

MULTI VTM S

Highlights



Energy savings



Reliability

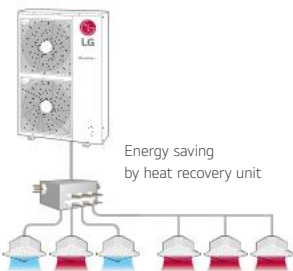


Convenience

- Air cooled VRF Heat pump & Heat Recovery
- 9.0 ~ 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

How does it work?

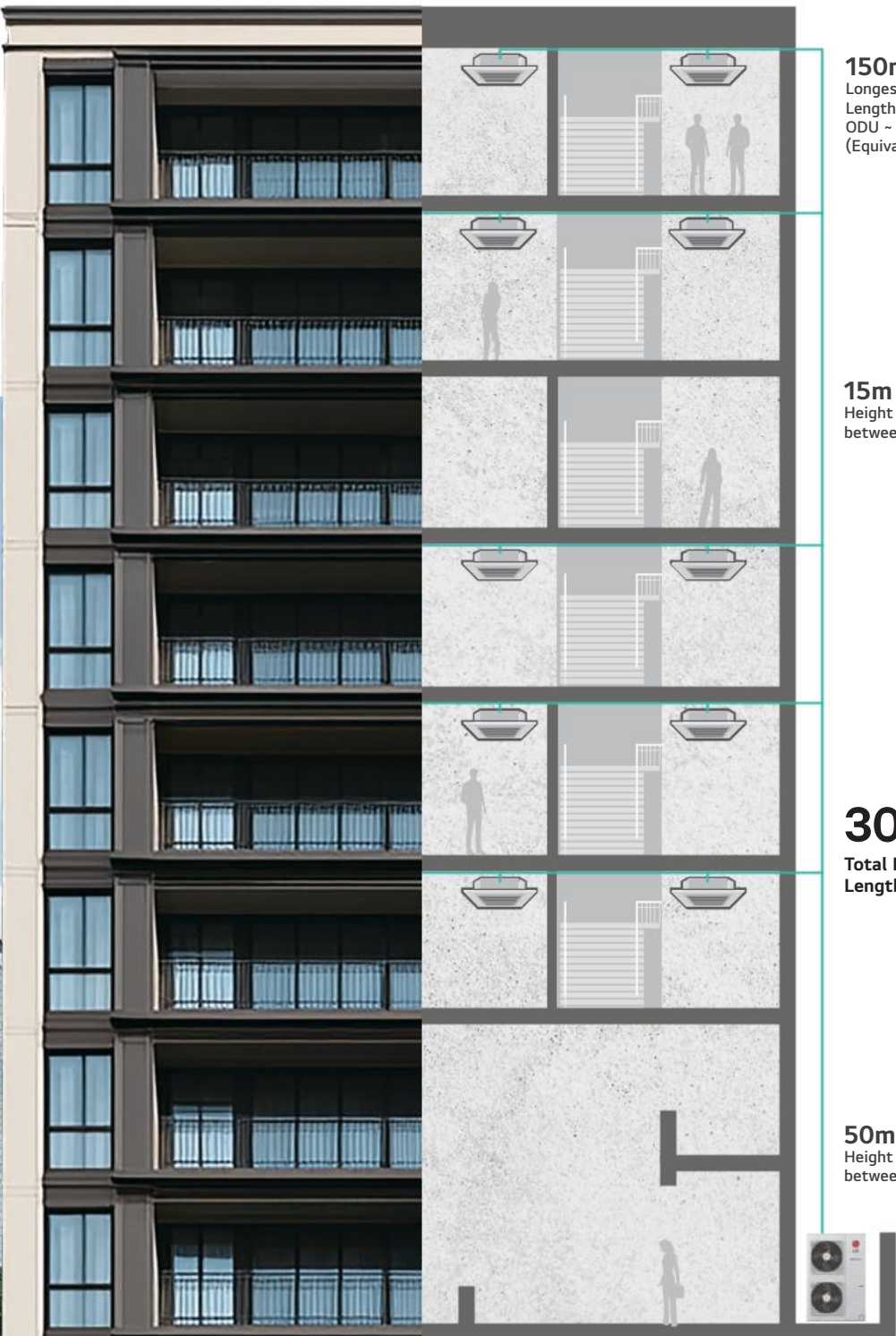
Available in Heat Pump and Heat Recovery Models



Combination of Cooling, Heating and Hot Water Solution



※ Heat Pump and Recovery are separated models.

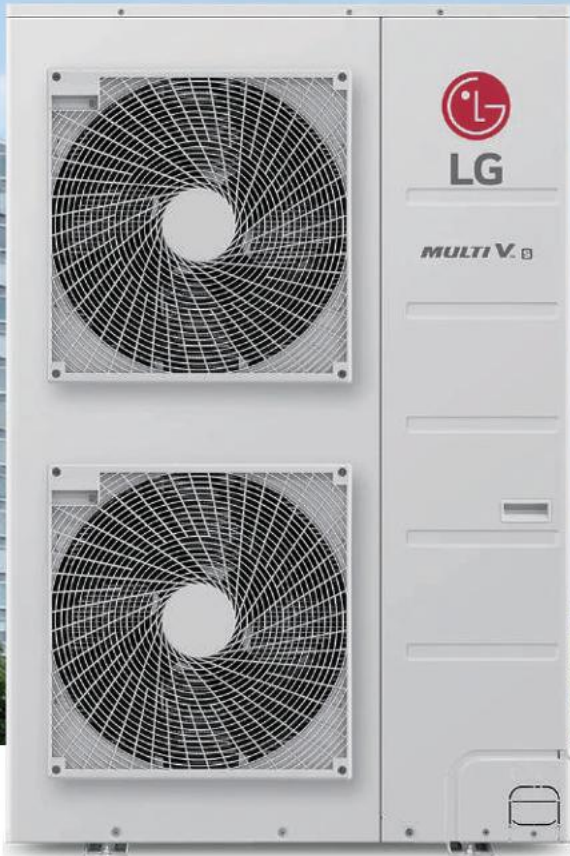


150m (175m)
Longest Piping Length from ODU ~ IDU (Equivalent)

