

# WALL MOUNTED

ARTCOOL / PRESTIGE / DUALCOOL with Air Purification / DELUXE / STANDARD PLUS / STANDARD





# PERFECT HEALTHCARE



For more LG Air Conditioner information, please visit our Youtube channel through QR code.

## UVnano™

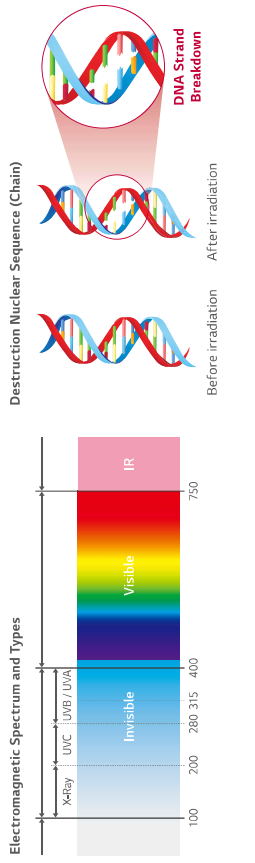
LG DUALCOOL, keeping the fan (inside the unit) 99.99% bacteria-free with ultraviolet light to ensure that the air passing through is clean too.

※ UVnano is an integrated marketing name that applies LG Electronics' entire home appliances and it is a compound of the words U(ultraviolet) and nanometer (unit of length).

### What is UVnano™ and How it Works?

- Emit Ultraviolet rays of UVC wavelength directly damage the DNA of microorganisms (bacteria/mold/viruses) making it impossible for them to multiply.
- High absorption into DNA at 260 to 270 nm wavelengths

### DNA Absorption Efficiency by Wavelength



### UVC Applied Product



### Benefit & Verification

Keep the fan 99.99% bacteria-clean for a cleaner breeze.



Remove up to **99.99%** of bacteria from the internal fan.



※ Test Condition  
 - Test Model : S3NM12L1GA(S), S3NM24K21GA(SK)  
 - Test Standard : LG test method with reference to ISO 20713:2007  
 - Bacteria : Staphylococcus aureus, Staphylococcus epidermidis, Klebsiella pneumoniae

## powered by DUAL Inverter Compressor™

### What is the Dual Inverter Compressor?

A compressor is the heart of an air conditioner, and making sure it works effectively and noiselessly can be stressful and costly.



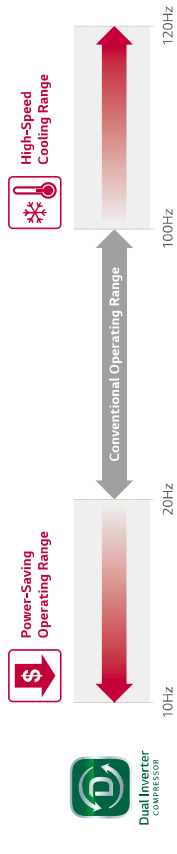
### Product Reliability Improvement

The Dual Inverter Compressor reduces the vibration and with it the sound pressure levels. The reduction in vibration reduces the possibility of fractures occurring in the surrounding pipework.

### How it Works

#### Varied-Speed Dual Rotary

A compressor motor with a wider rotational frequency that is energy efficient and has a higher volumetric quick cooling capacity than any conventional compressors.



## R32 Refrigerant

R32 refrigerant is a more eco-conscious refrigerant than the previous generation of refrigerants.

### Pain Point

Due to accelerated global warming and the destruction of the ozone layer, various international conventions and meetings are held to enhance restrictions to the use of refrigerant or enforce the use of eco-conscious refrigerants. In order to reduce environmental destruction, refrigerant R32 is internationally acclaimed for being eco-conscious. This low volume refrigerant is more efficient than conventional refrigerants and boasts a 68% reduced global warming potential.



### Benefit

Eco-conscious refrigerants reduce environmental pollution.

#### Alleviate Global Warming & Ozone Layer Destruction

R32 efficiently works even in small volume compared to existing R410A refrigerant, which decreases potential hazard of global warming.

Composition	R410A	R32
	Blend of R32 50% + R125 50%	Pure R32 (No blend)
GWP (Global Warming Potential)	2087.5	675

#### High Compressibility

R32 is more efficient in smaller volumes compares to existing R410A refrigerant, which decreases potential contribution to global warming.



