

# Art Cool™ Premier Single Zone

**INVERTER V**

## Supreme Energy Efficiency

The advanced inverter technology, high efficiency heat exchanger, and improved efficiency of the compressor and inverter drive provide the highest level of energy efficiency.



Indoor Unit with Remote

## Ultra Quiet

LG air conditioners operate at world class sound levels, thanks to LG's unique new cross-flow fan and BLDC motor technology.



Outdoor Unit

**INVERTER V**





LG Air Conditioner  
Inverter V

# Art Cool™ Premier

In addition to stylish design, LG Art Cool™ Premier brings with it an unrivaled package of the most complete air conditioning solutions.

Supreme  
Energy  
Efficiency



SEER  
**28.0**

(LS090HYV)

Top Tier Energy  
Efficiency



Ultra Quiet

**17dB(A)**

Sound Level  
(Sleep Mode)

BLDC Motor / Cross-Flow Fan



## Model View



Supreme  
Energy Efficiency



BLDC Motor



Ultra  
Quiet



Quick & Easy  
Installation



Stylish Design

# Unique Features

**Supreme Energy Efficiency** State of the art heat exchanger, air outlet, compressor, and inverter technology provide the world's highest energy efficiency.

**Ultra Quiet** LG's unique new cross-flow fan and low vibrating compressor technology provides extreme silence and comfort for the user.

**Optimized Airflow** The optimized design of the air outlet provides strong airflow which cools the room temperature up to 5 degrees in as few as 5.6 minutes.

**Heating** Use more and save more with the highly efficient LG Heat Pump system and inverter technology. LG delivers the promise of warm comfort.

**Stylish Design** LG air conditioners are not just refreshingly efficient, but also exceptionally elegant in design.

**Quick & Easy Installation** Installation has never been easier than with the conveniently designed installation elements of LG air conditioners.



**Indoor Unit :** Strategically designed heat exchanger and air outlet contribute to the efficient usage of energy while providing maximum cooling.

1



**Outdoor Unit :** The advanced compressor and inverter technology of LG enables the user of the air conditioner to use more and save more.

2



**Indoor Unit :** With fan blades 25% larger than the previous cross-flow fan, the sound level has been decreased even lower to 17dB(A) - more silent than a library.

3



**Outdoor Unit :** The interior of the compressor in the outdoor unit has been constructed to minimize the sound produced during operation.

4



4-way swing disperses cool air quickly and effectively in multiple directions to each corner of the room.



Use more and save more with the highly efficient LG Heat Pump system and inverter technology. LG delivers the promise of warm comfort.



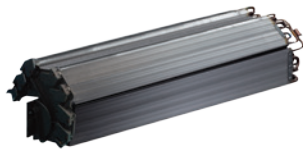
The design of LG air conditioners are stylish in a way that is incomparable to others. Think of it not just as an air conditioner, but an object that will lighten up your room.

5



Perfect finishing / More tubing space / Installation plate improvement / Detachable bottom cover / Elevated service valve / Installation support clip.

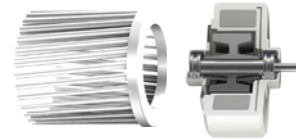
6



1 3 Row Heat Exchanger



2 DC Inverter



3 Cross-Flow Fan & BLDC Motor

4 Twin Rotary Compressor

Stylish Design

5

6 Quick & Easy Installation

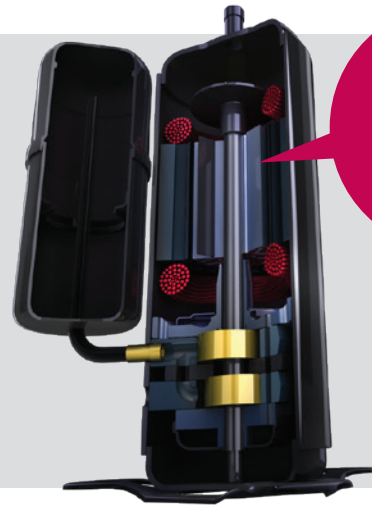


Unique Features

# Supreme Energy Efficiency



The revolutionary inverter technology of LG boasts powerful yet silent performance while minimizing energy consumption by as much as 74%.

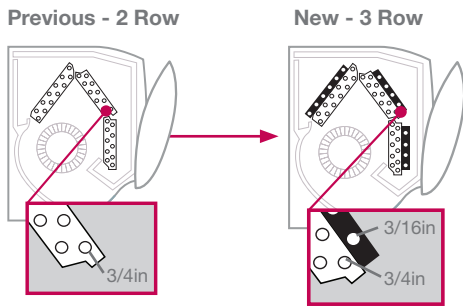


**Top Class**  
Efficiency  
**28.0**  
SEER

(LS090HYV)  
AHRI #5265353  
(4/27/2012)

Unique Features

## 1 3 Row Hybrid Heat Exchanger



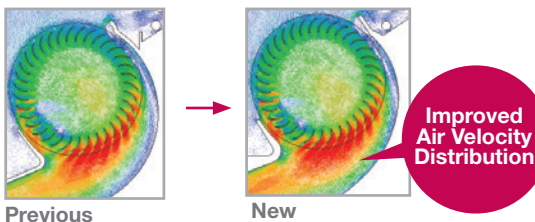
Improved energy efficiency by application of 3 Row hybrid heat exchanger

- The efficiency of the heat exchanger has been greatly enhanced by adding an additional row to the hybrid heat exchanger - increasing the surface area.
- The loss of capacity has been reduced by using tubes of varying diameter.

