One solution for every corner with **large capacity ducted units**

MULTI V S

LG's Premier VRF Solution MULTI V S

MULTI V S

LG HVAC SOLUTION

LG
Life's Good

Speed
Efficiency
Durabilty

LG
Life's Good

LG Brings **VRF Technology** into your living space with **Multi V S**

Springbok & Bluebull Rugby Player
a proud supporter of LG Multi V S

Jan Serfontein

LG's Premier VRF Solution MULTI V™ S

Maximized Energy Efficiency
Smart Load Control saves up to 13% of energy by controlling refrigerant temperature according to indoor, outdoor and setting temperatures.

Full Range Lineup
A full lineup of outdoor units boast different power outputs from 4HP to 12HP.

Design Flexibility
Up to 20 indoor units of various types can be connected to one outdoor unit, which can be installed in different vertical structures.

Space Saving
Compared to the conventional top discharge outdoor unit, compact Multi V S can save up to 57% of space.

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- ☑ Single Outdoor Unit
- ☑ High-rises, Condos, Villas
- ☑ Energy-efficient VRF

MULTI V™ S

About LG VRF Technology

Variable Refrigerant Flow is a technology introduced as a system to minimize efficiency losses and provide sustainable energy benefits. LG VRF systems are engineered to save on the cost of ducts, distribution fans, water pumps and water piping. VRF systems have a lower life cycle cost of any system on the market today.

Why LG VRF?

The benefits are numerous; modern style, mirror units for interior designers, less piping for installers and energy efficiency for owners. LG has low sound levels, so units are quiet and can be installed where sound is an issue. LG manufactured inverter compressor optimizes system energy efficiency.

Inverter Technology

With a compressor optimized around the latest inverter technology, the LG Multi V S system precisely matches the load. This helps prevent constant cycling and results in tight temperature control, superior dehumidification, and optimized efficiency. Occupants stay comfortable while reducing utility costs.

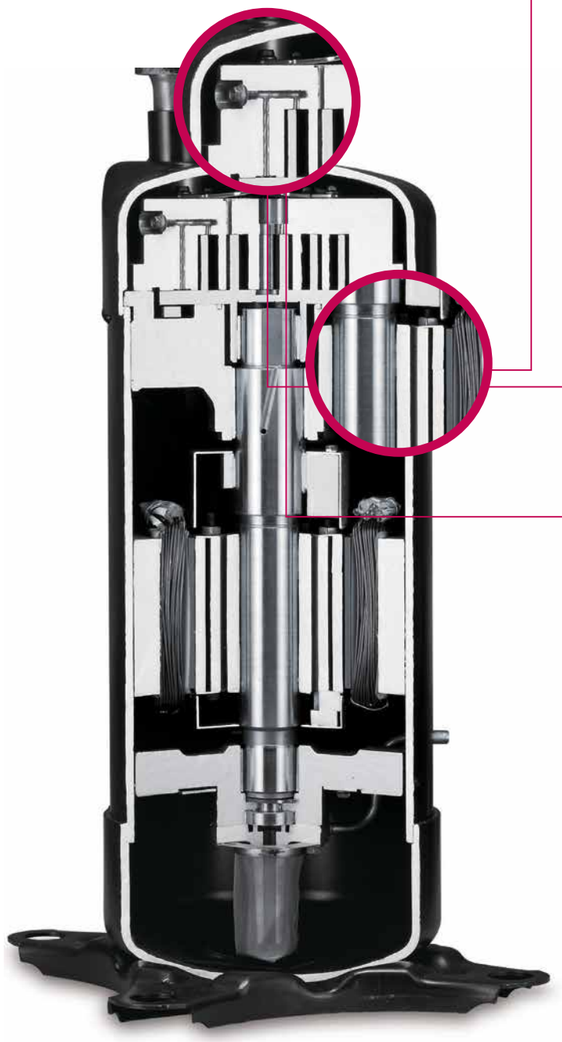
Multi V S Technology

This product line is LG's premiere VRF system. Multi V S is designed to provide the owner the benefits of VRF - lower operational costs, minimal or no duct work to install, tenant comfort with individual zoning, efficiency superior to other technologies — while maintaining architectural integrity. The benefit of zoning for heating or cooling is that it provides a level of comfort for all occupants.