15m
Height Difference between IDU ~ IDU

300m
Total Piping Length

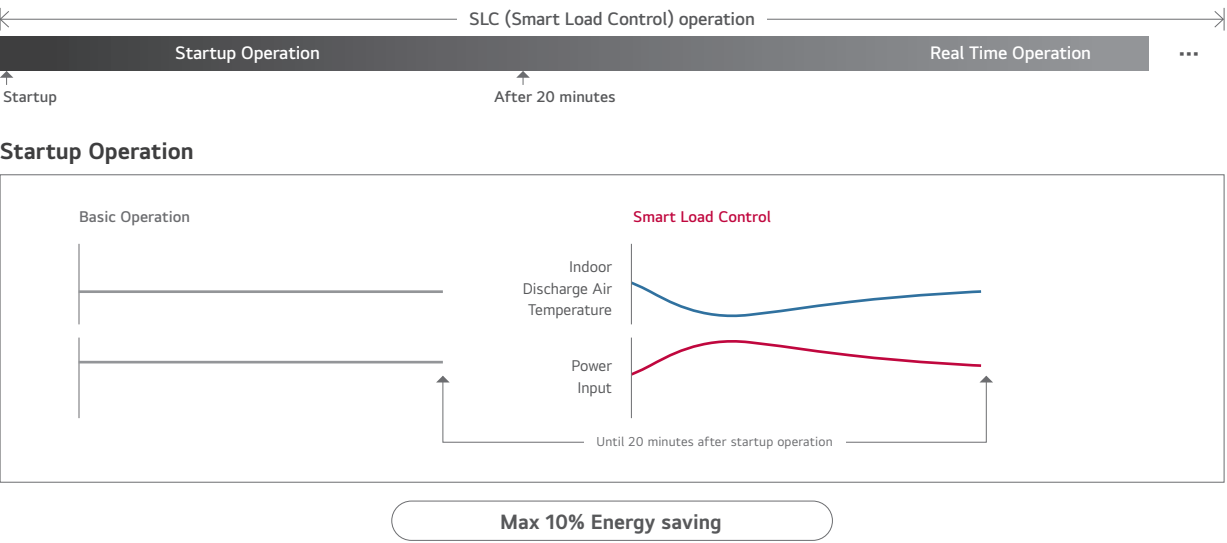
50m
Height Difference between ODU ~ IDU



Smart Load Control Applied

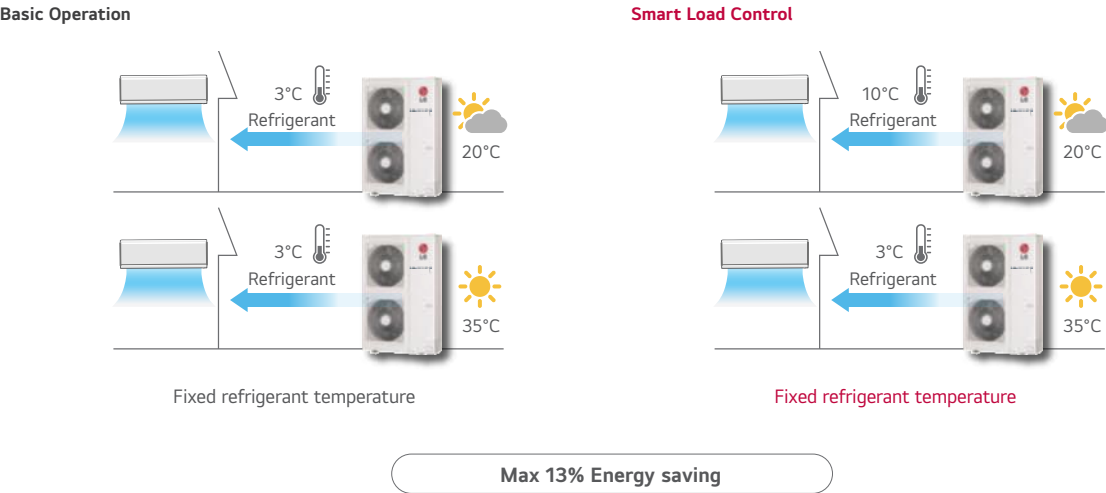
Enhanced comfort and up to 23% energy savings with MULTI V load control

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



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

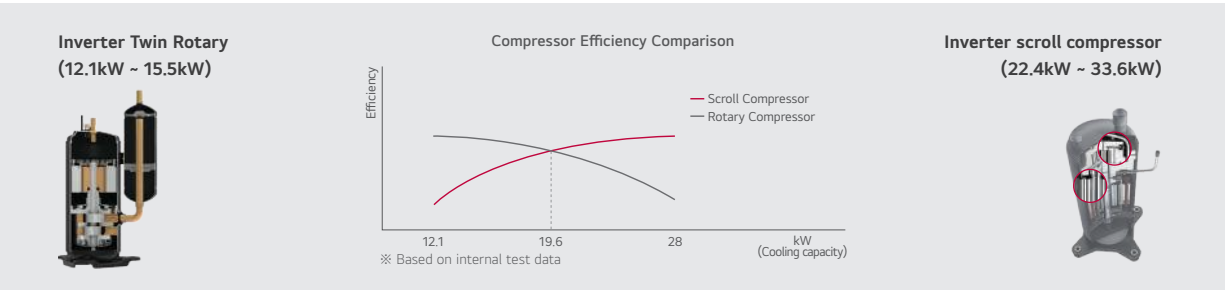
Real Time Operation



※ 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) / PREMTBB11 (Black)

Inverter Twin Rotary & Inverter Scroll Compressor

Adapted high efficiency 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 of the rotor offset imbalance in shaft rotor rotation. Vibration and noise is reduced. Max torque load decreased by 45% compared to single rotor.

Surface Coating

A surface coating with exceptional abrasion resistance properties is applied to the vane and crankshaft.

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

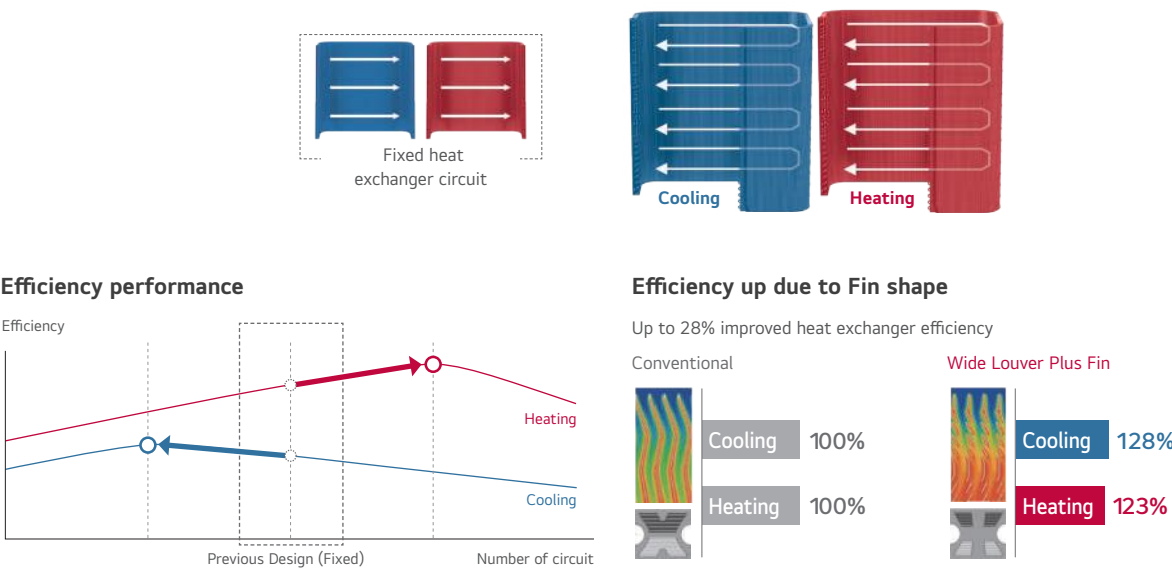
Scroll Profile

- Enhanced reliability with regulated oil supply
- Efficiency is enhanced through a 96% expansion of the bypass area and a 17% improvement in volume ratio achieved by incorporating non-uniform scroll thickness

Optimal Heat Exchanger

Maximize efficiency according to different heat exchanger paths 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.



High Efficiency

The new MULTI V S has high SEER and SCOP values by applying the 5th generation inverter scroll compressor

* Only for 8, 10, 12HP

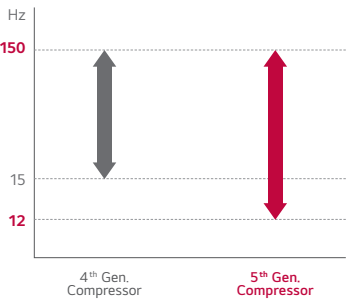


5th Gen. Compressor

Wider Frequency Range

The frequency range of the compressor is widened from 12 to 150 Hz.
→ Partial load performance is improved.

Comparison of Compressor Frequency



Higher Performance

The partial load efficiency of the 5th Gen. Compressor is about 5% higher than that of the 4th Gen. Compressor.

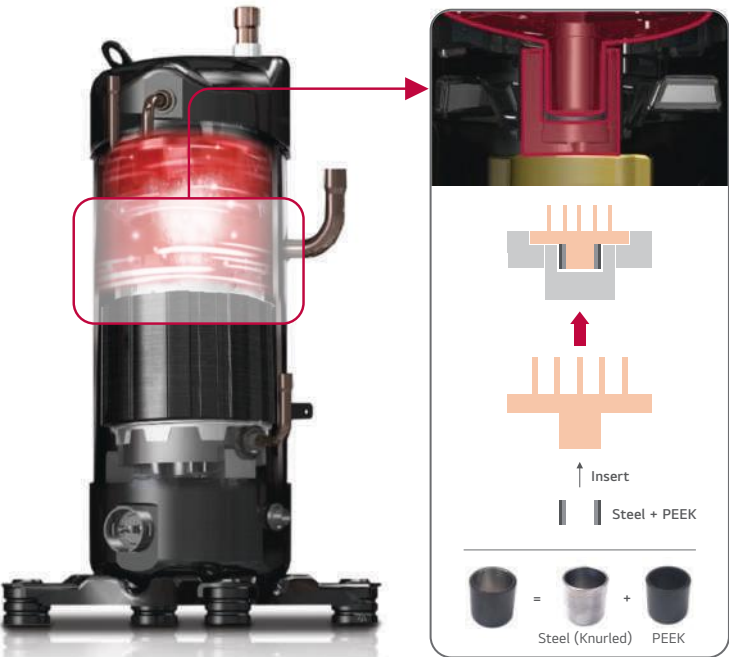
Inverter Scroll Compressor		4 th gen.	5 th gen.
Performance	CHEER Conditions	30 Hz	100%
		60 Hz	105%
	ARI Conditions	90 Hz	104%
		120 Hz	108%

※ The above compressor comparison is based on ARUN120LSS0 and ARUN120LSS5 compressors.
※ CHEER : Copeland High EER (Condensation Temp. : 37.9°C / Evaporation Temp. : 7.2°C / Return Gas Temp. : 18.3°C / Liquid Temp. : 29.5°C / Ambient Temp. : 35.0°C)
※ ARI : Air-conditioning & Refrigeration Institute (Condensation Temp. : 54.4°C / Evaporation Temp. : 7.2°C / Return Gas Temp. : 18.3°C / Liquid Temp. : 46.1°C / Ambient Temp. : 35.0°C)
※ The efficiency data is taken from the Eurovent certified product directory.
→ MULTI V S : ARUN**LSS5 // D Com. : RXYSQ**TY1 // ME Com. : FDC**KXZME1(A)

Reliable Inverter Compressor

The new MULTI V S is equipped with the 5th generation compressor which has an outer bearing structure for high reliability. And the outer bearing is composed of steel and PEEK.

