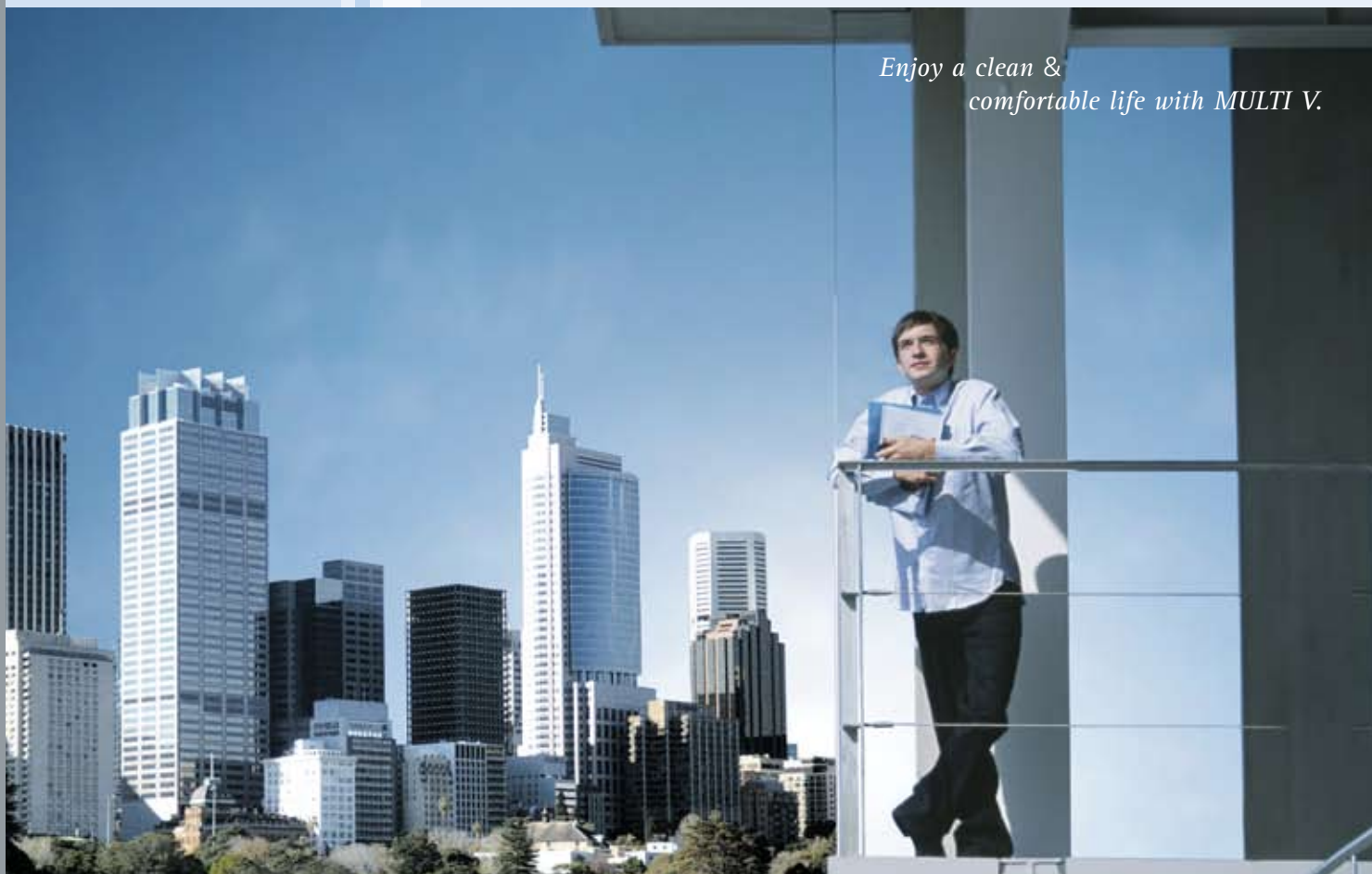
Life's Good

LG

2008

MULTI V™

Air Conditioning System



Enjoy a clean &
comfortable life with MULTI V.

www.lge.co.uk

Life's Good!

From installation to maintenance and repair,
LG runs 30 global air conditioning academies, providing
training for air conditioning professionals around the world.

Global Air Conditioning Academies


Changwon in Korea


Pyeongtaek in Korea

Spain

Italy

Dubai

China

Saudi Arabia

Brief History

Establishment

1947 Establishment of the LG Group
1958 Establishment of LG Electronics Inc.
1962 Establishment of Digital Appliance Company

Growth

1968 Manufactured Korea's first air conditioners
1985 Introduced Korea's first Inverter air conditioners
1986 Exported Korea's first window type air conditioner

Expansion

1995 Establishment of LGETA in China
1997 Establishment of LGEIL in India
1999 Establishment of LGEAT in Turkey
1999 Establishment of LGEMH in Vietnam
2001 Establishment of LGEAZ in Brazil
2002 Establishment of LGETH in Thailand
2002 Establishment of LGEIN in Indonesia
2004 Turnover of US$1.4 Billion dollars


Thailand


England


France


Australia

Moscow


Singapore


Mexico

Panama


Indonesia


Iran


Turkey


Vietnam

Outdoor Unit 10

16 MULTI V MINI
20 MULTI V PLUS II
28 MULTI V SYNC II

Indoor Unit 34

45 Wall Mounted
46 ARTCOOL
48 Ceiling Cassette
52 Ceiling Concealed Duct
56 Ceiling & Floor
57 Ceiling Suspended
58 Floor Standing

Multi V Series

Your life comes more quiet, economical and powerful
with LG air conditioning high technology.

ENVIRONMENT

ECONOMIC

ENGINEERING SUPPORT

EASY DESIGN & INSTALLATION

eco V
(Heat Recovery Ventilator)
60

62 Features
63 Installation & Maintenance
64 Line-up
66 Specifications

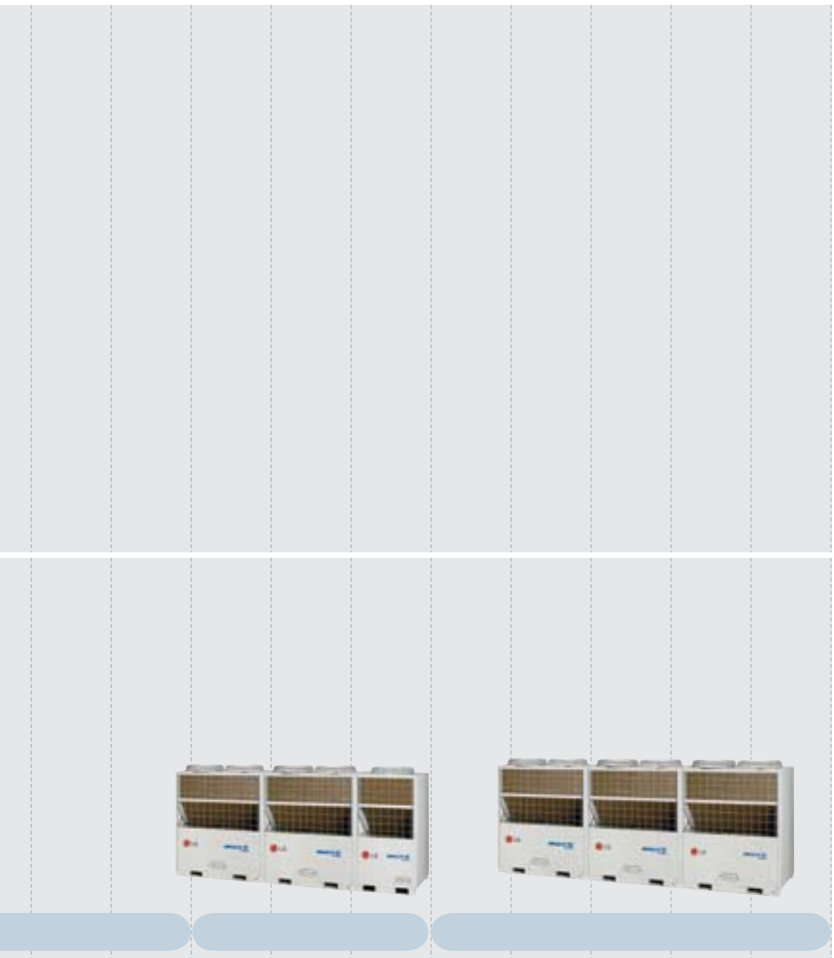
V-net & Accessory
68

70 Remote Controller
72 Central Controller
80 Accessory

MULTI V™

Outdoor unit line up

MODEL	HP	4	5	6	8	10	12	14	16	18	20	22	24	26	28
MULTI V™ MINI															
		*1Ø, 220V *3Ø, 380V													
MULTI V™ PLUS II															
MULTI V™ SYNC II															



LG Air-Conditioning Product Training 2008

LG are offering a range of training courses throughout 2008 at our purpose built training facility in Slough, for details of dates, prices and booking information go to www.mylg.co.uk and click training, the courses include:

Overview of LG air conditioning product range

A 2 hour overview of the full product range, with emphasis on the new products being introduced in 2008.
Suitable for people who require a quick introduction to the latest models.

