

# MULTI V™ 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



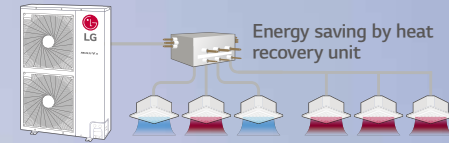
Reliability



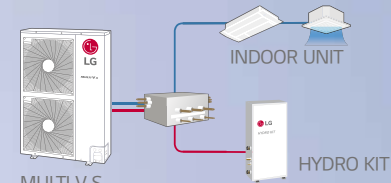
Convenience

## How does it work?

Available in Heat Pump and Heat Recovery Configurations



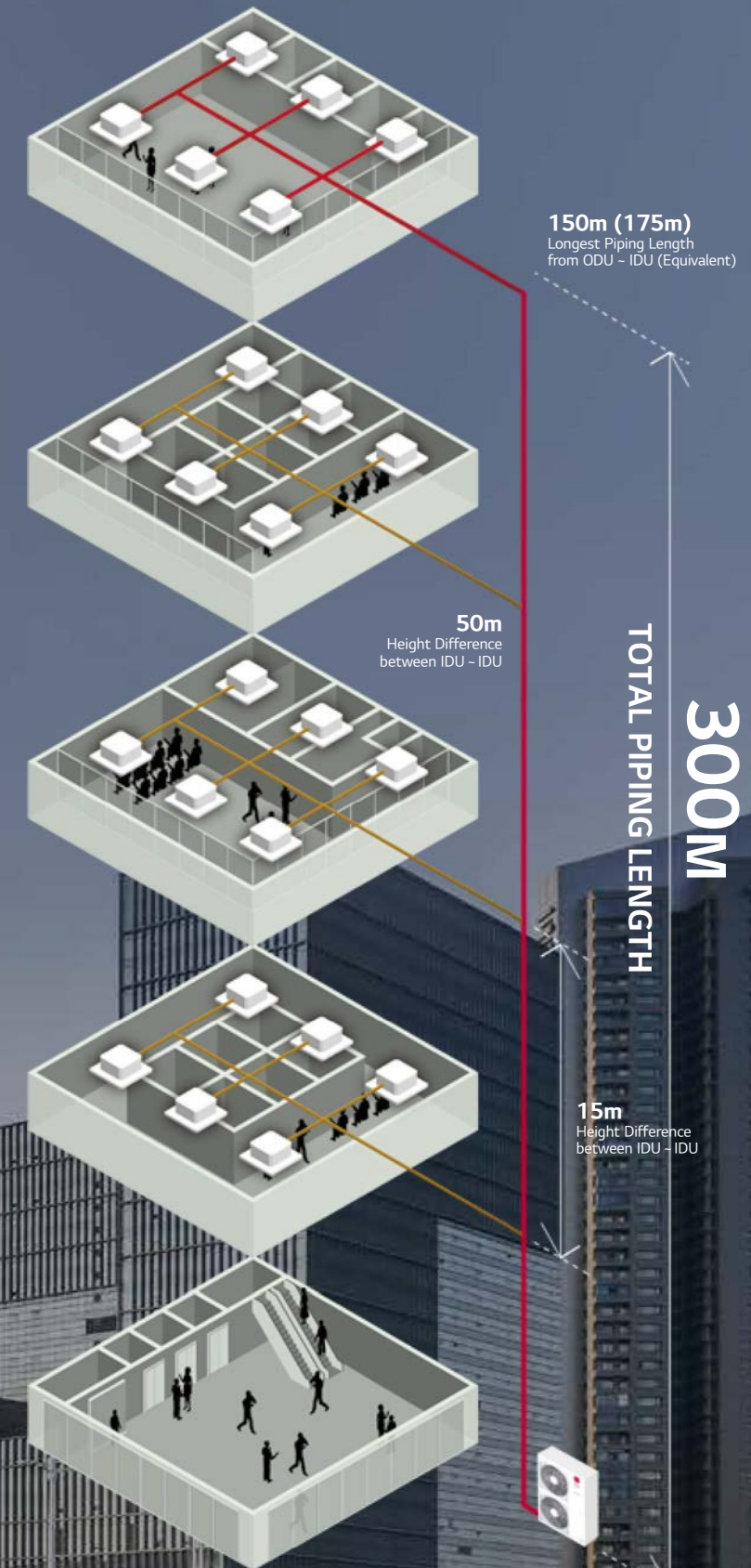
Combination of Cooling, Heating and Hot Water Solution



※ Heat Pump and Recovery are separated models.



OUTDOOR UNITS



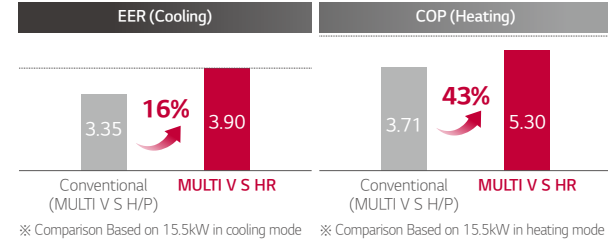
※ Only applies to Multi V S with R410A refrigerant.



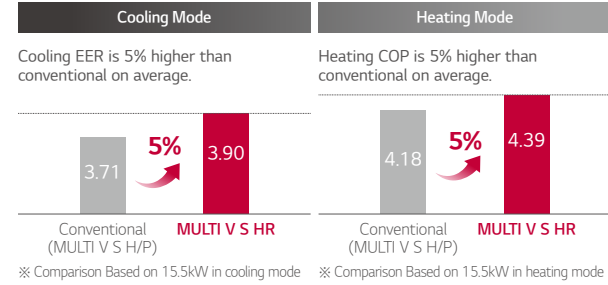
# EER / COP / Part Load

Cost savings with energy efficiency

## Heat Pump



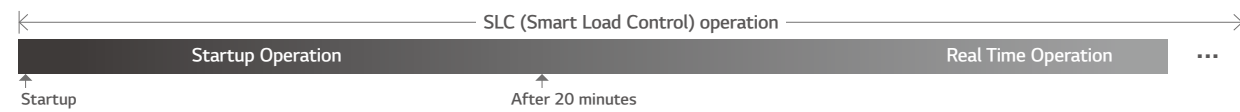
## Heat Recovery



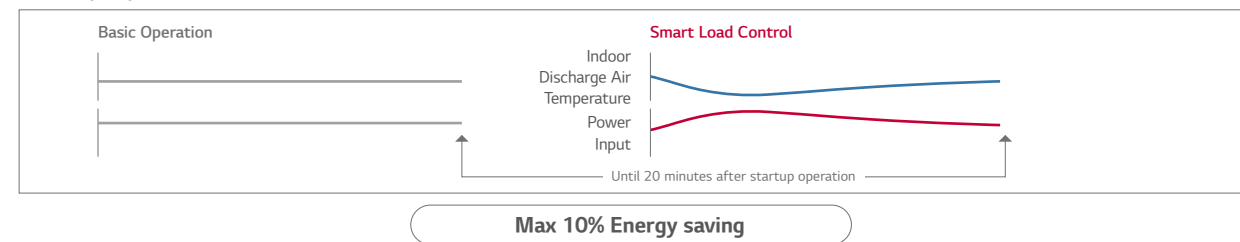
# Smart Load Control Applied

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.

