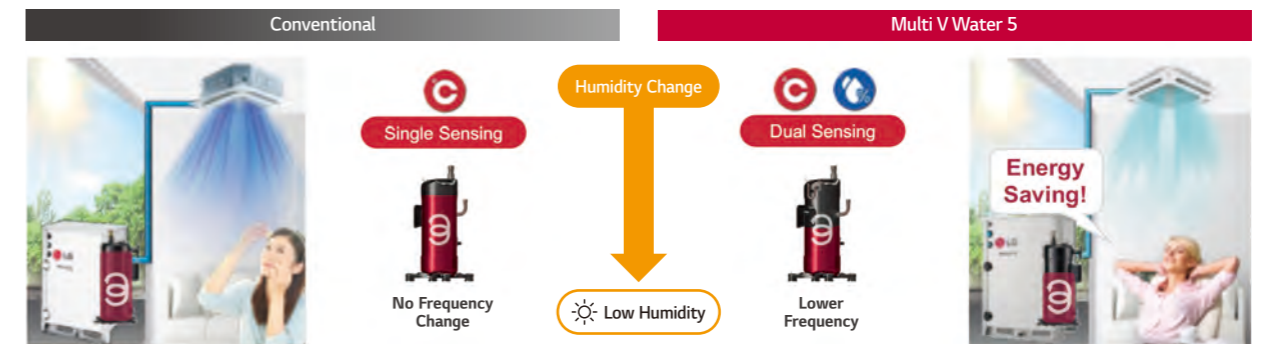


- | Improvement | Percentage | Technology |
|-------------------------------|------------|---|
| Power Input Reduction | 16% | Average energy saving |
| Efficiency (Cooling) Increase | 21% | 10% HEX Optimization, 5% Cycle Composition Improvement, 2% Inverter Control, 2% Active Oil Control, 2% HiPOR™ |
| Efficiency (Heating) Increase | 17% | 10% HEX Optimization, 4% Cycle Composition Improvement, 1% Inverter Control, 1% Active Oil Control, 1% HiPOR™ |

※ Comparison between 10HP (28kW)

Dual Sensing Control

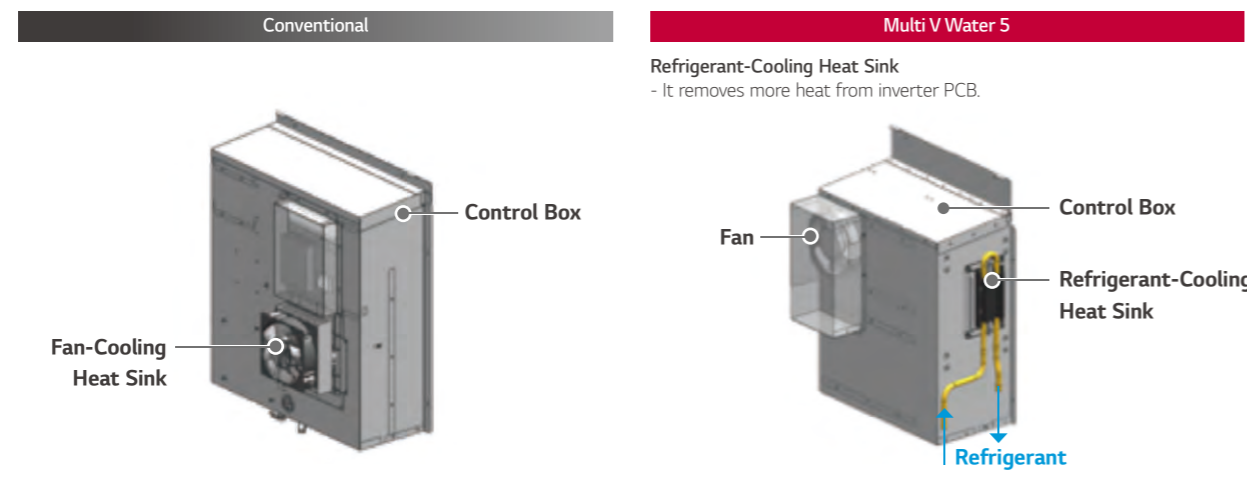
MULTI V Water 5 can operate more appropriately in low humidity conditions by referring to the indoor temperature and humidity.



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

Refrigerant Liquid-cooled Inverter Drive

Multi V Water 5 can remove heat from inverter PCB through Refrigerant-Cooling Heat Sink



Largest Capacity

Sufficient pipe length limitation provides flexible design and installation

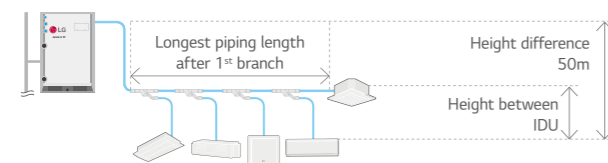
Providing 8 ~ 20HP (22.4 ~ 56kW) with single unit, and up to the world's largest capacity 60HP (168kW) by combination.

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

Longest Piping Length

Sufficient pipes length limitation in design and installation for various buildings

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



Total Piping Length	300m (500m)
Actual longest piping length (Equivalent)	175m (225m)
Longest piping length after 1 st branch (Conditional application)	40m (90m)
Height difference between ODU - IDU	50m
Height difference between IDU - IDU	40m