Split and multi split system design and specification (LG RAC and Universal range)

This course includes all non VRF LG air conditioners. It covers the information required to specify LG air conditioners for a particular site. It is intended for sales engineers, consultants and others who are involved in preparing specifications and quotations. It also includes an overview of the control systems available for this range.

VRF system design and specifications

The course is for consultants, sales engineers, and others who need to specify and quote LG VRF systems. It covers all aspects of the design including pipe layout and sizing, electrical layout, and the components required to make up a system.

VRF installation and service

This course covers the installation, commissioning and servicing of LG VRF systems including how they work and fault finding. It is intended mainly for experienced installation engineers. This course is 80 % practical based.

Split and multi split system installation and service (LG RAC and Universal range)

This course covers the installation and service of LG air conditioners, including how they work and fault finding. It is intended mainly for experienced air conditioning engineers. This course is 80% practical based.

Central controls

LG offers a range of central controls to provide control and monitoring of a large number of indoor units from a central location. The course concentrates on the installation and setting up of the AC smart (full control, monitoring and scheduling) and the Simple Central Controller (mainly on/off control). The course is 100% practical based.

As from April 9th, 2007 for CFC's and July 4th, 2007 for HFC's, it will be a compulsory requirement for any person who handles refrigerants or breaks into any refrigeration or air conditioning system, to have a safe handling of refrigerant qualification as an absolute minimum. Lg will be asking all trainees to confirm that they have this qualification before attending any of our installation or service training courses. If they don't have this we will be recommending to them that they should obtain this qualification as a matter of urgency. We reserve the right to refuse training to any engineers without this qualification.

MULTI V™

Indoor unit line up

kW		2.2	2.8	3.6	4.5
Btu / h		7k	9k	12k	15k
SRAC	Wall Mounted	●	●	●	●
ART COOL Series	Gallery	●	●	●	
	Mirror	●	●	●	●
Ceiling Cassette	4way Cassette (570*570)	●	●	●	●
	4way Cassette (840*840)				
	2way Cassette				●
	1way Cassette	●	●	●	
Ceiling Concealed Duct	Low Static	●	●	●	●
	Built-in	●	●	●	●
	High Static	●	●	●	●
Ceiling & Floor			●	●	
Ceiling Suspended					●
Floor Standing	With Case	●	●	●	●
	Without Case	●	●	●	●


5.6
7.1
8.2
10.6
12.3
14.1
22.4
28.0
18k
24k
28k
36k
42k
48k
76k
96k

MULTI V™ series Outdoor unit

MULTI V Inverter units composed of serially arranged refrigerant pipes connected to a single outdoor unit are an efficient system that offers outstanding energy saving, simple and easy installation, and connection to different types of indoor units, making it easy to design and install.

MULTI V outdoor

16 MULTI V MINI

20 MULTI V PLUS II

28 MULTI V SYNC II

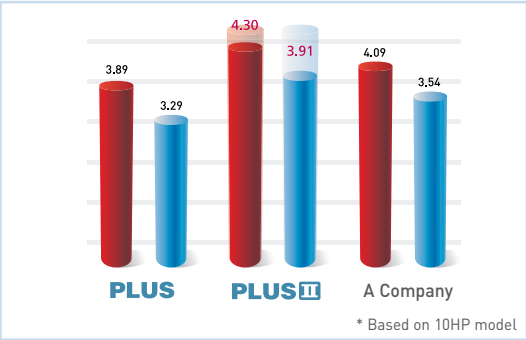
MULTI V™ MINI

MULTI V™ PLUS II

MULTI V™ SYNC II

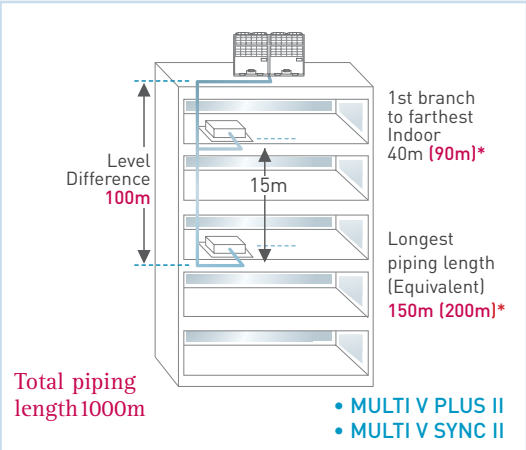
MULTI V™ series Outdoor unit

Pursuing the market needs of
high energy efficiency.



High COP!

- DC Inverter Compressor
- Inverter Combination
- High Efficient DC Inverter Fan
- Wide Louver Heat Exchanger



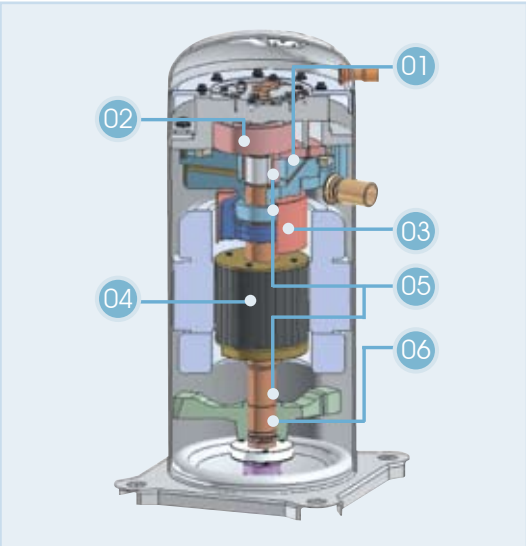
Extended piping length

- MULTI V PLUS II

* Using Y branch

Total piping length	1000m
Longest piping length (Equivalent)	150m (200m)*
Longest piping length after 1st branch	40m (90m)*
Level difference Between ODU~IDU	100m
Level difference Between IDU~IDU	15m
Level difference Between ODU~ODU	5m

*Refer to the installation manual for more information



DC Inverter Compressor

01 Optimized Scroll Shape

02 Oil injection Mechanism
- High reliability in low rpm operation
- High Efficiency in partial-load operation

03 Oil Discharge Reduction
- High reliability in high rpm operation
- Enhanced Oil Circulation

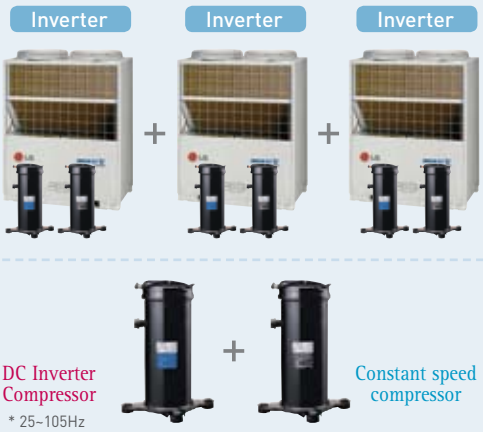
04 DC Inverter Motor
- High Efficiency - Low Noise

05 Teflon Coated Bearing

06 High-performance Oil Pump

2008 New Features

MULTI V MINI / MULTI V PLUS II
MULTI V SYNC II

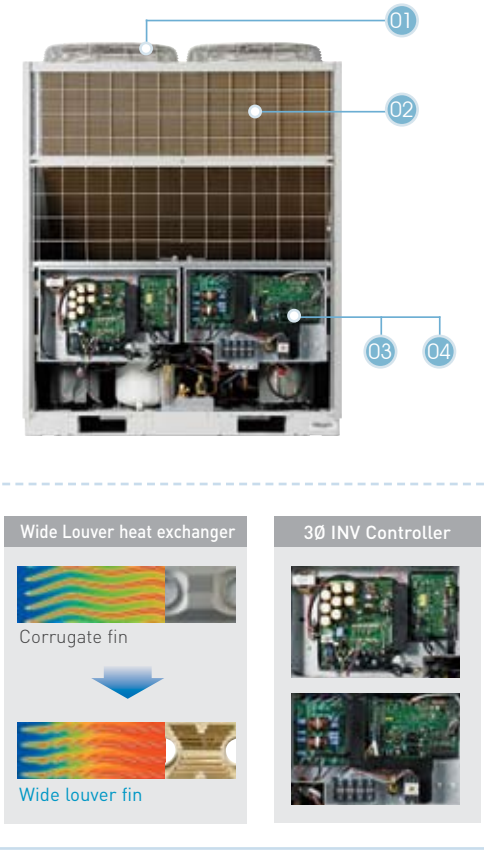


*Inverter Combination

(same ODU for Master and Slave)

- Increased Performance & High COP
- Faster Response for partial load
- Optimized combination with Space saving
- Competitive price for Customers
- Reduced total base model units
  - Simple line-up (16 models → 5 models)
  - Easy stock & logistics management.