* Only for 8, 10, 12HP

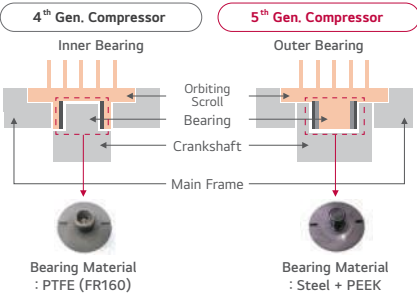


* PEEK : Polyether Ether Ketone

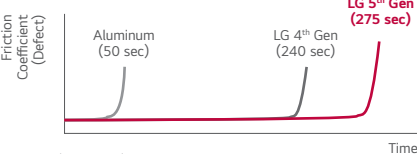
※ The PEEK is a semi-crystalline thermoplastic with excellent mechanical and chemical resistance properties that are retained to high temperatures.
※ The above images are for customer understanding, and may differ from the actual parts.

Enhanced Bearing Technology

- Reduced vibration and bearing loads
: Outer bearing structure
- High heat tolerance & high stiffness material for bearing : Steel (Inside) + PEEK (Outside)
- Increased bearing performance in oil-free operation



Comparison of oil-free operation time



※ Internal test result.
※ Bearing oil blocking test (Oil blocking at 60 Hz)

Reliable Refrigerant Components

LG technology allows for superior performance and component durability

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% more volume compared to conventional)
- Prevents the liquid refrigerant entering the compressor suction
- Maximized efficiency with optimal usage 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

MULTI V S improved reliability with advanced technology :

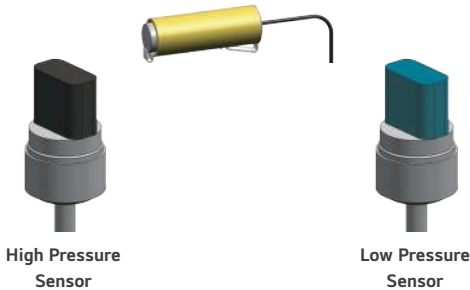
- Oil separator
- Accumulator
- Sub-cooling

Smart Control

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

Temperature + Pressure Control

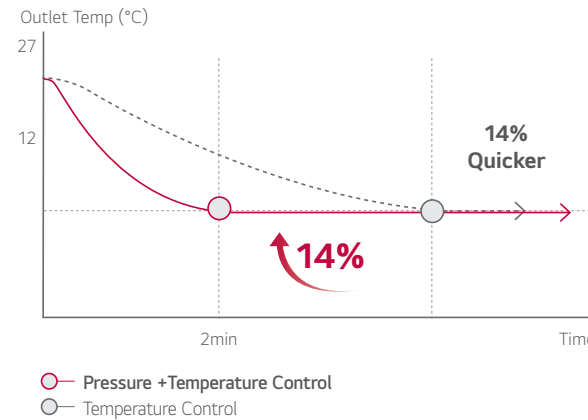
Senses and controls pressure directly using pressure sensor for faster and more precise response to load variation.



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.

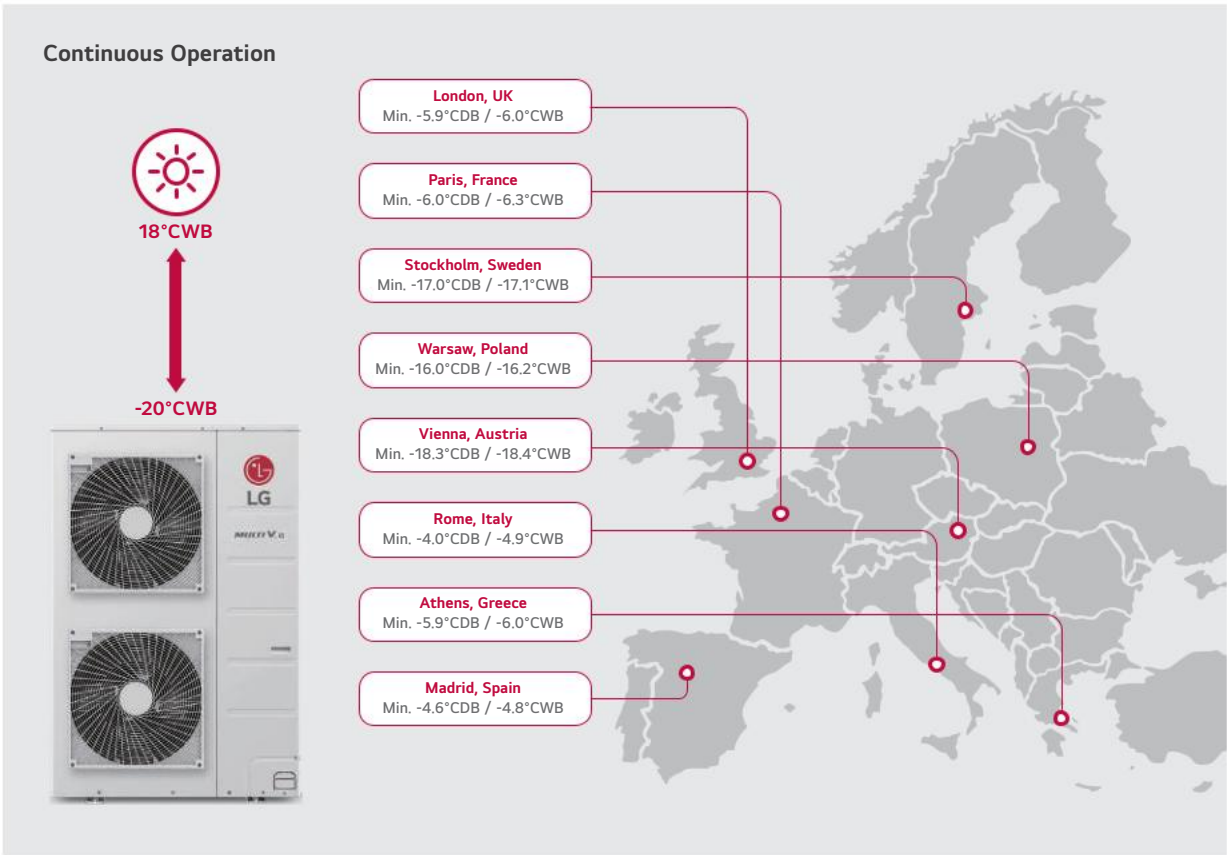
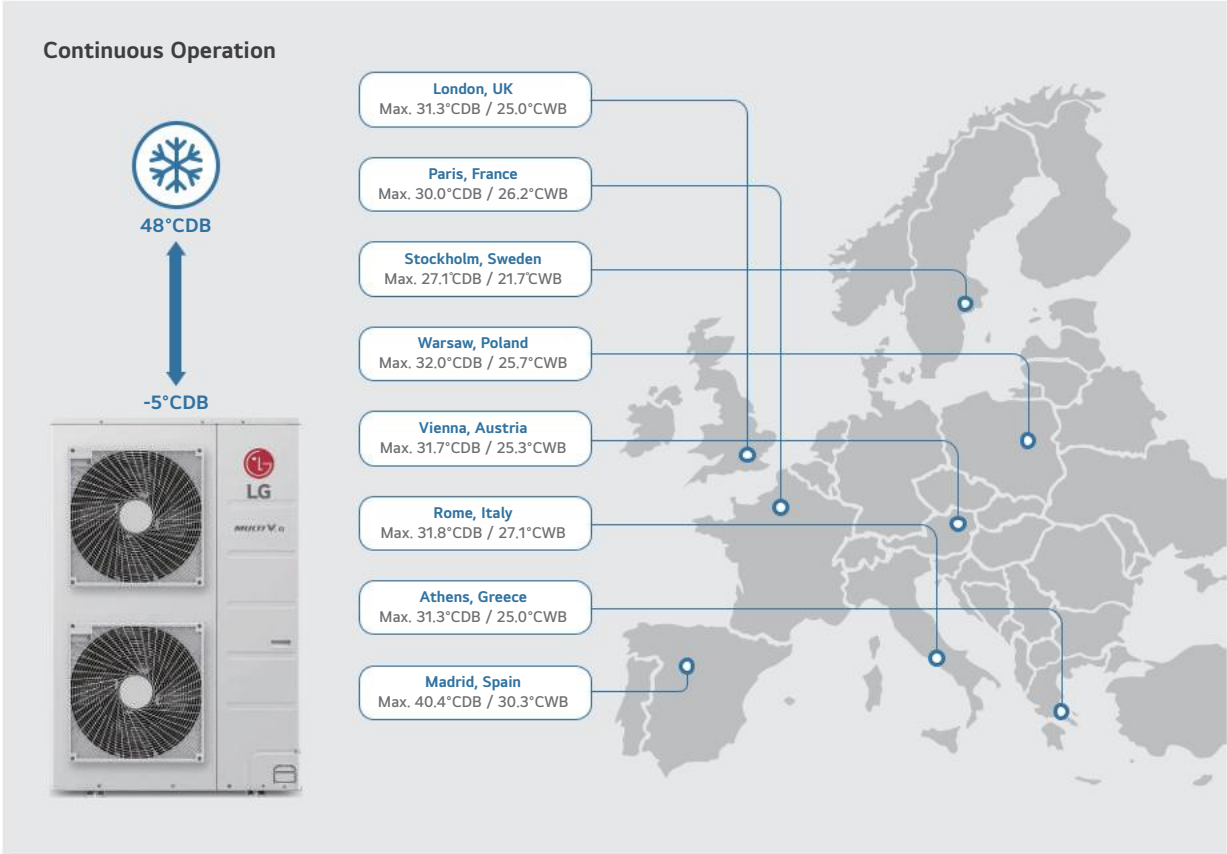
※ Specifications may vary for each model.