# PERFECT HEALTHCARE

## Allergy Filter

Airflow from an air conditioner can cause or contribute to symptoms associated with allergies or asthma. However, LG units boast an interior filter that can absorb these harmful substances, such as dust mites, pollen, fungi, and mold, that float throughout the air.

### How It Works

Removes allergy-causing substances, such as dust mites that can be found in the air.



### Certification



### Specially coated filter reduces

\* Test Condition Disclaimer

A filter is coated to absorb harmful substances that can cause allergies. The air conditioner strongly absorbs indoor air and removes allergy-causing substances, such as house dust mite, fungi, mold, floating in the air.

**Allergy UK** (a world-renowned organization) is a British medical charity dedicated to helping adults and children with their allergies. The charity was founded in 1991 as the **British Allergy Foundation**, and in 2002 the operational name of the charity became Allergy UK. Allergy UK endorses certain products that restrict or remove high levels of allergens and gives them a Seal of Approval.



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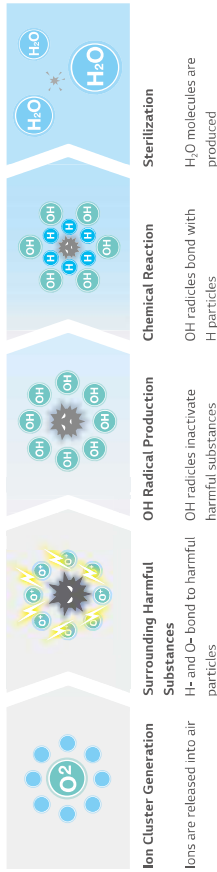
## Plasmaster™ Ionizer<sup>++</sup>

The powerful Plasmaster™ Ionizer<sup>++</sup> remove you from bad odors and Escherichia coli and Staphylococcus in the surface with over 3 million ions for a safer, cleaner indoor environment.

※ Specifications may vary for each model.  
※ Depending on the experimental conditions.

### How It Works

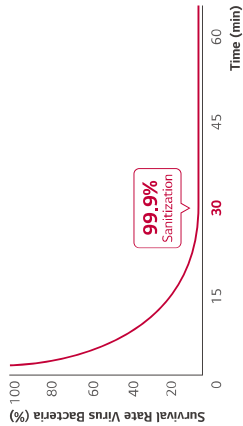
**Reduction and Deodorization (Utilizes Over 3 Million Ions)**  
Plasmaster Ionizer<sup>++</sup> reduces E.coli and Staphylococcus in the surface with over 3 million ions.



### Test Result

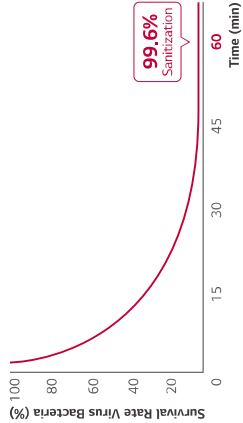
**Reduction Performance Evaluations**

Reduce Bacteria E.coli over 99.9% in 30 min.



※ Test Conditions :  
Space : 52m<sup>3</sup> Chamber (measuring with the specimen in the center of test chamber)  
Temperature & Humidity : Normal  
Bacteria : E.coli colon bacillus  
Tested by Intertek

**Sterilize staphylococcus over 99.6% in 60 min**



※ Test Conditions :  
Space : 52m<sup>3</sup> Chamber (Measuring with the specimen in the center of test chamber)  
Temperature & Humidity : Normal  
Bacteria : Staphylococcus Aureus  
Tested by Intertek

### Benefit & Verification

TUV has verified to **remove 99% of 3 kinds of adhering bacteria**

- Escherichia coli
- Staphylococcus aureus
- Pseudomonas aeruginosa



Intertek has verified that tobacco **adhesive odor intensity is reduced from 3.6 to under 1.5** after 60 min.