Compact Size

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

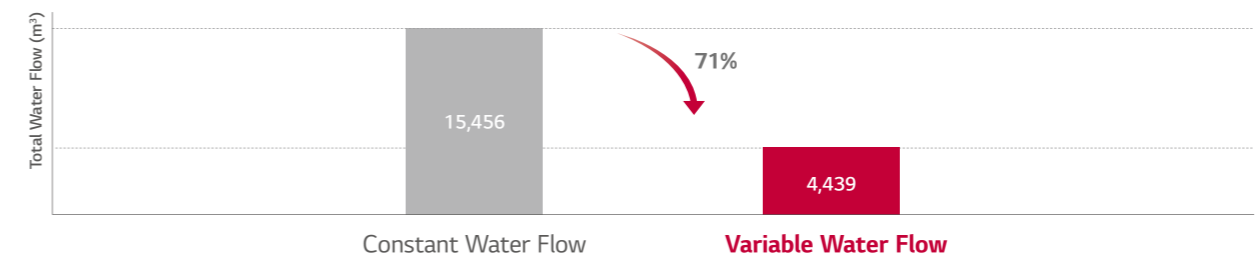
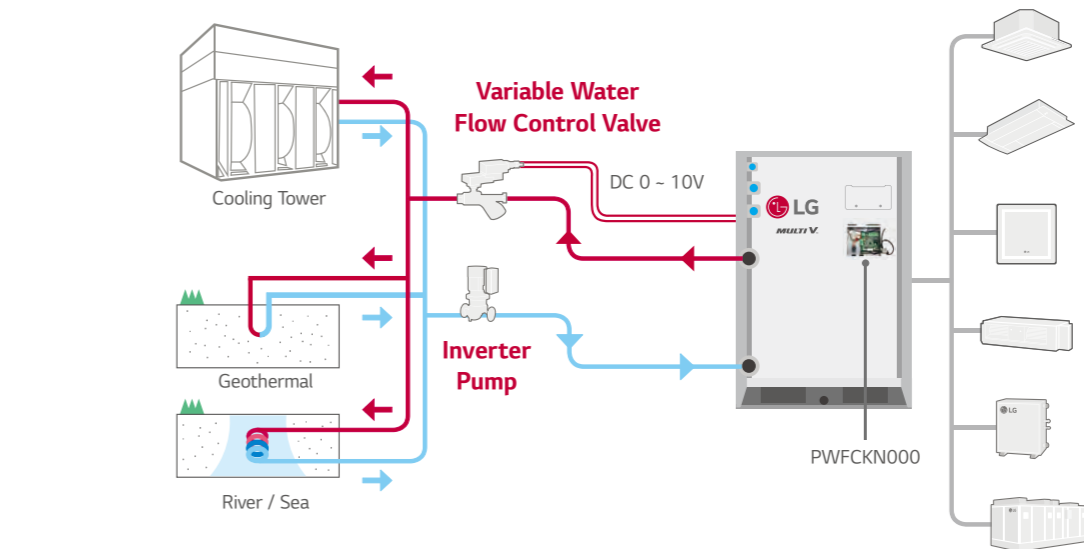
The optimal design of the compact, lightweight outdoor unit enables double stacking, which results in 50% savings in installation space.



Variable Water Flow Control (OPTION)

In support of green building initiatives

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

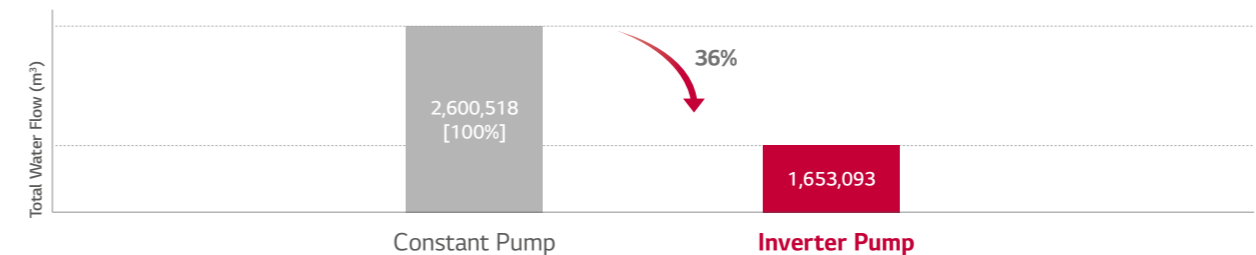


Note
1. Location : Paris, France
2. Office, 68,000m²
3. Operation time : 1,344 hours (Cooling period)

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

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

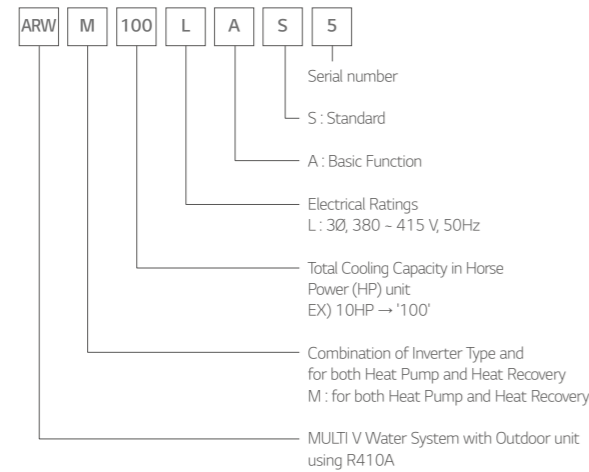
10 years energy cost (\$)



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

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

Nomenclature

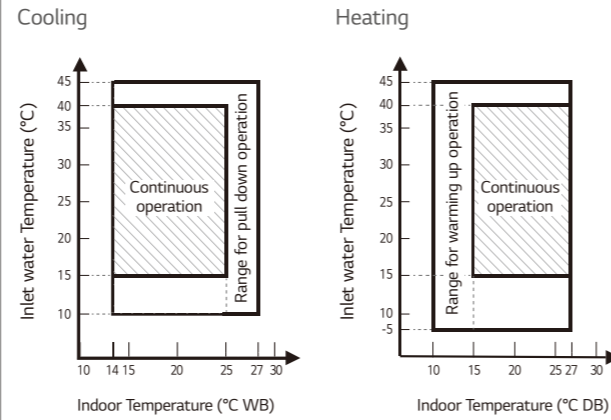


Outdoor Units Function

Category	Functions	Multi V Water 5
Key Refrigerant Components	HiPOR™ (High Pressure Oil Return)	○
	Oil Sensor	○
Reliability	High Pressure Switch	○
	Phase Protection	○
	Restart Delay (3-minutes)	○
	Self Diagnosis	○
	Soft Start	○
Central Controller	AC Ez	PQCSZ250S0
	AC Ez Touch	PACEZA000
	AC Smart IV	PACS4B000
	AC Smart 5	PACS5A000
	ACP IV	PACP4B000
Gateway	ACP 5	PACP5A000
	AC Manager IV	PACM4B000
	AC Manager 5	PACM5A000
	ACP BACnet	PQNF17C0
	ACP Lonwork	PLNWK000
Intergration Device	Cloud Gateway	PWFMD000
	Modbus RTU	PMBUS000
	IO Module	PVDSMN000
	Variable Water Flow Control Kit	PWFCKN000
	Cool / Heat Selector	PRDSMB
	AHU comm. Kit	PAHCMR000
	AHU Controller Module	PAHCMC000
	AHU Control Kit	PAHCNM000
	EEV Kit	PRLK048A0 PRLK096A0 PRLK396A0 PRLK594A0
	Water comm. Module	-
ETC	DS (Data Saving) Module	PVADTN000

