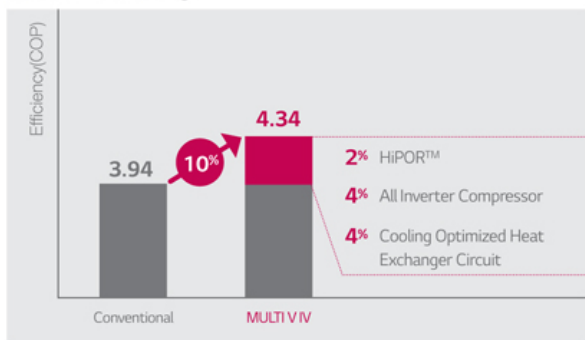


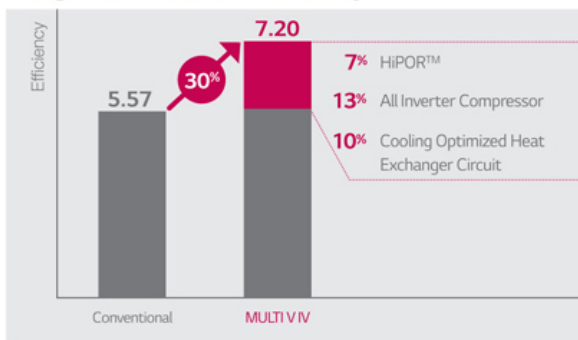
World's First Class, Rated and Part Load Efficiency

Rated Efficiency



* Comparison between 10HP

Integrated Part Load Efficiency

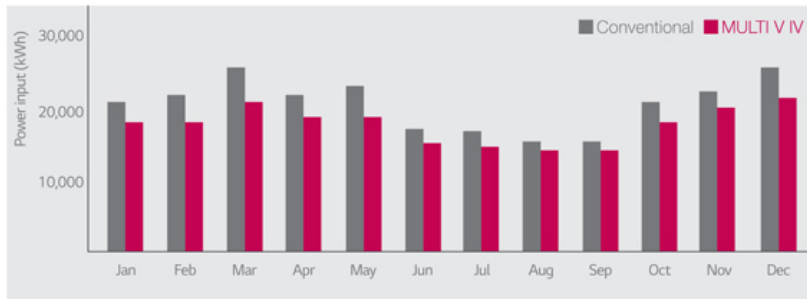


* Comparison between 10HP, part load efficiency based on internal test data

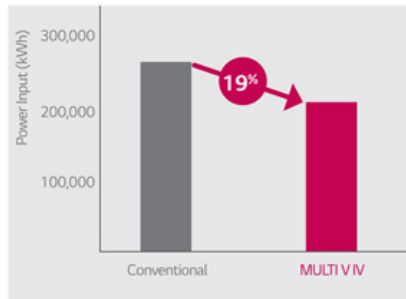
Energy Consumption Comparison

Lagos

Monthly

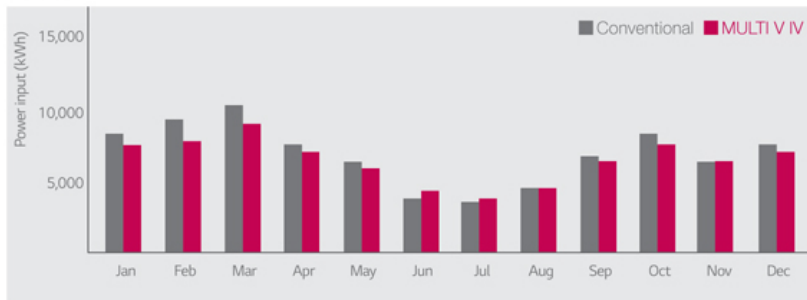


Yearly

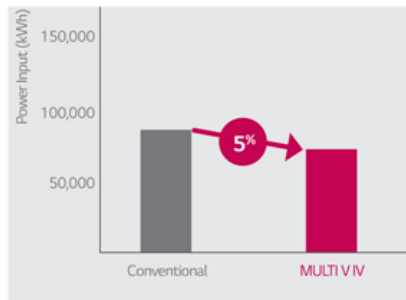


Nairobi

Monthly



Yearly



* Analysis Condition

- Weather : Meteororm Program(www.meteotest.ch)
- Capacity : 90HP(10HP + 12HP + 14HP + 16HP + 18HP + 20HP)
- Operation : 24hr, 365days