Wide Operation Ranges (Cooling & Heating)

With wide operation ranges, MULTI V S can operate continuously in many European countries

* Only for 8, 10, 12HP

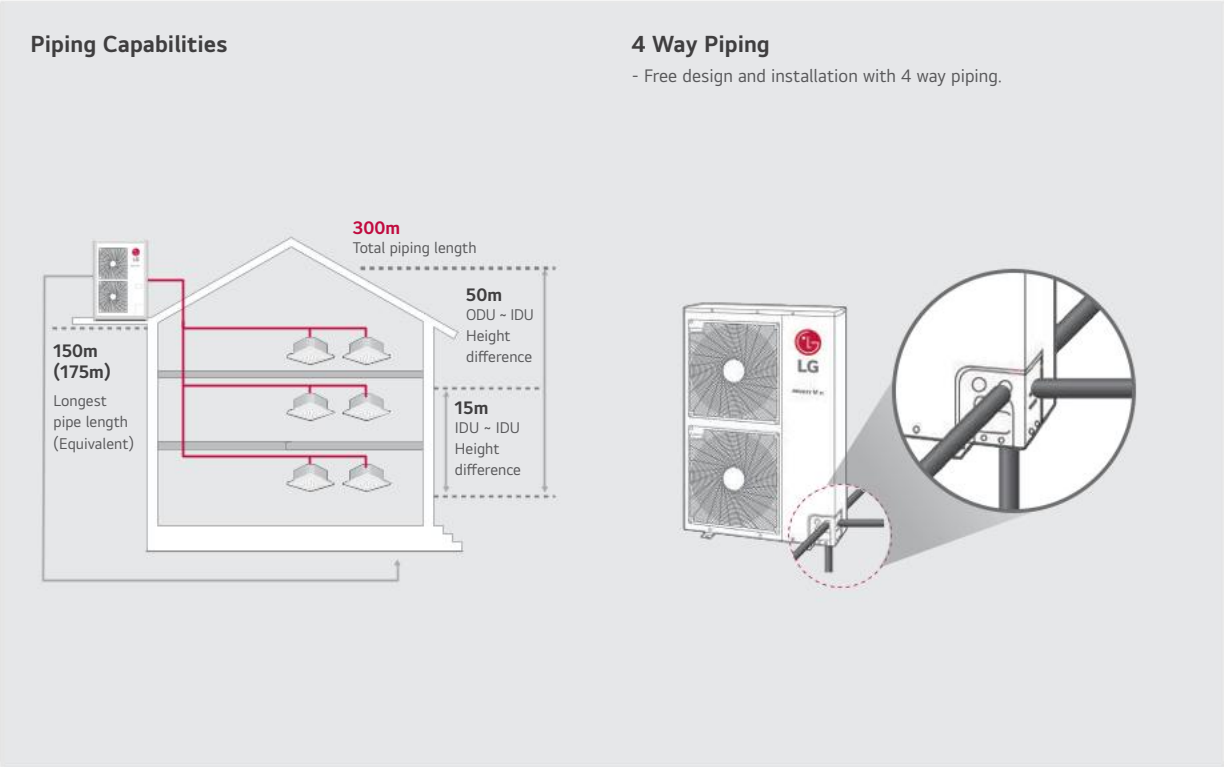


※ The source of weather data is TMY(Typical Meteorological Year) data.
The TMY data contains one year of hourly data that best represents weather conditions over many years.

Sufficient Piping Length

Increased piping length allows for flexible design and installation

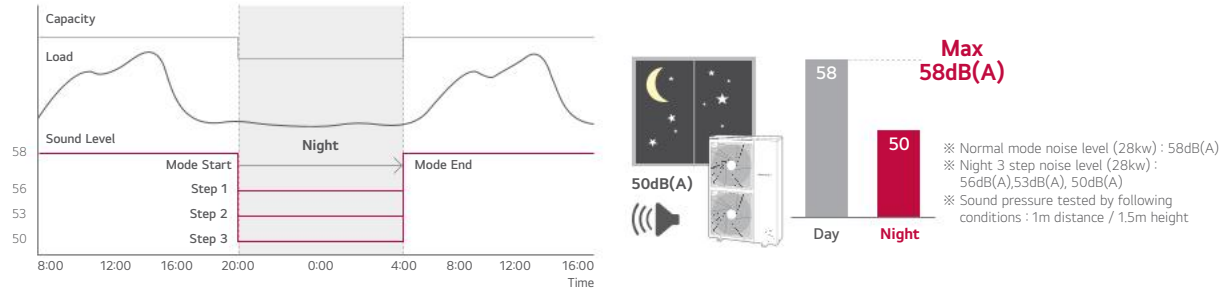
MULTI V S inverter technology and sub cooling control circuit technology allows greater piping length and outstanding elevation differences. A cooling system can be implemented more flexibly in a shop, office and even high-rise building, reducing the designer's work time and ensuring efficient designs.



Low Noise Operation

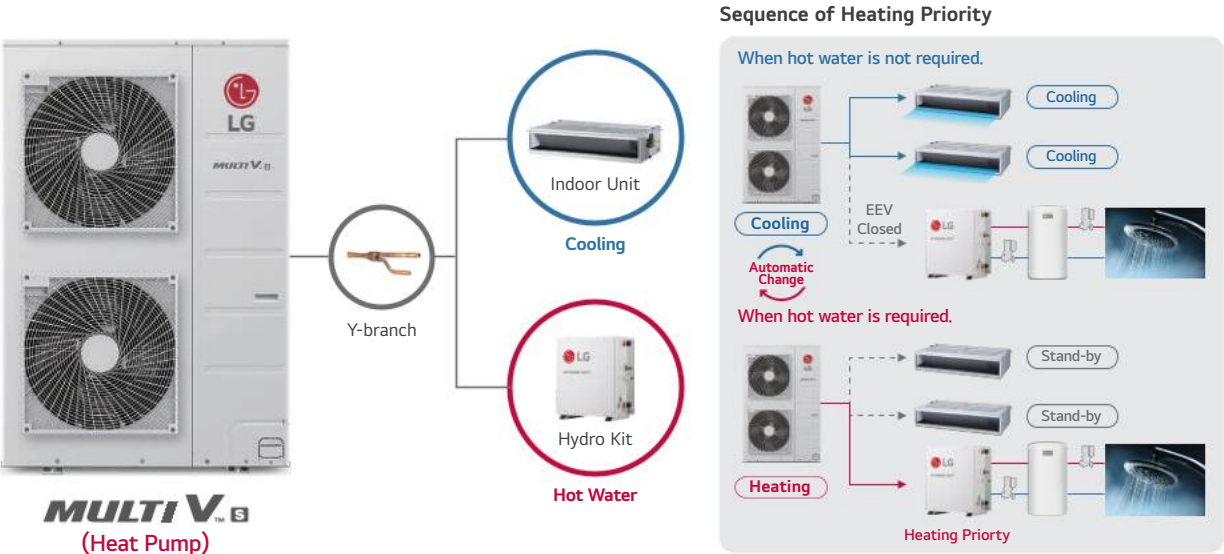
Decreased noise during operation with low noise functionality

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



Heating Priority

MULTI V S provides hot water during the cooling season with a heating priority function which automatically changes operation modes when hot water is required.