*Multi V Plus II and Sync II only



Other features

01 DC Inverter Fan Motor
- Max RPM increased from 830 to 920 rpm
- Power Consumption decreased by 30~40%

02 Wide Louver Heat Exchanger
- Improved heat exchange rate by 14%
- Anti-corrosion treatment (Gold fin)

03 Black Box Function
- Save the last 3 minutes operating data
- Precise Analysis & Fast trouble-shooting

04 Upgraded Main PCB

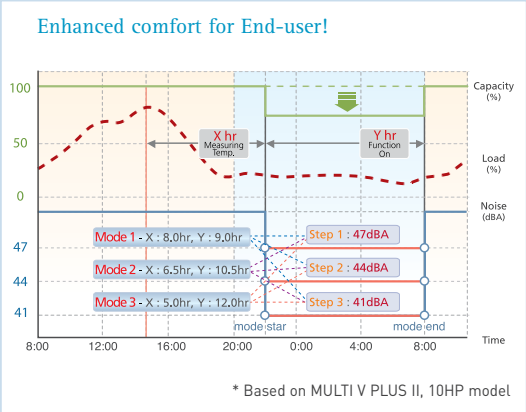

Main PCB

- 3-Digit 7 Segment

- Double DIP Switch

MULTI V™ series Outdoor unit

Pursuing the market needs of
high energy efficiency.



Night Silent Operation

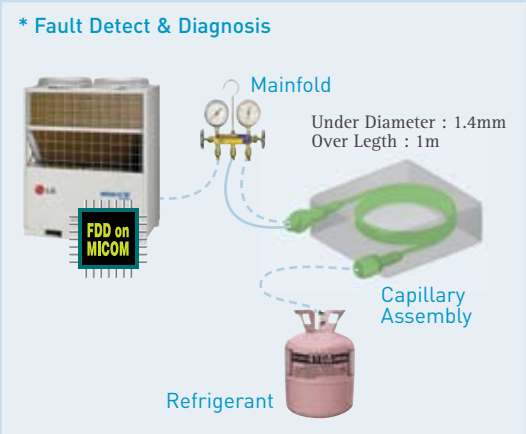
Night silent operation will be on for X hours starting from the peak temperature during daytime, and then after Y hours, it'll be back to normal operation.

- Mode 1 → X : 8.0 hours, Y : 9.0 hours
- Mode 2 → X : 6.5 hours, Y : 10.5 hours
- Mode 3 → X : 5.0 hours, Y : 12.0 hours

Each mode can be selected as 3 steps of sound level.

Unit : dBA

	MINI	PLUS II	SYNC II
Step 1	46	47	47
Step 2	43	44	44
Step 3	40	41	41



Automatic Refrigerant Charging - Leak detection

- Refrigerant charging without any scales or quantity calculation
- Guaranteed temperature range : IDU(20~32°C), ODU(0~43°C)
- FDD Function (Fault Detect & Diagnosis)

Automatic Refrigerant check-up - Leak detection

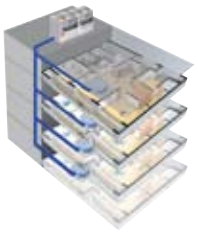
- It can be checked refrigerant status during start-up whether it is undercharged or overcharged
- It can be decided appropriate amount of refrigerant automatically through cycle operation.
- FDD Function (Fault Detect & Diagnosis)

2008 New Features

MULTI V MINI / MULTI V PLUS II
MULTI V SYNC II

Command

Sensor Reading



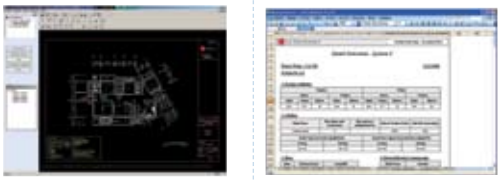
• Operation state • Central controller • Cycle View

LG MV - Service Software

- Easy start-up, Easy trouble shooting
- Monitoring the normality of all parts such as compressor, fan, valve, etc

• Model selection • Auto check

• CAD application • Making quotation



LATS MULTI V - Design Software

- Convenient model selection program
- Highly user-friendly design (Autocad Version)
- Automatic piping design & check

Download from Sales Supporting System
→ http://www.lgeaircon.com

* Contact our technical department for website pasword

MULTI V™ MINI

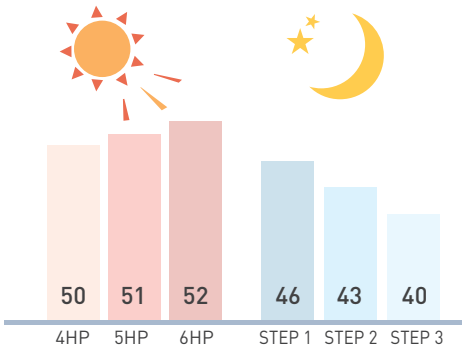
MULTI V MINI can be easily installed in small offices and shops. Designed for low-noise operation, it ensures a pleasant air conditioned environment.

Enjoy a clean &
comfortable life with MULTI V MINI.

EFFICIENCY

MULTI V MINI uses the cutting-edge, artificial intelligence control to obtain efficient operation and reduced noise.

• Noise level (dBA)



Enhanced Comfort

- Night silent operation silent operation
- High COP

	1Ø, 220V		3Ø, 380V	
	Cooling	Heating	Cooling	Heating
4HP	3.9	4.0	3.7	3.9
5HP	3.7	4.0	3.6	3.9
6HP	3.6	3.8	3.5	3.8

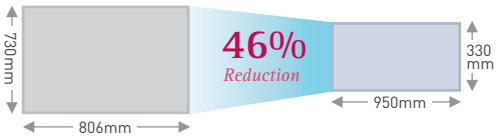
- Long pipe length

Total piping length	300m
Longest piping length (Equivalent)	150m(175m)
Longest piping length after 1st branch	40m
Level difference Between ODU~IDU	50m(40m)
Level difference Between IDU~IDU	15m
Level difference Between ODU~ODU	5m

Conventional
5, 6 HP

MULTI V MINI
4, 5, 6 HP

• Foot Print Area



• Volume

WxHxD : 806×1607×730

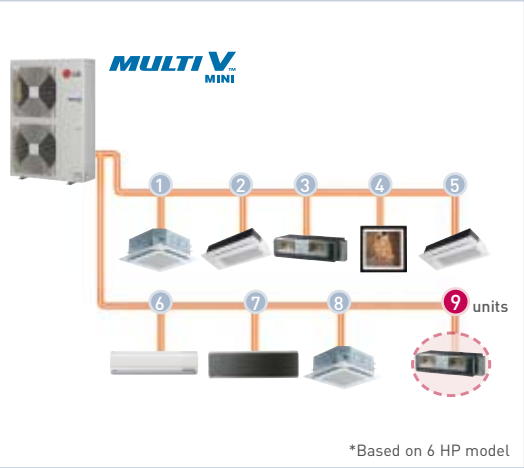
WxHxD : 950x1380x330

Slim & Compact size

Easy & efficient installation of MULTI V MINI will provide the best solution for small offices and shops.

MULTI V™ MINI

MULTI V MINI can be easily installed in small offices and shops. Designed for low-noise operation, it ensures a pleasant air conditioned environment.

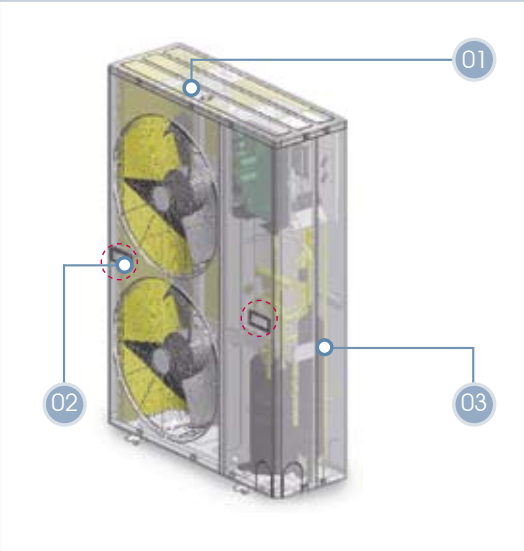


*Based on 6 HP model

Max. 9 indoor units connectable

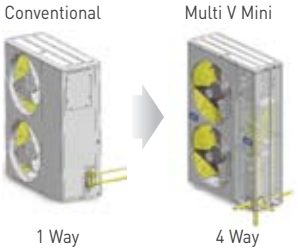
Maximum 9 indoor units can be connected to one single outdoor unit with 130% indoor unit combination.