EXCEPTIONAL EFFICIENCY

LG's 4th Generation Inverter Compressor

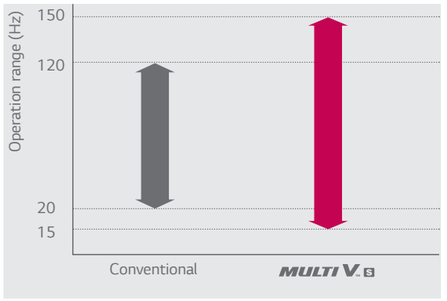
Multi V S has high efficiency inverter scroll compressor with frequency range 15Hz~150Hz.



* 8~12HP

World Best Compressor Speed 150Hz

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



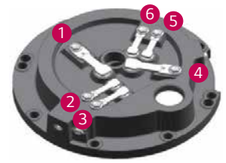
Inverter Scroll Compressor

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

6 By-pass Valve

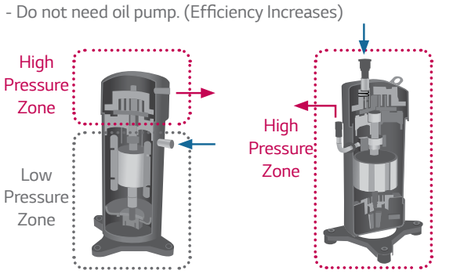
Compressor reliability is maximized with 6 By-pass Valve

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



High Pressure Compressor

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



Low Pressure Compressor

High Pressure Compressor

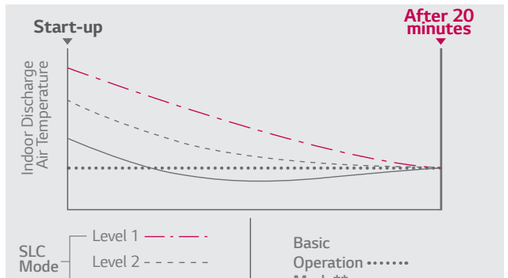
EXCEPTIONAL EFFICIENCY

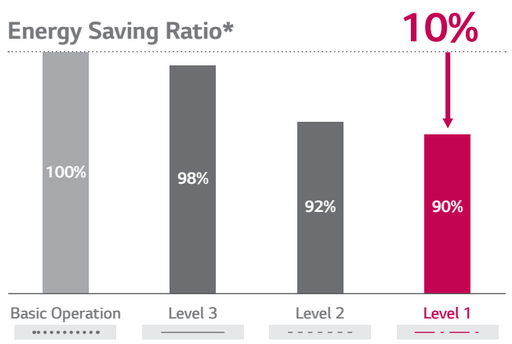
Smart Load Control

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

Start-up Operation

Operates for 20 minutes after Start-up. 3 levels of SLC operation can be set to save energy. (if not, can run in Basic Operation mode)





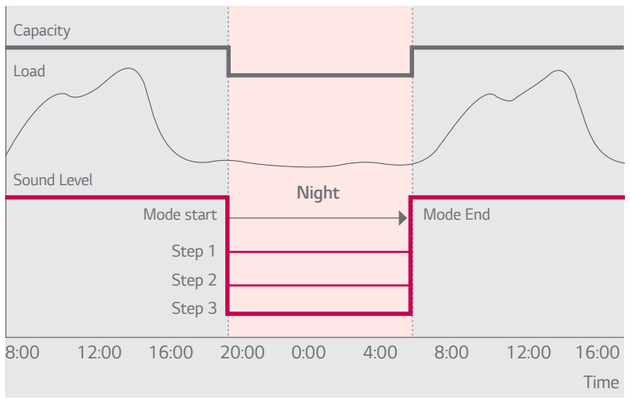
*Energy Saving Ratio : Ratio of energy saved, compared to 100% power consumption for 30 minutes (LG internal test result)
**Basic Operation Mode : Indoor discharge air temperature is constant regardless of variable heat load, so operating efficiency is not relatively high

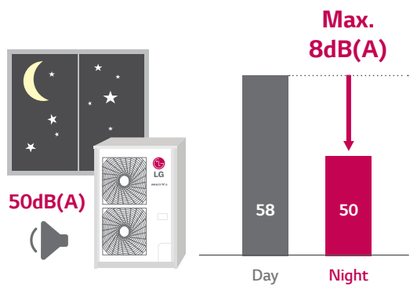
Silence

Low noise operation at night is possible thanks to inverter technology.