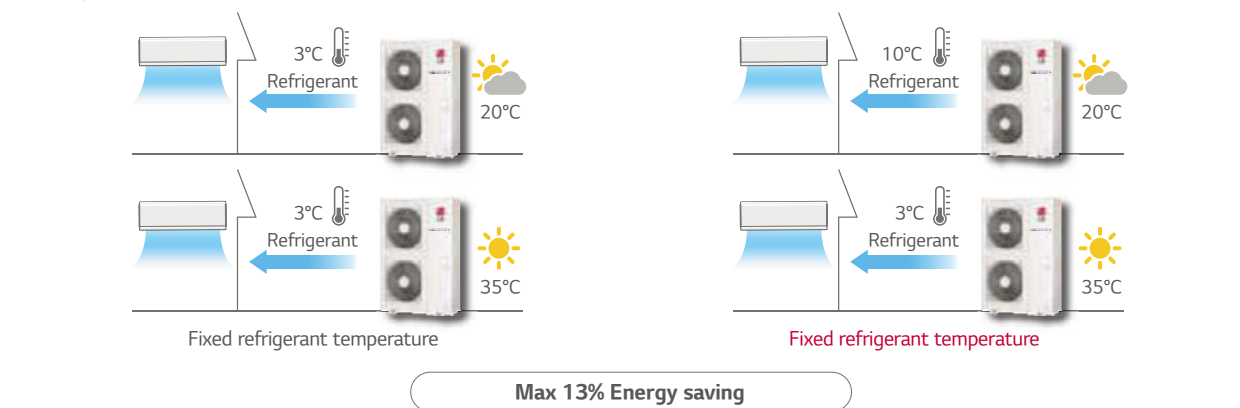


## Startup Operation



※ 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

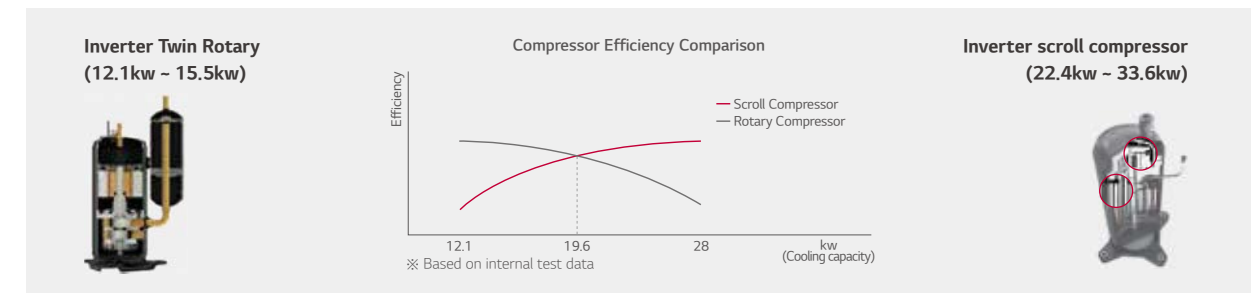
## Real Time Operation



※ 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 PTMTB100 (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

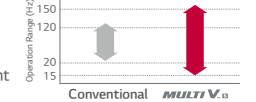
Surface coating of outstanding abrasion resistance property on vane and crank shaft.



## 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

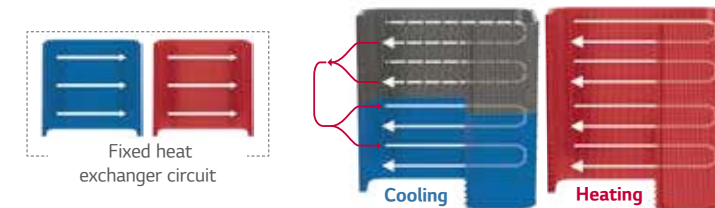
### Scroll Profile

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

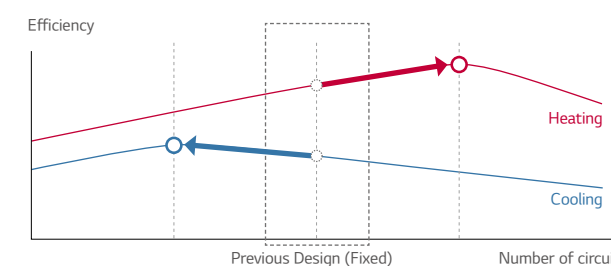
# Optimal Heat Exchanger

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

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

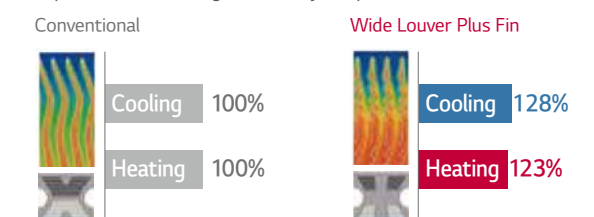


## Efficiency performance



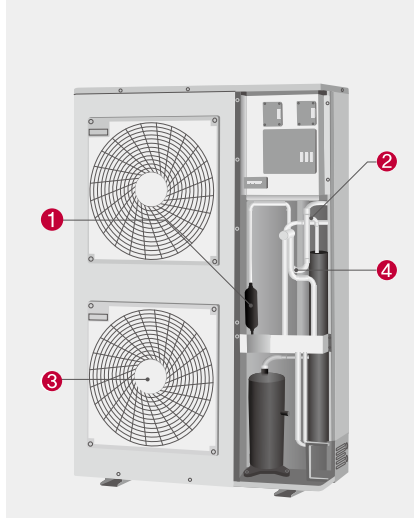
## Efficiency up due to Fin shape

Improved heat exchanger efficiency of up to 28%



# Reliable Refrigerant Components

LG technology allows for superior performance and component durability



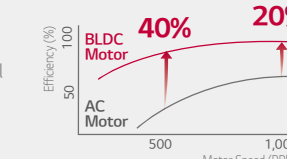


**MULTI V S improved reliability with advanced technology :**

- 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

Efficiency (%) vs Motor Speed (RPM)

Motor Speed (RPM)	BLDC Motor Efficiency (%)	AC Motor Efficiency (%)
500	~80	~40
1000	~90	~60

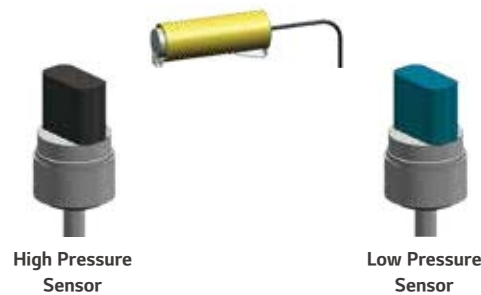


# Smart Control

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

## Temperature + Pressure Control

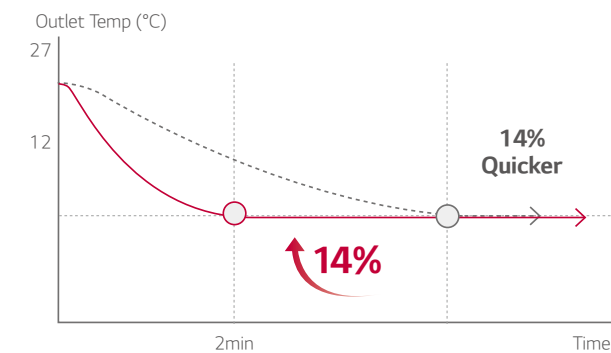
Senses and controls pressure directly using pressure sensor for faster and more exact response to load variation.



