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

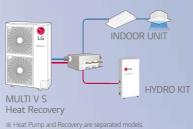


How does it work?

Available in Heat Pump and Heat Recovery Configurations



Combination of Cooling, Heating and Hot Water Solution

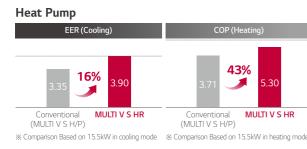




Only applies to Multi

EER / COP / Part Load

Cost savings with energy efficiency

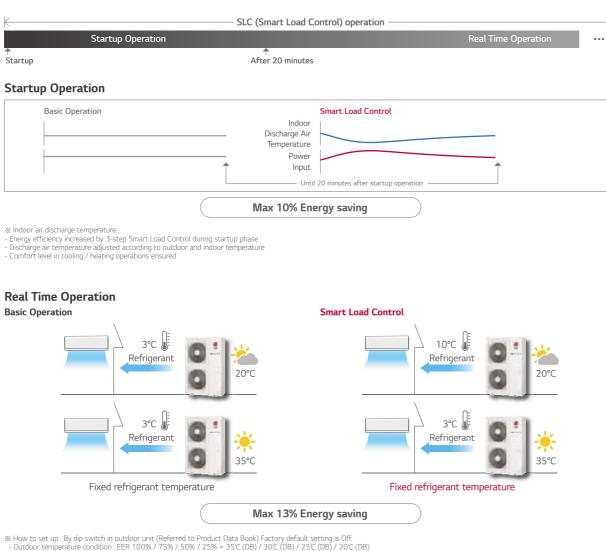


	Heat Recovery				
	Cooling Mode	Heating Mode			
	Cooling EER is 5% higher than conventional on average.	Heating COP is 5% higher than conventional on average.			
	3.71 5% 3.90	4.18 5% 4.39			
ode	Conventional (MULTI V S HR (MULTI V S H/P)	Conventional MULTI V S HR (MULTI V S H/P)			
	% Comparison Based on 15.5kW in cooling mo	de			

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 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

19.6

ernal test data

Adapted High Efficient Compressor according to Capacity



10

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

Concentrated Winding Motor

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.

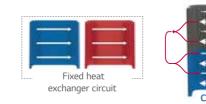
Surface Coating

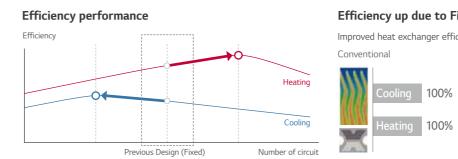
Surface coating of outstanding abrasion resistance property on vane and crank shaft.

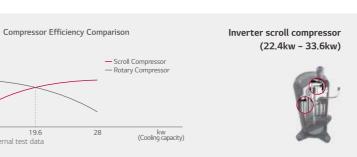
Optimal Heat Exchanger

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.







Inverter scroll compressor

Best-in-class Compressor Speed

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

6 Bypass Valve

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



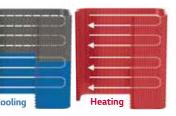
MULTI V.o

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

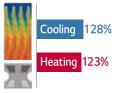
- The enhanced reliability by Increased reliability with regulated oil supply - Efficiency increases by expanding 96% Bypass area and 17% improved volume ratio by non-uniform scroll thickness



Efficiency up due to Fin shape

Improved heat exchanger efficiency of up to 28%

Wide Louver Plus Fin

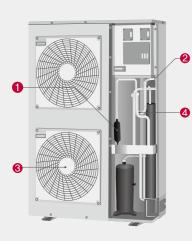


ENERGY

SAVING

Reliable Refrigerant Components

LG technology allows for superior performance and component durability

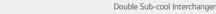


MULTI V S improved reliability with advanced technology :

> - Oil separator Accumulator - Sub-cooling



 \rightarrow Reduction of indoor refrigerant noise level * Based on equivalent pipe length

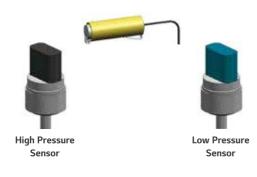


Smart Control

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

Temperature + Pressure Control

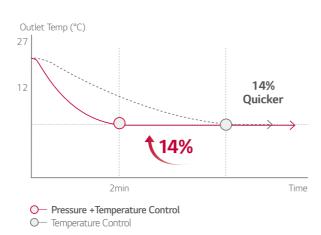
Senses and controls pressure directly using pressure sensor for faster and more exact response to load variation.



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.



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.

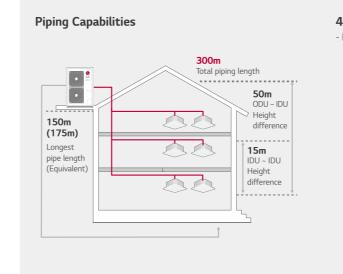




Sufficient Piping Length

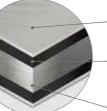
Increased piping length allows for flexible design and installation

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.



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.