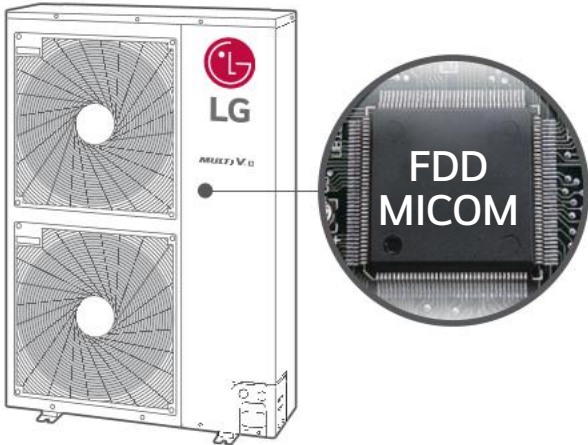
※ This function is available only when the dip switch of the outdoor unit and wired remote controller of the indoor unit & hydro kit are set.
(ODU : Dip Switch No.5 On → Fn25 → Heat → On) // (IDU : Installer Setting → ODU Cycle Priority → Stand-by) // (Hydro Kit : Installer Setting → ODU Cycle Priority → Heat)
※ The above images are for customer understanding.

Upgraded Fault Detection and Diagnosis

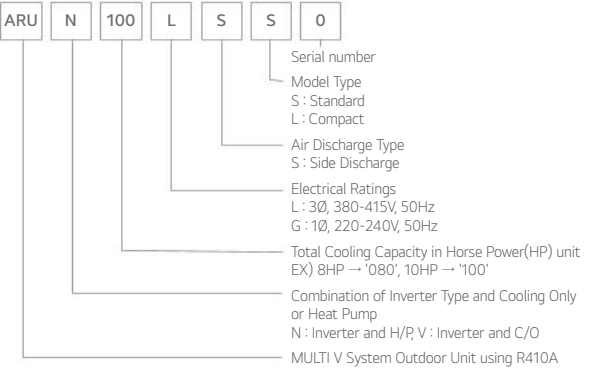
Easy and convenient maintenance with self-diagnosis

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

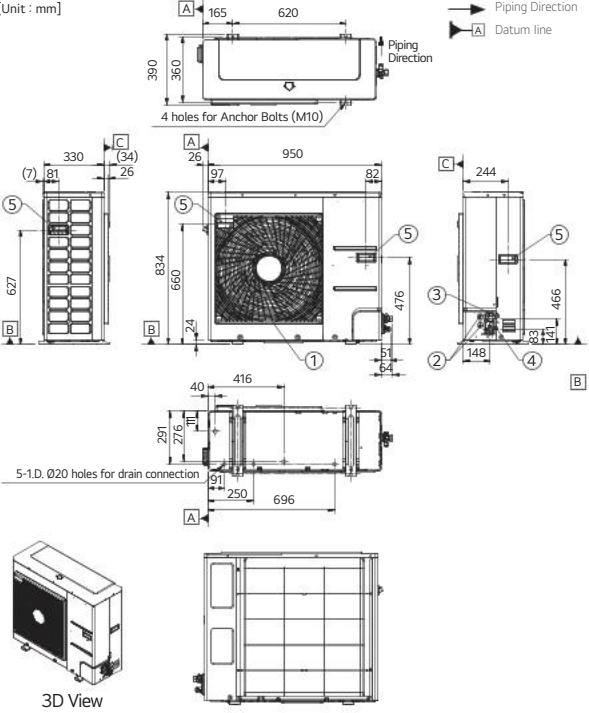


Outdoor Units Function

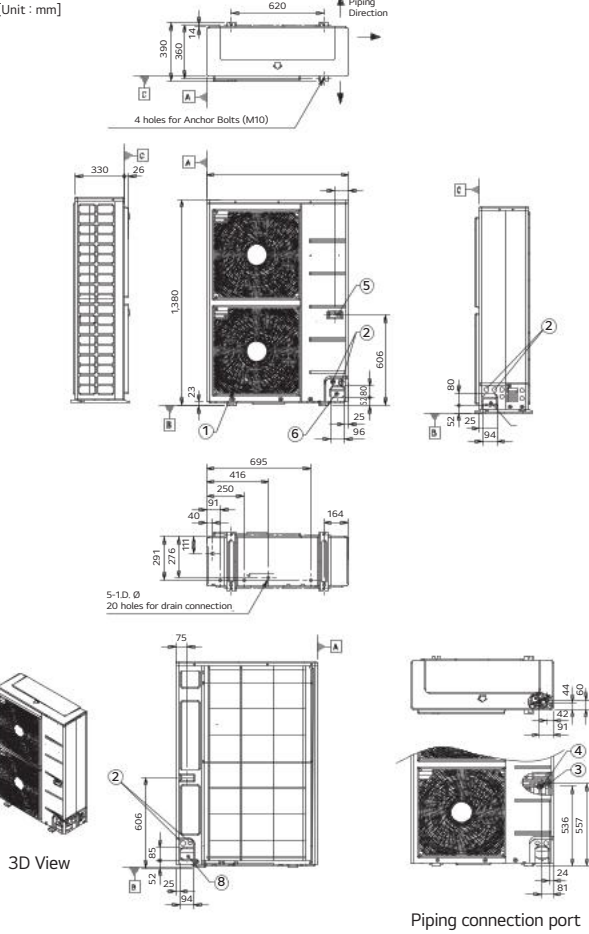
Category	Functions	MULTI V S
Key Refrigerant Components	Variable Path of Outdoor Unit HEX	-
	HiPOR™ (High Pressure Oil Return)	-
	Humidity Sensor	ARUB060GSS4 only
	Corrosion Resistance Black Fin	○
	Oil Sensor	-
Special Function	Dual Sensing	ARUB060GSS4 only
	Low Noise Operation	○
	Hgh Static Mode of 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	○
Central Controller	Phase Protection	○
	Restart Delay (3-minutes)	○
	Self Diagnosis	○
	Soft Start	○
	Test Run Function	-
BNU (Building Network Unit)	AC Ez (Simple Controller)	PQCSZ250S0
	AC Ez Touch	PACEZA000
	AC Smart IV	PACS4B000
	AC Smart 5	PACSSA000
	ACP (Advanced Control Platform) IV	PACP4B000
IO Module (ODU Dry Contact)	ACP (Advanced Control Platform) 5	PACP5A000
	AC Manager 5	PACMSA000
	ACP5 (w U60FT)	○
	ACP BACnet	PQNF817C0
	PDI (Power Distribution Indicator)	PVDSMN000
Cool / Heat Selector	Standard	PPWRDB000
	Premium	PQNUD1S40
	PRDSBM	PRDSBM
Cycle Monitoring Device	LGMV	PRCTILO
	Mobile LGMV	PLGMVW100
	Refrigerant Charging Kit	○ (Logical operation) Not applied to ARUB060GSS4
	Low Ambient Kit	-
	Variable Water Flow Valve Control Kit	-

※ ○ : Applied, - : Not Applied

ARUN040GSS0



ARUN080LSS5

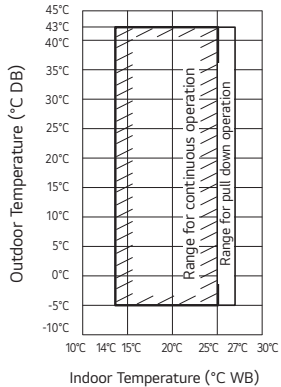


No.	Part Name	Description
1	Air Outlet	-
2	Power and communication cable Hole	-
3	Gas Pipe Connection	Welding joint
4	Liquid Pipe Connection	Welding joint
5	Handle	-
6	Pipe routing hole (front)	-
7	Pipe routing hole (side)	-
8	Pipe routing hole (back)	-