Compressor

The new high-side shell (HSS) scroll inverter compressor employs a BLDC-type motor coil to maximize efficiency in part load conditions. This exceptional efficient inverter compressor also boasts an increase in high-frequency operation from 120Hz to 150Hz.

6 By-Pass Valves

- Control refrigerant in further detail compared 4 valves of conventional one
- Maximize part load efficiency
- Prevent compressor damage due to excessively compressed refrigerant

Extended Compressor Speed 15Hz ~ 150Hz

- Capable of reaching required temperature quickly
- Increase part load efficiency

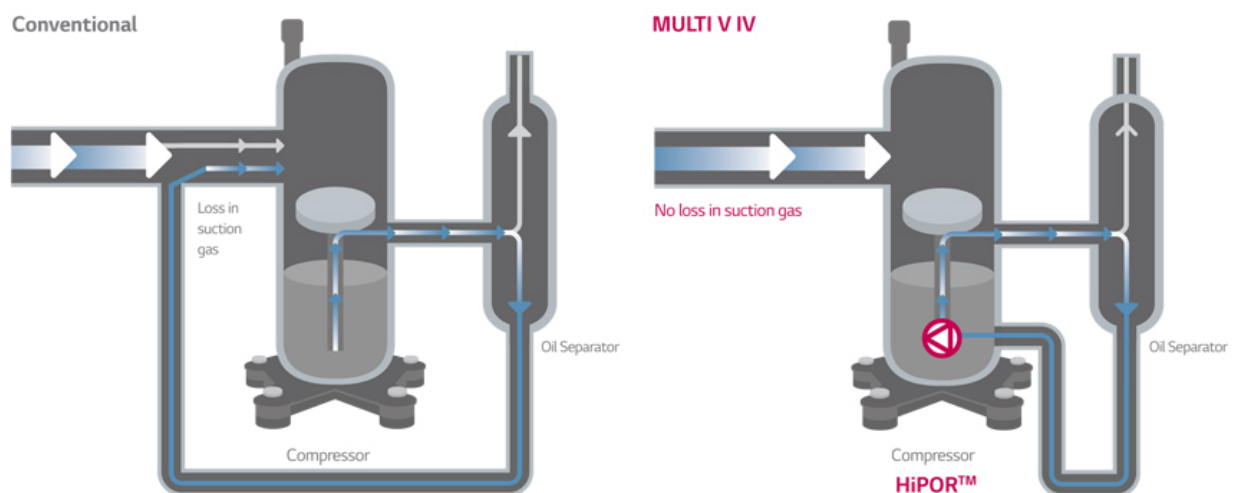
Generation	Operation Range (Hz)
Constant	50 - 50
LG's 3rd generation	20 - 120
LG's 4th generation	15 - 150

HiPOR™

- Resolve compressor efficiency loss caused by oil return
- Improve part load efficiency at all operation ranges