- 9 indoor units for 6HP (130%)
- 8 indoor units for 5HP (130%)
- 6 indoor units for 4HP (130%)



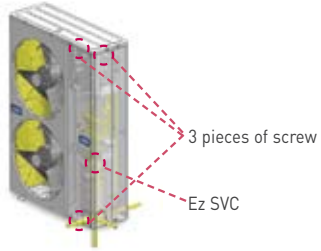
Easy to service

01 Inner SVC valve
- 4 Way piping is possible (Front, Rear, Right, Down)



02 Convenient lifting handle

03 Compact Design & Ez SVC
- Remove 3 screws for SVC
- Front panel removal system



'08 New Feature

- DC Inverter Compressor & Fan motor
- Black box function
- Night silent operation
- Fault Detect & Diagnosis
- Pump down

MULTI V™ MINI

* Specifications

HP			*1Ø, 220V			*3Ø, 380V		
			4	5	6	4	5	6
Model	Independent Unit		ARUN40GS2	ARUN50GS2	ARUN60GS2	ARUN40LS2	ARUN50LS2	ARUN60LS2
Capacity	Cooling	kW	11.2	14.0	15.5	11.2	14.0	15.5
	Heating	kW	12.5	16.0	18.0	12.5	16.0	18.0
Power Input	Cooling	kW	2.9	3.8	4.3	3.0	3.9	4.4
	Heating	kW	3.1	4.0	4.7	3.2	4.1	4.8
COP	Cooling		3.86	3.68	3.60	3.73	3.59	3.52
	Heating		4.03	4.00	3.83	3.91	3.90	3.75
Power Supply		Ø, V, Hz	1, 220 ~ 240, 50			3, 380 ~ 415, 50		
Dimensions(WxHxD)		mm	950 x 1380 x 330	950 x 1380 x 330	950 x 1380 x 330	950 x 1380 x 330	950 x 1380 x 330	950 x 1380 x 330
Weight		kg	118	118	118	106	106	106
Color			Warm Gray			Warm Gray		
Noise level (heating)		dBA±3	50 (52)	51 (53)	52 (54)	50 (52)	51 (53)	52 (54)
Fan	Type		BLDC			BLDC		
	Air flow rate	[CMM]	110	110	110	110	110	110
Compressor	Type		DC INVERTER			DC INVERTER		
	Number of compressors		1	1	1	1	1	1
Heat Exchanger			Gold Fin			Gold Fin		
Refrigerant	Type		R410A			R410A		
	Charge	kg	3.7	3.7	3.7	3.7	3.7	3.7
	Control		EEV			EEV		
Refrigerant Oil	Type		FV50S	FV50S	FV50S	FV50S	FV50S	FV50S
	Charge	l	1.7	1.7	1.7	1.3	1.3	1.3
Piping Connections	Liquid Pipes	mm(inch)	Ø9.52(3/8)	Ø9.52(3/8)	Ø9.52(3/8)	Ø9.52(3/8)	Ø9.52(3/8)	Ø9.52(3/8)
	Gas Pipes	mm(inch)	Ø15.88(5/8)	Ø15.88(5/8)	Ø19.05(3/4)	Ø15.88(5/8)	Ø15.88(5/8)	Ø19.05(3/4)
Number of outdoor unit			1	1	1	1	1	1
Number of maximum connectable indoor units			6	8	9	6	8	9
Ratio of the connectable indoor units			50~130%		50~130%	50~130%		50~130%
Longest piping length / Level difference			150m/50m			150m/50m		

* Refer to the note on page 27

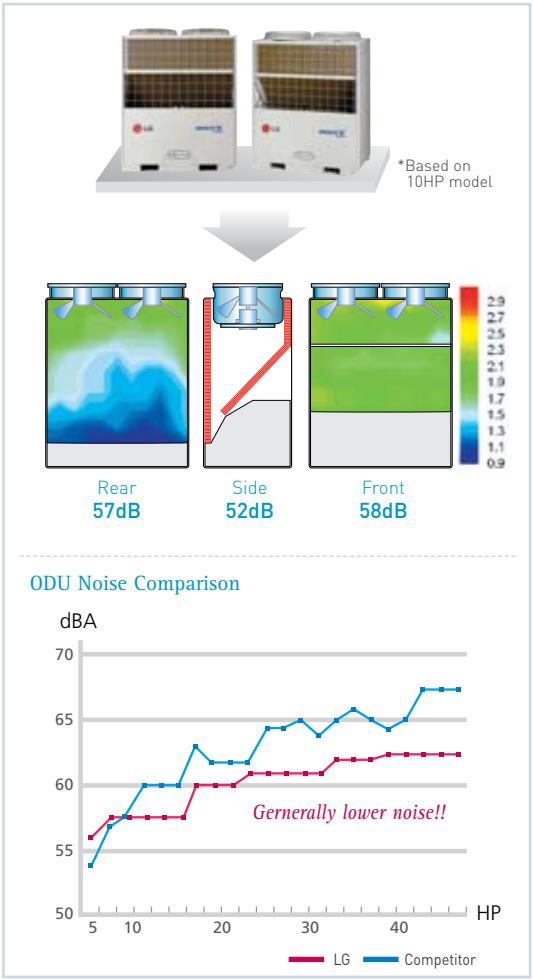
MULTI V™ PLUS II

MULTI V Inverter system offers one of the world's largest capacity units, essential for high-rise buildings. We are proud to say the system will ensure the highest level of customer satisfaction.

Enjoy a clean &
comfortable life with MULTI V.

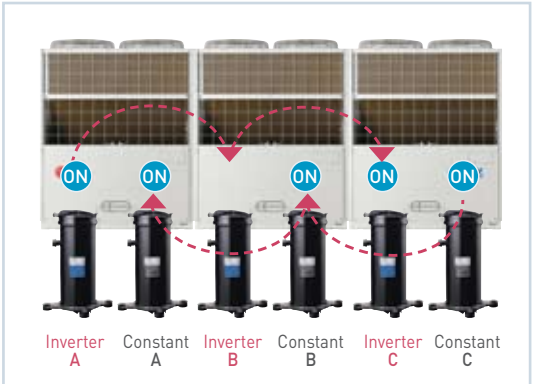
TECHNOLOGY

Your life will be upgraded through the state-of-the-art technology of MULTI V PLUS II.



Low Noise

- Latest technology and features are applied to the new outdoor units to reduce noise level.



Alternate-Cycling Function

- To extend compressors' life span by operating them alternately

  Inverter A ⟷ Inverter B ⟷ Inverter C

  Constant A ⟷ Constant B ⟷ Constant C

- To meet diverse load in operation

MULTI V™ PLUS II

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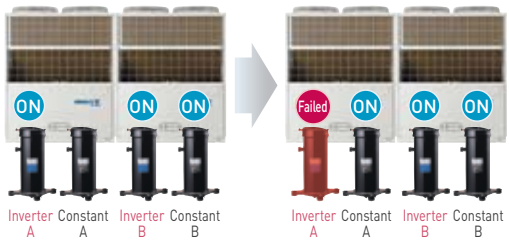


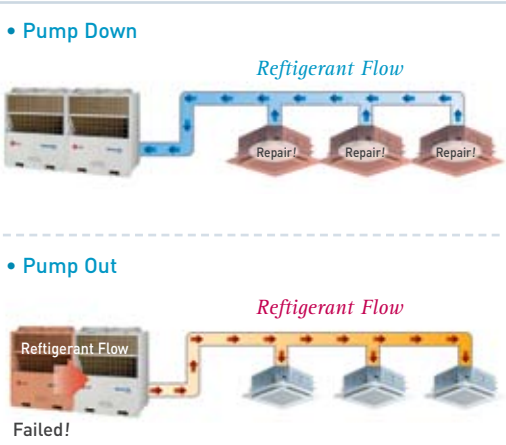
* Combination possible model only

Automatic Back-up

- For emergency, it makes back-up operation possible before trouble-shooting

  Inverter A, B + Constant B
  → Inverter B + Constant A, B

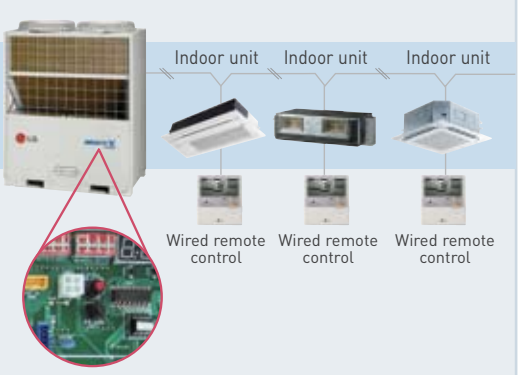
- Error notice in indoor unit : 4 times per day (every 6 hour)



Pump Down & Pump Out

- Pump down
  When indoor units need to replace, refrigerants can be collected to the outdoor unit.
  - MULTI V MINI / PLUS II / SYNC II

- Pump out
  If left outdoor unit breakdown, refrigerant can be sent to another outdoor and indoor unit during service.
  - MULTI V PLUS II / SYNC II

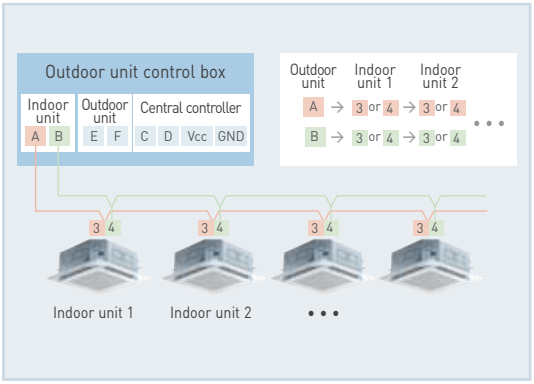


Auto Initialisation

Initialising outdoor units and indoor units is automatically done just by pressing the button.