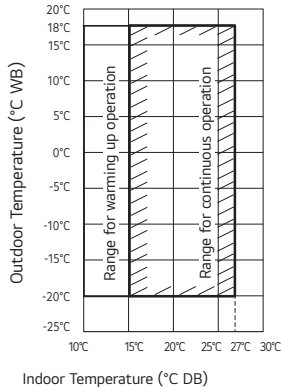
Note
1. Unit should be installed in compliance with the installation manual in the product box.
2. Unit should be grounded in accordance with the local regulation or applicable national codes.
3. All electrical components and materials to be supplied from the site must comply with the local regulations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

Heat Pump

Cooling

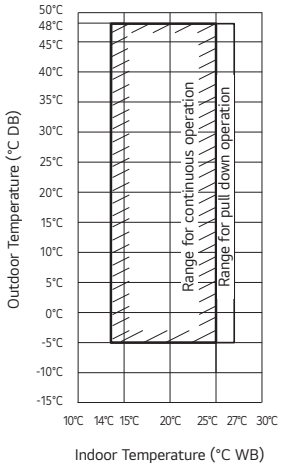


Heating

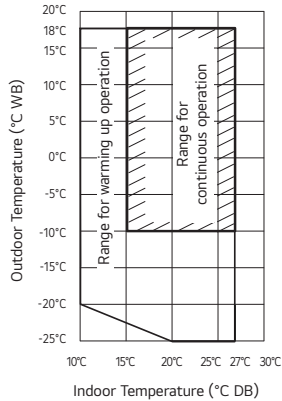


Heat Recovery

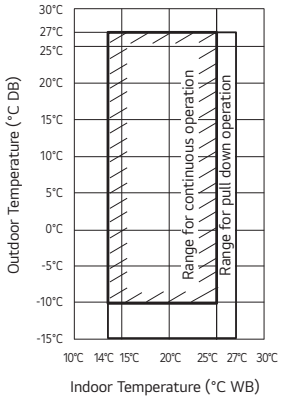
Cooling



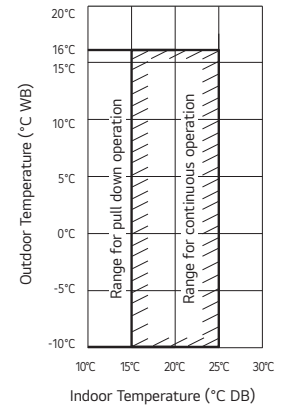
Heating



Simultaneous Cooling



Simultaneous Heating

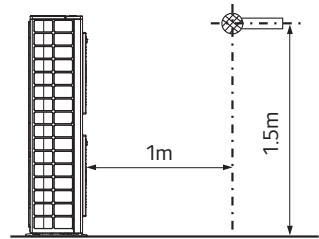


Note

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	-	FW68L
	Oil Charge	cc	1,300
Fan	Type	-	Axial Flow Fan
	Motor Output x Number	W x No.	124 x 1
	Air Flow Rate (High)	m³/min x No.	60
	Drive	-	DC INVERTER
	Discharge	Side / Top	Side
Pipe Connection	Liquid Pipe	mm (inch)	Ø9.52 (3/8)
	Gas Pipe	mm (inch)	Ø15.88 (5/8)
Dimensions (W x H x D)		mm x No.	950 x 834 x 330
Dimensions (W x H x D) - Shipping		mm x No.	(1,065 x 918 x 461) x 1
Net Weight		kg x No.	70
Shipping Weight		kg x No.	77 x 1
Sound Pressure Level*	Cooling	dB(A)	50
	Heating	dB(A)	52
Sound Power Level	Cooling	dB(A)	72
	Heating	dB(A)	75
Communication Cable		mm² x No. (VCTF-SB)	2C x 1.0 ~ 1.5
Refrigerant	Refrigerant Name	-	R410A
	Precharged Amount in factory	kg	1.8
	t-CO ₂ eq	-	3.758
	Control	-	Electronic Expansion Valve
Power Supply		V / Ø / Hz	220-240 / 1 / 50
			220 / 1 / 60
Number of Maximum Connectable Indoor Units			8

*) Sound Pressure is not a value declared on Eurovent Program.

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 conditons 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	-	FW68L (PVE)	FW68L (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)	m³/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)	mm x No.		950 x 1,380 x 330	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	(1,140 x 1,549 x 466) x 1
Net Weight	kg x No.		94	94
Shipping Weight	kg x No.		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	mm² x No. (VCTF-SB)		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-CO₂eq	-	6.263	6.263
	Control	-	Electronic Expansion Valve	Electronic Expansion Valve
Power Supply	V / Ø / Hz		220-240 / 1 / 50	220-240 / 1 / 50
			220 / 1 / 60	220 / 1 / 60
Number of Maximum Connectable Indoor Units			10	13

*: Sound Pressure is not a value declared on Eurovent Program.
Note
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ARUN040LSS0 / ARUN050LSS0
ARUN060LSS0



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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	-	FW68L (PVE)	FW68L (PVE)	FW68L (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)	m³/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)	Ø15.88 (5/8)	Ø15.88 (5/8)	Ø19.05 (3/4)
Dimensions (W x H x D)	mm x No.		950 x 1,380 x 330	950 x 1,380 x 330	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	(1,140 x 1,549 x 466) x 1	(1,140 x 1,549 x 466) x 1
Net Weight	kg x No.		96	96	96
Shipping Weight	kg x No.		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	mm² 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	3.0	3.0	3.0
	t-CO₂eq	-	6.263	6.263	6.263
	Control	-	Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve
Power Supply	V / Ø / Hz		380-415 / 3 / 50	380-415 / 3 / 50	380-415 / 3 / 50
			380 / 3 / 60	380 / 3 / 60	380 / 3 / 60
Number of Maximum Connectable Indoor Units			8	10	13

*: Sound Pressure is not a value declared on Eurovent Program.
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 conditons 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)

ARUN080LSS5 / ARUN100LSS5
ARUN120LSS5



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			ARUN080LSS5	ARUN100LSS5	ARUN120LSS5
Capacity	Cooling (Rated)*	kW	22.4	28.0	33.5
	Heating (Rated)*	kW	22.4	28.0	33.5
	Heating (Max)*	kW	24.5	30.6	36.7
Input	Cooling (Rated)*	kW	7.83	9.69	12.01
	Heating (Rated)*	kW	5.82	6.81	9.05
EER		-	2.86	2.89	2.79
SEER		-	7.49	6.59	6.83
COP		Rated Capacity	3.85	4.11	3.70
SCOP		-	4.76	4.42	4.45
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	-	FW68L (PVE)	FW68L (PVE)	FW68L (PVE)
	Oil Charge	cc	1,200	1,200	1,200
Fan	Type	-	Propeller Fan	Propeller Fan	Propeller Fan
	Motor Output x Number	W x No.	124 x 2	250 x 2	250 x 2
	Air Flow Rate (High)	m³/min x No.	140	210	210
	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.	(1,140 x 1,549 x 466) x 1	(1,215 x 1,795 x 500) x 1	(1,215 x 1,795 x 500) x 1
Net Weight		kg x No.	114	139	152
Shipping Weight		kg x No.	126	154	166
Sound Pressure Level*	Cooling	dB(A)	57	58	60
	Heating	dB(A)	57	58	60
Sound Power Level	Cooling	dB(A)	73	75	77
	Heating	dB(A)	77	81	82
Communication Cable		mm² 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-CO₂eq	-	7.306	9.394	12.525
	Control	-	Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve
Power Supply		V / Ø / Hz	380-415 / 3 / 50	380-415 / 3 / 50	380-415 / 3 / 50
			380 / 3 / 60	380 / 3 / 60	380 / 3 / 60
Number of Maximum Connectable Indoor Units			13	16	20

*: Sound Pressure is not a value declared on Eurovent Program.
Note
1. Due to our policy of innovation some specifications may be changed without notification.
2. Wiring cable size must comply with the applicable local and national codes. And "Electric characteristics" chapter should be considered for electrical work and design. Especially the power cable and circuit breaker should be selected in accordance with that.
3. Power factor could vary less than ±1% according to the operating conditions.
4. Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard.
Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard.
Therefore, these values can be increased owing to ambient conditions during operation.
5. Performances are based on the following conditions :
- *Cooling : Indoor Ambient Temp. 27°CDB / 19°CWB, Outdoor Ambient Temp. 35°CDB / 24°CWB
- *Heating : Indoor Ambient Temp. 20°CDB / 15°CWB, Outdoor Ambient Temp. 7°CDB / 6°CWB
- Interconnected Pipe Length is 7.5m and difference of Elevation (Outdoor ~ Indoor Unit) is Zero.
6. 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.
7. The maximum combination ratio is 160%.
8. This product contains Fluorinated greenhouse gases. (R410A, GWP (Global warming potential) = 2,087.5)