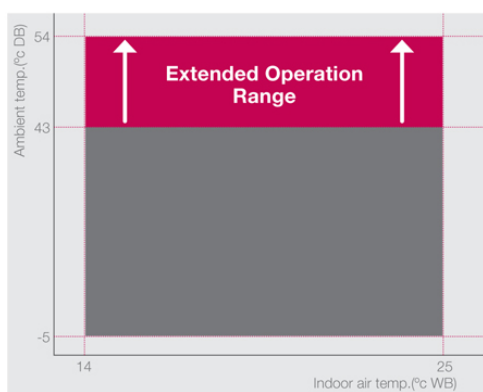
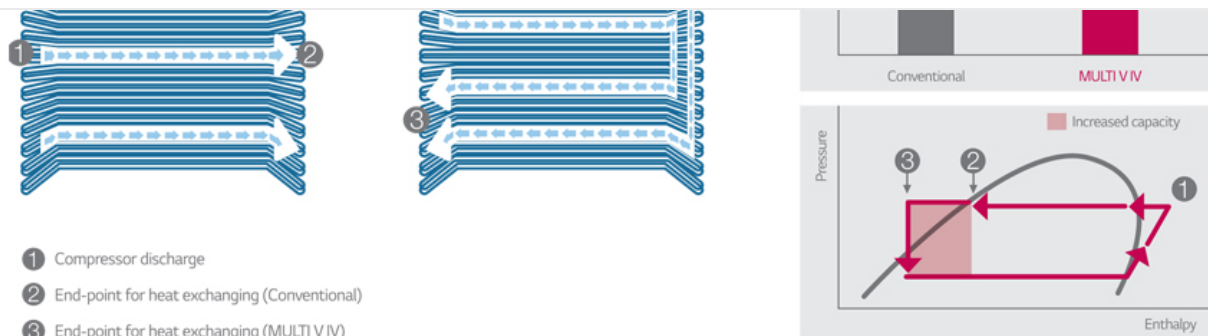
HiPOR™ (High Pressure Oil Return)

Conventional models can't fully return refrigerant to compressor when returning oil. However, LG's HiPOR™ reduces compressor energy wastage by returning oil directly into the compressor, not from refrigerant pipe. Through this, it provides superior efficiency and a high level of reliability.



Cooling Optimized Heat Exchanger Circuit

By extending the path length of the heat exchanger and decreasing the number of paths, the refrigerant is able to throw off more heat. Through a rise in the heat exchange rate, the heat exchanger contributes to increase cooling efficiency.



Cooling Operation Range Up to 54°C

Thanks in large part to LG’s advanced inverter compressor and unique heat exchanger design, MULTI V IV is able to provide reliable operation even when the outside temperature soars to 54°C, exceeding the previous norm limit by 11 degrees.

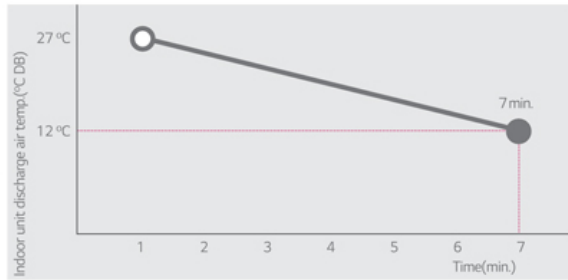
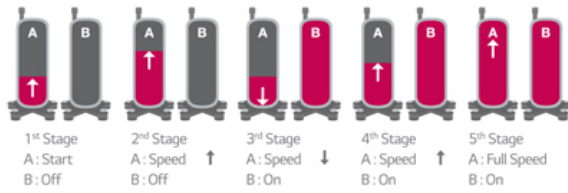
* Stable cooling operation can be expected up to 43°C.

Fast Cooling via Advanced Inverter

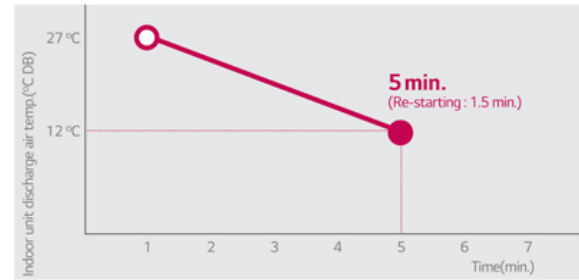
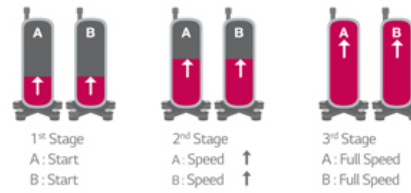
Thanks to LG’s all inverter compressor system and high performance cycle design, MULTI V IV delivers fast cooling by operating two compressors

reach maximum capacity.