## 2 Improved Cross-Flow Fan

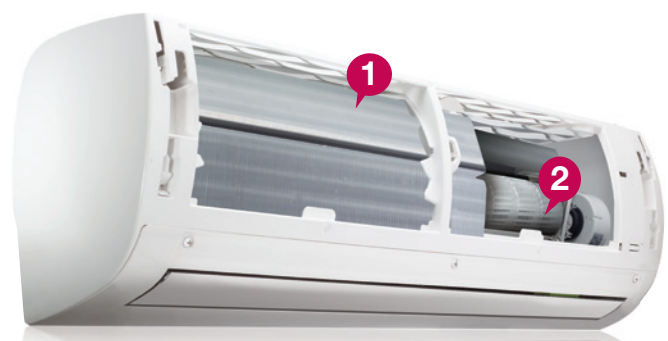
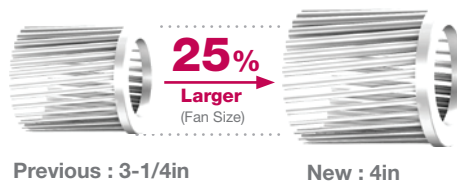
By reducing the second vortex which constricts airflow within the air outlet and enlarging the fan size by 25%, the amount of airflow increased from 424 CFM to 547 CFM.

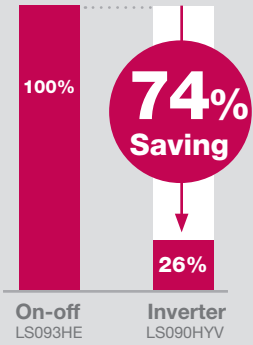
### Streamline Constructed Air Outlet



Low High  
(Air Volume)

### Increased Fan Size



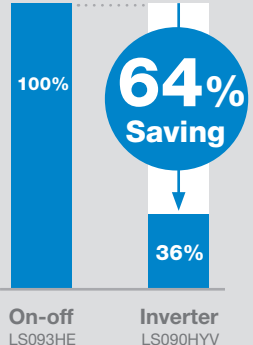


**Heating Season**

**LG In-House Standard**  
 Temperature Setting : 73.4F  
 Outside Temperature : 44.6F  
 Electricity consumed to reach the set-point temperature

**Total Electricity Consumption Comparison**

Model	Total Consumption (kWh)	Energy Saving Rate
Non INV LS093HE	1.2	74%
INV LS090HYV	0.31	



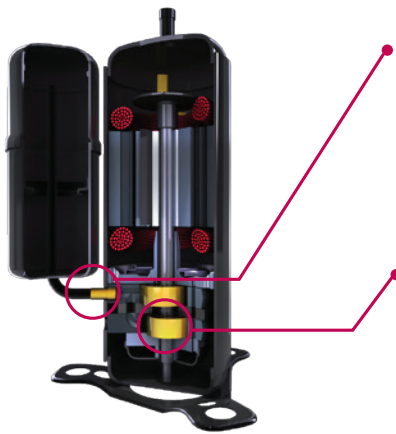
**Cooling Season**

**KSC 9306 Monthly Energy Consumption**  
 On-off : Electricity Consumed x Operation Factor x Time Used x Days Used  
 Inverter : SEER calculation method

**KSC 9306 Electricity Consumption Comparison**

Model	Cooling Power (kW)	Monthly Consumption (kWh)	Energy Saving Rate
Non INV LS093HE	3.5	280.8	64%
INV LS090HYV	3.5	100.6	

### 3 High Efficiency Twin Rotary Compressor



#### 1 Suction Rotary Compressor

The number of suctions have been reduced from two to one to increase the efficiency of refrigerant compression during the more frequently occurring low speed range.

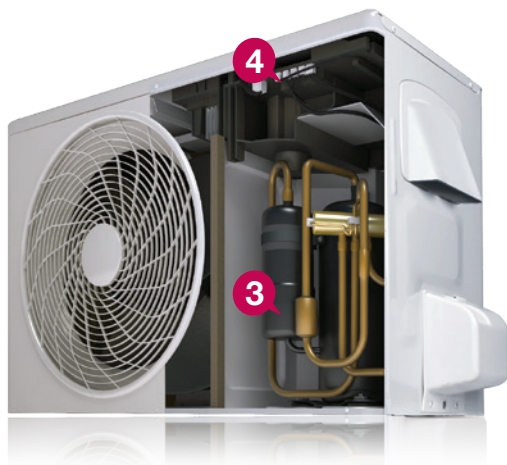
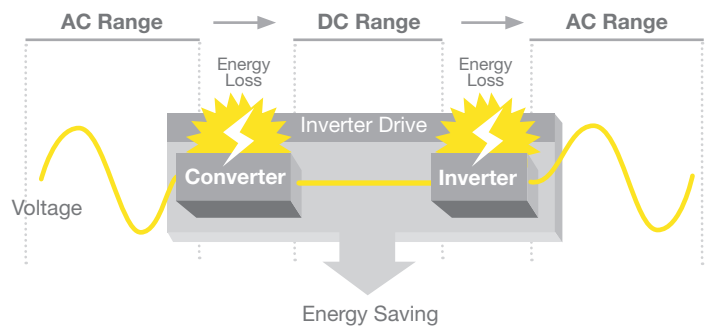
#### Motor Efficiency

The DC motor in LG air conditioner compressors boasts world class efficiency levels.