Night Silent Operation

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



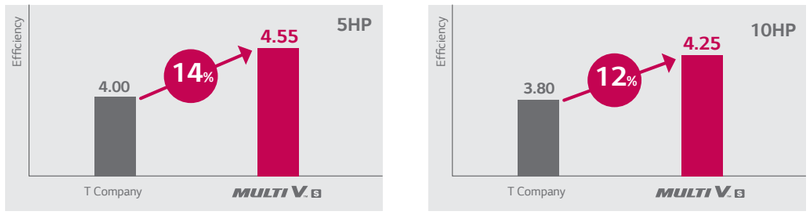


* Normal mode noise level (10HP) : 58dB(A)
* Night 3 step noise level (10HP) : 56dB(A), 53dB(A), 50dB(A)

High Efficiency

Cooling EER

Heating COP

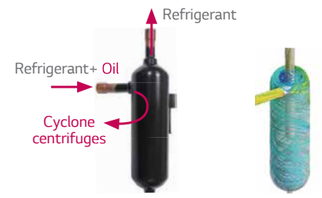


High Reliability of Refrigerant Cycle

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

1. Cyclone Centrifuges Oil Separator

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

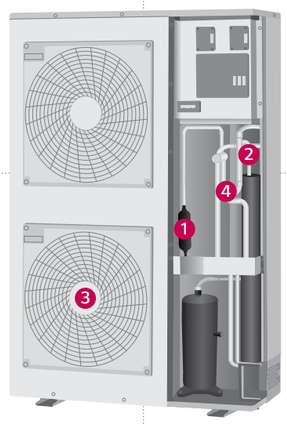


2. Large Volume Accumulator

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

3. BLDC Fan Motor

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



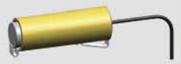
4. Double Sub-cool Interchanger

- Reliability is enhanced by minimizing pressure drop due to high efficiency spiral structure and 2 times larger size
->Long pipe is possible (up to 175 m) and high elevation (up to 50 m)
->Reduction of indoor refrigerant noise level

Double Sub-cool Interchanger

High Reliability with Pressure Control

Conventional Temperature Control



Temperature Sensor

Calculates target pressure according to indoor/outdoor temperature, desired temperature and piping length.

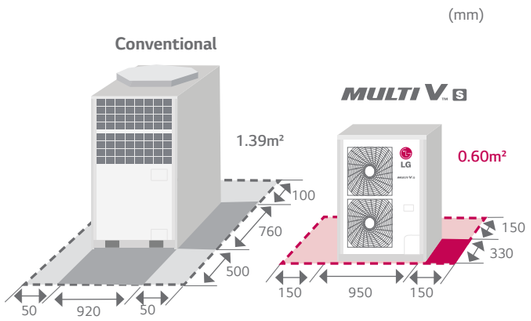
Temperature + Pressure Control

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

Compact Design

MULTI V S provides the optimal solution for small offices and shops.

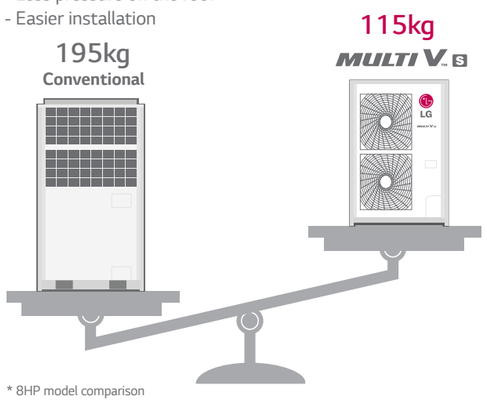
Footprint Area Comparison Including Service Area



* 8HP model comparison

41% Lighter weight than conventional model.