Conventional

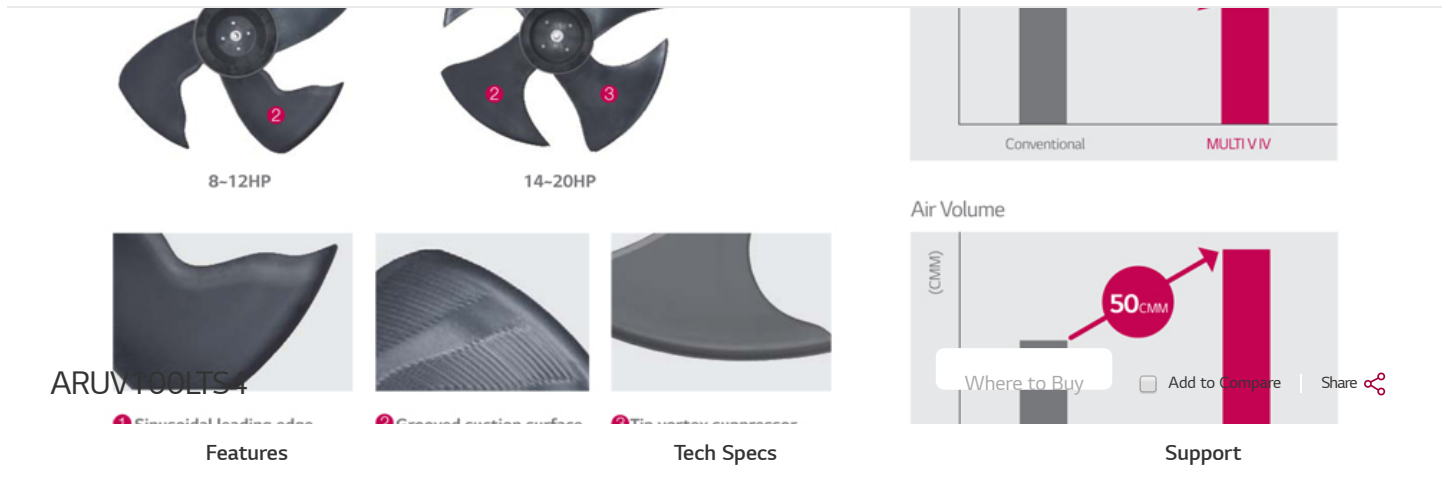


MULTI V IV



Fan with Less Noise and Higher Air Volume

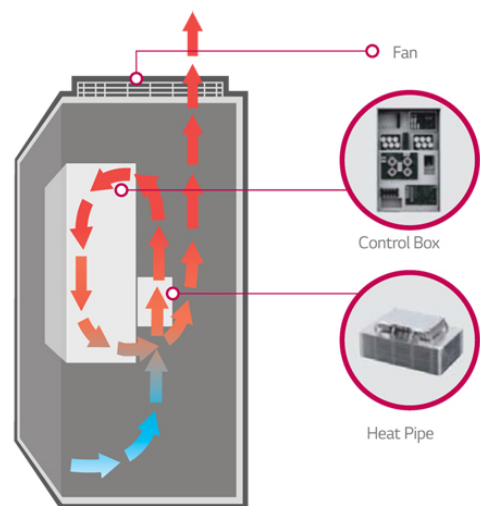
The design of cannon fan creates more separation between blades and allows for a reduction in the system's vortex. This increases the total air volume up to 50cm³ (m³ per minute), and it also decreases the level of noise by 4dB(A).



Self-Cooled Printed Circuit Board (PCB) Protection

The temperature of PCB should be maintained at proper levels regardless of the rise in outdoor temperature. Self-cooled PCB Protection is a unique system which employs separate pipes to cool the PCB. MULTI V IV is able to minimize the loss of cooling capacity and refrigerant.