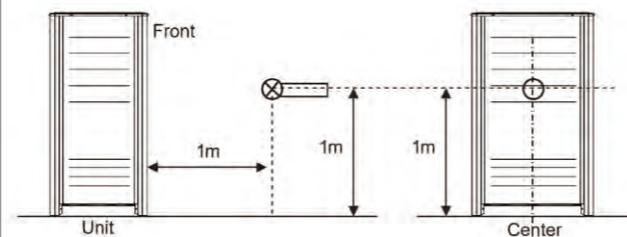
※ ○ : Applied, - : Not Applied

Operation Limits



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

Position of Sound Pressure Level Measuring



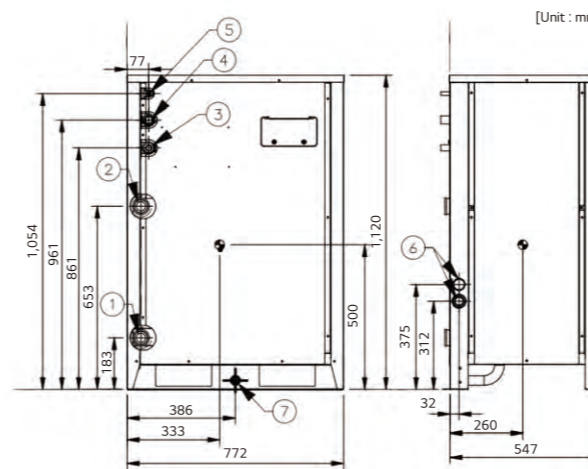
※ External Appearance of unit could be different by each model.
 Note
 1. Data is valid at diffuse field condition.
 2. Data is valid at nominal operating condition.
 3. Reference acoustic pressure 0 dB = 20μPa
 4. Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745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

Optional Accessories

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

Dimensions

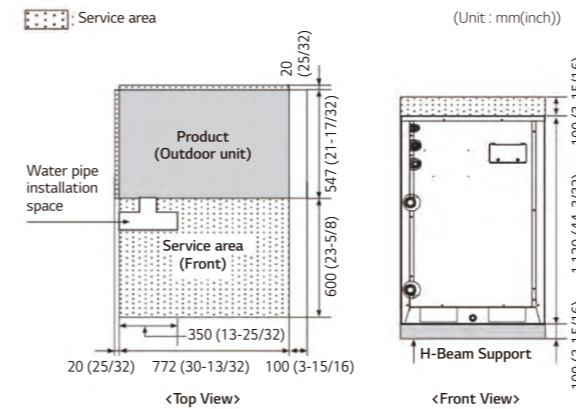
ARWM080LAS5 / ARWM100LAS5 / ARWM120LAS5 / ARWM140LAS5 / ARWM160LAS5 / ARWM180LAS5 / ARWM200LAS5



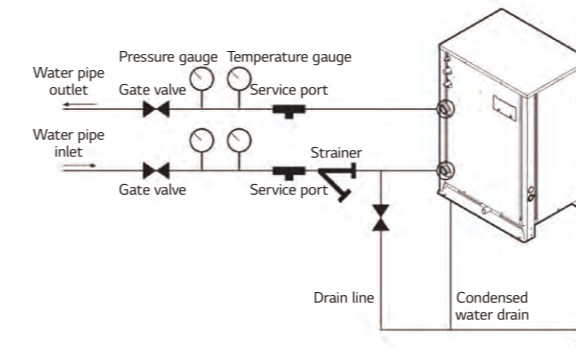
Center of Gravity

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

Individual Installation



Water Piping Installation



Precaution of Installation

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

Bouygues Challenger

LG MULTI V Water Solution with Geothermal Application.



Site Information

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

LG Solution

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

ARWM080LAS5 / ARWM100LAS5 ARWM120LAS5



HP		8 HP	10 HP	12 HP	
Model Name	Combination Unit	ARWM080LAS5	ARWM100LAS5	ARWM120LAS5	
	Independent Unit (1)	ARWM080LAS5	ARWM100LAS5	ARWM120LAS5	
	Independent Unit (2)	-	-	-	
	Independent Unit (3)	-	-	-	
	Independent Unit (4)	-	-	-	
Capacity	Cooling (Rated) kW	22.4	28.0	33.6	
	Heating (Rated) kW	25.2	31.5	37.8	
Input	Cooling (Rated) kW	3.25	4.19	5.14	
	Heating (Rated) kW	3.50	4.57	5.56	
EER	Rated	6.90	6.68	6.54	
COP	Rated	7.20	6.90	6.80	
Exterior	Color	Morning Gray / Dawn Gray	Morning Gray / Dawn Gray	Morning Gray / Dawn Gray	
	RAL (Classic)	RAL 7038 / RAL 7037	RAL 7038 / RAL 7037	RAL 7038 / RAL 7037	
Heat Exchanger	Type	Stainless Steel Plate	Stainless Steel Plate	Stainless Steel Plate	
	Maximum Pressure Resistance	kgf/cm ²	45	45	45
	Head Loss	kPa	10.6	15.9	22.1
	Rated Water Flow	LPM	77	96	115
Compressor	Type	Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll	
	Combination x No.	(Inverter) x 1	(Inverter) x 1	(Inverter) x 1	
	Motor Output x Number	W x No.	5,300 x 1	5,300 x 1	5,300 x 1
	Oil Type		FVC68D (PVE)	FW68D (PVE)	FW68D (PVE)
	Oil Charge	cc	3,400	3,400	3,400
Refrigerant Connecting Pipes	Liquid Pipe	mm (inch)	Ø9.52 (3/8)	Ø9.52 (3/8)	Ø12.7 (1/2)
	Gas Pipe	mm (inch)	Ø19.05 (3/4)	Ø22.22 (7/8)	Ø28.58 (1-1/8)
Water Connecting Pipes	Inlet	mm	PT 40 (Internal Thread)	PT 40 (Internal Thread)	PT 40 (Internal Thread)
	Outlet	mm	PT 40 (Internal Thread)	PT 40 (Internal Thread)	PT 40 (Internal Thread)
	Drain Outlet	mm	PT 20 (External Thread)	PT 20 (External Thread)	PT 20 (External Thread)
Dimensions (W x H x D) - Net	mm	772 x 1,120 x 547	772 x 1,120 x 547	772 x 1,120 x 547	
Dimensions (W x H x D) - Shipping	mm	820 x 1,245 x 645	820 x 1,245 x 645	820 x 1,245 x 645	
Net Weight	kg	149 x 1	149 x 1	149 x 1	
Shipping Weight	kg	157 x 1	157 x 1	157 x 1	
Sound Pressure Level	Cooling / Heating	dB(A)	45.0 / 48.0	48.0 / 48.0	48.0 / 51.0
Sound Power Level	Cooling / Heating	dB(A)	57.0 / 60.0	60.0 / 60.0	60.0 / 63.0
Communication Cable	mm ² x No. (VCTF-SB)		1.0 - 1.5 x 2C	1.0 - 1.5 x 2C	1.0 - 1.5 x 2C
Refrigerant	Refrigerant Name	-	R410A	R410A	R410A
	Precharged Amount in Factory	kg	3.5	3.5	3.5
	t-CO ₂ eq	-	7.306	7.306	7.306
	Control	-	Electronic expansion valve	Electronic expansion valve	Electronic expansion valve
Power Supply	Ø, V, Hz		3, 380-415, 50	3, 380-415, 50	3, 380-415, 50
Number of Maximum Connectable Indoor Units			13 (20)	16 (25)	20 (30)