### 4 Improved Inverter Drive Efficiency

#### How It Works

While energy loss is incurred in the process of switching voltage between AC & DC, inverter drive keeps this loss minimal for improved energy efficiency.

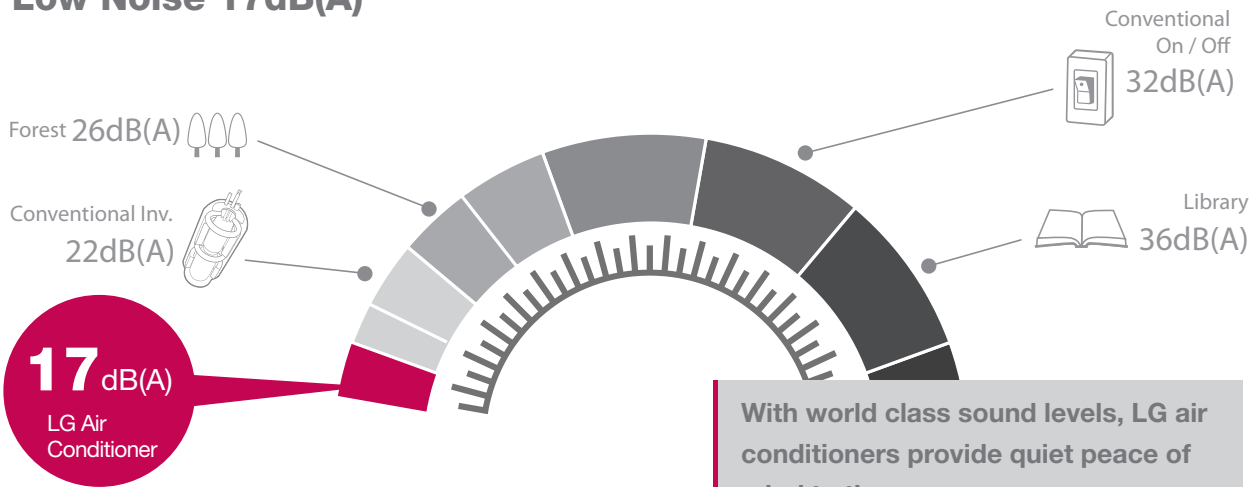


# Ultra Quiet

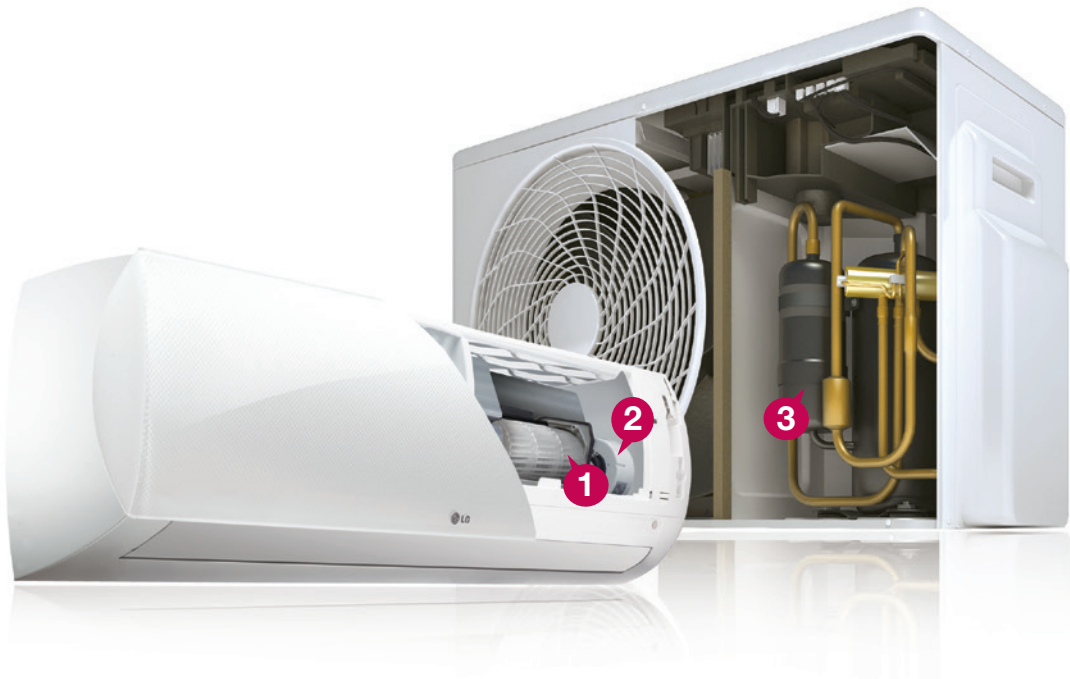


LG's unique new cross-flow fan and low vibrating compressor technology have achieved world class sound levels even more quiet than a library!