## Quick Operating Response

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

※ Specifications may vary for each model



○ Pressure + Temperature Control  
○ Temperature Control

# 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 like salt concentration in coastal towns or severe air pollution in industrial cities keeps. This improvement in durability prolongs the product's lifespan and lowers both the operational and maintenance costs.

## Corrosion Resistance Proven by Certified Tests

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

## Enhanced Coating Layers

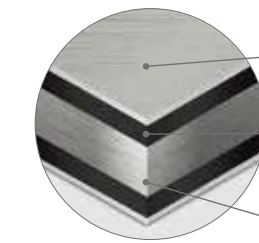
The black coating with enhanced epoxy resin is applied for strong protection from various corrosive external conditions such as salt contamination and air pollution. Moreover, the hydrophilic film keeps water from accumulating on the heat exchanger's fin, minimizing moisture buildup and eventually making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



## Certified protection

※ Verification of corrosion resistance performance

- Declared by TUV Rheinland
- Test Method B of ISO21207
- Test condition : Salt contaminated condition + severe industrial / traffic environment (NO<sub>2</sub> / SO<sub>2</sub>)



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

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

**Aluminum fin**

# 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**

- 300m Total piping length
- 150m (175m) Longest pipe length (Equivalent)
- 50m ODU - IDU Height difference
- 15m IDU - IDU Height difference

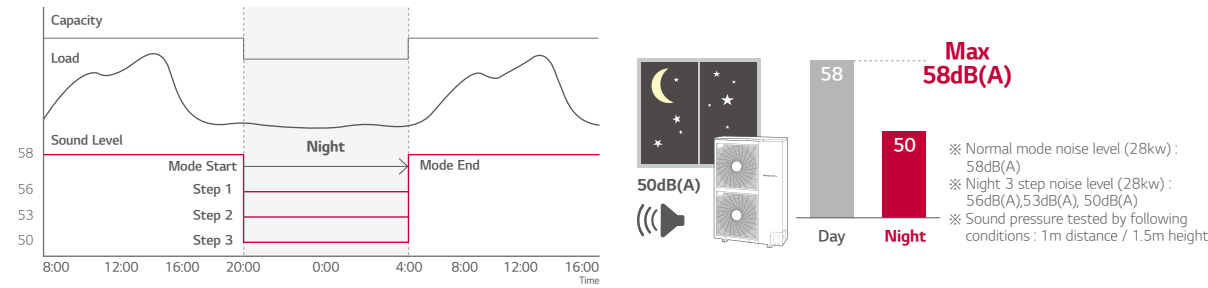
**4 Way Piping**

- Free design and installation by 4 way piping.

## Low Noise Operation

Decreased noise during operation with low noise functionality

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



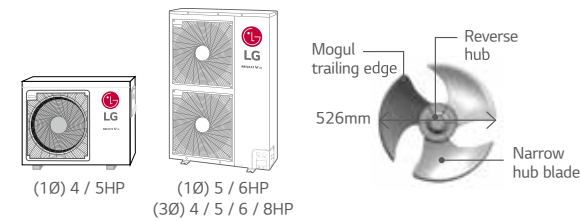
## Fan Technology and RPM Control

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

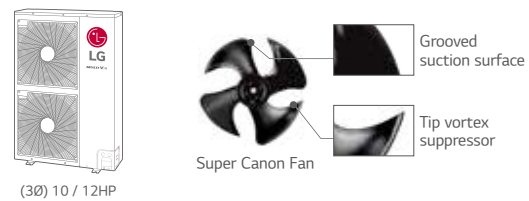
For enhanced efficiency, new axial fan boasts higher air volume, increased static pressure and decreased noise.

### Fan Technology

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

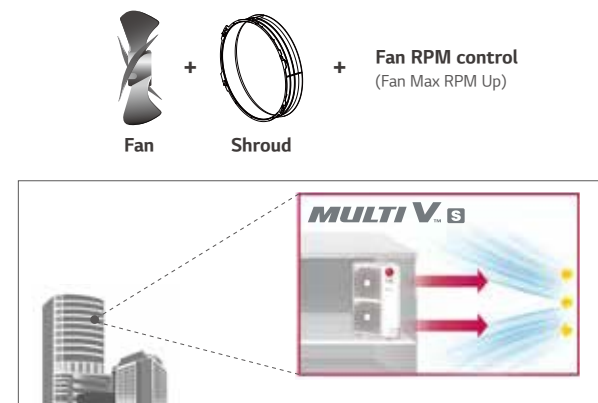


Super cannon fan increases the air volume in 50 CMM and the noise level is decreased by 4dB(A).



### Fan RPM control

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



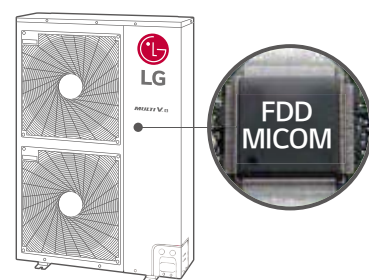
- Straight air flow
- New shroud adopted
- Performs high static pressure

## Upgraded Fault Detection and Diagnosis

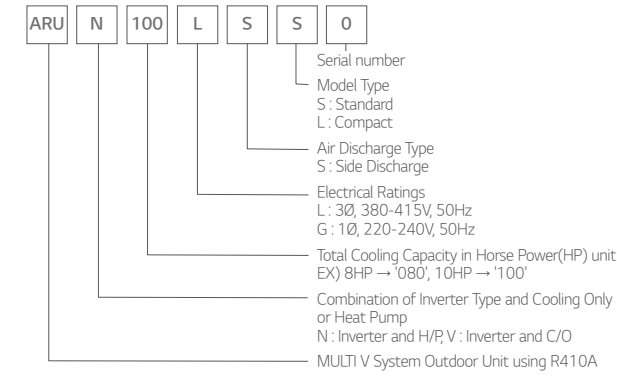
Easy and convenient maintenance with self-diagnosis