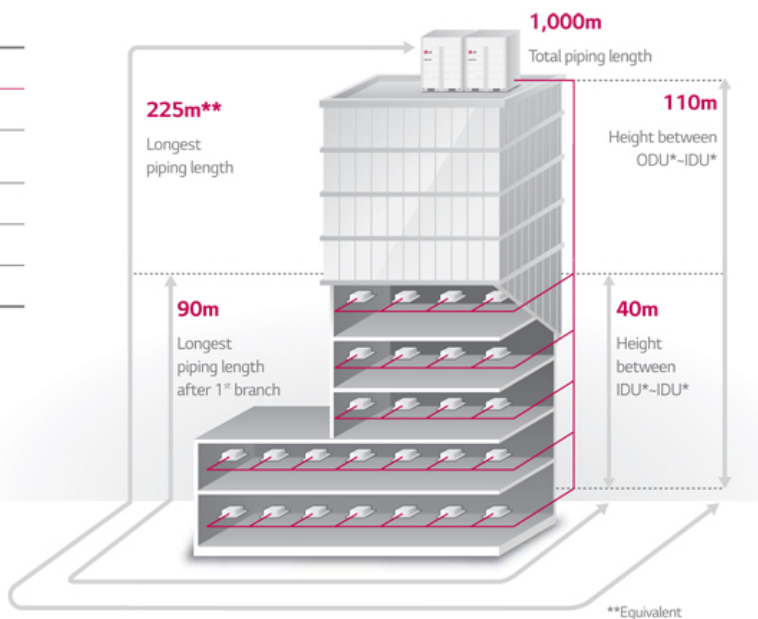
- PCB is cooled by air through heat pipe behind control box
- Maintain cooling performance regardless of outdoor temperature



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

Total piping length	1,000m
Actual longest piping length (Equivalent)	200m (225m)
Longest piping length after 1st branch (Conditional application)	40m (90m)
Height between ODU-IDU	110m
Height between IDU-IDU	40m
Height between ODU-ODU	5m

ODU: Outdoor unit
 IDU: Indoor unit



High Elevation Technology between Indoor and Indoor

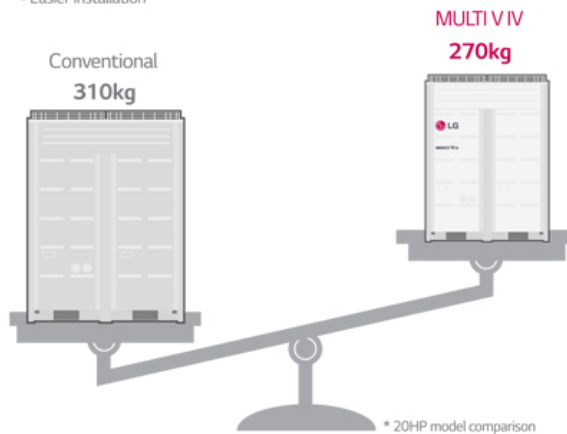
MULTI V IV provides a maximum 40m of height difference between the indoor units without any loss in cooling capacity thanks to the new cycle and compressor technology.



Light Weight Outdoor Units

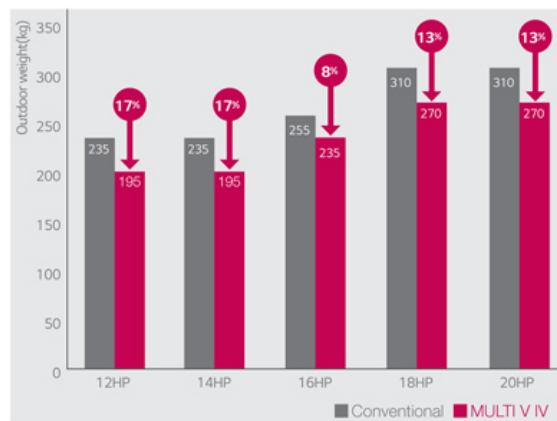
13% less lighter weight than conventional model

- Less pressure on the roof
- Easier installation



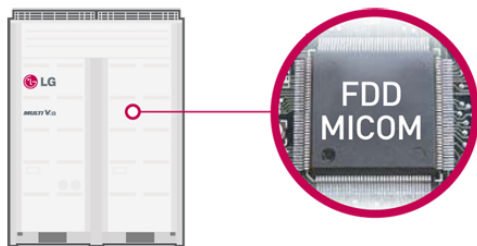
Weight Comparison Table

- Average 14% lighter



Elimination of Common Pipes between Outdoor Units

Due to the elimination of common pipes between outdoor units, installation time is reduced and reliability is enhanced.