## Low Noise 17dB(A)



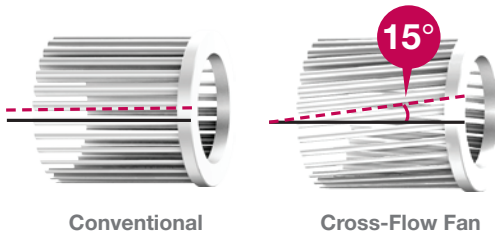
With world class sound levels, LG air conditioners provide quiet peace of mind to the user.





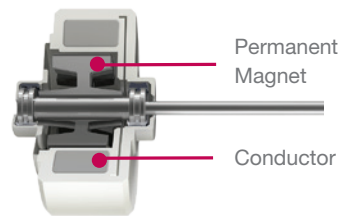


### 1 LG Unique Cross-Flow Fan



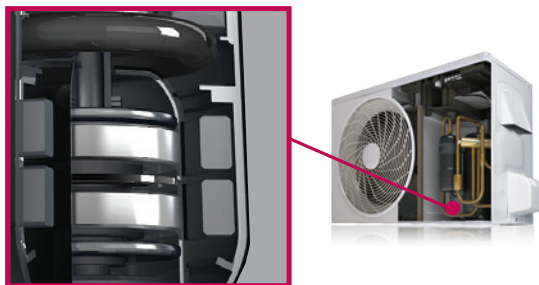
By minimizing the surface pressure of the fan blade when in contact with the air, the peak noise is reduced to a level that is among the lowest in the world.

### 2 BLDC Fan Motor



With strong torque and powerful Neodymium magnetism inside the rotor, the BLDC motor provides large air volume and high static pressure. Precise speed control provides 13 different steps which makes operation smoother. Both electrical and mechanical noise is more silent, and high speed operation is available.

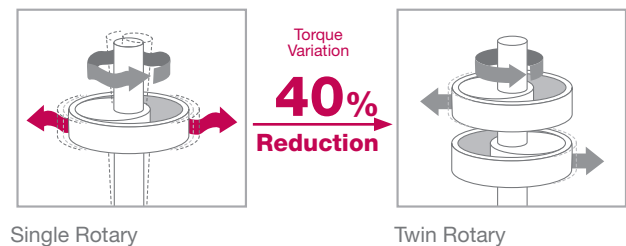
### 3 Low Vibration Compressor



With a unique design that reduces the vibration of the twin rotary compressor while simultaneously applying double cam, the torque variation is reduced by 40% compared to a single rotary compressor.

#### Single Rotary VS Twin Rotary

The balanced stability of a twin rotary compressor keeps the vibration minimal.



# Optimized Airflow

## Jet Cool



The optimized design of the air outlet provides strong airflow which cools the room temperature up to 41°F in as few as 5.6 minutes time.



41°F



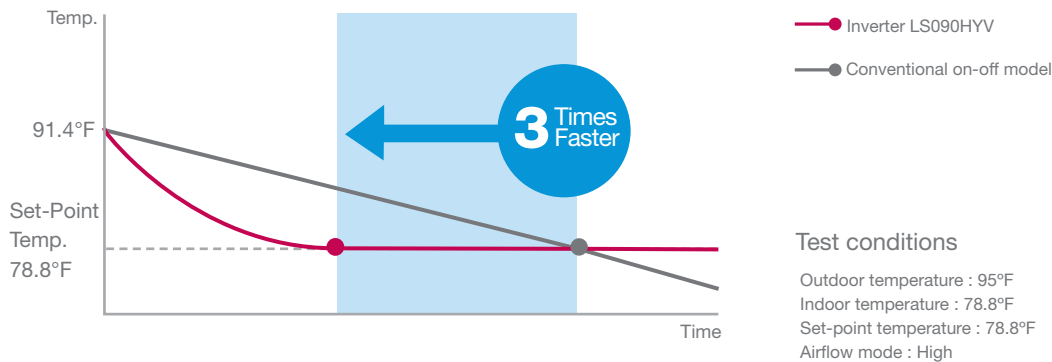
## Jet Cool

Jet Cool disperses air evenly at high speed to ensure the room is optimally cool in as few as 5.6 minutes.

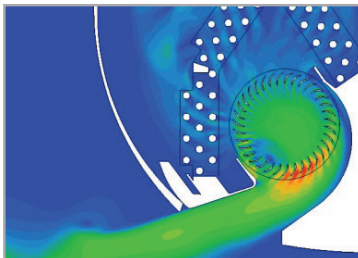
- The optimized air outlet design increases the velocity of internal circulation by 20%.

## Faster Cooling

Reaching the set-point temperature is up to 3 times faster than non-inverter models.