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



### Nomenclature

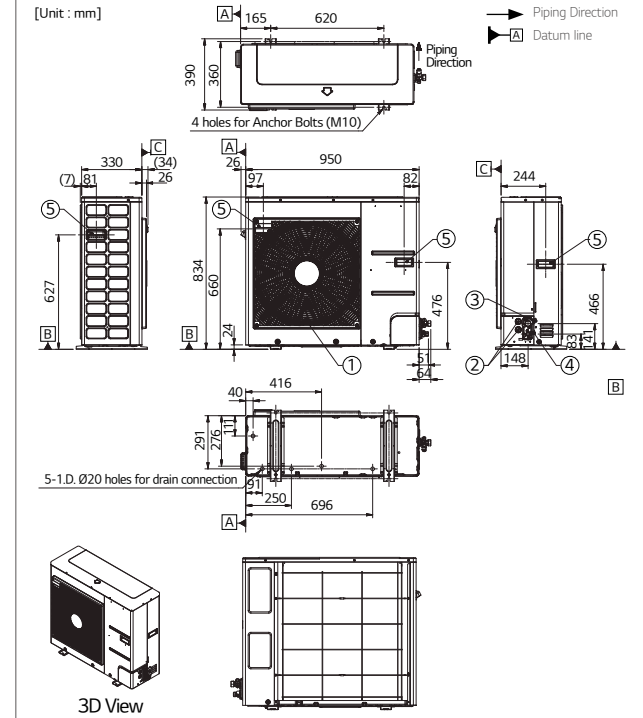


### Outdoor Units Function

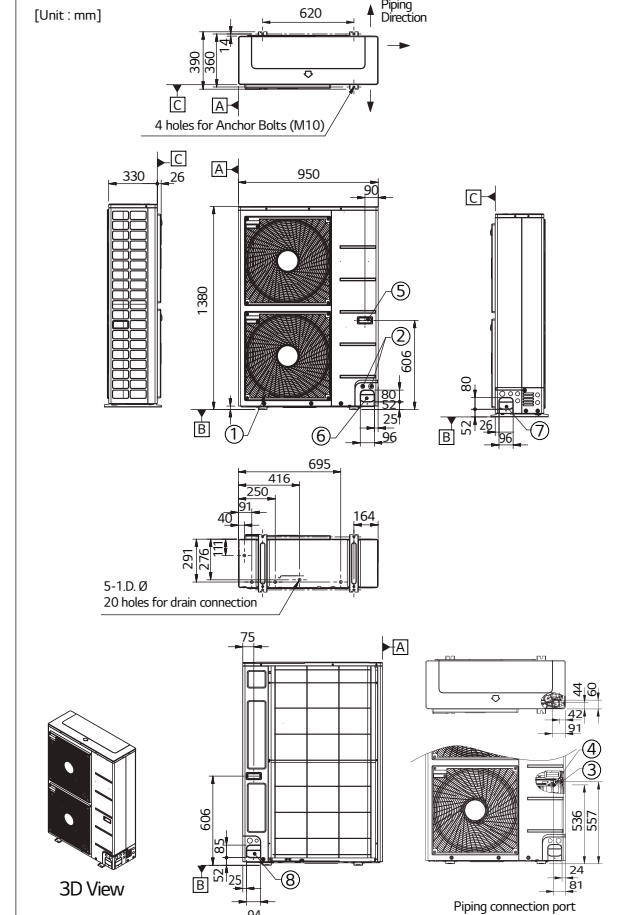
Category	Functions	MULTI V S
Key Refrigerant Components	Variable Path of Outdoor Unit HEX	-
	HiPOR™ (High Pressure Oil Return)	-
	Humidity Sensor	ARUB060GSS4 only
	Corrosion Resistance Black Fin	○
	Oil Sensor	-
Special Function	Dual Sensing	ARUB060GSS4 only
	Low Noise Operation	○
	High Static Mode of Outdoor Unit Fan	○
	Partial Defrosting	-
Basic Function	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	ARUB060GSS4 only
	Defrost / Deicing	○
	High Pressure Switch	○
	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	PACSSA000
	ACP (Advanced Control Platform) IV	PACP4B000
	ACP (Advanced Control Platform) S	PACPSA000
	AC Manager 5	PACMSA000
	BNU (Building Network Unit)	ACP Lonworks PLNWKB000 ACP BACnet PQNFB17C0
	IO Module (ODU Dry Contact)	PVDSMN000
PDI (Power Distribution Indicator)	Standard	PPWRDB000
	Premium	PQNUD1S40
Cool / Heat Selector		PRDSBM
		PRCTILO
Cycle Monitoring Device	LGMV	PLGMVW100
	Mobile LGMV	○ (Logical operation) Not applied to ARUB060GSS4
Additional kit	Refrigerant Charging Kit	-
	Low Ambient Kit	-
	Variable Water Flow Valve Control Kit	-

※ ○ : Applied, - : Not Applied

### ARUN040GSS0



### ARUN080LSS0



Note

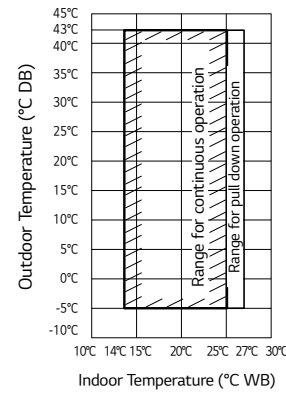
- Unit should be installed in compliance with the installation manual in the product box.
- Unit should be grounded in accordance with the local regulation or applicable national codes.
- All electrical components and materials to be supplied from the site must comply with the local regulations or international 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)	-

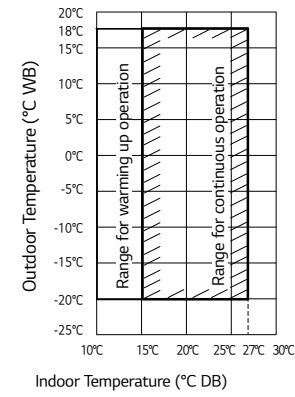


Heat Pump

Cooling

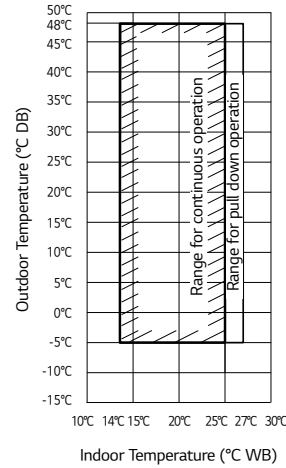


Heating

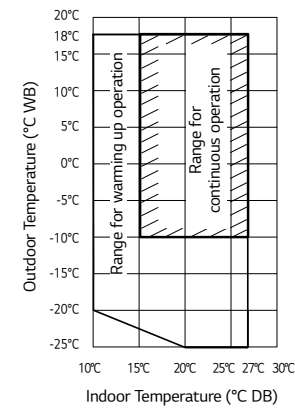


Heat Recovery

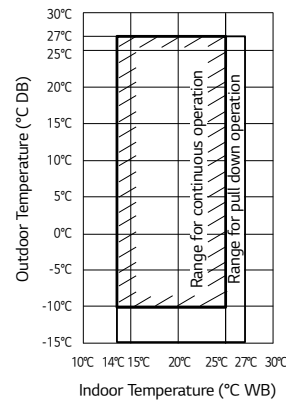
Cooling



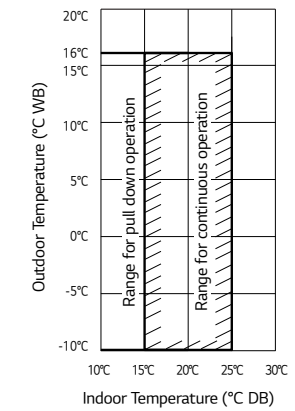
Heating



Simultaneous Cooling

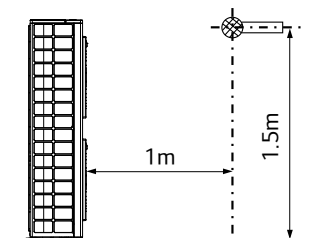


Simultaneous Heating



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 / ARUN050GSLO



LG participates in the ECP programme for EUROVENT VRF program. Check ongoing validity of certification : [www.eurovent-certification.com](http://www.eurovent-certification.com)