- Less pressure on the roof
- Easier installation



* 8HP model comparison

Unit : m²

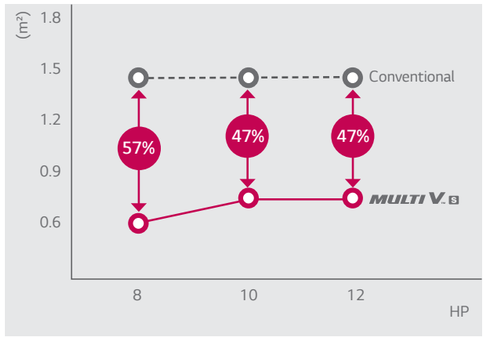
	HP	4	5	6	8	10	12
Footprint Area	MULTI V S	0.60	0.60	0.60	0.60	0.74	0.74
	Conventional	-	-	-	1.39	1.39	1.39

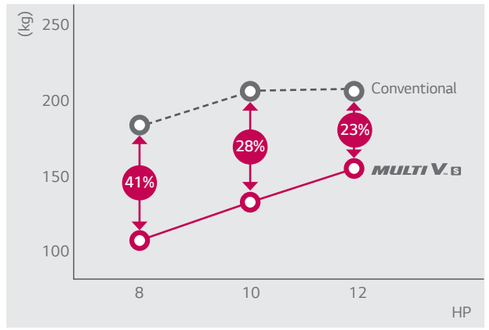
* Source : Data Book

Unit : kg

	HP	4	5	6	8	10	12
Weight	MULTI V S (3Ø)	96	96	96	115	144	155
	MULTI V S (1Ø)	69	94	94	-	-	-
	Conventional	-	-	-	195	201	201

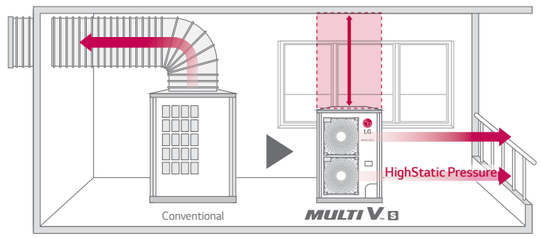
* Source : Data Book





OVERCOMING INSTALLATION RESTRICTIONS

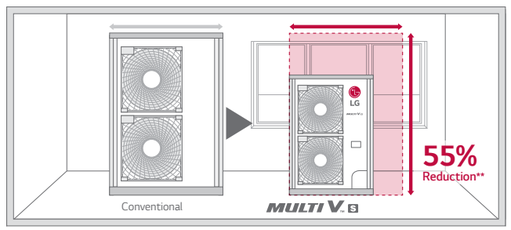
Unlike the conventional top discharge product, side discharge does not require extra ducting, while E.S.P.* control enables installation in high- rise buildings due to the high static pressure straight air flow



*E.S.P.: External Static Pressure

COMPACT DESIGN

Multi V S saves valuable floor space with its noticeably slim and light weight outdoor units



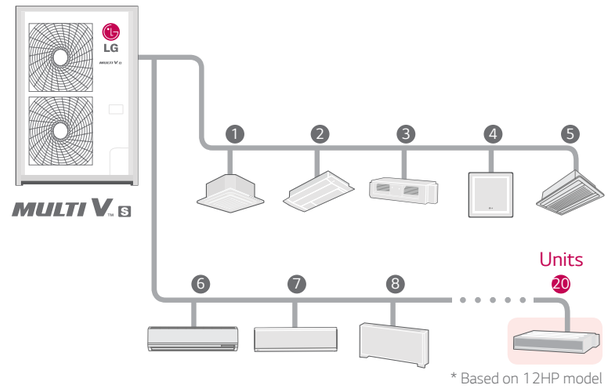
**8 HP model comparison

Max.20 Indoor Units Connectable (Based on 12HP)

Maximum of 20 units can be connected to a single outdoor unit with 130% indoor unit combination.
(Based on 12HP)