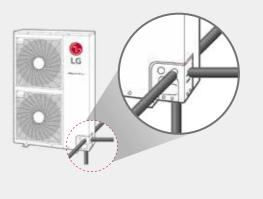


Hydrophilic film (Water flow) The Hydrophilic coating minimizes moisture buildup on the fin.

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

4 Way Piping

- Free design and installation by 4 way piping.

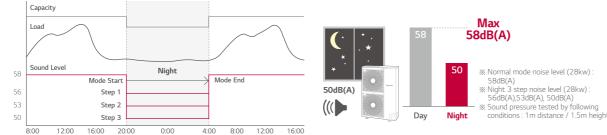


IMPROVED SN フ CONVENIENC m

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

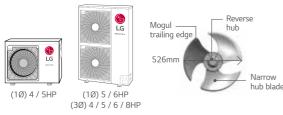
For enhanced efficiency, new axial fan boasts higher air volume, increased static pressure and decreased noise.

Fan Technology

IMPROVED

USER CONVENIENCE

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.

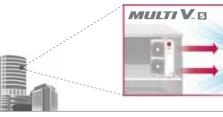


Super cannon fan increases the air volume in 50 CMM and the noise level is decreased by 4dB(A).





(3Ø) 10 / 12HP



Flow of air is straight due to fan shroud and Fan RPM control even in

Fan RPM control

(Fan Max RPM Up)

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

Fan RPM control

high-rise building.

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

OUTDOOR UNITS KEY FEATURES

- Piping & wiring error check-up



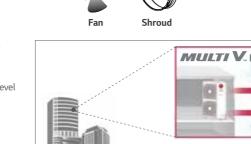
ARU N 10	
	Serial number
	- Model Type
	S : Standard
	L : Compact
	Air Discharge Type S : Side Discharge
	Electrical Ratings
	L : 30, 380-415V, 50Hz
	G : 1Ø, 220-240V, 50Hz
	Total Cooling Capacity in Horse Power(HP) unit EX) 8HP \rightarrow '080', 10HP \rightarrow '100'
	Combination of Inverter Type and Cooling Only or Heat Pump
	N : Inverter and H/P, V : Inverter and C/O
	MULTI V System Outdoor Unit using R410A

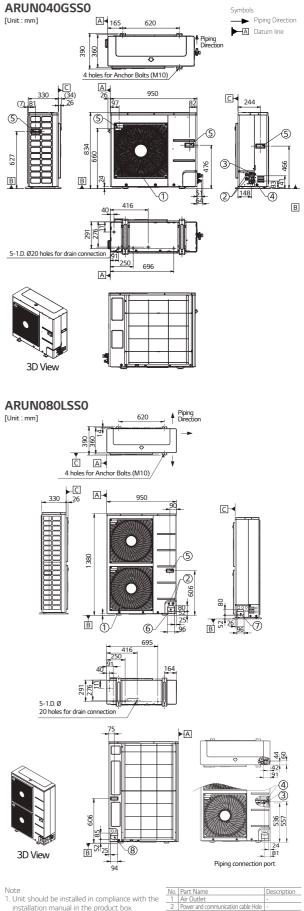
Category	Functions	MULTI V S
	Variable Path of Outdoor Unit HEX	-
	HiPOR™ (High Pressure Oil Return)	-
Key Refrigerant Components	Humidity Sensor	ARUB060GSS4 only
	Corrosion Resistance Black Fin	0
	Oil Sensor	-
	Dual Sensing	ARUB060GSS4 only
	Low Noise Operation	0
	Hgih Static Mode of Outdoor Unit Fan	0
	Partial Defrosting	-
Special Function	Auto Dust Removal of Outdoor Unit (Fan reverse rotation)	-
	Indoor Cooling Comfort Mode Based Outdoor Temperature	0
	Smart Load Control (SLC) (Changing indoor discharge air temperature according to load)	0
	Outdoor Unit Control Refer to Humidity	ARUB060GSS4 only
	Defrost / Deicing	0
	High Pressure Switch	0
	Phase Protection	0
Basic Function	Restart Delay (3-minutes)	0
	Self Diagnosis	0
	Soft Start	0
	Test Run Function	-
	AC Ez (Simple Controller)	PQCSZ250S0
	AC Ez Touch	PACEZA000
	AC Smart IV	PACS4B000
Central Controller	AC Smart 5	PACS5A000
	ACP (Advanced Control Platform) IV	PACP4B000
	ACP (Advanced Control Platform) 5	PACP5A000
	AC Manager 5	PACM5A000
BNU (Building	ACP Lonworks	PLNWKB000
Network Unit)	ACP BACnet	PQNFB17C0
O Module (ODU Dr	· ·	PVDSMN000
PDI (Power Distribution	Standard	PPWRDB000
ndicator) Cool / Heat	Premium	PQNUD1S40
Selector		PRDSBM
Cycle Monitoring Device	LGMV	PRCTILO
	Mobile LGMV	PLGMVW100
Additional kit	Refrigerant Charging Kit	(Logical operation) Not applied to ARUB060GSS4
	Low Ambient Kit	-
	Variable Water Flow Valve Control Kit	-



527

B





One should be installed in comparate with distribution manual in the product box.
 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.
 Electrical characteristics chapter should be considered for electrical work and design. Especially the power cable and circuit break should be selected in accordance with that.