Note

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

OUTDOOR UNITS SPECIFICATIONS

ARWM140LAS5 / ARWM160LAS5
ARWM180LAS5



HP		14 HP	16 HP	18 HP
Model Name	Combination Unit	ARWM140LAS5	ARWM160LAS5	ARWM180LAS5
	Independent Unit (1)	ARWM140LAS5	ARWM160LAS5	ARWM180LAS5
	Independent Unit (2)	-	-	-
	Independent Unit (3)	-	-	-
	Independent Unit (4)	-	-	-
Capacity	Cooling (Rated) kW	39.2	44.8	50.4
	Heating (Rated) kW	44.1	50.4	56.7
Input	Cooling (Rated) kW	6.22	7.32	8.40
	Heating (Rated) kW	6.78	8.06	8.72
EER	Rated	6.30	6.12	6.00
COP	Rated	6.50	6.25	6.50
Exterior	Color	Morning Gray / Dawn Gray	Morning Gray / Dawn Gray	Morning Gray / Dawn Gray
	RAL (Classic)	RAL 7038 / RAL 7037	RAL 7038 / RAL 7037	RAL 7038 / RAL 7037
Heat Exchanger	Type	Stainless Steel Plate	Stainless Steel Plate	Stainless Steel Plate
	Maximum Pressure Resistance	kgf/cm ²	45	45
	Head Loss	kPa	29.6	37.7
	Rated Water Flow	LPM	135	154
Compressor	Type	Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll
	Combination x No.	(Inverter) x 1	(Inverter) x 1	(Inverter) x 1
	Motor Output x Number	W x No.	5,300 x 1	5,300 x 1
	Oil Type	FW68D (PVE)	FW68D (PVE)	FW68D (PVE)
	Oil Charge	cc	3,400	3,400
Refrigerant Connecting Pipes	Liquid Pipe	mm (inch)	Ø12.7 (1/2)	Ø12.7 (1/2)
	Gas Pipe	mm (inch)	Ø28.58 (1-1/8)	Ø28.58 (1-1/8)
Water Connecting Pipes	Inlet	mm	PT 40 (Internal Thread)	PT 40 (Internal Thread)
	Outlet	mm	PT 40 (Internal Thread)	PT 40 (Internal Thread)
	Drain Outlet	mm	PT 20 (External Thread)	PT 20 (External Thread)
Dimensions (W x H x D) - Net	mm	772 x 1,120 x 547	772 x 1,120 x 547	772 x 1,120 x 547
Dimensions (W x H x D) - Shipping	mm	820 x 1,245 x 645	820 x 1,245 x 645	820 x 1,245 x 645
Net Weight	kg	149 x 1	149 x 1	158 x 1
Shipping Weight	kg	157 x 1	157 x 1	166 x 1
Sound Pressure Level	Cooling / Heating	dB(A)	52.0 / 53.0	52.0 / 56.0
Sound Power Level	Cooling / Heating	dB(A)	64.0 / 65.0	64.0 / 68.0
Communication Cable		mm ² x No. (VCTF-SB)	1.0 - 1.5 x 2C	1.0 - 1.5 x 2C
Refrigerant	Refrigerant Name	-	R410A	R410A
	Precharged Amount in Factory	kg	3.5	3.5
	t-CO ₂ eq	-	7.306	7.306
	Control	-	Electronic expansion valve	Electronic expansion valve
Power Supply		Ø, V, Hz	3, 380-415, 50	3, 380-415, 50
Number of Maximum Connectable Indoor Units			23 (35)	26 (40)

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

ARWM200LAS5
ARWM220LAS5
ARWM240LAS5



HP		20 HP	22 HP	24 HP
Model Name	Combination Unit	ARWM200LAS5	ARWM220LAS5	ARWM240LAS5
	Independent Unit (1)	ARWM200LAS5	ARWM120LAS5	ARWM120LAS5
	Independent Unit (2)	-	ARWM100LAS5	ARWM120LAS5
	Independent Unit (3)	-	-	-
	Independent Unit (4)	-	-	-
Capacity	Cooling (Rated) kW	56.0	61.6	67.2
	Heating (Rated) kW	63.0	69.3	75.6
Input	Cooling (Rated) kW	10.69	9.33	10.28
	Heating (Rated) kW	11.05	10.13	11.12
EER	Rated	5.24	6.60	6.54
COP	Rated	5.70	6.84	6.80
Exterior	Color	Morning Gray / Dawn Gray	Morning Gray / Dawn Gray	Morning Gray / Dawn Gray
	RAL (Classic)	RAL 7038 / RAL 7037	RAL 7038 / RAL 7037	RAL 7038 / RAL 7037
Heat Exchanger	Type	Stainless Steel Plate	Stainless Steel Plate	Stainless Steel Plate
	Maximum Pressure Resistance	kgf/cm ²	45	45
	Head Loss	kPa	29.9	22.1 + 15.9
	Rated Water Flow	LPM	192	115 + 96
Compressor	Type	Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll
	Combination x No.	(Inverter) x 1	(Inverter) x 2	(Inverter) x 2
	Motor Output x Number	W x No.	5,300 x 1	5,300 x 2
	Oil Type	FW68D (PVE)	FW68D (PVE)	FW68D (PVE)
	Oil Charge	cc	3,400	6,800
Refrigerant Connecting Pipes	Liquid Pipe	mm (inch)	Ø15.88 (5/8)	Ø15.88 (5/8)
	Gas Pipe	mm (inch)	Ø28.58 (1-1/8)	Ø34.9 (1-3/8)
Water Connecting Pipes	Inlet	mm	PT 40 (Internal Thread)	PT 40 + PT 40 (Internal Thread)
	Outlet	mm	PT 40 (Internal Thread)	PT 40 + PT 40 (Internal Thread)
	Drain Outlet	mm	PT 20 (External Thread)	PT 20 (External Thread)
Dimensions (W x H x D) - Net	mm	772 x 1,120 x 547	(772 x 1,120 x 547) x 2	(772 x 1,120 x 547) x 2
Dimensions (W x H x D) - Shipping	mm	820 x 1,245 x 645	(820 x 1,245 x 645) x 2	(820 x 1,245 x 645) x 2
Net Weight	kg	158 x 1	149 x 2	149 x 2
Shipping Weight	kg	166 x 1	157 x 2	157 x 2
Sound Pressure Level	Cooling / Heating	dB(A)	55.0 / 56.0	51.0 / 53.0
Sound Power Level	Cooling / Heating	dB(A)	67.0 / 68.0	64.0 / 66.0
Communication Cable		mm ² x No. (VCTF-SB)	1.0 - 1.5 x 2C	1.0 - 1.5 x 2C
Refrigerant	Refrigerant Name	-	R410A	R410A
	Precharged Amount in Factory	kg	4.5	3.5 + 3.5
	t-CO ₂ eq	-	9.394	14.613
	Control	-	Electronic expansion valve	Electronic expansion valve
Power Supply		Ø, V, Hz	3, 380-415, 50	3, 380-415, 50
Number of Maximum Connectable Indoor Units			32 (50)	35 (44)