- Connectable indoor units is up to 20 units maximum.
- Indoor units combination range : 50 ~ 130%

- 4HP : Max. 6 indoor units
- 5HP : Max. 8 indoor units
- 6HP : Max. 9 indoor units
- 8HP : Max. 13 indoor units
- 10HP : Max. 16 indoor units
- 12HP : Max. 20 indoor units



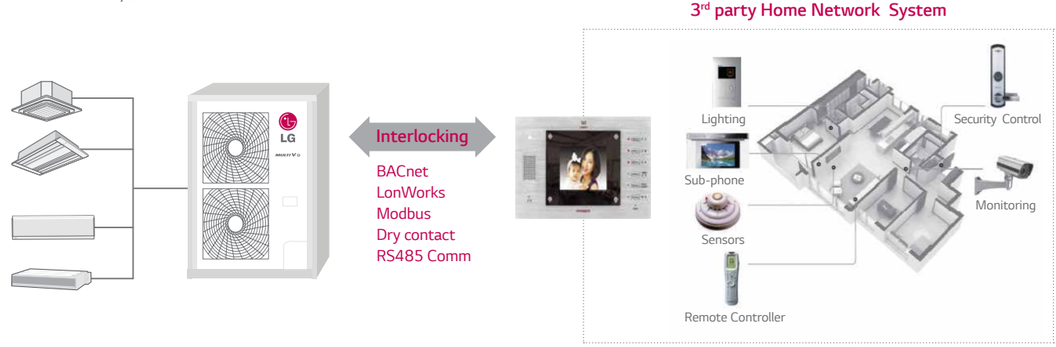
* Based on 12HP model

Interlocking with Home Network System

Interlocking with home network system enables various application.
Depending on building size and usage, various communication method can be given.

Compatibility to Home Network System

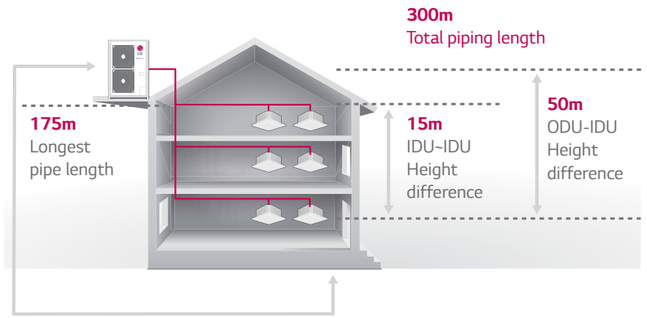
- Basic control (On/Off, Mode, Setting Temp, Fan speed)
- Lock function, Error code



Expanded Piping Capabilities

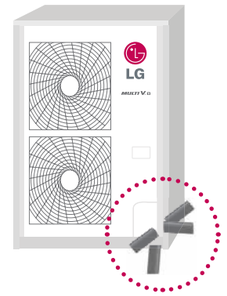
MULTI V S inverter technology and sub cooling control circuit technology allows greater piping length and outstanding elevation differences. A cooling system can be implemented more flexibly in a shop, office and even high-rise building, reducing the designer's work time and providing more efficient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

Piping Capabilities



4 Way Piping

- Free design and installation by 4 way piping.



INDOOR UNIT LINE-UP

kW		1.5	2.2	2.8	3.6	4.5	5.6	6.2	7.1	8.2	9.0	10.6	12.3	14.1	15.8	22.4	28.0
Type / h \ Btu		5K	7K	9K	12K	15K	18K	21K	24K	28K	30K	36K	42K	48K	54K	76K	96K
Wall Mounted Unit	Artcool Gallery		■	■	■												
	Artcool Mirror	■	■	■	■	■	■		■								
	Standard	■	■	■	■	■	■		■		*New*	*New*					
Ceiling Mounted Cassette	4 Way Cassette (570 x 570)	■	■	■	■	■	■	*New*									
	4 Way Cassette (840 x 840)								■		*New*				*New*		
	2 Way Cassette			■	■		■		■								
	1 Way Cassette		■	■	■		■		■								
Ceiling Concealed Duct	Mid /High Statics		■	■	■	■	■		■	■		■	■	■	■	■	■
	Low Statics	■	■	■	■	■	■	■	■								
	Built-in		■	■	■	■	■		■								
	High Sensible		■	■	■	■	■		■	■		■	■	■			
Fresh Air Intake Units														■		■	■
Ceiling & Floor Convertible Unit				■	■												
Ceiling Suspended Unit							■		■			■		■			
Console			■	■	■	■											
Floor Standing Unit	Floor Standing with Case		■	■	■	■	■		■								
	Floor Standing without Case		■	■	■	■	■		■								
HYDRO KIT	Low Temperature												■				■
	High Temperature													■		■	