CONVENIENCE

From installation and transportation to maintenance and service, MULTI V PLUS II adds convenience to cutting-edge technology.



Non-polarity transmission connection

Easy installation and no errors for transmission line connections.

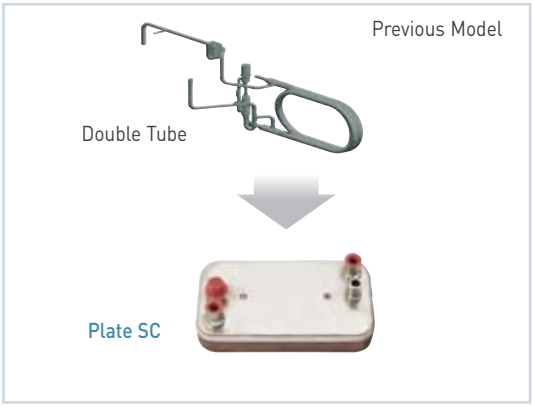
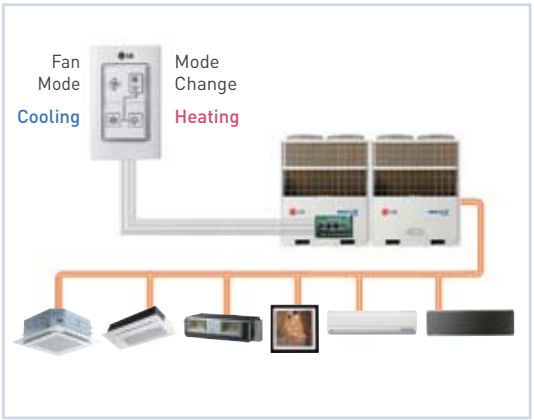


Plate type SC HEX

- Increased Sub-cooling by high-performance heat exchanger
- Enable to be long piping length and level difference
- More powerful Cooling operation



Cool / Heat selector

- Simple central control without Network solution
- Select operation mode (Air circulation, Cooling, Heating)
- Mode lock for heating & cooling mixing error-proof during the change of season

MULTI V™ PLUS II

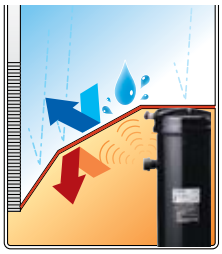
MULTI V Inverter system offers one of the world's largest capacity units, essential for high-rise buildings. We are proud to say the system will ensure the highest level of customer satisfaction.

Close Open

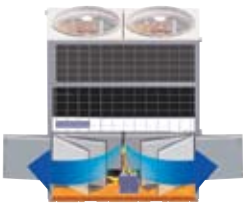
Separate Front Panel

- Easy access to Main PCB (DIP switch)
- Convenient during service and start-up
- Benefits for Technician, Installer

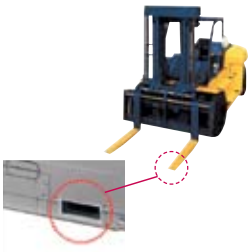
• Safety chassis



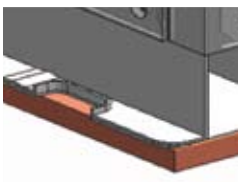
• Swing Control Box



• Easy to handle



• Strong base-pan



Other features

- Internal components protected from the elements, reduces the chances of damage caused by corrosion, dust and other external factors
- Convenient maintenance due to swing door type control box
- Easy to handle through fork lift slot
- Strong base-pan support

'08 New Feature

- DC Inverter Compressor & Fan motor
- Black box function
- Night silent operation
- Fault Detect & Diagnosis
- Pump down & Pump out

* Specifications

HP			5	6	8	10	12	14	16
Model Number			ARUN50LT2	ARUN60LT2	ARUN80LT2	ARUN100LT2	ARUN120LT2	ARUN140LT2	ARUN160LT2
Uses combination of			ARUN50LT2	ARUN60LT2	ARUN80LT2	ARUN100LT2	ARUN120LT2	ARUN140LT2	ARUN160LT2
Capacity	Cooling	kW	14.0	16.0	22.4	28.0	33.6	39.2	44.8
	Heating	kW	15.8	18.0	25.2	31.5	37.8	44.1	50.4
Power	Cooling	kW	3.75	4.25	5.28	7.16	9.08	11.85	14.00
Input	Heating	kW	4.00	4.55	5.73	7.33	9.05	10.60	12.40
COP	Cooling		3.73	3.76	4.24	3.91	3.70	3.31	3.20
	Heating		3.95	3.96	4.40	4.30	4.18	4.16	4.06
Power Supply		Ø, V, Hz	3, 380~415, 50	3, 380~415, 50	3, 380~415, 50	3, 380~415, 50	3, 380~415, 50	3, 380~415, 50	3, 380~415, 50
Dimensions(WxHxD)		mm	806×1607×730	806×1607×730	1280×1607×730	1280×1607×730	1280×1607×730	1280×1607×730	1280×1607×730
Weight		kg	175	175	240	285	285	285	285
Color			Warm Gray						
Noise level		dBA±3	56	56	58	58	58	58	58
Fan	Type		Propeller Fan (DC INV)						
	Air flow rate	[CMM]	105	105	190	190	190	190	190
Compressor	Type		DC INVERTER						
	Number of compressors		1	1	1	2	2	2	2
Heat Exchanger			Gold fin						
Refrigerant	Type		R410A						
	Charge	kg	4.5	4.5	8	8	8	8	8
	Control		EEV						
Refrigerant	Type		FVC68D(PVE)						
Oil	Charge	l	2.3	2.3	3.3	5.6	5.6	5.6	5.6
Piping	Liquid Pipes	mm(inch)	Ø9.52(3/8)	Ø9.52(3/8)	Ø9.52(3/8)	Ø9.52(3/8)	Ø12.7(1/2)	Ø12.7(1/2)	Ø12.7(1/2)
Connections	Gas Pipes	mm(inch)	Ø15.88(5/8)	Ø19.05(3/4)	Ø19.05(3/4)	Ø22.2(7/8)	Ø28.58(1 1/8)	Ø28.58(1 1/8)	Ø28.58(1 1/8)
Number of outdoor unit			1	1	1	1	1	1	1
Number of maximum connectable indoor units			8	9	13	16	19	23	26
Ratio of the connectable indoor units			50~130%						
Longest piping length / Level difference			200m/100m						