HP		4	5	
Model Name		ARUN040GSS0	ARUN050GSLO	
Capacity	Cooling (Rated)	kW	12.1	14.0
	Heating (Rated)	kW	12.5	15.0
Input	Cooling (Rated)	kW	3.78	4.38
	Heating (Rated)	kW	2.10	2.65
EER			3.20	3.20
SEER			5.98	6.60
COP	Rated Capacity		5.9	5.7
SCOP			5.15	4.96
Exterior	Color (General)		Warm Gray	Warm Gray
	RAL Code (Classic)		RAL 7044	RAL 7044
Heat Exchanger	Type		Wide Louver Plus / Black Fin	Wide Louver Plus / Black Fin
	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		FVC68D (PVE)	FVC68D (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 1	124 x 1
	Air Flow Rate (High)	m <sup>3</sup> /min x No.	60 x 1	60 x 1
	Drive		DC INVERTER	DC INVERTER
Pipe Connection	Discharge	Side / Top	Side	Side
	Liquid Pipe	mm (inch)	Ø9.52 (3/8)	Ø9.52 (3/8)
Dimensions (W x H x D)	Gas Pipe	mm (inch)	Ø15.88 (5/8)	Ø15.88 (5/8)
	mm x No.		(950 x 834 x 330) x 1	(950 x 834 x 330) x 1
Dimensions (W x H x D) - Shipping	mm x No.		(1,065 x 918 x 461) x 1	(1,065 x 918 x 461) x 1
Net Weight	kg x No.		70 x 1	73 x 1
Shipping Weight	kg x No.		77 x 1	81 x 1
Sound Pressure Level	Cooling	dB(A)	50.0	52.0
	Heating	dB(A)	52.0	58.0
Sound Power Level	Cooling	dB(A)	72.0	72.0
	Heating	dB(A)	76.0	75.0
Communication Cable	mm <sup>2</sup> 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	1.8	2.4
	t-CO <sub>2</sub> eq		3.758	5.010
Control			Electronic Expansion Valve	Electronic Expansion Valve
Power Supply	Ø, V, Hz		1, 220-240, 50	1, 220-240, 50
Number of Maximum Connectable Indoor Units			8	8*

\* In case of ARUN050GSLO, maximum combination ratio is 130%.

Note

- Eurovent Test Condition : Type of indoor unit connected is only Ceiling Concealed Duct.
  - Refer to EUROVENT certification regulation for more detail test conditions.
  - Refer to EUROVENT website for test values connected Ceiling Cassette type indoors.
- Performances are based on the following conditions :
  - Cooling Temperature : Indoor 27°C (80.6°F) DB / 19°C (66.2°F) WB / Outdoor 35°C (95°F) DB / 24°C (75.2°F) WB
  - Heating Temperature : Indoor 20°C (68°F) DB / 15°C (59°F) WB / Outdoor 7°C (44.6°F) DB / 6°C (42.8°F) WB
- The maximum combination ratio is 160% (the maximum combination ratio of ARUN050GSLO is 130%).
- 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 reverberation rooms by ISO 3741 standard. Therefore, these values can be increased owing to ambient conditions during operation.
- Power factor could vary less than ±1% according to the operating conditions.
- This product contains Fluorinated greenhouse gases. (R410A, GWP(Global warming potential) = 2087.5)

ARUN050GSS0 / ARUN060GSS0



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HP			5	6
<b>Model Name</b>			ARUN050GSS0	ARUN060GSS0
<b>Capacity</b>	Cooling (Rated)	kW	14.0	15.5
	Heating (Rated)	kW	16.0	18.0
<b>Input</b>	Cooling (Rated)	kW	3.33	3.97
	Heating (Rated)	kW	2.77	3.40
<b>EER</b>			4.20	3.90
<b>SEER</b>			6.56	6.65
<b>COP</b> Rated Capacity			5.77	5.30
<b>SCOP</b>			5.23	5.19
<b>Exterior</b>	Color (General)		Warm Gray	Warm Gray
	RAL Code (Classic)		RAL 7044	RAL 7044
<b>Heat Exchanger</b>	Type		Wide Louver Plus / Black Fin	Wide Louver Plus / Black Fin
	Type		BLDC Inverter Twin Rotary	BLDC Inverter Twin Rotary
<b>Compressor</b>	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		FVC68D (PVE)	FVC68D (PVE)
	Oil Charge	cc	1,300	1,300
	Type		Axial Flow Fan	Axial Flow Fan
<b>Fan</b>	Motor Output x Number	W x No.	124 x 2	124 x 2
	Air Flow Rate (High)	m <sup>3</sup> /min x No.	110 x 1	110 x 1
	Drive		DC INVERTER	DC INVERTER
	Discharge	Side / Top	Side	Side
<b>Pipe Connection</b>	Liquid Pipe	mm (inch)	Ø9.52 (3/8)	Ø9.52 (3/8)
	Gas Pipe	mm (inch)	Ø15.88 (5/8)	Ø19.05 (3/4)
<b>Dimensions (W x H x D)</b>		mm x No.	(950 x 1,380 x 330) x 1	(950 x 1,380 x 330) x 1
<b>Dimensions (W x H x D) - Shipping</b>		mm x No.	(1,140 x 1,462 x 461) x 1	(1,140 x 1,462 x 461) x 1
<b>Net Weight</b>		kg x No.	94 x 1	94 x 1
<b>Shipping Weight</b>		kg x No.	106 x 1	106 x 1
<b>Sound Pressure Level</b>	Cooling	dB(A)	51.0	52.0
	Heating	dB(A)	53.0	54.0
<b>Sound Power Level</b>	Cooling	dB(A)	72.0	72.0
	Heating	dB(A)	76.0	77.0
<b>Communication Cable</b>		mm <sup>2</sup> x No. (VCTF-SB)	1.0 - 1.5 x 2C	1.0 - 1.5 x 2C
<b>Refrigerant</b>	Refrigerant Name		R410A	R410A
	Precharged Amount in factory	kg	3.0	3.0
	t-CO <sub>2</sub> eq		6.263	6.263
	Control		Electronic Expansion Valve	Electronic Expansion Valve
<b>Power Supply</b>		Ø, V, Hz	1, 220-240, 50	1, 220-240, 50
<b>Number of Maximum Connectable Indoor Units</b>			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% (the maximum combination ratio of ARUN050GSS0 is 130%).
  - 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 reverberation rooms by ISO 3741 standard. Therefore, these values can be increased owing to ambient conditions during operation.
  - Power factor could vary less than ±1% according to the operating conditions.
  - This product contains Fluorinated greenhouse gases. (R410A, GWP(Global warming potential) = 2087.5)