## How we achieved ever powerful performance



Increasing the fan size by 25% and reducing the second vortex (which constricts airflow within the air outlet) resulted in an overall increase to the amount of airflow.

# Optimized Airflow

## 4-Way Swing

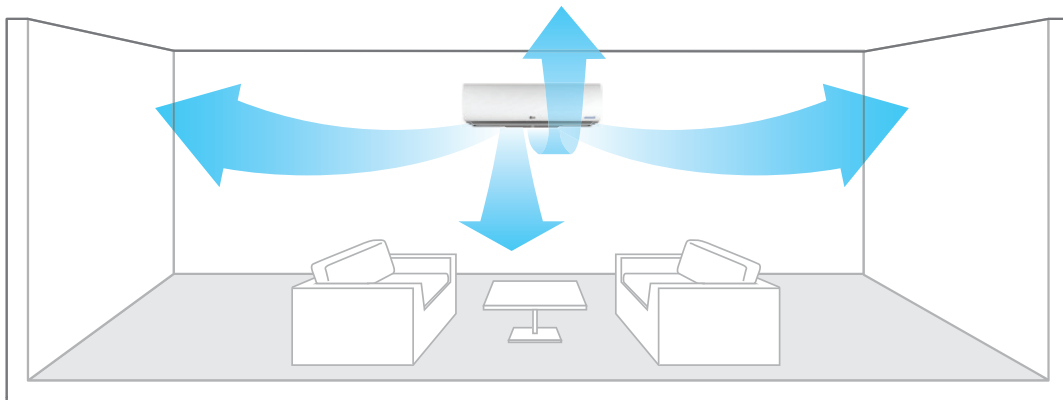


LG air conditioners can deliver cool air to every corner of your room. The 4-way swing function blows the air quickly and efficiently in multiple directions.



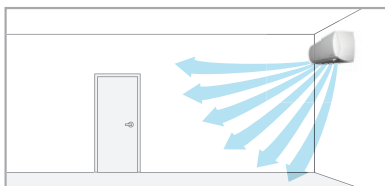
## 4-Way Swing

4-way swing disperses cool air quickly and effectively in multiple directions to each corner of the room.

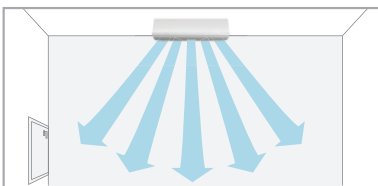


- Direction of horizontal vane can be adjusted from step 1 to step 6 with full auto swing. This function can cool specific areas much faster.
- Direction of vertical louver can be adjusted from step 1 to step 5, left & right, with full auto swing. This function also allows the air conditioner to cool specific areas in only a short period of time.
- 4-way swing provides optimized airflow regardless of your location in the room.

### 6 Step Horizontal Vane



### 5 Step Vertical Louver



### Optimized Airflow



# Heating

## High Efficiency



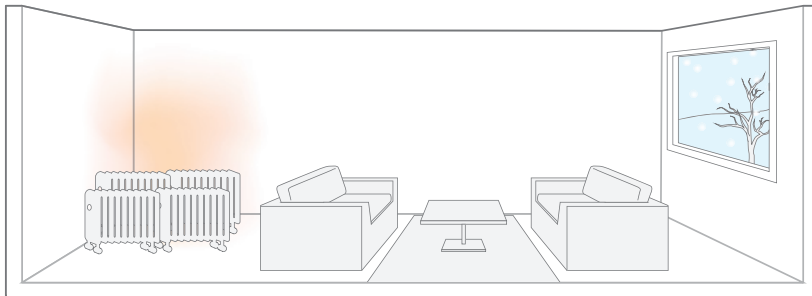
Use more and save more with the highly efficient LG Heat Pump system with inverter technology. LG delivers the promise of warm comfort.

## Efficient Heat Pump System

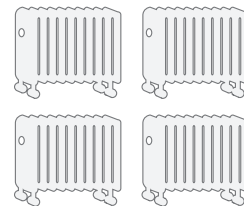
LG Heat Pumps save up to 80% more energy than electric heaters.

While it takes the simultaneous operation of four electric heaters that consume 4.0kW of electricity, one LG inverter air conditioner requires only 0.8kW of electricity to deliver the same capacity.