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

OUTDOOR UNITS

MULTI V S

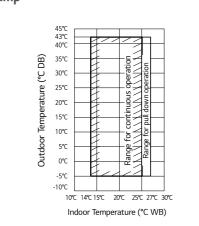
TECHNICAL DATA

066 I 067

Heat Pump

Cooling





Heating

Heating

20°C 18°C 15°C

0°C

-5°C

-10°C

-15℃

-25℃

20°C

18°C

15°C

5°C

0°C

-5°C ٦.

-10°C

-15°C

-20°C

-25°C

NB) 10°C

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10°C

Indoor Temperature (°C DB)

15°C 20°C 25°C 27°C 30°C

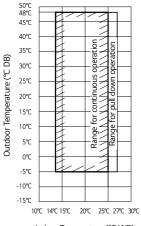
(BM 10°C

ູ 5°C

ರ -20°C

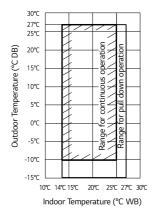
Heat Recovery

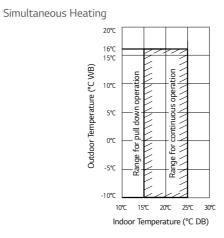
Cooling



Indoor Temperature (°C WB)

Simultaneous Cooling





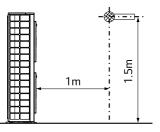
10°C 15°C 20°C 25°C 27°C 30°C

Indoor Temperature (°C DB)

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

Level difference : 0m 2. Range of pull down operation : If the relative humidity is too high, cooling capacity can be decreased by the sensible

Position of Sound Level Measuring



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





	HP		4	
Model Name			ARUN040GSS0	ARUN050GSL0
c :	Cooling (Rated)	kW	12.1	14.0
Capacity	Heating (Rated)	kW	12.5	15.0
	Cooling (Rated)	kW	3.78	4.38
Input	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
	Color (General)		Warm Gray	Warm Gray
Exterior	RAL Code (Classic)		RAL 7044	RAL 7044
Heat Exchanger	Туре		Wide Louver Plus / Black Fin	Wide Louver Plus / Black Fin
Enenanger	Туре		BLDC Inverter Twin Rotary	BLDC Inverter Twin Rotary
	Combination x No.		(Inverter) x 1	(Inverter) x 1
Compressor	Motor Output x Number	W x No.	4,000 x 1	4,000 × 1
	Oil Type		FVC68D (PVE)	FVC68D (PVE)
	Oil Charge	сс	1,300	1,300
	Туре		Axial Flow Fan	Axial Flow Fan
	Motor Output x Number	W x No.	124 x 1	124 x 1
Fan	Air Flow Rate (High)	m³/min x No.	60 x 1	60 x 1
	Drive		DC INVERTER	DC INVERTER
	Discharge	Side / Top	Side	Side
Pipe	Liquid Pipe	mm (inch)	Ø9.52 (3/8)	Ø9.52 (3/8)
Connection	Gas Pipe	mm (inch)	Ø15.88 (5/8)	Ø15.88 (5/8)
Dimensions (\	W x H x D)	mm x No.	(950 x 834 x 330) x 1	(950 x 834 x 330) x 1
Dimensions (\	N 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 Weig	ght	kg x No.	77 x 1	81 x 1
Sound	Cooling	dB(A)	50.0	52.0
Pressure Level	Heating	dB(A)	52.0	58.0
Sound Power		dB(A)	72.0	72.0
Level	Heating	dB(A)	76.0	75.0
Communicatio	on Cable	mm ² x No. (VCTF-SB)	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C
	Refrigerant Name	(1011 50)	R410A	R410A
Defrigerant	Precharged Amount in factory	kg	1.8	2.4
Refrigerant	t-CO ₂ 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
	aximum Connectable Indo		8	8*

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

In case of ARUN050GSL0, maximum combination ratio is 130%. 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 27°C (80.6°F) DB / 15°C (59°F) WB / Outdoor 7°C (44.6°F) DB / 6°C (42.8°F) WB
3. The maximum combination ratio is 160%. (the maximum combination ratio of ARUN050GSL0 is 130%.)
4. Wiring cable size must comply with the applicable local and national codes.
5. Due to our policy of innovation some specifications may be changed without notification.
6. Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard. Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard. Therefore, these values can be increased owing to ambient conditions during operation.

during operation. 7. Power factor could vary less than ±1% according to the operating conditions. 8. This product contains Fluorinated greenhouse gases. (R410A, GWP(Global warming potential) = 2087.5)