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
<b>Model Name</b>			ARUN040LSS0	ARUN050LSS0	ARUN060LSS0
<b>Capacity</b>	Cooling (Rated)	kW	12.1	14.0	15.5
	Heating (Rated)	kW	12.5	16.0	18.0
<b>Input</b>	Cooling (Rated)	kW	2.37	3.33	3.97
	Heating (Rated)	kW	1.93	2.77	3.40
<b>EER</b>			5.10	4.20	3.90
<b>SEER</b>			6.46	6.56	6.65
<b>COP</b> Rated Capacity			6.49	5.77	5.30
<b>SCOP</b>			5.02	5.23	5.19
<b>Exterior</b>	Color (General)		Warm Gray	Warm Gray	Warm Gray
	RAL Code (Classic)		RAL 7044	RAL 7044	RAL 7044
<b>Heat Exchanger</b>	Type		Wide Louver Plus / Black Fin	Wide Louver Plus / Black Fin	Wide Louver Plus / Black Fin
	Type		BLDC Inverter Twin Rotary	BLDC Inverter Twin Rotary	BLDC Inverter Twin Rotary
<b>Compressor</b>	Combination x No.		(Inverter) x 1	(Inverter) x 1	(Inverter) x 1
	Motor Output x Number	W x No.	4,000 x 1	4,000 x 1	4,000 x 1
	Oil Type		FVC68D (PVE)	FVC68D (PVE)	FVC68D (PVE)
	Oil Charge	cc	1,300	1,300	1,300
	Type		Axial Flow Fan	Axial Flow Fan	Axial Flow Fan
<b>Fan</b>	Motor Output x Number	W x No.	124 x 2	124 x 2	124 x 2
	Air Flow Rate (High)	m <sup>3</sup> /min x No.	110 x 1	110 x 1	110 x 1
	Drive		DC INVERTER	DC INVERTER	DC INVERTER
	Discharge	Side / Top	Side	Side	Side
<b>Pipe Connection</b>	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)
<b>Dimensions (W x H x D)</b>		mm x No.	(950 x 1,380 x 330) x 1	(950 x 1,380 x 330) x 1	(950 x 1,380 x 330) x 1
<b>Dimensions (W x H x D) - Shipping</b>		mm x No.	(1,140 x 1,462 x 461) x 1	(1,140 x 1,462 x 461) x 1	(1,140 x 1,462 x 461) x 1
<b>Net Weight</b>		kg x No.	96 x 1	96 x 1	96 x 1
<b>Shipping Weight</b>		kg x No.	108 x 1	106 x 1	106 x 1
<b>Sound Pressure Level</b>	Cooling	dB(A)	50.0	51.0	52.0
	Heating	dB(A)	52.0	53.0	54.0
<b>Sound Power Level</b>	Cooling	dB(A)	72.0	72.0	72.0
	Heating	dB(A)	76.0	76.0	77.0
<b>Communication Cable</b>		mm <sup>2</sup> x No. (VCTF-SB)	1.0 - 1.5 x 2C	1.0 - 1.5 x 2C	1.0 - 1.5 x 2C
<b>Refrigerant</b>	Refrigerant Name		R410A	R410A	R410A
	Precharged Amount in factory	kg	3.0	3.0	3.0
	t-CO <sub>2</sub> eq		6.263	6.263	6.263
	Control		Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve
<b>Power Supply</b>		Ø, V, Hz	3, 380-415, 50	3, 380-415, 50	3, 380-415, 50
<b>Number of Maximum Connectable Indoor Units</b>			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% (the maximum combination ratio of ARUN050GSS0 is 130%).
  - 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 reverberation rooms by ISO 3741 standard. Therefore, these values can be increased owing to ambient conditions during operation.
  - Power factor could vary less than ±1% according to the operating conditions.
  - This product contains Fluorinated greenhouse gases. (R410A, GWP(Global warming potential) = 2087.5)

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
<b>Model Name</b>			ARUN080LSS0	ARUN100LSS0	ARUN120LSS0
<b>Capacity</b>	Cooling (Rated)	kW	22.4	28.0	33.6
	Heating (Rated)	kW	24.5	30.6	36.7
<b>Input</b>	Cooling (Rated)	kW	8.30	8.75	14.00
	Heating (Rated)	kW	6.62	8.12	7.46
<b>EER</b>			2.70	3.20	2.40
<b>SEER</b>			6.03	6.59	5.72
<b>COP</b> Rated Capacity			3.70	3.77	4.92
<b>SCOP</b>			4.33	4.17	3.86
<b>Exterior</b>	Color (General)		Warm Gray	Warm Gray	Warm Gray
	RAL Code (Classic), General		RAL 7044	RAL 7044	RAL 7044
<b>Heat Exchanger</b>	Type		Wide Louver Plus / Black Fin	Wide Louver Plus / Black Fin	Wide Louver Plus / Black Fin
	Type		Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll
<b>Compressor</b>	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		FVC68D (PVE)	FVC68D (PVE)	FVC68D (PVE)
	Oil Charge	cc	2,400	2,600	3,400
	Type		Propeller fan	Propeller fan	Propeller fan
<b>Fan</b>	Motor Output x Number	W x No.	124 x 2	250 x 2	250 x 2
	Air Flow Rate (High)	m <sup>3</sup> /min x No.	140 x 1	190 x 1	190 x 1
	Drive		DC INVERTER	DC INVERTER	DC INVERTER
	Discharge	Side / Top	Side	Side	Side
	Liquid Pipe	mm (inch)	Ø9.52 (3/8)	Ø9.52 (3/8)	Ø12.7 (1/2)
<b>Pipe Connection</b>	Gas Pipe	mm (inch)	Ø19.05 (3/4)	Ø22.2 (7/8)	Ø28.58 (1-1/8)
	Dimensions (W x H x D)	mm x No.	(950 x 1,380 x 330) x 1	(1,090 x 1,625 x 380) x 1	(1,090 x 1,625 x 380) x 1
<b>Dimensions (W x H x D) - Shipping</b>		mm x No.	(1,140 x 1,462 x 461) x 1	(1,215 x 1,795 x 500) x 1	(1,215 x 1,795 x 500) x 1
<b>Net Weight</b>		kg x No.	115 x 1	144 x 1	157 x 1
<b>Shipping Weight</b>		kg x No.	127 x 1	160 x 1	173 x 1
<b>Sound Pressure Level</b>	Cooling	dB(A)	57.0	58.0	60.0
	Heating	dB(A)	57.0	58.0	60.0
<b>Sound Power Level</b>	Cooling	dB(A)	81.0	80.0	81.0
	Heating	dB(A)	84.0	84.0	85.0
<b>Communication Cable</b>		mm <sup>2</sup> x No. (VCTF-SB)	1.0 - 1.5 x 2C	1.0 - 1.5 x 2C	1.0 - 1.5 x 2C
<b>Refrigerant</b>	Refrigerant Name		R410A	R410A	R410A
	Precharged Amount in factory	kg	3.5	4.5	6.0
	t-CO <sub>2</sub> eq		7.306	9.394	12.525
	Control		Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve
<b>Power Supply</b>		Ø, V, Hz	3, 380-415, 50	3, 380-415, 50	3, 380-415, 50
<b>Number of Maximum Connectable Indoor Units</b>			13	16	20

Note

- Eurovent Test Condition : Type of indoor unit connected is only Ceiling Concealed Duct.
  - Refer to EUROVENT certification regulation for more detail test conditions.
  - Refer to EUROVENT website for test values connected Ceiling Cassette type indoors.
- Performances are based on the following conditions :
  - Cooling Temperature : Indoor 27°C (80.6°F) DB / 19°C (66.2°F) WB / Outdoor 35°C (95°F) DB / 24°C (75.2°F) WB
  - Heating Temperature : Indoor 20°C (68°F) DB / 15°C (59°F) WB / Outdoor 7°C (44.6°F) DB / 6°C (42.8°F) WB
- The maximum combination ratio is 160% (the maximum combination ratio of ARUN050GSL0 is 130%).
- Wiring cable size must comply with the applicable local and national codes.
- 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 reverberation rooms by ISO 3741 standard. Therefore, these values can be increased owing to ambient conditions during operation.
- Power factor could vary less than ±1% according to the operating conditions.
- This product contains Fluorinated greenhouse gases. (R410A, GWP(Global warming potential) = 2087.5)