### Electric Heaters



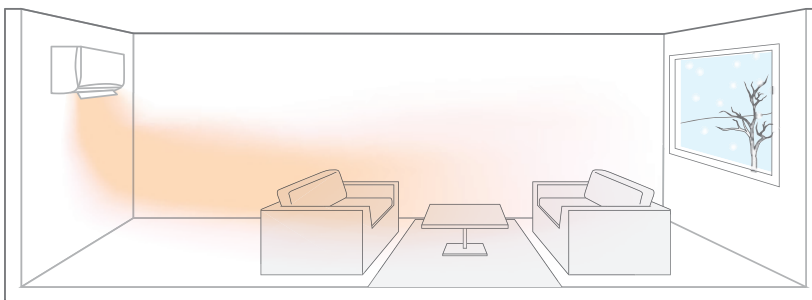
13657.7Btu/hr Heat Energy Output



Energy Consumption

**4.0kW**

### LG Heat Pump



13657.7Btu/hr Heat Energy Output



Energy Consumption

**0.8kW**

Inverter model : LS120HYV

Test conditions

Outdoor temperature : 44.6°F Set-point temperature : 73.4°F

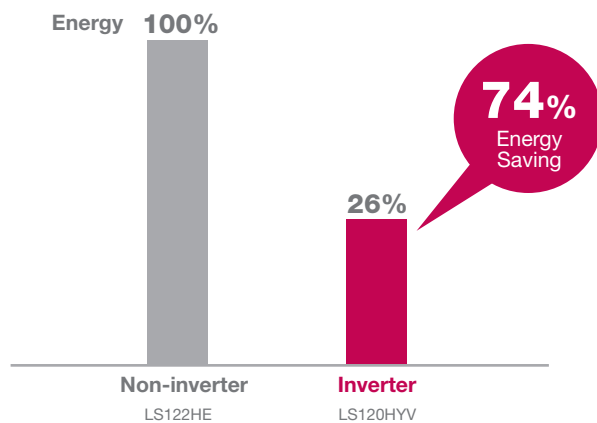
Test conditions assuming general Electric Heaters' electric power consumption is 1000W



## Inverter Technology

Heat pump products have been receiving a considerable amount of attention recently for their energy-saving effects. In fact, inverter heat pump products have significantly higher energy efficiency than constant-speed, non-inverter units. As a result, LG Inverter products can help you save up to 74% more energy when heating. Use of an energy efficient inverter system can also help decrease your carbon footprint by reducing overall energy consumption.

### Energy Saving when Heating



Inverter model : LS120HYV  
 Non-inverter model : LS122HE  
 Electricity consumed in reaching the set-point temperature  
 Test conditions  
 Outdoor temperature : 44.6°F  
 Set-point temperature : 73.4°F

# Heating

## Power Heating



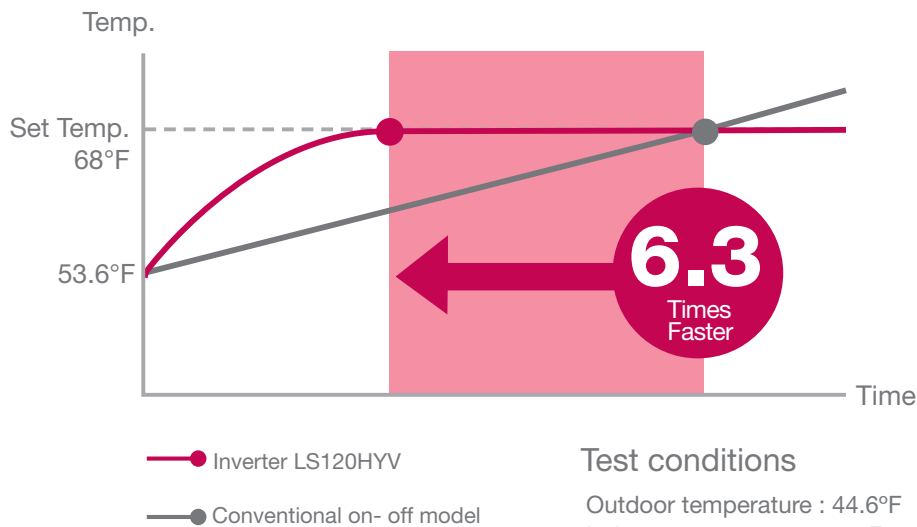
LG air conditioners heat a wider space in a shorter period of time, creating a warm and comfortable living environment.

## Rapid Comfort

Prompt heating of the room is enabled by reaching the designated room temperature in a shorter period of time.

### Quick Heating

Reaching the set-point temperature is 6.3 times faster than other air conditioners.



#### Test conditions

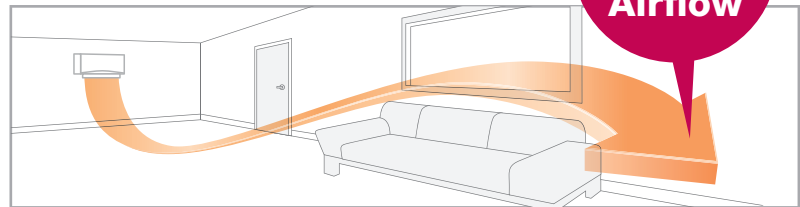
Outdoor temperature : 44.6°F  
Indoor temperature : 53.6°F  
Setting temperature : 68°F  
Airflow mode : High



## Optimized Airflow

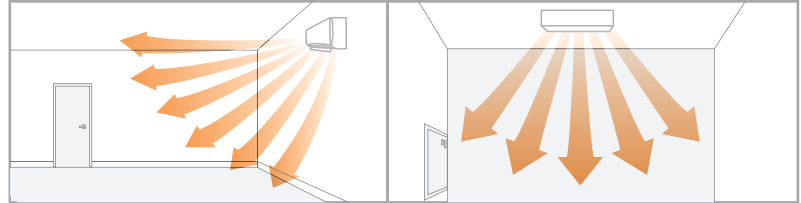
### 39 feet Powerful Airflow

LG's new larger fans allow you to feel the air up to 39 feet away. That means heating is fast and powerful, and helps you feel warm sooner.