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

ARWM260LAS5 / ARWM280LAS5
ARWM300LAS5



HP		26 HP	28 HP	30 HP	
Model Name	Combination Unit	ARWM260LAS5	ARWM280LAS5	ARWM300LAS5	
	Independent Unit (1)	ARWM140LAS5	ARWM160LAS5	ARWM180LAS5	
	Independent Unit (2)	ARWM120LAS5	ARWM120LAS5	ARWM120LAS5	
	Independent Unit (3)	-	-	-	
	Independent Unit (4)	-	-	-	
Capacity	Cooling (Rated) kW	72.8	78.4	84.0	
	Heating (Rated) kW	81.9	88.2	94.5	
Input	Cooling (Rated) kW	11.36	12.46	13.54	
	Heating (Rated) kW	12.34	13.62	14.28	
EER	Rated	6.41	6.29	6.20	
COP	Rated	6.64	6.48	6.62	
Exterior	Color	Morning Gray / Dawn Gray	Morning Gray / Dawn Gray	Morning Gray / Dawn Gray	
	RAL (Classic)	RAL 7038 / RAL 7037	RAL 7038 / RAL 7037	RAL 7038 / RAL 7037	
Heat Exchanger	Type	Stainless Steel Plate	Stainless Steel Plate	Stainless Steel Plate	
	Maximum Pressure Resistance	kgf/cm ²	45	45	
	Head Loss	kPa	29.6 + 22.1	37.7 + 22.1	24.6 + 22.1
	Rated Water Flow	LPM	135 + 115	154 + 115	173 + 115
Compressor	Type	Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll	
	Combination x No.	(Inverter) x 2	(Inverter) x 2	(Inverter) x 2	
	Motor Output x Number	W x No.	5,300 x 2	5,300 x 2	5,300 x 2
	Oil Type	FW68D (PVE)	FW68D (PVE)	FW68D (PVE)	
	Oil Charge	cc	6,800	6,800	6,800
Refrigerant Connecting Pipes	Liquid Pipe	mm (inch)	Ø19.05 (3/4)	Ø19.05 (3/4)	Ø19.05 (3/4)
	Gas Pipe	mm (inch)	Ø34.9 (1-3/8)	Ø34.9 (1-3/8)	Ø34.9 (1-3/8)
Water Connecting Pipes	Inlet	mm	PT 40 + PT 40 (Internal Thread)	PT 40 + PT 40 (Internal Thread)	PT 40 + PT 40 (Internal Thread)
	Outlet	mm	PT 40 + PT 40 (Internal Thread)	PT 40 + PT 40 (Internal Thread)	PT 40 + PT 40 (Internal Thread)
	Drain Outlet	mm	PT 20 (External Thread)	PT 20 (External Thread)	PT 20 (External Thread)
Dimensions (W x H x D) - Net	mm	(772 x 1,120 x 547) x 2	(772 x 1,120 x 547) x 2	(772 x 1,120 x 547) x 2	
Dimensions (W x H x D) - Shipping	mm	(820 x 1,245 x 645) x 2	(820 x 1,245 x 645) x 2	(820 x 1,245 x 645) x 2	
Net Weight	kg	149 x 2	149 x 2	(158 x 1) + (149 x 1)	
Shipping Weight	kg	157 x 2	157 x 2	(166 x 1) + (157 x 1)	
Sound Pressure Level	Cooling / Heating	dB(A)	53.0 / 55.0	53.0 / 57.0	55.0 / 58.0
Sound Power Level	Cooling / Heating	dB(A)	66.0 / 68.0	66.0 / 70.0	68.0 / 71.0
Communication Cable		mm ² x No. (VCTF-SB)	1.0 - 1.5 x 2C	1.0 - 1.5 x 2C	1.0 - 1.5 x 2C
Refrigerant	Refrigerant Name	-	R410A	R410A	R410A
	Precharged Amount in Factory	kg	3.5 + 3.5	3.5 + 3.5	4.5 + 3.5
	t-CO ₂ eq	-	14.613	14.613	16.700
	Control	-	Electronic expansion valve	Electronic expansion valve	Electronic expansion valve
Power Supply		Ø, V, Hz	3, 380-415, 50	3, 380-415, 50	3, 380-415, 50
Number of Maximum Connectable Indoor Units			42 (52)	45 (56)	49 (60)