ARUB060GSS4



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

HP			6
<b>Model Name</b>			ARUB060GSS4
<b>Capacity</b>	Cooling (Rated)	kW	15.5
	Heating (Rated)	kW	18.0
<b>Input</b>	Cooling (Rated)	kW	3.83
	Heating (Rated)	kW	3.64
<b>EER</b>			4.05
<b>SEER</b>			6.84
<b>COP</b> Rated Capacity			4.94
<b>SCOP</b>			4.38
<b>Exterior</b>	Color		Warm Gray
	RAL Code (Classic)		RAL 7044
<b>Heat Exchanger</b>	Type		Wide Louver Plus
	Type		Hermetically Sealed Scroll
<b>Compressor</b>	Combination x No.		(Inverter) x 1
	Motor Output x Number	W x No.	4,200 x 1
	Oil Type		FVC68D (PVE)
	Oil Charge	cc	1,700
	Type		Axial Flow Fan
<b>Fan</b>	Motor Output x Number	W x No.	124 x 2
	Air Flow Rate (High)	m <sup>3</sup> /min x No.	110 x 1
	Drive		DC INVERTER
	Discharge	Side / Top	Side
	Liquid Pipe	mm (inch)	Ø9.52 (3/8)
<b>Pipe Connection #1</b>	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) x 1
<b>Dimensions (W x H x D) - shipping</b>		mm x No.	(1,140 x 1,549 x 466) x 1
<b>Net Weight</b>		kg x No.	118 x 1
<b>Shipping Weight</b>		kg x No.	132 x 1
<b>Sound Pressure Level</b>	Cooling	dB(A)	56
	Heating	dB(A)	58
<b>Sound Power Level</b>	Cooling	dB(A)	69
	Heating	dB(A)	71
<b>Communication Cable</b>		mm <sup>2</sup> x No. (VCTF-SB)	1.0 - 1.5 x 2C
<b>Refrigerant</b>	Refrigerant Name		R410A
	Precharged Amount in factory	kg	3.5
	t-CO <sub>2</sub> eq		7.306
	Control		Electronic Expansion Valve
<b>Power Supply</b>		Ø, V, Hz	1, 220-240, 50
<b>Number of Maximum Connectable Indoor Units</b>			13

Note

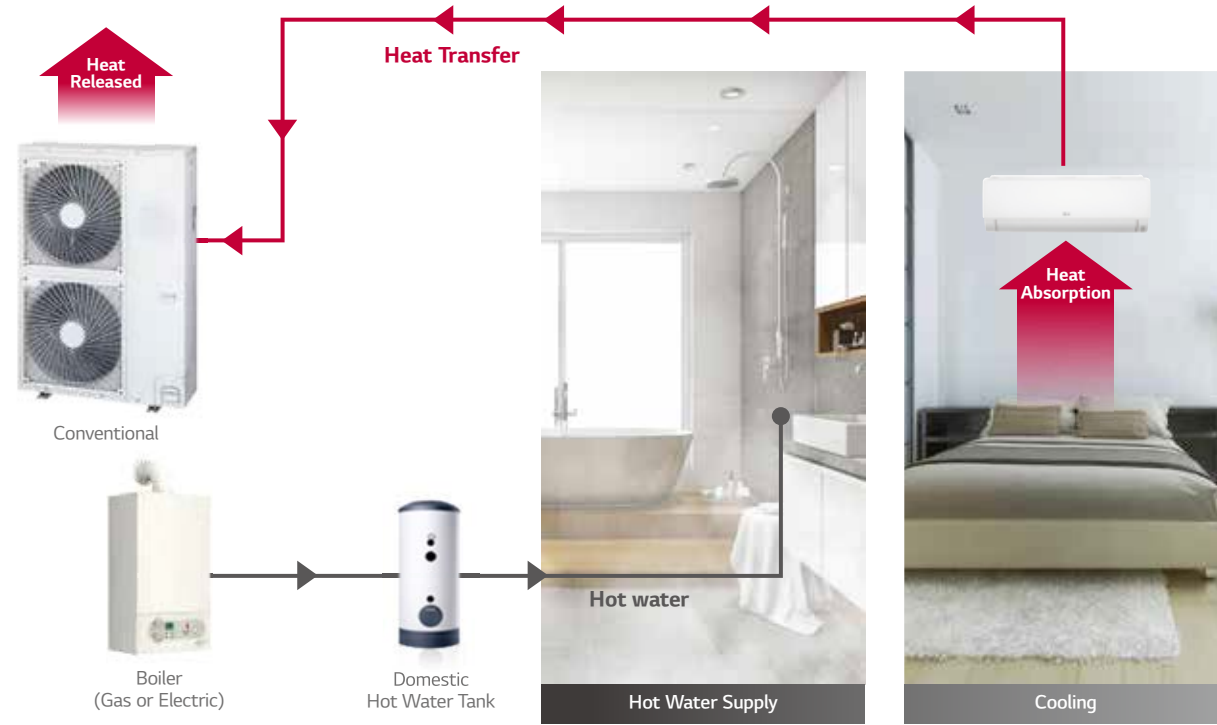
- Eurovent Test Condition : Type of indoor unit connected is only Ceiling Concealed Duct.
  - Refer to EUROVENT certification regulation for more detail test conditions.
  - Refer to EUROVENT website for test values connected Ceiling Cassette type indoors.
- Performances are based on the following conditions :
  - 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% (the maximum combination ratio of ARUN050GSL0 is 130%).
- 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 reverberation rooms by ISO 3741 standard. Therefore, these values can be increased owing to ambient conditions during operation.
- Power factor could vary less than ±1% according to the operating conditions.
- This product contains Fluorinated greenhouse gases. (R410A, GWP(Global warming potential) = 2087.5)

## 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 (Cooling capacity based)
- 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.

EER 3.65  
COP 4.10

VS



Superior to competitor's

EER 4.20  
COP 5.15

EER 15% ↑ COP 25% ↑

※ 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)



546mm ↓



23% ↓  
Light Weight

## Less Refrigerant Charge

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

Total amount : 5.6 kg  
Factory Charging : 3 kg



Previous

Total amount : 4.3 kg 23% ↓  
Factory Charging : 2 kg



New

※ 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.

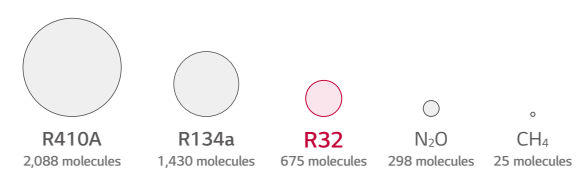


- Hydrophilic film (Water flow)**  
The Hydrophilic coating minimizes moisture buildup on the fin.
- Acryl + Epoxy + Melamine resin (Corrosion resistant)**  
The Black coating provides strong protection from corrosion.
- Aluminum fin**

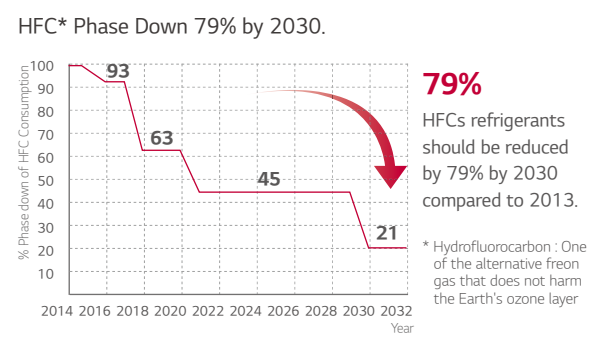
## Lower Global Warming Potential (GWP)

### 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 (CO<sub>2</sub>).



### Global Trend and EU Regulation for F-Gas



## 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.



### Less Refrigerant Charge

Savings on cost of injecting & replacing refrigerant.