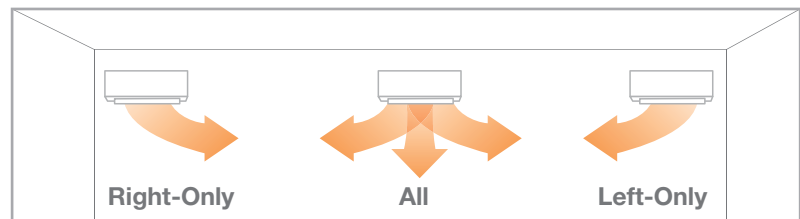
### Vertical 6 Steps & Horizontal 5 Steps

6 Vertical Steps / longer reach of airflow  
5 Horizontal Steps / balanced distribution of airflow to distant corners



### Easy Airflow Control

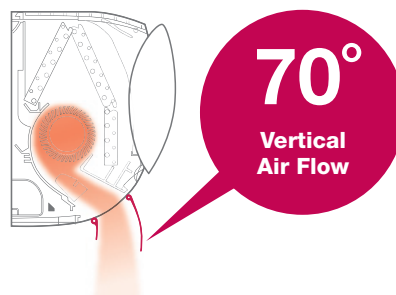
The LG air conditioning units can automatically distribute air in 4 directions.



Wind Direction Control allows the setting of airflow directions according to the location of the air conditioner.

### Vertical Airflow

For heating, the vane sends the heated air downwards to maintain pleasant and balanced room temperature.



## Stylish Design



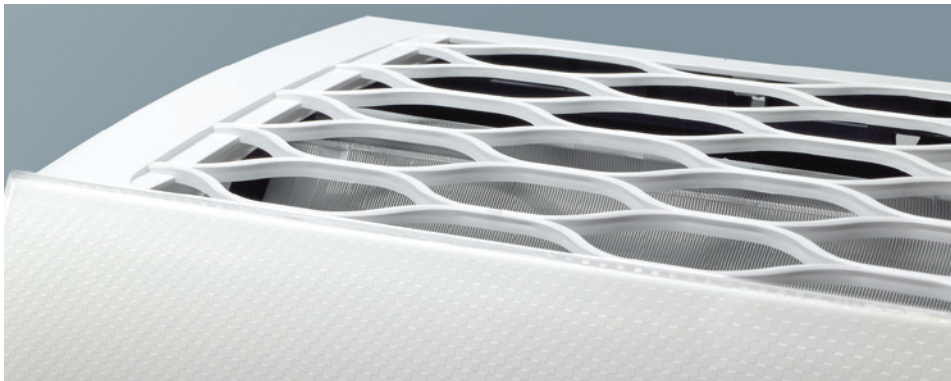
The design of LG air conditioners are stylish in a way that is incomparable to others. Think of it not just as an air conditioner, but a decoration that will lighten up your living room.

## Art Cool™ Premier



### Stylish Pattern

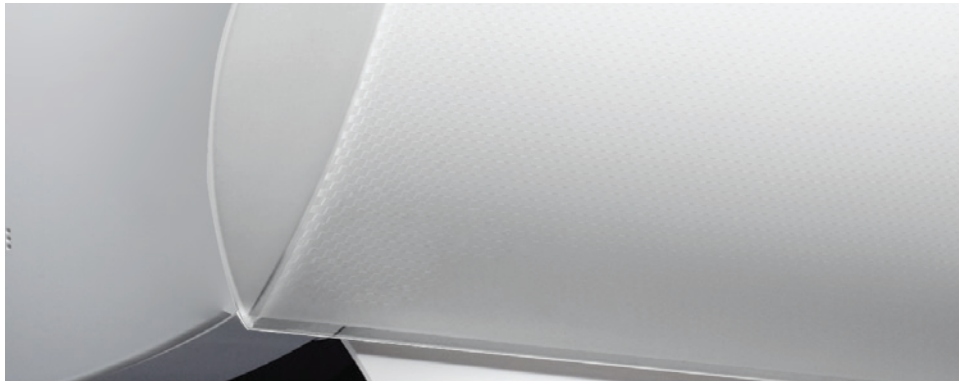
Stylishly pearlized patterned front cover



### Honeycomb Air Inlet

Air inlet in the unique shape of honeycombs





### Elegant Movement

The elegance in style has been greatly enhanced with the flawless movement of the vane



### Discrete Display

With no separate or noticeable display panel, the discreet LED display is only visible when the air conditioner is operational

# Easy Installation

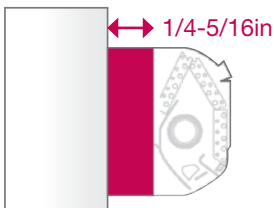


LG air conditioners are designed to be easier and more efficient to install, regardless of the surroundings and the number of persons involved in the installation process.

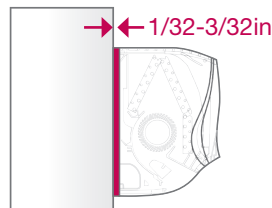
## Perfect Finishing

Extra wide cover holds the tubing assembly and hides the unorganized parts behind the indoor unit, making the indoor unit appear clean and tidy.