Upgraded Fault Detection & Diagnosis (FDD)

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
- Piping & wiring error check-up
- Black box function

AUTO COMMISSIONING MODE

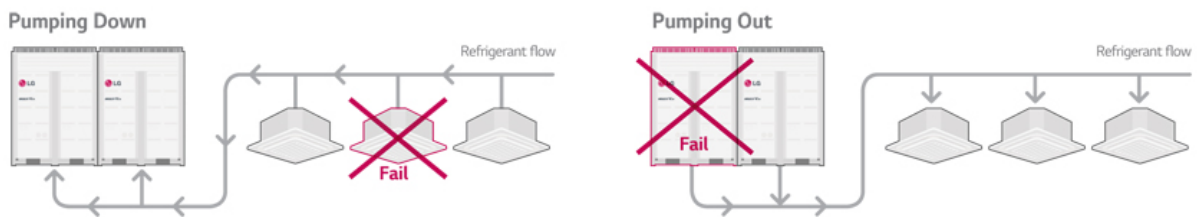
Commissioning time has been reduced up to 25%, from 60 minutes to 45 minutes. Remote control, wireless reporting has been provided.

Auto Test Run

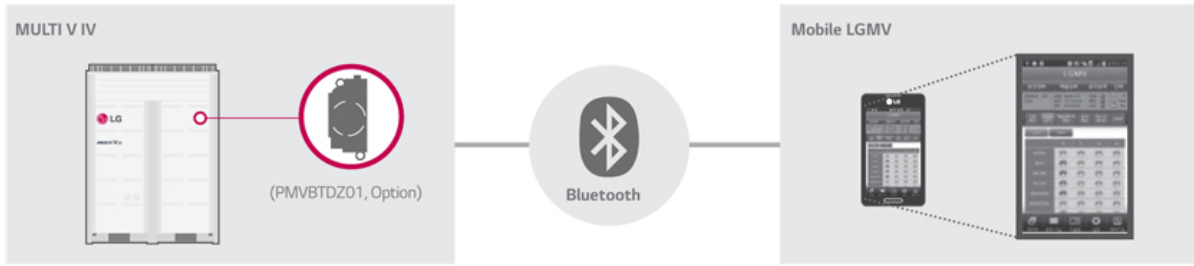


Auto Refrigerant Collection

If an indoor unit experiences a problem, any remaining refrigerant is pumped down and transferred to normally functioning outdoor units. Conversely, if an outdoor unit malfunctions, any refrigerant left is pumped out to fully operational indoor units. This collection function helps to prevent the loss of refrigerant, while also making maintenance easier.