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

ARWM320LAS5 / ARWM340LAS5
ARWM360LAS5



HP		32 HP	34 HP	36 HP	
Model Name	Combination Unit	ARWM320LAS5	ARWM340LAS5	ARWM360LAS5	
	Independent Unit (1)	ARWM200LAS5	ARWM200LAS5	ARWM200LAS5	
	Independent Unit (2)	ARWM120LAS5	ARWM140LAS5	ARWM160LAS5	
	Independent Unit (3)	-	-	-	
	Independent Unit (4)	-	-	-	
Capacity	Cooling (Rated) kW	89.6	95.2	100.8	
	Heating (Rated) kW	100.8	107.1	113.4	
Input	Cooling (Rated) kW	15.83	16.91	18.01	
	Heating (Rated) kW	16.61	17.83	19.11	
EER	Rated	5.66	5.63	5.60	
COP	Rated	6.07	6.01	5.93	
Exterior	Color	Morning Gray / Dawn Gray	Morning Gray / Dawn Gray	Morning Gray / Dawn Gray	
	RAL (Classic)	RAL 7038 / RAL 7037	RAL 7038 / RAL 7037	RAL 7038 / RAL 7037	
Heat Exchanger	Type	Stainless Steel Plate	Stainless Steel Plate	Stainless Steel Plate	
	Maximum Pressure Resistance	kgf/cm ²	45	45	
	Head Loss	kPa	29.9 + 22.1	29.9 + 29.6	29.9 + 37.7
	Rated Water Flow	LPM	192 + 115	192 + 135	192 + 154
Compressor	Type	Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll	
	Combination x No.	(Inverter) x 2	(Inverter) x 2	(Inverter) x 2	
	Motor Output x Number	W x No.	5,300 x 2	5,300 x 2	5,300 x 2
	Oil Type	FW68D (PVE)	FW68D (PVE)	FW68D (PVE)	
	Oil Charge	cc	6,800	6,800	6,800
Refrigerant Connecting Pipes	Liquid Pipe	mm (inch)	Ø19.05 (3/4)	Ø19.05 (3/4)	Ø19.05 (3/4)
	Gas Pipe	mm (inch)	Ø34.9 (1-3/8)	Ø34.9 (1-3/8)	Ø41.3 (1-5/8)
Water Connecting Pipes	Inlet	mm	PT 40 + PT 40 (Internal Thread)	PT 40 + PT 40 (Internal Thread)	PT 40 + PT 40 (Internal Thread)
	Outlet	mm	PT 40 + PT 40 (Internal Thread)	PT 40 + PT 40 (Internal Thread)	PT 40 + PT 40 (Internal Thread)
	Drain Outlet	mm	PT 20 (External Thread)	PT 20 (External Thread)	PT 20 (External Thread)
Dimensions (W x H x D) - Net	mm	(772 x 1,120 x 547) x 2	(772 x 1,120 x 547) x 2	(772 x 1,120 x 547) x 2	
Dimensions (W x H x D) - Shipping	mm	(820 x 1,245 x 645) x 2	(820 x 1,245 x 645) x 2	(820 x 1,245 x 645) x 2	
Net Weight	kg	(158 x 1) + (149 x 1)	(158 x 1) + (149 x 1)	(158 x 1) + (149 x 1)	
Shipping Weight	kg	(166 x 1) + (157 x 1)	(166 x 1) + (157 x 1)	(166 x 1) + (157 x 1)	
Sound Pressure Level	Cooling / Heating	dB(A)	56.0 / 57.0	57.0 / 58.0	57.0 / 59.0
Sound Power Level	Cooling / Heating	dB(A)	69.0 / 70.0	70.0 / 71.0	70.0 / 72.0
Communication Cable		mm ² x No. (VCTF-SB)	1.0 - 1.5 x 2C	1.0 - 1.5 x 2C	1.0 - 1.5 x 2C
Refrigerant	Refrigerant Name	-	R410A	R410A	R410A
	Precharged Amount in Factory	kg	4.5 + 3.5	4.5 + 3.5	4.5 + 3.5
	t-CO ₂ eq	-	16.700	16.700	16.700
	Control	-	Electronic expansion valve	Electronic expansion valve	Electronic expansion valve
Power Supply		Ø, V, Hz	3, 380-415, 50	3, 380-415, 50	3, 380-415, 50
Number of Maximum Connectable Indoor Units			52 (64)	55 (64)	58 (64)

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

ARWM380LAS5
ARWM400LAS5



ARWM420LAS5



HP		38 HP	40 HP	42 HP	
Model Name	Combination Unit	ARWM380LAS5	ARWM400LAS5	ARWM420LAS5	
	Independent Unit (1)	ARWM200LAS5	ARWM200LAS5	ARWM200LAS5	
	Independent Unit (2)	ARWM180LAS5	ARWM200LAS5	ARWM140LAS5	
	Independent Unit (3)	-	-	ARWM080LAS5	
	Independent Unit (4)	-	-	-	
Capacity	Cooling (Rated) kW	106.4	112.0	117.6	
	Heating (Rated) kW	119.7	126.0	132.3	
Input	Cooling (Rated) kW	19.09	21.38	20.16	
	Heating (Rated) kW	19.77	22.10	21.33	
EER	Rated	5.57	5.24	5.83	
COP	Rated	6.05	5.70	6.20	
Exterior	Color	Morning Gray / Dawn Gray	Morning Gray / Dawn Gray	Morning Gray / Dawn Gray	
	RAL (Classic)	RAL 7038 / RAL 7037	RAL 7038 / RAL 7037	RAL 7038 / RAL 7037	
Heat Exchanger	Type	Stainless Steel Plate	Stainless Steel Plate	Stainless Steel Plate	
	Maximum Pressure Resistance	kgf/cm ²	45	45	
	Head Loss	kPa	29.9 + 24.6	29.9 + 29.9	29.9 + 29.6 + 10.6
	Rated Water Flow	LPM	192 + 173	192 + 192	192 + 135 + 77
Compressor	Type	Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll	
	Combination x No.	(Inverter) x 2	(Inverter) x 2	(Inverter) x 3	
	Motor Output x Number	W x No.	5,300 x 2	5,300 x 2	5,300 x 3
	Oil Type	FW68D (PVE)	FW68D (PVE)	FW68D (PVE)	
	Oil Charge	cc	6,800	6,800	10,200
Refrigerant Connecting Pipes	Liquid Pipe	mm (inch)	Ø19.05 (3/4)	Ø19.05 (3/4)	Ø19.05 (3/4)
	Gas Pipe	mm (inch)	Ø41.3 (1-5/8)	Ø41.3 (1-5/8)	Ø41.3 (1-5/8)
Water Connecting Pipes	Inlet	mm	PT 40 + PT 40 (Internal Thread)	PT 40 + PT 40 (Internal Thread)	PT 40 + PT 40 + PT 40 (Internal Thread)
	Outlet	mm	PT 40 + PT 40 (Internal Thread)	PT 40 + PT 40 (Internal Thread)	PT 40 + PT 40 + PT 40 (Internal Thread)
	Drain Outlet	mm	PT 20 (External Thread)	PT 20 (External Thread)	PT 20 (External Thread)
Dimensions (W x H x D) - Net	mm	(772 x 1,120 x 547) x 2	(772 x 1,120 x 547) x 2	(772 x 1,120 x 547) x 3	
Dimensions (W x H x D) - Shipping	mm	(820 x 1,245 x 645) x 2	(820 x 1,245 x 645) x 2	(820 x 1,245 x 645) x 3	
Net Weight	kg	158 x 2	158 x 2	(158 x 1) + (149 x 2)	
Shipping Weight	kg	166 x 2	166 x 2	(166 x 1) + (157 x 2)	
Sound Pressure Level	Cooling / Heating	dB(A)	58.0 / 60.0	58.0 / 59.0	57.0 / 58.0
Sound Power Level	Cooling / Heating	dB(A)	71.0 / 73.0	71.0 / 72.0	71.0 / 72.0
Communication Cable		mm ² x No. (VCTF-SB)	1.0 - 1.5 x 2C	1.0 - 1.5 x 2C	1.0 - 1.5 x 2C
Refrigerant	Refrigerant Name	-	R410A	R410A	R410A
	Precharged Amount in Factory	kg	4.5 + 4.5	4.5 + 4.5	4.5 + 3.5 + 3.5
	t-CO ₂ eq	-	18.788	18.788	24.006
	Control	-	Electronic expansion valve	Electronic expansion valve	Electronic expansion valve
Power Supply		Ø, V, Hz	3, 380-415, 50	3, 380-415, 50	3, 380-415, 50
Number of Maximum Connectable Indoor Units			61 (64)	64	64