Conventional



LG

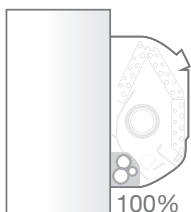


- Wider area and cover for piping & drain hose arrangements
- Additional wide cover for holding tubing assembly

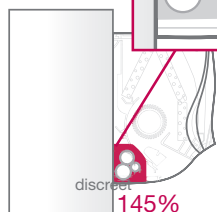
## Wider Tubing Space

The tubing space is much wider than typically offered by competitors and facilitates the whole installation process.

Conventional



LG



- The tubing space is 45% wider than that of the previous air conditioners for easier installation.

## Installation Plate Improvement

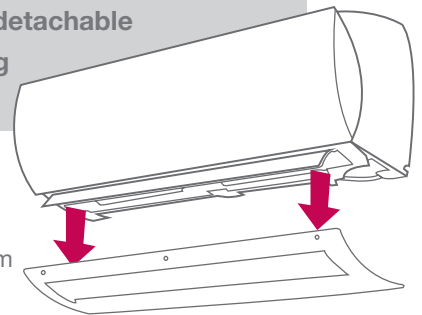
LG's installation plate is wider and modified to reduce installation time.



- The instruction tip engraved in the plate also assists easy installation by not having to go through the install manual

## Detachable Bottom Cover

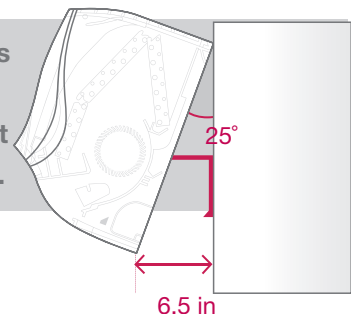
The bottom cover is detachable when needed, making installation easier.



- Disassembly or additional supporting of the unit is unnecessary due to the detachable chassis bottom and supporter
- With LG's patented supporter, installation can be completed by one individual.

## Installation Support Clip

A support clip creates adequate space between wall and unit for easier installation.



# High Wall Duct-Free Art Cool™ Premier Supreme Efficiency Single Zone



**9,000 BTUs / 12,000 BTUs**

**LS090HYV (H/P Model)**

- 9,000 BTUs Cooling
- 11,000 BTUs Heating

**LS120HYV (H/P Model)**

- 12,000 BTUs Cooling
- 13,600 BTUs Heating



**INVERTER V**



**FEATURES:**

- Inverter (Variable speed compressor)
- Energy saving
- R-410A refrigerant
- Gold Fin™ anti-corrosion
- Self-cleaning indoor coil
- Cooling/Heating/Fan mode
- Jet cool/Jet heat
- Chaos wind
- 4-Way auto swing
- Ultra quiet operation
- Sleep mode
- Dehumidifying mode
- Auto restart
- Auto changeover
- Built-in low ambient standard, down to 14°F (Cooling mode)
- 24-Hour on/off timer
- Condensate sensor connection

**Interior Unit Includes:**

- Wall unit
- Installation plate & hardware
- Remote control, batteries, holder & holder hardware
- Installation manual
- Optional accessories
  - Model#:PQRCVSL0(QW) (Wired wall thermostat)
  - Model#: PMNFP14A0

(PL485 V-net interface)

**Exterior Unit Includes:**

- Exterior unit
  - Exterior unit has sufficient refrigerant for charging indoor coil and a 25' line set (Line set not included)
- ETL# : 3091879

\* Specification can be changed without notification

System Model #	LS090HYV	LS120HYV
Indoor Model #	LSN090HYV	LSN120HYV
Outdoor Model #	LSU090HYV	LSU120HYV
<b>Performance</b>		
Capacity (BTUs)	● 9,000 ● 11,000	● 12,000 ● 13,600
EER	16.4	14.1
SEER	28.0	26.0
HSPF	12.0	11.5
Air Circulation (CFM H/M/L)	512 / 406 / 300	512 / 406 / 300
Fan Speeds	6/Auto/Chaos	6/Auto/Chaos
Dehumidification (pts/hr)	3.3	3.7
Indoor dB(A)*	39/34/26/17	39/34/26/17
Outdoor dB(A)*	51	51
<b>Electrical</b>		
Rated Voltage Outdoor	230/208-60-1	230/208-60-1
Rated Voltage Indoor	230/208-60-1	230/208-60-1
<b>Indoor Dimensions</b>		
W x H x D (inches)	34 3/8 x 11 5/8 x 9 1/4	34 3/8 x 11 5/8 x 9 1/4
Weight (lbs.)	25.3	25.3
<b>Outdoor Dimensions</b>		
W x H x D (inches)	34 1/4 x 25 13/16 x 12 5/8	34 1/4 x 25 13/16 x 12 5/8
Weight (lbs.)	94.8	94.8
<b>Thermostat Range</b>		
Cooling / Heating (°F)	64-86/60-86	64-86/60-86

\*LG verified sound ratings

Warranty: 3 years parts; 5 years compressor.