* Refer to the note on page 27

MULTI V PLUS II

* Specifications

HP			18	20	22	24	26	28	30	32
Model Number			ARUN180LT2	ARUN200LT2	ARUN220LT2	ARUN240LT2	ARUN260LT2	ARUN280LT2	ARUN300LT2	ARUN320LT2
Uses combination of			ARUN120LT2 ARUN60LT2	ARUN140LT2 ARUN60LT2	ARUN160LT2 ARUN60LT2	ARUN160LT2 ARUN80LT2	ARUN140LT2 ARUN120LT2	ARUN140LT2 ARUN140LT2	ARUN160LT2 ARUN140LT2	ARUN160LT2 ARUN160LT2
Capacity	Cooling	kW	50.4	56.0	61.6	67.2	72.8	78.4	84.0	89.6
	Heating	kW	56.7	63.0	69.3	75.6	81.9	88.2	94.5	100.8
Power	Cooling	kW	13.33	16.10	18.25	19.28	20.93	23.70	25.85	28.00
Input	Heating	kW	13.6	15.15	16.95	18.13	19.65	21.20	23.00	24.80
COP	Cooling		3.78	3.48	3.38	3.49	3.48	3.31	3.25	3.20
	Heating		4.17	4.16	4.09	4.17	4.17	4.16	4.11	4.06
Power Supply		Ø, V, Hz	3, 380~415, 50	3, 380~415, 50	3, 380~415, 50	3, 380~415, 50	3, 380~415, 50	3, 380~415, 50	3, 380~415, 50	3, 380~415, 50
Dimensions(WxHxD)		mm	(1280×1607×730) +(806×1607×730)	(1280×1607×730) +(806×1607×730)	(1280×1607×730) +(806×1607×730)	(1280×1607×730)×2	(1280×1607×730)×2	(1280×1607×730)×2	(1280×1607×730)×2	(1280×1607×730)×2
Weight		kg	285+175	285+175	285+175	285+240	285x2	285x2	285x2	285x2
Color			Warm Gray							
Noise level		dBA±3	60	60	60	61	61	61	61	61
Fan	Type		Propeller Fan(DC INV)							
	Air flow rate	[CMM]	295	295	295	380	380	380	380	380
Compressor	Type		DC INVERTER							
	Number of compressors		3	3	3	3	4	4	4	4
Heat Exchanger			Gold fin							
Refrigerant	Type		R410A							
	Charge	kg	4.5+8	4.5+8	4.5+8	8+8	8+8	8+8	8+8	8+8
	Control		EEV							
Refrigerant	Type		FVC68D(PVE)							
Oil	Charge	l	5.6+2.3	5.6+2.3	5.6+2.3	5.6+3.3	5.6x2	5.6x2	5.6x2	5.6x2
Piping	Liquid Pipes	mm(inch)	Ø15.88(5/8)	Ø15.88(5/8)	Ø15.88(5/8)	Ø15.88(5/8)	Ø19.05(3/4)	Ø19.05(3/4)	Ø19.05(3/4)	Ø19.05(3/4)
Connections	Gas Pipes	mm(inch)	Ø28.58(1 1/8)	Ø28.58(1 1/8)	Ø28.58(1 1/8)	Ø34.9(1 3/8)	Ø34.9(1 3/8)	Ø34.9(1 3/8)	Ø34.9(1 3/8)	Ø34.9(1 3/8)
Number of outdoor unit			2	2	2	2	2	2	2	2
Number of maximum connectable indoor units			29	32	35	39	42	45	49	52
Ratio of the connectable indoor units			50~130%							
Longest piping length / Level difference			200m/100m							

HP			34	36	38	40	42	44	46	48
Model Number			ARUN340LT2	ARUN360LT2	ARUN380LT2	ARUN400LT2	ARUN420LT2	ARUN440LT2	ARUN460LT2	ARUN480LT2
Uses combination of			ARUN140LT2 ARUN140LT2 ARUN60LT2	ARUN160LT2 ARUN140LT2 ARUN60LT2	ARUN160LT2 ARUN160LT2 ARUN60LT2	ARUN160LT2 ARUN160LT2 ARUN80LT2	ARUN140LT2 ARUN140LT2 ARUN140LT2	ARUN160LT2 ARUN140LT2 ARUN140LT2	ARUN160LT2 ARUN160LT2 ARUN140LT2	ARUN160LT2 ARUN160LT2 ARUN160LT2
Capacity	Cooling	kW	95.2	100.8	106.4	112.0	117.6	123.2	128.8	134.4
	Heating	kW	107.1	113.4	119.7	126.0	132.3	138.6	144.9	151.2
Power	Cooling	kW	27.95	30.10	32.25	33.28	35.55	37.70	39.85	42.00
Input	Heating	kW	25.75	27.55	29.35	30.53	31.80	33.60	35.40	37.20
COP	Cooling		3.41	3.35	3.30	3.37	3.31	3.27	3.23	3.20
	Heating		4.16	4.12	4.08	4.13	4.16	4.13	4.09	4.06
Power Supply		Ø, V, Hz	3, 380~415, 50	3, 380~415, 50	3, 380~415, 50	3, 380~415, 50	3, 380~415, 50	3, 380~415, 50	3, 380~415, 50	3, 380~415, 50
Dimensions(WxHxD)		mm	(1280×1607×730)×2 +(806×1607×730)	(1280×1607×730)×2 +(806×1607×730)	(1280×1607×730)×2 +(806×1607×730)	(1280×1607×730)×3	(1280×1607×730)×3	(1280×1607×730)×3	(1280×1607×730)×3	(1280×1607×730)×3
Weight		kg	285x2+175	285x2+175	285x2+175	285x2+240	285×3	285×3	285×3	285×3
Color			Warm Gray							
Noise level		dBA±3	62	62	62	63	63	63	63	63
Fan	Type		Propeller Fan(DC INV)							
	Air flow rate	[CMM]	485	485	485	570	570	570	570	570
Compressor	Type		DC INVERTER							
	Number of compressors		5	5	5	5	6	6	6	6
Heat Exchanger			Gold fin							
Refrigerant	Type		R410A							
	Charge	kg	4.5+8+8	4.5+8+8	4.5+8+8	8+8+8	8+8+8	8+8+8	8+8+8	8+8+8
	Control		EEV							
Refrigerant	Type		FVC68D(PVE)							
Oil	Charge	l	5.6x2+2.3	5.6x2+2.3	5.6x2+2.3	5.6x2+3.3	5.6x3	5.6x3	5.6x3	5.6x3
Piping	Liquid Pipes	mm(inch)	Ø19.05(3/4)	Ø19.05(3/4)	Ø19.05(3/4)	Ø19.05(3/4)	Ø19.05(3/4)	Ø19.05(3/4)	Ø19.05(3/4)	Ø19.05(3/4)
Connections	Gas Pipes	mm(inch)	Ø34.9(1 3/8)	Ø41.3(1 5/8)	Ø41.3(1 5/8)	Ø41.3(1 5/8)	Ø41.3(1 5/8)	Ø41.3(1 5/8)	Ø41.3(1 5/8)	Ø41.3(1 5/8)
Number of outdoor unit			3	3	3	3	3	3	3	3
Number of maximum connectable indoor units			55	58	61	64	64	64	64	64
Ratio of the connectable indoor units			50~130%							
Longest piping length / Level difference			200m/100m							

MULTI V PLUS II ensures economic life with high energy efficiency!!

Note :

1. Capacities are based on the following conditions
   Cooling-Indoor temp. 27°C[80.6°F]DB / 19°C[66.2°F]WB
   Outdoor temp. 35°C[95°F]DB / 24°C[75.2°F]WB
   Interconnecting Piping Length 7.5m
   Level Difference of Zero
   Heating-Indoor temp. 20°C[68°F]DB / 15°C[59°F]WB
   Outdoor temp. 7°C[44.6°F]DB / 6°C[42.8°F]WB
   Interconnecting Piping Length 7.5m
   Level Difference of Zero
2. Capacities are net capacities
3. Due to our policy of innovation some specifications may be changed without notification
4. When the calculated refrigerant charge is over 95kg, multiple outdoor system must be divided into smaller independent systems.
   So, each system contains less than 95kg refrigerant charge.

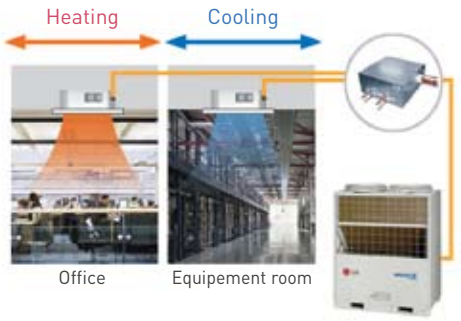
MULTI V™ SYNC II

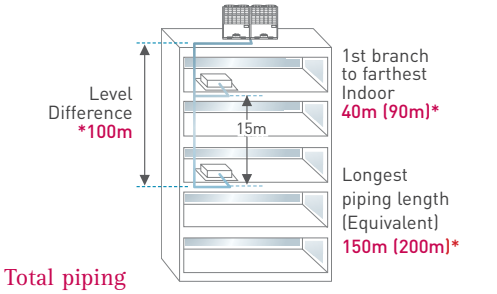
Simultaneous heating and cooling with one outdoor unit, MULTI V SYNC II. Your environment is ensured of optimum conditions regardless of season or space.

Enjoy a clean &
comfortable life with MULTI V.

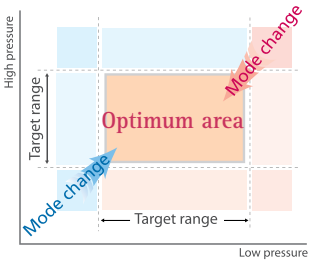
TECHNOLOGY

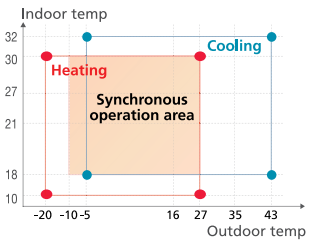
Your life will be upgraded through the state-of-the-art technology of MULTI V SYNC II.