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

ARWM440LAS5 / ARWM460LAS5
ARWM480LAS5



HP		44 HP	46 HP	48 HP	
Model Name	Combination Unit	ARWM440LAS5	ARWM460LAS5	ARWM480LAS5	
	Independent Unit (1)	ARWM200LAS5	ARWM200LAS5	ARWM200LAS5	
	Independent Unit (2)	ARWM140LAS5	ARWM140LAS5	ARWM140LAS5	
	Independent Unit (3)	ARWM100LAS5	ARWM120LAS5	ARWM140LAS5	
	Independent Unit (4)	-	-	-	
Capacity	Cooling (Rated) kW	123.2	128.8	134.4	
	Heating (Rated) kW	138.6	144.9	151.2	
Input	Cooling (Rated) kW	21.10	22.05	23.13	
	Heating (Rated) kW	22.40	23.39	24.61	
EER	Rated	5.84	5.84	5.81	
COP	Rated	6.19	6.19	6.14	
Exterior	Color	Morning Gray / Dawn Gray	Morning Gray / Dawn Gray	Morning Gray / Dawn Gray	
	RAL (Classic)	RAL 7038 / RAL 7037	RAL 7038 / RAL 7037	RAL 7038 / RAL 7037	
Heat Exchanger	Type	Stainless Steel Plate	Stainless Steel Plate	Stainless Steel Plate	
	Maximum Pressure Resistance	kgf/cm ²	45	45	
	Head Loss	kPa	29.9 + 29.6 + 15.9	29.9 + 29.6 + 22.1	29.9 + 29.6 + 29.6
	Rated Water Flow	LPM	192 + 135 + 96	192 + 135 + 115	192 + 135 + 135
Compressor	Type	Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll	
	Combination x No.	(Inverter) x 3	(Inverter) x 3	(Inverter) x 3	
	Motor Output x Number	W x No.	5,300 x 3	5,300 x 3	5,300 x 3
	Oil Type	FW68D (PVE)	FW68D (PVE)	FW68D (PVE)	
	Oil Charge	cc	10,200	10,200	10,200
Refrigerant Connecting Pipes	Liquid Pipe	mm (inch)	Ø19.05 (3/4)	Ø19.05 (3/4)	Ø19.05 (3/4)
	Gas Pipe	mm (inch)	Ø41.3 (1-5/8)	Ø41.3 (1-5/8)	Ø41.3 (1-5/8)
Water Connecting Pipes	Inlet	mm	PT 40 + PT 40 + PT 40 (Internal Thread)	PT 40 + PT 40 + PT 40 (Internal Thread)	PT 40 + PT 40 + PT 40 (Internal Thread)
	Outlet	mm	PT 40 + PT 40 + PT 40 (Internal Thread)	PT 40 + PT 40 + PT 40 (Internal Thread)	PT 40 + PT 40 + PT 40 (Internal Thread)
	Drain Outlet	mm	PT 20 (External Thread)	PT 20 (External Thread)	PT 20 (External Thread)
Dimensions (W x H x D) - Net	mm	(772 x 1,120 x 547) x 3	(772 x 1,120 x 547) x 3	(772 x 1,120 x 547) x 3	
Dimensions (W x H x D) - Shipping	mm	(820 x 1,245 x 645) x 3	(820 x 1,245 x 645) x 3	(820 x 1,245 x 645) x 3	
Net Weight	kg	(158 x 1) + (149 x 2)	(158 x 1) + (149 x 2)	(158 x 1) + (149 x 2)	
Shipping Weight	kg	(166 x 1) + (157 x 2)	(166 x 1) + (157 x 2)	(166 x 1) + (157 x 2)	
Sound Pressure Level	Cooling / Heating	dB(A)	57.0 / 58.0	57.0 / 59.0	58.0 / 59.0
Sound Power Level	Cooling / Heating	dB(A)	71.0 / 72.0	71.0 / 73.0	72.0 / 73.0
Communication Cable		mm ² x No. (VCTF-SB)	1.0 - 1.5 x 2C	1.0 - 1.5 x 2C	1.0 - 1.5 x 2C
Refrigerant	Refrigerant Name	-	R410A	R410A	R410A
	Precharged Amount in Factory	kg	4.5 + 3.5 + 3.5	4.5 + 3.5 + 3.5	4.5 + 3.5 + 3.5
	t-CO ₂ eq	-	24.006	24.006	24.006
	Control	-	Electronic expansion valve	Electronic expansion valve	Electronic expansion valve
Power Supply		Ø, V, Hz	3, 380-415, 50	3, 380-415, 50	3, 380-415, 50
Number of Maximum Connectable Indoor Units			64	64	64

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

ARWM500LAS5 / ARWM520LAS5
ARWM540LAS5



HP		50 HP	52 HP	54 HP	
Model Name	Combination Unit	ARWM500LAS5	ARWM520LAS5	ARWM540LAS5	
	Independent Unit (1)	ARWM200LAS5	ARWM200LAS5	ARWM200LAS5	
	Independent Unit (2)	ARWM200LAS5	ARWM200LAS5	ARWM200LAS5	
	Independent Unit (3)	ARWM100LAS5	ARWM120LAS5	ARWM140LAS5	
	Independent Unit (4)	-	-	-	
Capacity	Cooling (Rated) kW	140.0	145.6	151.2	
	Heating (Rated) kW	157.5	164	170.1	
Input	Cooling (Rated) kW	25.57	27	27.60	
	Heating (Rated) kW	26.67	27.66	28.88	
EER	Rated	5.48	5.49	5.48	
COP	Rated	5.91	5.92	5.89	
Exterior	Color	Morning Gray / Dawn Gray	Morning Gray / Dawn Gray	Morning Gray / Dawn Gray	
	RAL (Classic)	RAL 7038 / RAL 7037	RAL 7038 / RAL 7037	RAL 7038 / RAL 7037	
Heat Exchanger	Type	Stainless Steel Plate	Stainless Steel Plate	Stainless Steel Plate	
	Maximum Pressure Resistance	kgf/cm ²	45	45	
	Head Loss	kPa	29.9 + 29.9 + 15.9	29.9 + 29.9 + 22.1	29.9 + 29.9 + 29.6
	Rated Water Flow	LPM	192 + 192 + 96	192 + 192 + 115	192 + 192 + 135
Compressor	Type	Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll	
	Combination x No.	(Inverter) x 3	(Inverter) x 3	(Inverter) x 3	
	Motor Output x Number	W x No.	5,300 x 3	5,300 x 3	5,300 x 3
	Oil Type	FW68D (PVE)	FW68D (PVE)	FW68D (PVE)	
	Oil Charge	cc	10,200	10,200	10,200
Refrigerant Connecting Pipes	Liquid Pipe	mm (inch)	Ø19.05 (3/4)	Ø19.05 (3/4)	Ø19.05 (3/4)
	Gas Pipe	mm (inch)	Ø41.3 (1-5/8)	Ø41.3 (1-5/8)	Ø41.3 (1-5/8)
Water Connecting Pipes	Inlet	mm	PT 40 + PT 40 + PT 40 (Internal Thread)	PT 40 + PT 40 + PT 40 (Internal Thread)	PT 40 + PT 40 + PT 40 (Internal Thread)
	Outlet	mm	PT 40 + PT 40 + PT 40 (Internal Thread)	PT 40 + PT 40 + PT 40 (Internal Thread)	PT 40 + PT 40 + PT 40 (Internal Thread)
	Drain Outlet	mm	PT 20 (External Thread)	PT 20 (External Thread)	PT 20 (External Thread)
Dimensions (W x H x D) - Net	mm	(772 x 1,120 x 547) x 3	(772 x 1,120 x 547) x 3	(772 x 1,120 x 547) x 3	
Dimensions (W x H x D) - Shipping	mm	(820 x 1,245 x 645) x 3	(820 x 1,245 x 645) x 3	(820 x 1,245 x 645) x 3	
Net Weight	kg	(158 x 2) + (149 x 1)	(158 x 2) + (149 x 1)	(158 x 2) + (149 x 1)	
Shipping Weight	kg	(166 x 2) + (157 x 1)	(166 x 2) + (157 x 1)	(166 x 2) + (157 x 1)	
Sound Pressure Level	Cooling / Heating	dB(A)	59.0 / 59.0	59.0 / 60.0	59.0 / 60.0
Sound Power Level	Cooling / Heating	dB(A)	73.0 / 73.0	73.0 / 74.0	73.0 / 74.0
Communication Cable		mm ² x No. (VCTF-SB)	1.0 - 1.5 x 2C	1.0 - 1.5 x 2C	1.0 - 1.5 x 2C
Refrigerant	Refrigerant Name	-	R410A	R410A	R410A
	Precharged Amount in Factory	kg	4.5 + 4.5 + 3.5	4.5 + 4.5 + 3.5	4.5 + 4.5 + 3.5
	t-CO ₂ eq	-	26.094	26.094	26.094
	Control	-	Electronic expansion valve	Electronic expansion valve	Electronic expansion valve
Power Supply		Ø, V, Hz	3, 380-415, 50	3, 380-415, 50	3, 380-415, 50
Number of Maximum Connectable Indoor Units			64	64	64