MULTI V S



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

MULTI V S HE A PUMP





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
Lapacity	Heating (Rated)	kW	16.0	18.0
nput	Cooling (Rated)	kW	3.33	3.97
nput	Heating (Rated)	kW	2.77	3.40
EER			4.20	3.90
SEER			6.56	6.65
COP	Rated Capacity		5.77	5.30
SCOP			5.23	5.19
Exterior	Color (General)		Warm Gray	Warm Gray
xterior	RAL Code (Classic)		RAL 7044	RAL 7044
Heat Exchanger	Туре		Wide Louver Plus / Black Fin	Wide Louver Plus / Black Fin
	Туре		BLDC Inverter Twin Rotary	BLDC Inverter Twin Rotary
	Combination x No.		(Inverter) x 1	(Inverter) x 1
Compressor	Motor Output x Number	W x No.	4,000 × 1	4,000 × 1
	Oil Type		FVC68D (PVE)	FVC68D (PVE)
	Oil Charge	сс	1,300	1,300
	Туре		Axial Flow Fan	Axial Flow Fan
	Motor Output x Number	W x No.	124 x 2	124 x 2
an	Air Flow Rate (High)	m³/min x No.	110 x 1	110 x 1
	Drive		DC INVERTER	DC INVERTER
	Discharge	Side / Top	Side	Side
Pipe	Liquid Pipe	mm (inch)	Ø9.52 (3/8)	Ø9.52 (3/8)
Connection	Gas Pipe	mm (inch)	Ø15.88 (5/8)	Ø19.05 (3/4)
Dimensions (\	N x H x D)	mm x No.	(950 x 1,380 x 330) x 1	(950 x 1,380 x 330) x 1
Dimensions (\	N x H x D) - Shipping	mm x No.	(1,140 x 1,462 x 461) x 1	(1,140 x 1,462 x 461) x 1
let Weight		kg x No.	94 x 1	94 x 1
Shipping Weig	Jht	kg x No.	106 x 1	106 x 1
Sound	Cooling	dB(A)	51.0	52.0
Pressure Level	Heating	dB(A)	53.0	54.0
Sound Power	Cooling	dB(A)	72.0	72.0
.evel	Heating	dB(A)	76.0	77.0
Communicatio	on Cable	mm ² x No. (VCTF-SB)	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C
Refrigerant	Refrigerant Name	(1011 00)	R410A	R410A
	Precharged Amount in factory	kg	3.0	3.0
engerant	t-CO ₂ eq		6.263	6.263
	Control		Electronic Expansion Valve	Electronic Expansion Valve
Power Supply		Ø, V, Hz	1, 220-240, 50	1, 220-240, 50
Number of M	aximum Connectable Indo	or Units	10	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 / 19°C (66.2°F) WB / Outdoor 7°C (44.6°F) DB / 6°C (42.8°F) WB

3. The maximum combination ratio is 160%, (the maximum combination ratio of ARUN050GSL0 is 130%.)
4. Wiring cable size must comply with the applicable local and national codes.
5. Due to our policy of innovation some specifications may be changed without notification.
6. Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard. Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard. Therefore, these values can be increased owing to ambient conditions during operation.

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)

ARUN040LSS0 / ARUN050LSS0 ARUN060LSS0



	HP		4	5	6
Model Name			ARUN040LSS0	ARUN050LSS0	ARUN060LSS0
Capacity	Cooling (Rated)	kW	12.1	14.0	15.5
Capacity	Heating (Rated)	kW	12.5	16.0	18.0
Innest	Cooling (Rated)	kW	2.37	3.33	3.97
Input	Heating (Rated)	kW	1.93	2.77	3.40
EER			5.10	4.20	3.90
SEER			6.46	6.56	6.65
COP	Rated Capacity		6.49	5.77	5.30
SCOP			5.02	5.23	5.19
F. d	Color (General)		Warm Gray	Warm Gray	Warm Gray
Exterior	RAL Code (Classic)		RAL 7044	RAL 7044	RAL 7044
Heat Exchanger	Туре		Wide Louver Plus / Black Fin	Wide Louver Plus / Black Fin	Wide Louver Plus / Black Fin
2	Туре		BLDC Inverter Twin Rotary	BLDC Inverter Twin Rotary	BLDC Inverter Twin Rotary
	Combination x No.		(Inverter) x 1	(Inverter) x 1	(Inverter) x 1
Compressor	Motor Output x Number	W x No.	4,000 x 1	4,000 x 1	4,000 x 1
	Oil Type		FVC68D (PVE)	FVC68D (PVE)	FVC68D (PVE)
	Oil Charge	CC	1,300	1,300	1,300
	Туре		Axial Flow Fan	Axial Flow Fan	Axial Flow Fan
	Motor Output x Number	W x No.	124 x 2	124 x 2	124 x 2
Fan	Air Flow Rate (High)	m³/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
Pipe	Liquid Pipe	mm (inch)	Ø9.52 (3/8)	Ø9.52 (3/8)	Ø9.52 (3/8)
Connection	Gas Pipe	mm (inch)	Ø15.88 (5/8)	Ø15.88 (5/8)	Ø19.05 (3/4)
Dimensions (\	N x H x D)	mm x No.	(950 x 1,380 x 330) x 1	(950 x 1,380 x 330) x 1	(950 x 1,380 x 330) x 1
Dimensions (\	N x H x D) - Shipping	mm x No.	(1,140 x 1,462 x 461) x 1	(1,140 x 1,462 x 461) x 1	(1,140 x 1,462 x 461) x 1
Net Weight		kg x No.	96 x 1	96 x 1	96 x 1
Shipping Weig	ght	kg x No.	108 x 1	106 x 1	106 x 1
Sound	Cooling	dB(A)	50.0	51.0	52.0
Pressure Level	Heating	dB(A)	52.0	53.0	54.0
Sound Power	Cooling	dB(A)	72.0	72.0	72.0
Level	Heating	dB(A)	76.0	76.0	77.0
Communicatio	on 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 Name		R410A	R410A	R410A
Refrigerant	Precharged Amount in factory	kg	3.0	3.0	3.0
nenigerant	t-CO ₂ eq		6.263	6.263	6.263
	Control		Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve
Power Supply		Ø, V, Hz	3, 380-415, 50	3, 380-415, 50	3, 380-415, 50
Number of M	aximum Connectable Indo	or Units	8	10	13