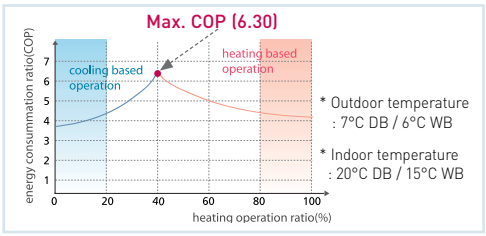
• MULTI V SYNC II





Heating & Cooling Synchronous operation

- High COP up to 6.30
  - When, Cooling(40%) + Heating(60%)
- Energy consumption can be decreased by 30%



Long piping length

- MULTI V SYNC II

Total piping length	1000m*
Longest piping length (Equivalent)	150m (200m)*
Longest piping length after 1st branch	40m (90)*
Level difference Between ODU~IDU	100m*
Level difference Between IDU~IDU	15m
Level difference Between ODU~ODU	10m

* Refer to the installation manual for more information

AMC (Advanced Mode Change)

AMC control provides an optimal cycle operation under any conditions.

- Real time pressure control
- Optimal cycle in optimum area
- Needed time to change mode : Max. 3min

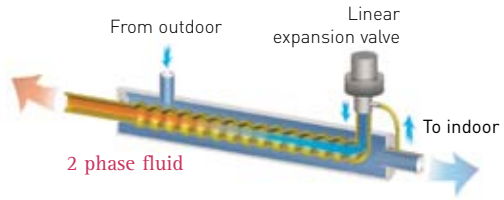
Wide operation range

Wide operation range
- Heating mode : - 20°CDB ~ 27°CDB
- Cooling mode : - 5°CDB ~ 43°CDB
- Synchronous mode : -10°CDB ~ 27°CDB

MULTI V™ SYNC II

Simultaneous heating and cooling with one outdoor unit, MULTI V SYNC II. Your environment is ensured of optimum conditions regardless of season or space.

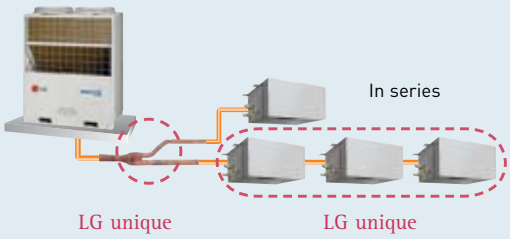
• Double spiral tube heat exchanger



High efficiency heat recovery unit

- High efficient double spiral tube type SCI circuit
- Maximum 4 indoor units connectable per one HR unit
- Easy Installation with auto piping detect function

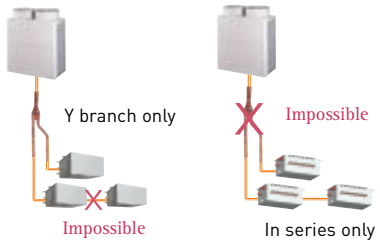
• MULTI V SYNC II



Flexible connection of HR unit

LG's heat recovery unit allows flexible connection both in series and in a row.

• Conventional

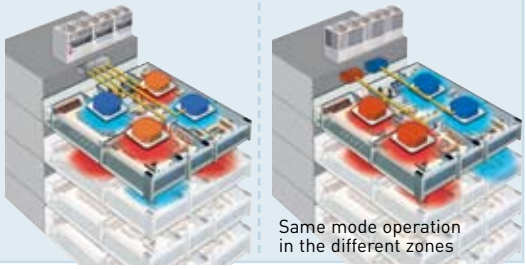


• MULTI V SYNC II

Free Zoning!

• Conventional

Inconvenient Zoning!

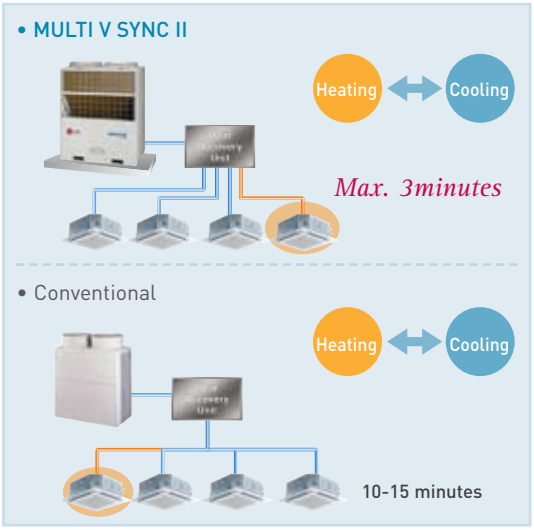


Convenient free zoning

MULTI V SYNC II provides perfect individual zoning in each rooms for the user's convenience.

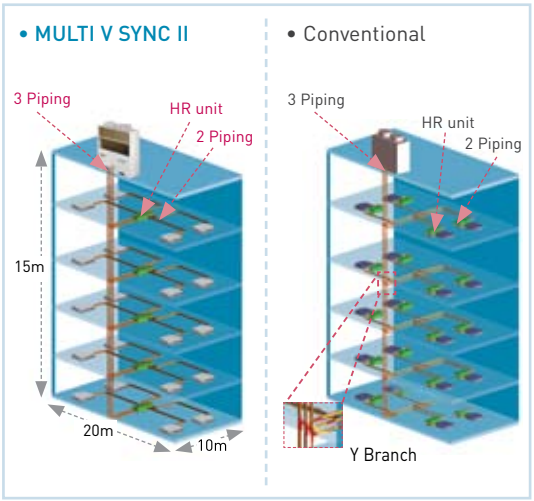
COMFORT

MULTI V SYNC II ensures the comfort of all users with flexible design and easy installation.



Fast response of mode change

When the user wants to change the indoor unit's operating mode (ex. Cooling → Heating), MULTI V SYNC II takes less time compared to the conventional. This fast response of mode change provides a more pleasant and comfortable air conditioning.



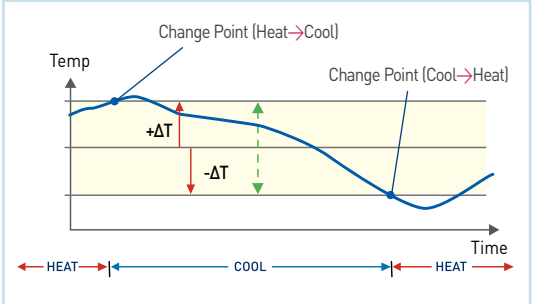
Excellent multiple HR unit

LG's HR unit provides the flexible and convenient installation with lower cost.

LG needs less installation cost than the conventional

	LG	Conventional
Y branch	12 unit	57 unit
HR unit	5 unit	20 unit
Total piping lenght	690m	840m

* Assumed with 5 stories building



Auto Changeover

Auto Changeover automatically change operating mode Cool and Heat, to maintain optimum room temperature, so no need of changing the mode during the change of season.

'08 New Feature

- DC Inverter Compressor & Fan motor
- Black box function
- Night silent operation
- Fault Detect & Diagnosis
- Pump down & Pump out

MULTI V SYNC II

* Specifications

HP			8	10	12	14	16	18	20
Model Number			ARUB80LT2	ARUB100LT2	ARUB120LT2	ARUB140LT2	ARUB160LT2	ARUB180LT2	ARUB200LT2
Uses combination of			ARUB80LT2	ARUB100LT2	ARUB120LT2	ARUB140LT2	ARUB160LT2	ARUB80LT2 ARUB100LT2	ARUB80LT2 ARUB120LT2
Capacity	Cooling	kW	22.4	28.0	33.6	39.2	44.8	50.4	56.0
	Heating	kW	25.2	31.5	37.8	44.1	50.4	56.7	63.0
Power	Cooling	kW	5.24	7.16	9.08	11.85	14.0	12.44	14.36
Input	Heating	kW	5.73	7.33	9.05	10.60	12.40	13.06	14.78
COP	Cooling		4.24	3.91	3.70	3.31	3.20	4.05	3.90
	Heating		4.40	4.30	4.18	4.16	4.06	4.34	4.26
Power Supply		Ø, V, Hz	3, 380~415, 50	3, 380~415, 50	3, 380~415, 50	3, 380~415, 50	3, 380~415, 50	3, 380~415, 50	3, 380~415, 50
Dimensions(WxHxD)		mm	1280x1607x730	1280x1607x730	1280x1607x730	1280x1607x730	1280x1607x730	(1280x1607x730)x2	(1280x1607x730)x2
Weight		kg	240	285	285	285	285	240+285	240+285
Color			Warm Gray						
Noise level		dBA±3	58	58	58	58	58	61	61
Fan	Type		Propeller Fan(DC INV)						
	Air flow rate	[CMM]	190	190	190	190	190	295	295
Compressor	Type		DC INV Scroll						
	Number of compressors		1	2	2	2	2	3	3
Heat Exchanger			Gold fin						
Refrigerant	Type		R410A						
	Charge	kg	8	8	8	8	8	8+8	8+8
	Control		EEV						
Refrigerant Oil	Type		FVC68D(PVE)						
	Charge	l	3.3	5.6	5.6	5.6	5.6	5.6+3.3	5.6+3.3
Piping Connections	Liquid(flare)	mm(inch)	Ø9.52(3/8)	Ø9.52(3/8)	Ø12.7(1/2)	Ø12.7(1/2)	Ø12.7(1/2)	Ø15.88(5/8)	Ø15.88(5/8)
	Suction Gas	mm(inch)	Ø19.05(3/4)	Ø22.2(7/8)	Ø28.58(1 1/8)	Ø28.58(1 1/8)	Ø28.58(1 1/8)	Ø28.58(1 1/8)	Ø28.58(1 1/8)
	Discharge Gas	mm(inch)	Ø15.88(5/8)	Ø19.05(3/4)	Ø19.05(3/4)	Ø22.2(7/8)	Ø22.2(7/8)	Ø22.2(7/8)	Ø22.2(7/8)
Number of outdoor unit			1	1	1	1	1	2	2
Number of maximum connectable indoor units			13	16	19	23	26	29	32
Ratio of the connectable indoor units			50~130%					50~130%	
Longest piping length / Level difference			150m/50m						