PRODUCT LINE-UP

HP	4	5	6	8	10	12
1-Phase 220V	 ARUN040GSS0	 ARUN050GSS0	 ARUN060GSS0			
3-Phase 380V	 ARUN040LSS0	 ARUN050LSS0	 ARUN060LSS0	 ARUN080LSS0	 ARUN100LSS0	 ARUN120LSS0

MULTI V S

ARUN040GSS0 / ARUN050GSS0 / ARUN060GSS0

(1Ø)5/6 HP

(1Ø)4HP

HP			4	5	6
Model Name			ARUN040GSS0	ARUN050GSS0	ARUN060GSS0
Capacity (Rated)	Cooling	kW	12.1	14.0	15.5
		kcal/h	10,400	12,040	13,330
		Btu/h	41,200	47,800	52,900
	Heating	kW	12.5	16.0	18.0
		kcal/h	10,750	13,760	15,480
		Btu/h	42,700	54,600	61,400
Input (Rated)	Cooling	kW	2.95	3.38	3.96
	Heating	kW	2.91	3.52	4.09
COP	Cooling	COP	4.10	4.14	3.91
	Heating	COP	4.30	4.55	4.40
Power Factor	Rated	-			
Casing Color			Warm Gray	Warm Gray	Warm Gray
Heat Exchanger			Gold fin	Gold fin	Gold fin
Compressor	Type		Hermetic Motor Compressor	Hermetic Motor Compressor	Hermetic Motor Compressor
	Piston Displacement	cm³/rev	44.2	44.2	44.2
	Number of Revolution	rev/min	3,600	3,600	3,600
	Motor Output x Number	W x No.	4,000 x 1	4,000 x 1	4,000 x 1
	Starting Method		DC Inverter Starting	DC Inverter Starting	DC Inverter Starting
	Oil Type		FVC68D(PVE)	FVC68D(PVE)	FVC68D(PVE)
	Oil Charge	cc	1,300	1,300	1,300
Fan	Type		Axial Flow Fan	Axial Flow Fan	Axial Flow Fan
	Motor Output x Number	W	124 x 1	124 x 2	124 x 2
	Air Flow Rate(High)	m³/min	60	110	110
		ft³/min	2,119	3,885	3,885
	Drive		DC INVERTER	DC INVERTER	DC INVERTER
	Discharge	Side / Top	Side	Side	Side
Piping Connections	Liquid	mm(inch)	9.52(3/8)	9.52(3/8)	9.52(3/8)
	Gas	mm(inch)	15.88(5/8)	15.88(5/8)	19.05(3/4)
Dimensions(W x H x D)		mm	950 × 834 × 330	950 × 1380 × 330	950 × 1380 × 330
		inch	37.4 × 32.8 × 13.0	37.4 × 54.3 × 13.0	37.4 × 54.3 × 13.0
Net Weight		kg	69	94	94
		lbs	152	207	207
Sound Press Level	Cooling	dB(A)	50.0	51.0	52.0
	Heating	dB(A)	52.0	53.0	54.0
Sound Power Level		dB(A)	62.0	66.0	67.0
Protection Devices	High pressure protection	-	High pressure sensor, High pressure switch		
	Comperssor/ Fan	-	Over-heat protection / Fan driver overload protector		
	Inverter	-	Over-heat protection, Over-current protection		
Communication Cable		No.xmm²(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	kg	1.8	3	3
		lbs	4	6.6	6.6
	Control		Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve
Power Supply		V , Ø , Hz	220, 1, 60	220, 1, 60	220, 1, 60
Number of maximum connectable indoor units			6	8	9
Cooling Operation Range (°C, DB)			-5 ~ 48		
Heating Operation Range (°C, WB)			-20 ~ 18		