Note

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

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

2. Performances are based on the following conditions :

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

3. The maximum combination ratio is 160% (the maximum combination ratio of ARUN050GSL0 is 130%.)
4. Wiring cable size must comply with the applicable local and national codes.
5. Due to our policy of innovation some specifications may be changed without notification.
6. Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard. Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard. Therefore, these values can be increased owing to ambient conditions during operation. 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)

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MULTI V S HEAT PUMP



ARUN080LSS0 / ARUN100LSS0

ARUN120LSS0



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	HP		8	10	12
Model Name			ARUN080LSS0	ARUN100LSS0	ARUN120LSS0
Capacity	Cooling (Rated)	kW	22.4	28.0	33.6
Capacity	Heating (Rated)	kW	24.5	30.6	36.7
Innut	Cooling (Rated)	kW	8.30	8.75	14.00
Input	Heating (Rated)	kW	6.62	8.12	7.46
EER			2.70	3.20	2.40
SEER			6.03	6.59	5.72
СОР	Rated Capacity		3.70	3.77	4.92
SCOP			4.33	4.17	3.86
F. d	Color (General)		Warm Gray	Warm Gray	Warm Gray
Exterior	RAL Code (Classic), Gene	ral	RAL 7044	RAL 7044	RAL 7044
Heat Exchanger	Туре		Wide Louver Plus / Black Fin	Wide Louver Plus / Black Fin	Wide Louver Plus / Black Fi
5	Туре		Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll
	Combination x No.		(Inverter) x 1	(Inverter) x 1	(Inverter) x 1
Compressor	Motor Output x Number	W x No.	4,200 x 1	5,300 x 1	5,300 x 1
	Oil Type		FVC68D (PVE)	FVC68D (PVE)	FVC68D (PVE)
	Oil Charge	сс	2,400	2,600	3,400
	Туре		Propeller fan	Propeller fan	Propeller fan
	Motor Output x Number	W x No.	124 x 2	250 x 2	250 x 2
Fan	Air Flow Rate (High)	m³/min x No.	140 x 1	190 x 1	190 x 1
	Drive		DC INVERTER	DC INVERTER	DC INVERTER
	Discharge	Side / Top	Side	Side	Side
Pipe	Liquid Pipe	mm (inch)	Ø9.52 (3/8)	Ø9.52 (3/8)	Ø12.7 (1/2)
Connection	Gas Pipe	mm (inch)	Ø19.05 (3/4)	Ø22.2 (7/8)	Ø28.58 (1-1/8)
Dimensions (\	N x H x D)	mm x No.	(950 x 1,380 x 330) x 1	(1,090 x 1,625 x 380) x 1	(1,090 x 1,625 x 380) x 1
Dimensions (\	N x H x D) - Shipping	mm x No.	(1,140 x 1,462 x 461) x 1	(1,215 x 1,795 x 500) x 1	(1,215 x 1,795 x 500) x 1
Net Weight		kg x No.	115 x 1	144 x 1	157 x 1
Shipping Weig	ght	kg x No.	127 x 1	160 x 1	173 x 1
Sound	Cooling	dB(A)	57.0	58.0	60.0
Pressure Level	Heating	dB(A)	57.0	58.0	60.0
Sound Power	Cooling	dB(A)	81.0	80.0	81.0
Level	Heating	dB(A)	84.0	84.0	85.0
Communicatio	on 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 Name		R410A	R410A	R410A
Refrigerant	Precharged Amount in factory	kg	3.5	4.5	6.0
nonigerant	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	3, 380-415, 50	3, 380-415, 50	3, 380-415, 50
Number of M	aximum Connectable Indo	or 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 (68.0°F) DB / 19°C (66.2°F) WB / Outdoor 7°C (44.0°F) DB / 6°C (42.8°F) WB

 - Heating Temperature : Indoor 20°C (68°F) DB / 19°C (65.2°F) WB / Outdoor 7°C (44.0°F) DB / 6°C (42.8°F) WB