ZRUN040GSS0 / ZRUN050GSS0  
ZRUN060GSS0



LG participates in the ECP programme for EUROVENT VRF program. Check ongoing validity of certification : [www.eurovent-certification.com](http://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	3.43	3.33	3.97
	Heating (Rated)	kW	2.30	2.72	3.23
	Heating (Max)	kW	2.93	3.48	4.29
EER (Rated)			3.53	4.20	3.90
SEER			8.10	8.70	8.50
COP (Rated)			5.26	5.15	4.80
COP (Max)			4.84	4.60	4.20
SCOP			4.70	4.80	5.00
Exterior	Color		Warm Gray	Warm Gray	Warm Gray
	RAL Code		RAL 7044	RAL 7044	RAL 7044
Heat Exchanger	Type		Wide Louver Plus / Black Fin	Wide Louver Plus / Black Fin	Wide Louver Plus / Black Fin
	Type		LG Inverter Scroll (R1)	LG Inverter Scroll (R1)	LG Inverter Scroll (R1)
Compressor	Combination x No.		(Inverter) x 1	(Inverter) x 1	(Inverter) x 1
	Motor Output x Number	W x No.	3,198 x 1	3,198 x 1	3,198 x 1
	Oil Type		FW68D	FW68D	FW68D
	Oil Charge	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	200 x 1	200 x 1
	Air Flow Rate (High)	m <sup>3</sup> /min x No.	60 x 1	80 x 1	80 x 1
	Drive		DC INVERTER	DC INVERTER	DC INVERTER
	Discharge	Side / Top	Side	Side	Side
Pipe 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) x 1	mm x No. (950 x 834 x 330) x 1	mm x No. (950 x 834 x 330) x 1
Dimensions (W x H x D) - Shipping			mm x No. (1,147 x 919 x 461) x 1	mm x No. (1,147 x 919 x 461) x 1	mm x No. (1,147 x 919 x 461) x 1
Net Weight			kg x No. 64.7 x 1	kg x No. 71.6 x 1	kg x No. 71.6 x 1
Shipping Weight			kg x No. 73.7 x 1	kg x No. 79.6 x 1	kg x No. 79.6 x 1
Sound Pressure Level	Cooling	dB(A)	50	51	52
	Heating	dB(A)	52	53	54
Sound Power Level	Cooling	dB(A)	67	70	71
	Heating	dB(A)	71	74	75
Communication Cable			mm <sup>2</sup> x No. (VCTF-SB) 1.0 - 1.5 x 2C	mm <sup>2</sup> x No. (VCTF-SB) 1.0 - 1.5 x 2C	mm <sup>2</sup> x No. (VCTF-SB) 1.0 - 1.5 x 2C
Refrigerant	Refrigerant name		R32	R32	R32
	Precharged Amount	kg	1.5	2.0	2.0
	t-CO <sub>2</sub> eq		1.010	1.350	1.350
	Control		Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve
Power Supply			Ø, V, Hz 1, 220-240, 50	Ø, V, Hz 1, 220-240, 50	Ø, V, Hz 1, 220-240, 50
Number of maximum connectable indoor units			8	10	13

Note

- Due to our policy of innovation some specifications may be changed without notification.
- 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.
- Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard. Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard. Therefore, these values can be increased owing to ambient conditions during operation.
- Performances are based on the following conditions :

- Cooling : Indoor Ambient Temp 27°CDB / 19°CWB, Outdoor Ambient Temp 35°CDB / 24°CWB
- Heating : Indoor Ambient Temp 20°CDB / 15°CWB, Outdoor Ambient Temp 7°CDB / 6°CWB
- Interconnected Pipe Length is 7.5m and difference of Elevation (Outdoor - Indoor Unit) is 0m.
- 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](http://www.eurovent-certification.com)) for other indoor unit combination and more detail test conditions.
- The maximum combination ratio is 160%.
- This product contains Fluorinated greenhouse gases. (R32, GWP (Global warming potential) = 675)

ZRUN040LSS0 / ZRUN050LSS0  
ZRUN060LSS0



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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	3.43	3.33	3.97
	Heating (Rated)	kW	2.30	2.72	3.23
	Heating (Max)	kW	2.93	3.48	4.29
EER (Rated)			3.53	4.20	3.90
SEER			8.10	8.70	8.50
COP (Rated)			5.26	5.15	4.80
COP (Max)			4.84	4.60	4.20
SCOP			4.70	4.80	5.00
Exterior	Color		Warm Gray	Warm Gray	Warm Gray
	RAL Code		RAL 7044	RAL 7044	RAL 7044
Heat Exchanger	Type		Wide Louver Plus / Black Fin	Wide Louver Plus / Black Fin	Wide Louver Plus / Black Fin
	Type		LG Inverter Scroll (R1)	LG Inverter Scroll (R1)	LG Inverter Scroll (R1)
Compressor	Combination x No.		(Inverter) x 1	(Inverter) x 1	(Inverter) x 1
	Motor Output x Number	W x No.	3,198 x 1	3,198 x 1	3,198 x 1
	Oil Type		FW68D	FW68D	FW68D
	Oil Charge	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	200 x 1	200 x 1
	Air Flow Rate (High)	m <sup>3</sup> /min x No.	60 x 1	80 x 1	80 x 1
	Drive		DC INVERTER	DC INVERTER	DC INVERTER
	Discharge	Side / Top	Side	Side	Side
Pipe 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) x 1	mm x No. (950 x 834 x 330) x 1	mm x No. (950 x 834 x 330) x 1
Dimensions (W x H x D) - Shipping			mm x No. (1,147 x 919 x 461) x 1	mm x No. (1,147 x 919 x 461) x 1	mm x No. (1,147 x 919 x 461) x 1
Net Weight			kg x No. 64.7 x 1	kg x No. 71.6 x 1	kg x No. 71.6 x 1
Shipping Weight			kg x No. 73.7 x 1	kg x No. 79.6 x 1	kg x No. 79.6 x 1
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 <sup>2</sup> x No. (VCTF-SB) 1.0 - 1.5 x 2C	mm <sup>2</sup> x No. (VCTF-SB) 1.0 - 1.5 x 2C	mm <sup>2</sup> x No. (VCTF-SB) 1.0 - 1.5 x 2C
Refrigerant	Refrigerant name		R32	R32	R32
	Precharged Amount	kg	1.5	2.0	2.0
	t-CO <sub>2</sub> eq		1.013	1.350	1.350
	Control		Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve
Power Supply			Ø, V, Hz 3, 380-415, 50	Ø, V, Hz 3, 380-415, 50	Ø, V, Hz 3, 380-415, 50
Number of maximum connectable indoor units			8	10	13

Note

- Due to our policy of innovation some specifications may be changed without notification.
- 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.
- Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard. Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard. Therefore, these values can be increased owing to ambient conditions during operation.
- Performances are based on the following conditions :

- Cooling : Indoor Ambient Temp 27°CDB / 19°CWB, Outdoor Ambient Temp 35°CDB / 24°CWB
- Heating : Indoor Ambient Temp 20°CDB / 15°CWB, Outdoor Ambient Temp 7°CDB / 6°CWB
- Interconnected Pipe Length is 7.5m and difference of Elevation (Outdoor - Indoor Unit) is 0m.
- 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](http://www.eurovent-certification.com)) for other indoor unit combination and more detail test conditions.
- The maximum combination ratio is 160%.
- This product contains Fluorinated greenhouse gases. (R32, GWP (Global warming potential) = 675)