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

ARWM560LAS5 / ARWM580LAS5
ARWM600LAS5



HP		56 HP	58 HP	60 HP	
Model Name	Combination Unit	ARWM560LAS5	ARWM580LAS5	ARWM600LAS5	
	Independent Unit (1)	ARWM200LAS5	ARWM200LAS5	ARWM200LAS5	
	Independent Unit (2)	ARWM200LAS5	ARWM200LAS5	ARWM200LAS5	
	Independent Unit (3)	ARWM160LAS5	ARWM180LAS5	ARWM200LAS5	
	Independent Unit (4)	-	-	-	
Capacity	Cooling (Rated) kW	156.8	162.4	168.0	
	Heating (Rated) kW	176.4	182.7	189.0	
Input	Cooling (Rated) kW	28.70	29.78	32.07	
	Heating (Rated) kW	30.16	30.82	33.15	
EER	Rated	5.46	5.45	5.24	
COP	Rated	5.85	5.93	5.70	
Exterior	Color	Morning Gray / Dawn Gray	Morning Gray / Dawn Gray	Morning Gray / Dawn Gray	
	RAL (Classic)	RAL 7038 / RAL 7037	RAL 7038 / RAL 7037	RAL 7038 / RAL 7037	
Heat Exchanger	Type	Stainless Steel Plate	Stainless Steel Plate	Stainless Steel Plate	
	Maximum Pressure Resistance	kgf/cm ²	45	45	
	Head Loss	kPa	29.9 + 29.9 + 37.7	29.9 + 29.9 + 24.6	29.9 + 29.9 + 29.9
	Rated Water Flow	LPM	192 + 192 + 154	192 + 192 + 173	192 + 192 + 192
Compressor	Type	Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll	
	Combination x No.	(Inverter) x 3	(Inverter) x 3	(Inverter) x 3	
	Motor Output x Number	W x No.	5,300 x 3	5,300 x 3	5,300 x 3
	Oil Type	FW68D (PVE)	FW68D (PVE)	FW68D (PVE)	
	Oil Charge	cc	10,200	10,200	10,200
Refrigerant Connecting Pipes	Liquid Pipe	mm (inch)	Ø19.05 (3/4)	Ø19.05 (3/4)	Ø19.05 (3/4)
	Gas Pipe	mm (inch)	Ø41.3 (1-5/8)	Ø41.3 (1-5/8)	Ø41.3 (1-5/8)
Water Connecting Pipes	Inlet	mm	PT 40 + PT 40 + PT 40 (Internal Thread)	PT 40 + PT 40 + PT 40 (Internal Thread)	PT 40 + PT 40 + PT 40 (Internal Thread)
	Outlet	mm	PT 40 + PT 40 + PT 40 (Internal Thread)	PT 40 + PT 40 + PT 40 (Internal Thread)	PT 40 + PT 40 + PT 40 (Internal Thread)
	Drain Outlet	mm	PT 20 (External Thread)	PT 20 (External Thread)	PT 20 (External Thread)
Dimensions (W x H x D) - Net	mm	(772 x 1,120 x 547) x 3	(772 x 1,120 x 547) x 3	(772 x 1,120 x 547) x 3	
Dimensions (W x H x D) - Shipping	mm	(820 x 1,245 x 645) x 3	(820 x 1,245 x 645) x 3	(820 x 1,245 x 645) x 3	
Net Weight	kg	(158 x 2) + (149 x 1)	158 x 3	158 x 3	
Shipping Weight	kg	(166 x 2) + (157 x 1)	166 x 3	166 x 3	
Sound Pressure Level	Cooling / Heating	dB(A)	59.0 / 61.0	60.0 / 61.0	60.0 / 61.0
Sound Power Level	Cooling / Heating	dB(A)	73.0 / 75.0	74.0 / 75.0	74.0 / 75.0
Communication Cable		mm ² x No. (VCTF-SB)	1.0 - 1.5 x 2C	1.0 - 1.5 x 2C	1.0 - 1.5 x 2C
Refrigerant	Refrigerant Name	-	R410A	R410A	R410A
	Precharged Amount in Factory	kg	4.5 + 4.5 + 3.5	4.5 + 4.5 + 4.5	4.5 + 4.5 + 4.5
	t-CO ₂ eq	-	26.094	28.181	28.181
	Control	-	Electronic expansion valve	Electronic expansion valve	Electronic expansion valve
Power Supply		Ø, V, Hz	3, 380-415, 50	3, 380-415, 50	3, 380-415, 50
Number of Maximum Connectable Indoor Units			64	64	64

Note
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