 3. The maximum combination ratio is 160%. (the maximum combination ratio of ARUN0500SL0 is 130%.)

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

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

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

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

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





	HP	
Model Name		
C	Cooling (Rated)	kW
Capacity	Heating (Rated)	kW
la su t	Cooling (Rated)	kW
Input	Heating (Rated)	kW
EER		
SEER		
COP	Rated Capacity	
SCOP		
Exterior	Color	
Exterior	RAL Code (Classic)	
Heat Exchanger	Туре	
	Туре	
	Combination x No.	
Compressor	Motor Output x Number	W x No.
	Oil Type	
	Oil Charge	СС
	Туре	
	Motor Output x Number	W x No.
Fan	Air Flow Rate (High)	m³/min x No.
	Drive	
	Discharge	Side / Top
Pipe	Liquid Pipe	mm (inch)
Connection #1	Low Pressure Gas Pipe	mm (inch)
# I	High Pressure Gas Pipe	mm (inch)
Dimensions (W x H x D)	mm x No.
Dimensions (W x H x D) - shipping	mm x No.
Net Weight		kg x No.
Shipping Weig	ght	kg x No.
Sound Pressure	Cooling	dB(A)
Level	Heating	dB(A)
Sound Power	Cooling	dB(A)
Level	Heating	dB(A)
Communicatio	on Cable	mm ² x No. (VCTF-SB)
	Refrigerant Name	
Refrigerant	Precharged Amount in factory	kg
J	t-CO ₂ eq	
	Control	
Power Supply		Ø, V, Hz
Number of M	aximum Connectable Indo	or Units

 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 (68.0°F) DB / 19°C (66.2°F) WB / Outdoor 35°C (95°F) DB / 24°C (75.2°F) WB

 - Heating Temperature : Indoor 20°C (68°F) DB / 19°C (66.2°F) WB / Outdoor 7°C (44.45°F) DB / 6°C (42.8°F) WB

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

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

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

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

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

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

ARUB060GSS4

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6	
ARUB060GSS4	
15.5	
18.0	
3.83	
3.64	
4.05	
6.84	
4.94	
4.38	
Warm Gray	
RAL 7044	
Wide Louver Plus	
Hermetically Sealed Scroll	
(Inverter) x 1	
4,200 x 1	
FVC68D (PVE)	
1,700	
Axial Flow Fan	
124 x 2	
110 x 1	
DC INVERTER	
Side	
Ø9.52 (3/8)	
Ø19.05 (3/4)	
Ø15.88 (5/8)	
(950 x 1,380 x 330) x 1 (1,140 x 1,549 x 466) x 1	
118 x 1	
132 x 1	
56	
58	
69	
71	
1.0 ~ 1.5 x 2C	
R410A	
3.5	
7.306	
Electronic Expansion Valve	
1, 220-240, 50	
13	

MULTI V S Т P RE COVERY

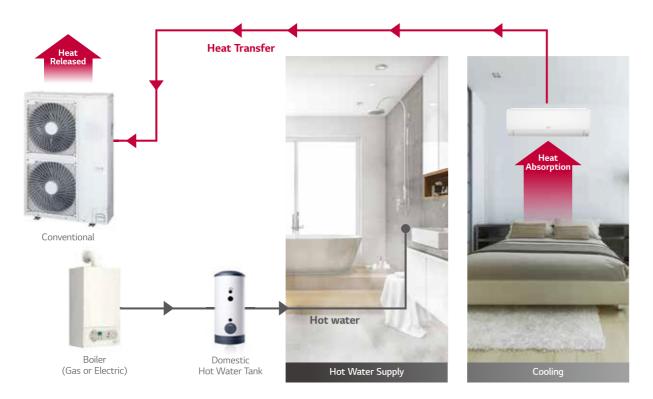
Energy Savings

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

Conventional

MULTI V S

Absorbed heat is released to outdoor air.

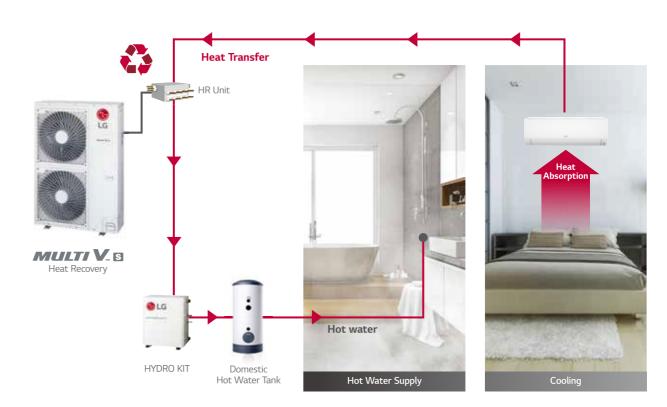


Energy Savings

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

Higher Efficiency



- 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

Lower Global Warming Potential

What is GWP?

(GWP)

WHY R32

RE

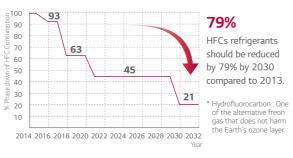
FRIGERANT

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_2) .



Global Trend and EU Regulation for F-Gas

HFC* Phase Down 79% by 2030.



* The values based on 5HP model

EER 3.65

COP 4.10

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.



Cost Savings with R32

Higher Efficiency

Savings on cost of energy consumption.





and maintenance.

Reduced Equipment Sizes

Savings on cost of injecting & replacing refrigerant.