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	-	3.50
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	-	FW68L (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)	m³/min x No.	110
	Drive	-	DC INVERTER
	Discharge	Side / Top	Side
	Pipe Connection #1	Liquid Pipe	mm (inch)
	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 × 1,380 × 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		mm² x No. (VCTF-SB)	2C x 1.0 ~ 1.5
Refrigerant	Refrigerant Name	-	R410A
	Precharged Amount in factory	kg	3.5
	t-CO₂eq	-	7.306
	Control	-	Electronic Expansion Valve
Power Supply		V / Ø / Hz	220-240 / 1 / 50 220 / 1 / 60
Number of Maximum Connectable Indoor Units			13

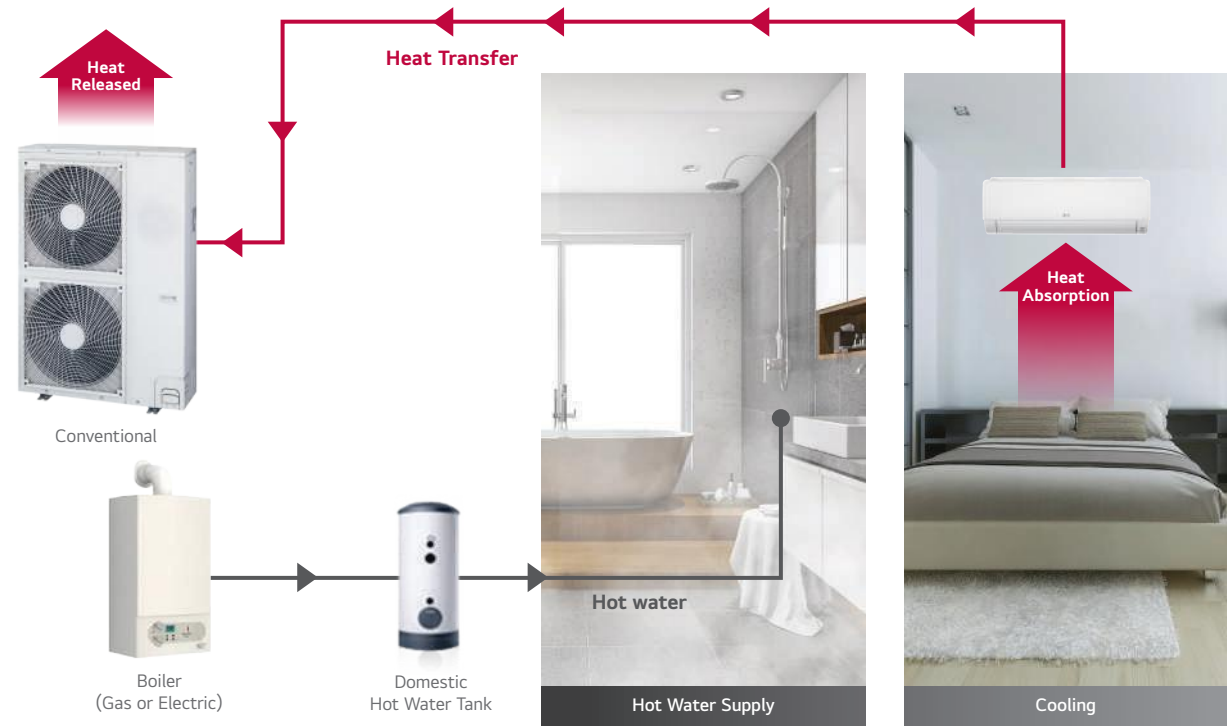
*: Sound Pressure is not a value declared on Eurovent Program.
Note
1. Eurovent Test Condition : Type of indoor unit connected is only Ceiling Concealed Duct.
- Refer to EUROVENT certification regulation for more detail test conditions.
- Refer to EUROVENT website for test values connected Ceiling Cassette 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 conditons 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 VTM S



- Air cooled VRF Heat pump
- 9.0 ~ 15.5kW (based on cooling capacity)
- Both 1Ø, 220 ~ 240V, 50Hz and 3Ø, 380 ~ 415V, 50Hz
- Side discharge outdoor unit



Compact Size & Light Weight

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



Less Refrigerant Charge

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

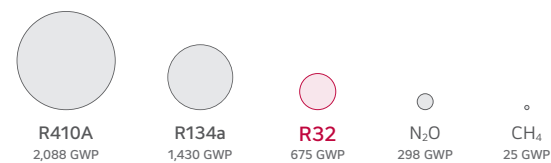


※ IDU (Wall Mounted Unit) : 5 kBTU/h, 8 EA
※ This result can be different depending on actual environment

Lower Global Warming Potential (GWP)

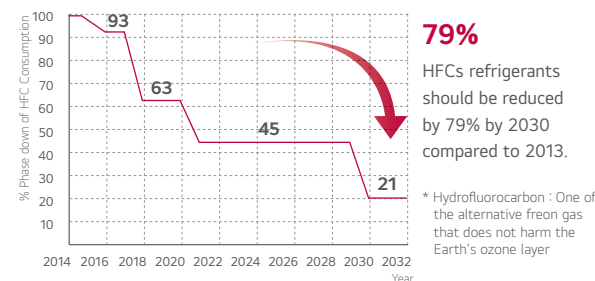
What is GWP?

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.



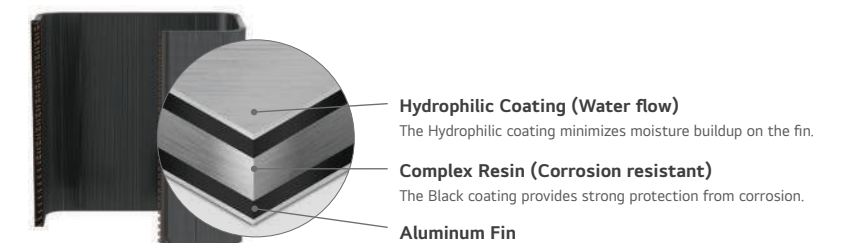
Corrosion Resistant Black Fin

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 making it even more corrosion resistant.



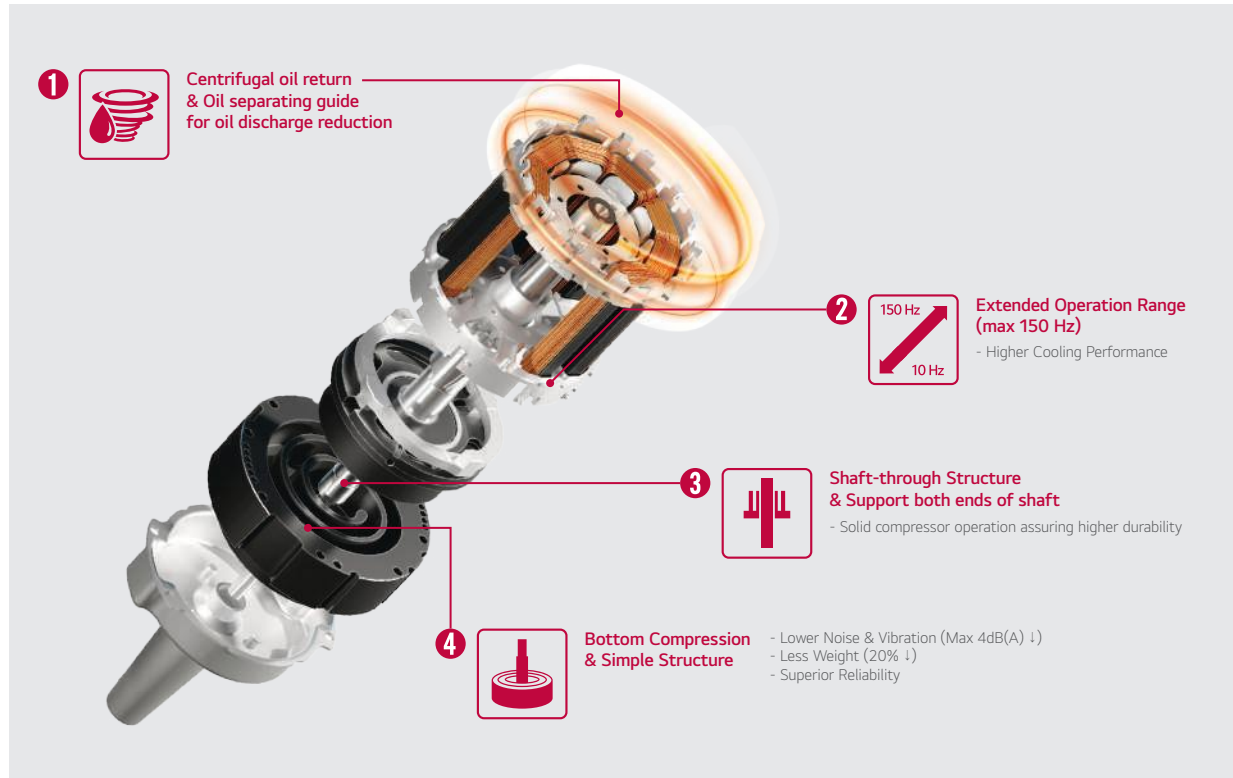
※ Verification of corrosion resistance performance
- Test Method B of ISO 21207
- ASTM B117 / ISO 9227 (10,000 hours)