MULTI V SYNC II simultaneous heating and cooling from a single outdoor unit!

* Specifications

HP			22	24	26	28	30	32	34
Model Number			ARUB220LT2	ARUB240LT2	ARUB260LT2	ARUB280LT2	ARUB300LT2	ARUB320LT2	ARUB340LT2
Uses combination of			ARUB80LT2 ARUB140LT2	ARUB80LT2 ARUB160LT2	ARUB120LT2 ARUB140LT2	ARUB140LT2 ARUB140LT2	ARUB140LT2 ARUB160LT2	ARUB160LT2 ARUB160LT2	ARUB80LT2 ARUB120LT2 ARUB140LT2
Capacity	Cooling	kW	61.6	67.2	72.8	78.4	84.0	89.6	95.2
	Heating	kW	69.3	75.6	81.9	88.2	94.5	100.8	107.1
Power Input	Cooling	kW	17.13	19.28	20.93	23.7	25.85	28.0	26.21
	Heating	kW	16.33	18.13	19.65	21.2	23.0	24.8	25.38
COP	Cooling		3.60	3.49	3.48	3.31	3.25	3.20	3.63
	Heating		4.24	4.17	4.17	4.16	4.11	4.06	4.22
Power Supply		Ø, V, Hz	3, 380~415, 50	3, 380~415, 50	3, 380~415, 50	3, 380~415, 50	3, 380~415, 50	3, 380~415, 50	3, 380~415, 50
Dimensions(WxHxD)		mm	(1280x1607x730)x2	(1280x1607x730)x2	(1280x1607x730)x2	(1280x1607x730)x2	(1280x1607x730)x2	(1280x1607x730)x2	(1280x1607x730)x3
Weight		kg	240+285	240+285	285+285	285+285	285+285	285+285	240+285+285
Color			Warm Gray						
Noise level		dBA±3	61	61	61	61	61	61	63
Fan	Type		Propeller Fan(DC INV)						
	Air flow rate	[CMM]	295	295	380	380	380	380	485
Compressor	Type		DC INV Scroll						
	Number of compressors		3	3	4	4	4	4	5
Heat Exchanger			Gold fin						
Refrigerant	Type		R410A						
	Charge	kg	8+8	8+8	8+8	8+8	8+8	8+8	8+8+8
	Control		EEV						
Refrigerant Oil	Type		FVC68D(PVE)						
	Charge	l	5.6+3.3	5.6+3.3	5.6+5.6	5.6+5.6	5.6+5.6	5.6+5.6	5.6+5.6+3.3
Piping Connections	Liquid(flare)	mm(inch)	Ø15.88(5/8)	Ø15.88(5/8)	Ø19.05(3/4)	Ø19.05(3/4)	Ø19.05(3/4)	Ø19.05(3/4)	Ø19.05(3/4)
	Suction Gas	mm(inch)	Ø34.9(1 3/8)	Ø34.9(1 3/8)	Ø34.9(1 3/8)	Ø34.9(1 3/8)	Ø34.9(1 3/8)	Ø34.9(1 3/8)	Ø34.9(1 3/8)
	Discharge Gas	mm(inch)	Ø28.58(1 1/8)	Ø28.58(1 1/8)	Ø28.58(1 1/8)	Ø28.58(1 1/8)	Ø28.58(1 1/8)	Ø28.58(1 1/8)	Ø28.58(1 1/8)
Number of outdoor unit			2	2	2	2	2	2	3
Number of maximum connectable indoor units			35	39	42	45	49	52	55
Ratio of the connectable indoor units			50~130%						50~130%
Longest piping length / Level difference			150m/50m						

HP			36	38	40	42	44	46	48
Model Number			ARUB360LT2	ARUB380LT2	ARUB400LT2	ARUB420LT2	ARUB440LT2	ARUB460LT2	ARUB480LT2
Uses combination of			ARUB80LT2 ARUB140LT2 ARUB140LT2	ARUB80LT2 ARUB140LT2 ARUB160LT2	ARUB80LT2 ARUB160LT2 ARUB160LT2	ARUB100LT2 ARUB160LT2 ARUB160LT2	ARUB140LT2 ARUB140LT2 ARUB160LT2	ARUB140LT2 ARUB160LT2 ARUB160LT2	ARUB160LT2 ARUB160LT2 ARUB160LT2
Capacity	Cooling	kW	100.8	106.4	112.0	117.6	123.2	128.8	134.4
	Heating	kW	113.4	119.7	126.0	132.3	138.6	144.9	151.2
Power Input	Cooling	kW	28.98	31.13	33.28	35.16	37.7	39.85	42.0
	Heating	kW	26.93	28.73	30.53	32.13	33.6	35.40	37.2
COP	Cooling		3.48	3.42	3.37	3.34	3.27	3.23	3.20
	Heating		4.21	4.17	4.13	4.12	4.13	4.09	4.06
Power Supply		Ø, V, Hz	3, 380~415, 50	3, 380~415, 50	3, 380~415, 50	3, 380~415, 50	3, 380~415, 50	3, 380~415, 50	3, 380~415, 50
Dimensions(WxHxD)		mm	(1280x1607x730)x3	(1280x1607x730)x3	(1280x1607x730)x3	(1280x1607x730)x3	(1280x1607x730)x3	(1280x1607x730)x3	(1280x1607x730)x3
Weight		kg	240+285+285	240+285+285	240+285+285	285+285+285	285+285+285	285+285+285	285+285+285
Color			Warm Gray						
Noise level		dBA±3	63	63	63	63	63	63	63
Fan	Type		Propeller Fan(DC INV)						
	Air flow rate	[CMM]	485	485	485	570	570	570	570
Compressor	Type		DC INV Scroll						
	Number of compressors		5	5	5	6	6	6	6
Heat Exchanger			Gold fin						
Refrigerant	Type		R410A						
	Charge	kg	8+8+8	8+8+8	8+8+8	8+8+8	8+8+8	8+8+8	8+8+8
	Control		EEV						
Refrigerant Oil	Type		FVC68D(PVE)						
	Charge	l	5.6+5.6+3.3	5.6+5.6+3.3	5.6+5.6+3.3	5.6+5.6+5.6	5.6+5.6+5.6	5.6+5.6+5.6	5.6+5.6+5.6
Piping Connections	Liquid(flare)	mm(inch)	Ø19.05(3/4)	Ø19.05(3/4)	Ø19.05(3/4)	Ø19.05(3/4)	Ø19.05(3/4)	Ø19.05(3/4)	Ø19.05(3/4)
	Suction Gas	mm(inch)	Ø41.3(1 5/8)	Ø41.3(1 5/8)	Ø41.3(1 5/8)	Ø41.3(1 5/8)	Ø41.3(1 5/8)	Ø41.3(1 5/8)	Ø41.3(1 5/8)
	Discharge Gas	mm(inch)	Ø28.58(1 1/8)	Ø34.9(1 3/8)	Ø34.9(1 3/8)	Ø34.9(1 3/8)	Ø34.9(1 3/8)	Ø34.9(1 3/8)	Ø34.9(1 3/8)
Number of outdoor unit			3	3	3	3	3	3	3
Number of maximum connectable indoor units			58	61	64	64	64	64	64
Ratio of the connectable indoor units			50~130%						
Longest piping length / Level difference			150m/50m						

* Refer to the note on page 27