Less Refrigerant Charge

Savings on cost of injecting & replacing refrigerant.

Less Refrigerant Charge





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









Hydrophilic film (Water flow)

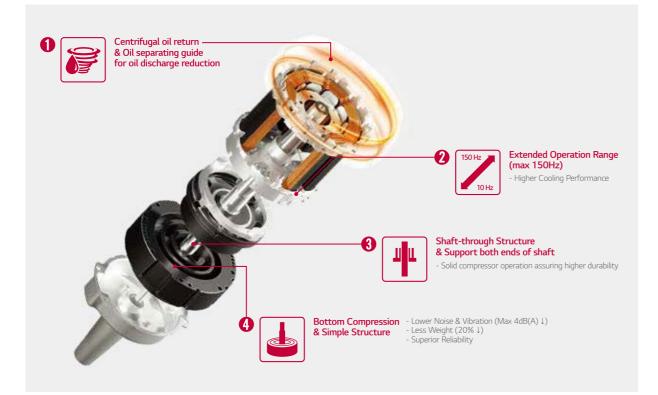
The Hydrophilic coating minimizes moisture buildup on the fin.

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

MULTI V S R32

R1Compressor[™]

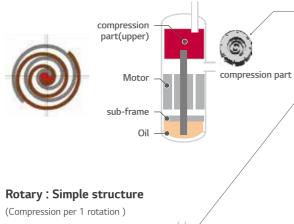
R1 Compressor is one that combines high-efficiency, low sound characteristics of the scroll and the simple compressing structure of the rotary compressor. This technology enables a highly efficient compact model.

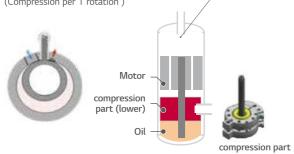


Conventional Compressor

Scroll : High efficiency / Low sound

(Continuous compression, but complex structure)





R1Compressor[™]

Revolutionary Scroll : High efficiency / Stable & Simple Structure

Hybrid Scroll Shape 6 (LG patent)* * Patent registration number (S.Korea : 10-1059880, USA RE46106)

Motor Compression parts

(upper \rightarrow lower) Scroll penetrated by shaft \rightarrow remove tilting moment

Simple structure : without sub-frame

Oil

Oil feeding structure better than previous scroll



Low noise & Vibration (Max 4dB(A)) Less weight **(20%**↓**)**

Compact model (Size 40%↓, Weight 25%↓)



OUTDOOR UNITS

MULTI V S R32

	NOTE
	- - -
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	- - -
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ZRUN040GSS0 / ZRUN050GSS0 ZRUN060GSS0





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	HP		4	5	6
	нр				
Model Name		114/	ZRUN040GSS0	ZRUN050GSS0	ZRUN060GSS0
Consider	Cooling (Rated)	kW	12.1	14.0	15.5
Capacity	Heating (Rated)	kW	12.1	14.0	15.5
	Heating (Max)	kW	14.2	16.0	18.0
Innert	Cooling (Rated)	kW	3.43	3.33	3.97
Input	Heating (Rated)	kW	2.30	2.72	3.23
	Heating (Max)	kW	2.93 3.53	3.48 4.20	4.29 3.90
EER (Rated)			8.10	8.70	8.50
SEER					
COP (Rated)			5.26	5.15	4.80
COP (Max)			4.84	4.60	4.20
SCOP	0.1		4.70	4.80	5.00
Exterior	Color		Warm Gray	Warm Gray	Warm Gray
	RAL Code		RAL 7044	RAL 7044	RAL 7044
Heat Exchanger			Wide Louver Plus / Black Fin	Wide Louver Plus / Black Fin	Wide Louver Plus / Black Fin
	Туре		LG Inverter Scroll (R1)	LG Inverter Scroll (R1)	LG Inverter Scroll (R1)
	Combination x No.		(Inverter) x 1	(Inverter) x 1	(Inverter) x 1
Compressor	Motor Output x 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
	Туре		Axial Flow Fan	Axial Flow Fan	Axial Flow Fan
	Motor Output x Number	W x No. m³/min x	124 x 1	200 x 1	200 x 1
Fan	Air Flow Rate (High)	No.	60 x 1	80 x 1	80 x 1
	Drive		DC INVERTER	DC INVERTER	DC INVERTER
	Discharge	Side / Top	Side	Side	Side
Pipe	Liquid Pipe	mm (inch)	Ø9.52 (3/8)	Ø9.52 (3/8)	Ø9.52 (3/8)
Connection	Gas Pipe	mm (inch)	Ø15.88 (5/8)	Ø15.88 (5/8)	Ø19.05 (3/4)
Dimensions (W	x H x D)	mm x No.	(950 × 834 × 330) × 1	(950 × 834 × 330) × 1	(950 × 834 × 330) × 1
Dimensions (W	x H x D) - Shipping	mm x No.	(1,147 x 919 x 461) x 1	(1,147 x 919 x 461) x 1	(1,147 x 919 x 461) x 1
Net Weight		kg x No.	64.7 x 1	71.6 x 1	71.6 x 1
Shipping Weight	:	kg x No.	73.7 x 1	79.6 x 1	79.6 x 1
Sound Pressure	Cooling	dB(A)	50	51	52
Level	Heating	dB(A)	52	53	54
Sound Power	Cooling	dB(A)	67	70	71
Level	Heating	dB(A)	71	74	75
Communication	Cable	mm ² x No. (VCTF-SB)	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C
	Refrigerant name		R32	R32	R32
D. ()	Precharged Amount	kg	1.5	2.0	2.0
Refrigerant	t-CO ₂ 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	1, 220-240, 50	1, 220-240, 50
Number of mavi	mum connectable indoor u	nite	8	10	13