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

MULTI V S

ARUN080LSS0 / ARUN100LSS0 / ARUN120LSS0

(3Ø)10/12 HP

(3Ø)8 HP

HP			8	10	12
Model Name			ARUN080LSS0	ARUN100LSS0	ARUN120LSS0
Capacity (Rated)	Cooling	kW	22.4	28.0	33.6
		kcal/h	19,300	24,100	28,900
		Btu/h	76,400	95,900	114,700
	Heating	kW	25.2	31.5	37.8
		kcal/h	21,700	27,100	32,500
		Btu/h	86,000	107,500	129,000
Input (Rated)	Cooling	kW	5.89	7.09	9.08
	Heating	kW	6.00	7.41	9.95
COP	Cooling	COP	3.80	3.95	3.70
	Heating	COP	4.20	4.25	3.80
Power Factor	Rated	-	0.90	0.90	0.93
Casing Color			Warm Gray	Warm Gray	Warm Gray
Heat Exchanger			Gold fin	Gold fin	Gold fin
Compressor	Type		Hermetically Sealed Scroll	Hermetically Sealed Scroll	Hermetically Sealed Scroll
	Piston Displacement	cm³/rev	43.8	62.1	62.1
	Number of Revolution	rev/min	3,600	3,600	3,600
	Motor Output x Number	W x No.	4,200 x 1	5,300 x 1	6,800 x 1
	Starting Method		Direct On Line	Direct On Line	Direct On Line
	Oil Type		FVC68D(PVE)	FVC68D(PVE)	FVC68D(PVE)
	Oil Charge	cc	1,200	1,400	1,400
Fan	Type		Propeller fan	Propeller fan	Propeller fan
	Motor Output x Number	W	124 x 2	250 x 2	250 x 2
	Air Flow Rate(High)	m³/min	140	190	190
		ft³/min	4,944	6,707	6,710
	Drive		DC INVERTER	DC INVERTER	DC INVERTER
	Discharge	Side / Top	Side	Side	Side
Piping Connections	Liquid	mm(inch)	9.52(3/8)	9.52(3/8)	12.7(1/2)
	Gas	mm(inch)	19.05(3/4)	22.2(7/8)	28.58(9/8)
Dimensions(W x H x D)		mm	(950 × 1,380 × 330) x 1	(1,090 x 1,625 x 380) x 1	(1,090 x 1,625 x 380) x 1
		inch	(37.4 × 54.3 × 13.0) x 1	(42.9 × 64.0 × 15.0) x 1	(42.9 × 64.0 × 15.0) x 1
Net Weight		kg	115 x 1	144 x 1	157 x 1
		lbs	254 x 1	317 x 1	346 x 1
Sound Press Level	Cooling	dB(A)	59	60	62
	Heating	dB(A)	59	60	62
Sound Power Level		dB(A)	68	69	73
Protection Devices	High pressure protection	-	High pressure sensor, High pressure switch	High pressure sensor, High pressure switch	High pressure sensor, High pressure switch
	Comperssor/ Fan	-	Over-heat protection (S/W) / Fan driver overload protector (S/W)	Over-heat protection (S/W) / Fan driver overload protector (S/W)	Over-heat protection / Fan driver overload protector
	Inverter	-	Over-heat protection (S/W), Over-current protection (H/W,S/W)	Over-heat protection (S/W), Over-current protection (H/W,S/W)	Over-heat protection, Over-current protection
Communication Cable		No.xmm²(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	kg	3.5	4.5	6
		lbs	7.7	9.9	13.2
	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
Number of maximum connectable indoor units			13	16	20
Cooling Operation Range (°C, DB)			-5 ~ 48		
Heating Operation Range (°C, WB)			-20 ~ 18		

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