Smartphone Monitoring & Control

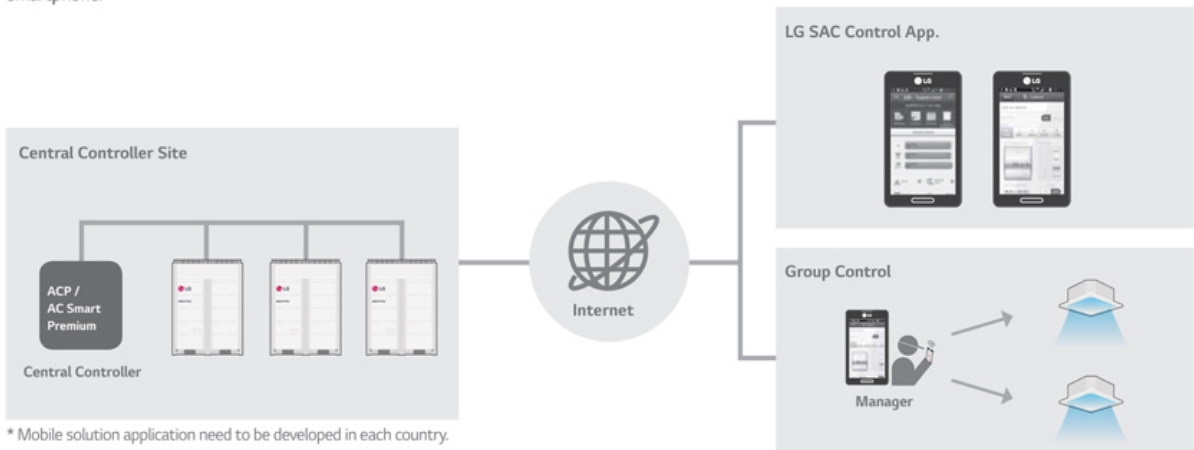


- To use Mobile LGMV application, exclusive Bluetooth module is required.
- Bluetooth module can be installed on the main board of the outdoor unit for use.

Smartphone specification			Effective communication distance of Bluetooth
Basic specification	Recommended specification	Exception	- Effective distance : 10m (Open Space) - Effective distance can be shortened based on the communication environment.
- Android OS 2.2 - CPU 1 GHz - RAM 1 GB	- Android OS 4.0(ICS) or higher - CPU 1 GHz Dual Core or higher - RAM 1GB or higher - 1280 x 720, 800 x 480 resolution (Optimized)	- Android OS 3.x (Honeycomb) - iPhone not supported	

LG SAC Control App.

Central Controller (ACP / AC Smart Premium : Option) provides smartphone monitoring and control function for users. Group control is available via smartphone.



* Mobile solution application need to be developed in each country.

[Close](#)

Capacity (Rated)

Cooling (kW)

28.0

Cooling (kcal/h)

24,100

Cooling (Btu/h)

95,900

Input (Rated)

Cooling (kW)

6.45

COP

Cooling

4.34

Power Factor

Rated

0.90

Casing Color

Casing Color

Warm Gray /Morning Gray

Heat Exchanger

Heat Exchanger

Gold fin

Compressor

Type

Hermetically Sealed Scroll

Piston Displacement (cm³/rev)

43.8

Number of Revolution (rev/min)

3,600

Motor Output x Number (W x No.)

4,200

Starting Method

Direct On Line

Oil Type

FVC68D(PVE)

Oil Charge (cc)

2,600

Propeller fan 750 × 1

Air Flow Rate(High) - m3/min

210

Air Flow Rate(High) - ft3/min

7,416

Drive

DC INVERTER

Discharge (Side / Top)

TOP

Pipe Connctions

Liquid - mm(inch)

9.52(3/8)

Gas - mm(inch)

22.2(7/8)

Dimensions(WxHxD)

mm

(920×1,680×760)×1

Net Weight

kg

180 × 1

Sound Pressure Level

Cooling - dB(A)

58.5

Sound Power Level

dB(A)

69.5

Protection Devices

High pressure protection

High pressure sensor / High pressure switch

Compressor/Fan

Over-heat protection / Fan driver overload protector

Inverter

Over-heat protection / Over-current protection

Communication Cable

No.x mm2 (VCTF-SB)

2C × 1.0 ~ 1.5

Refrigerant

Control

Electronic Expansion Valve

Power Supply

Ø, V, Hz

3, 380-415, 50 / 3, 380, 60

Number of outdoor units

Number of outdoor units

1

Number of maximum connectable indoor units

Number of maximum connectable indoor units

16(25)

Running Current

Cooling (A)

10.66

Product Support

Simply choose a support option from the icons below:

Phone

Call an LG Support Representative on
Nigeria : 0800 9811 5454 (Toll Free)
Angola : +244 933 772 011
Angola : +244 933 772 012
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Benin : +229 21 37 74 10
Cameroon : +237 671 385 050
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DR Congo : 99997774
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