Note 1. Due to our policy of innovation some specifications may be changed without notification. 2. Wiring cable size must comply with the applicable local and national codes. And "Electric characteristics" chapter should be considered for electrical work and design. Especially the power cable and circuit breaker should be selected in accordance with that. 3. Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard. Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard. Therefore, these values can be increased owing to ambient conditions during oncertain.

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.
 S. EUROVENT Test Condition :

EUROVENT lest 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.
 The maximum combination ratio is 160%.
 This product contains Fluorinated greenhouse gases (R32, GWP (Global warming potential) = 675)

ZRUN040LSS0 / ZRUN050LSS0 ZRUN060LSS0



	HP		4
Model Name			ZRUN040LSS0
Capacity	Cooling (Rated)	kW	12.1
	Heating (Rated)	kW	12.1
	Heating (Max)	kW	14.2
Input	Cooling (Rated)	kW	3.43
	Heating (Rated)	kW	2.30
	Heating (Max)	kW	2.93
EER (Rated)			3.53
SEER			8.10
COP (Rated)			5.26
COP (Max)			4.84
SCOP			4.70
Exterior	Color		Warm Gray
	RAL Code		RAL 7044
Heat Exchanger	Туре		Wide Louver Plus / Black Fir
Compressor	Туре		LG Inverter Scroll (R1)
	Combination x No.		(Inverter) x 1
	Motor Output x Number	W x No.	3,198 x 1
	Oil Type		FW68D
	Oil Charge	сс	1,100
Fan	Туре		Axial Flow Fan
	Motor Output x Number	W x No.	124 x 1
	Air Flow Rate (High)	m³/min x No.	60 x 1
	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 × 834 × 330) × 1
Dimensions (W x H x D) - Shipping		mm x No.	(1,147 x 919 x 461) x 1
Net Weight		kg x No.	64.7 x 1
Shipping Weight		kg x No.	73.7 x 1
Sound Pressure Level	Cooling	dB(A)	51
	Heating	dB(A)	55
Sound Power Level	Cooling	dB(A)	67
	Heating	dB(A)	71
Communication Cable		mm ² x No. (VCTF-SB)	1.0 ~ 1.5 x 2C
Refrigerant	Refrigerant name	(Ven 56)	R32
	Precharged Amount	kg	1.5
	t-CO ₂ eq	5	1.013
	Control		Electronic Expansion Valve
Power Supply		Ø, V, Hz	3, 380-415, 50
Number of maximum connectable indoor units			8

Note

Note 1. Due to our policy of innovation some specifications may be changed without notification. 2. Wiring cable size must comply with the applicable local and national codes. And "Electric characteristics" chapter should be considered for electrical work and design. Especially the power cable and circuit breaker should be selected in accordance with that. 3. Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard. Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard. Therefore, these values can be increased owing to ambient conditions during on caraction.

conditions during operation. 4. Performances are based on the following conditions :

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5	6	
ZRUN050LSS0	ZRUN060LSS0	
14.0	15.5	
14.0	15.5	
16.0	18.0	
3.33	3.97	
2.72	3.23	
3.48	4.29	
4.20	3.90	
8.70	8.50	
5.15	4.80	
4.60	4.20	
4.80	5.00	
Warm Gray	Warm Gray	
RAL 7044	RAL 7044	
Wide Louver Plus / Black Fin	Wide Louver Plus / Black Fin	
LG Inverter Scroll (R1)	LG Inverter Scroll (R1)	
(Inverter) x 1	(Inverter) x 1	
3,198 x 1	3,198 x 1	
FW68D	FW68D	
1,100	1,100	
Axial Flow Fan	Axial Flow Fan	
200 x 1	200 x 1	
80 x 1	80 x 1	
DC INVERTER	DC INVERTER	
Side	Side	
Ø9.52 (3/8)	Ø9.52 (3/8)	
Ø15.88 (5/8)	Ø19.05 (3/4)	
(950 × 834 × 330) × 1	(950 × 834 × 330) × 1	
(1,147 x 919 x 461) x 1	(1,147 x 919 x 461) x 1	
71.6 x 1	71.6 x 1	
79.6 x 1	79.6 x 1	
57	57	
60	60	
70	71	
74	75	
1.0 ~ 1.5 x 2C	1.0 ~ 1.5 x 2C	
R32	R32	
2.0	2.0	
1.350	1.350	
Electronic Expansion Valve	Electronic Expansion Valve	
3, 380-415, 50	3, 380-415, 50	
10	13	

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.
 S. 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)