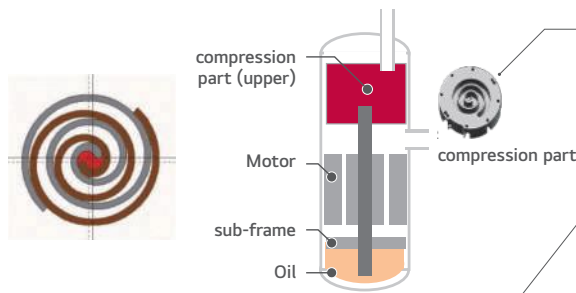
R1Compressor™

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

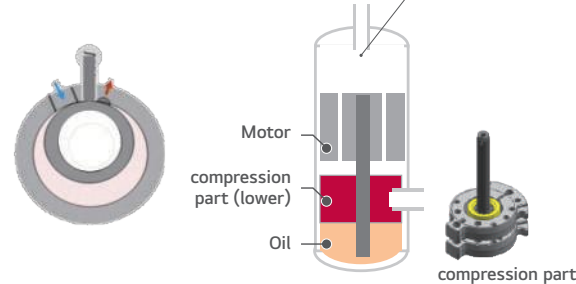


Conventional Compressor

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



Rotary : Simple structure
(Compression per 1 rotation)



R1Compressor™

Revolutionary Scroll : High efficiency / Stable & Simple Structure



ZRUN030GSS0 / ZRUN040GSS0
ZRUN050GSS0 / ZRUN060GSS0



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

HP			3	4	5	6
Model Name			ZRUN030GSS0	ZRUN040GSS0	ZRUN050GSS0	ZRUN060GSS0
Capacity	Cooling (Rated)	kW	9.0	12.1	14.0	15.5
	Heating (Rated)	kW	9.0	12.1	14.0	15.5
	Heating (Max)	kW	10.0	14.2	16.0	18.0
Input	Cooling (Rated)	kW	2.81	4.26	4.90	5.64
	Heating (Rated)	kW	2.09	3.03	3.48	3.95
EER (Rated)			3.20	2.84	2.86	2.75
SEER			5.70	6.69	6.44	6.59
COP (Rated)			4.30	4.00	4.02	3.92
SCOP			3.80	3.87	3.81	4.07
Exterior	Color	-	Warm Gray	Warm Gray	Warm Gray	Warm Gray
	RAL Code	-	RAL 7044	RAL 7044	RAL 7044	RAL 7044
Heat Exchanger	Type	-	Wide Louver Plus	Wide Louver Plus	Wide Louver Plus	Wide Louver Plus
Compressor	Type	-	LG Inverter Scroll	LG Inverter Scroll	LG Inverter Scroll	LG Inverter Scroll
	Combination x No.	-	(Inverter) x 1	(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	3,198 x 1
	Oil Type	-	FW68L (PVE)	FW68L (PVE)	FW68L (PVE)	FW68L (PVE)
	Oil Charge	cc	1,100	1,100	1,100	1,100
Fan	Type	-	Axial Flow Fan	Axial Flow Fan	Axial Flow Fan	Axial Flow Fan
	Motor Output x Number	W x No.	124 x 1	124 x 1	198 x 1	198 x 1
	Air Flow Rate (High)	m³/min x No.	60	60	80	80
	Drive	-	DC INVERTER	DC INVERTER	DC INVERTER	DC INVERTER
	Discharge	Side / Top	Side	Side	Side	Side
Pipe Connection	Liquid Pipe	mm (inch)	Ø9.52 (3/8)	Ø9.52 (3/8)	Ø9.52 (3/8)	Ø9.52 (3/8)
	Gas Pipe	mm (inch)	Ø15.88 (5/8)	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	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	1,147 x 919 x 461
Net Weight		kg x No.	64.7	64.7	71.6	71.6
Shipping Weight		kg x No.	73.7	73.7	79.6	79.6
Sound Pressure Level*	Cooling	dB(A)	51	51	57	57
	Heating	dB(A)	55	55	60	60
Sound Power Level	Cooling	dB(A)	67	67	70	71
	Heating	dB(A)	70	71	74	75
Communication Cable		mm² 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	-	R32	R32	R32	R32
	Precharged Amount	kg	1.5	1.5	2.0	2.0
	t-CO₂eq	-	1.013	1.013	1.350	1.350
	Control	-	Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve
Power Supply		V / Ø / Hz	220-230-240 / 1 / 50	220-230-240 / 1 / 50	220-230-240 / 1 / 50	220-230-240 / 1 / 50
Number of maximum connectable indoor units			6	8	10	13

*: Sound Pressure is not a value declared on Eurovent Program.
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 conditons 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)

ZRUN030LSS0 / ZRUN040LSS0
ZRUN050LSS0 / ZRUN060LSS0



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

HP			3	4	5	6
Model Name			ZRUN030LSS0	ZRUN040LSS0	ZRUN050LSS0	ZRUN060LSS0
Capacity	Cooling (Rated)	kW	9.0	12.1	14.0	15.5
	Heating (Rated)	kW	9.0	12.1	14.0	15.5
	Heating (Max)	kW	10.0	14.2	16.0	18.0
Input	Cooling (Rated)	kW	2.81	4.26	4.90	5.64
	Heating (Rated)	kW	2.09	3.03	3.48	3.95
EER (Rated)			3.20	2.84	2.86	2.75
SEER			5.70	6.69	6.44	6.59
COP (Rated)			4.30	4.00	4.02	3.92
SCOP			3.80	3.87	3.81	4.07
Exterior	Color	-	Warm Gray	Warm Gray	Warm Gray	Warm Gray
	RAL Code	-	RAL 7044	RAL 7044	RAL 7044	RAL 7044
Heat Exchanger	Type	-	Wide Louver Plus	Wide Louver Plus	Wide Louver Plus	Wide Louver Plus
Compressor	Type	-	LG Inverter Scroll	LG Inverter Scroll	LG Inverter Scroll	LG Inverter Scroll
	Combination x No.	-	(Inverter) x 1	(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	3,198 x 1
	Oil Type	-	FW68L (PVE)	FW68L (PVE)	FW68L (PVE)	FW68L (PVE)
	Oil Charge	cc	1,100	1,100	1,100	1,100
Fan	Type	-	Axial Flow Fan	Axial Flow Fan	Axial Flow Fan	Axial Flow Fan
	Motor Output x Number	W x No.	124 x 1	124 x 1	198 x 1	198 x 1
	Air Flow Rate (High)	m³/min x No.	60	60	80	80
	Drive	-	DC INVERTER	DC INVERTER	DC INVERTER	DC INVERTER
	Discharge	Side / Top	Side	Side	Side	Side
Pipe Connection	Liquid Pipe	mm (inch)	Ø9.52 (3/8)	Ø9.52 (3/8)	Ø9.52 (3/8)	Ø9.52 (3/8)
	Gas Pipe	mm (inch)	Ø15.88 (5/8)	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	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	1,147 x 919 x 461
Net Weight		kg x No.	64.7	64.7	71.6	71.6
Shipping Weight		kg x No.	73.7	73.7	79.6	79.6
Sound Pressure Level*	Cooling	dB(A)	51	51	57	57
	Heating	dB(A)	55	55	60	60
Sound Power Level	Cooling	dB(A)	67	67	70	71
	Heating	dB(A)	70	71	74	75
Communication Cable		mm² 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	-	R32	R32	R32	R32
	Precharged Amount	kg	1.5	1.5	2.0	2.0
	t-CO₂eq	-	1.013	1.013	1.350	1.350
	Control	-	Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve
Power Supply		V / Ø / Hz	380-400-415 / 3 / 50	380-400-415 / 3 / 50	380-400-415 / 3 / 50	380-400-415 / 3 / 50
Number of maximum connectable indoor units			6	8	10	13

*: Sound Pressure is not a value declared on Eurovent Program.
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 conditons 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)