- Toluene, Ammonia, Acetic acid





# PERFECT HEALTHCARE

## PM 1.0 Auto Sensor

- As AC turns on, PM 1.0 sensor automatically operates to capture and remove microscopic dust particles including ultra fine dust.
- ※ Specifications may vary for each model. ※ Depending on the experimental conditions.
- AQI (Air Quality Index) is displayed in unit of 1 within 8-999  $\mu\text{g}/\text{m}^3$ .
- AQI (Air Quality Index) may continuously change according to changes in the indoor environment.
- Overall cleanliness color is displayed based on the highest contamination level among fine dust (PM10), ultra fine dust (PM2.5), and super ultrafine dust (PM1.0).
- Overall cleanliness color is displayed in 4 levels according to the indoor contamination level.
- If dust concentration is high, the difference between the displayed dust concentration and the actual dust concentration may increase.



During the operation, if you press PM SENSOR button, you can check the indoor cleanliness in each level.

Color	Level	Display standard ( $\mu\text{g}/\text{m}^3$ )		
		Super ultra fine dust (PM 1.0)	Ultra fine dust (PM 2.5)	Fine dust (PM 10)
Green	Good	12 or less	12 or less	54 or less
Yellow	Normal	13 - 35	13 - 35	55 - 154
Orange	Bad	36 - 55	36 - 55	155 - 254
Red	Very Bad	56 or more	56 or more	255 or more

### Guide to dust particles' size

- Finedust : Dust with particle size of  $10\mu\text{m}$  or less (Generated from workplace combustion, vehicle exhaust, etc.)
- Ultrafine Dust : Dust with particle size of  $2.5\mu\text{m}$  or less (Composed of ion component, carbon compound, and metal compound)
- Super Ultrafine dust\* : Dust with particle size of  $1.0\mu\text{m}$  or less (Cigarette smoke, etc.)

### AQI (Air Quality Index) evaluation is carried out with LG standard test dust.

\* Minimum capturing size of particle :  $0.02\mu\text{m}$   
 ※ PM1: Particulate matter is the sum of all solid and liquid particles suspended in air many of which are hazardous.  
 This complex mixture includes both organic and inorganic particles, such as dust, pollen, soot, smoke, and liquid droplets.

## Auto Cleaning

The interior of the air conditioner is maintained clean by drying off the heat exchanger, then cleaning the interior once more.  
 ※ Specifications may vary for each model.

### Pain Point

The main cause of odor within air conditioners is mold and bacteria growing on the heat exchanger. These germs can spread when the heat exchanger is wet.



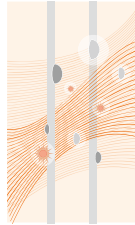
### How It Works

#### Cleans Filter with Regular Air Flow

The comprehensive auto cleaning function prevents the formation of bacteria and mold on the heat exchanger, providing an enhanced environment.



By dehumidifying, the auto cleaning function prevents potentially harmful substances from forming on the surface of the heat exchanger.



The indoor environment remains odorless, with the advanced deodorizing function.



### Benefit

Auto Cleaning provides clean air by preventing bacteria, mold and odors that can otherwise accumulate in an indoor unit.



Bacteria Prevention



Odor Prevention



Mold Prevention

# PERFECT HEALTHCARE

## Embedded Wi-Fi

Control your air conditioners by using Android or iOS based smartphones.

### ThinQ

Download the ThinQ app from Google or Apple app stores.



### How it Works

#### Embedded Wi-Fi modem

Enable "ThinQ" on your air conditioner.



#### Easy Registration and Log-in

Follow the interactive setup LG Account steps that will activate ThinQ's impressive features.



#### Wi-Fi Connectivity

Each individual member of your family can customize the air conditioner temperature and fan speed accordingly and then save the settings in their app to run it later. These settings can be saved for each air conditioner too.



#### Multiple Devices



#### Multi-Control



※ Can be controlled by multiple users, but not simultaneously.

### Benefit

#### Simple operation for various functions



#### Straight-forward management



Access your air conditioner anytime and from anywhere with a Wi-Fi equipped device and LG's exclusive control app, ThinQ.



※ For our policy of continuous ThinQ App improvement, specification, design and features are subject to change without prior notice.

## Smart Diagnosis

Smart Diagnosis allows you to monitor the health of your air conditioner directly from your smartphone.

- ※ Specifications may vary for each model.
- ※ When connected to Multi ODU, Smart Diagnosis function may not be supported.

### What is Smart Diagnosis?

Smart Diagnosis allows users to conveniently check setup, installation, troubleshooting and other information directly from a smartphone.

- ※ Builds upon widespread smartphone use and offers greater USP diversification
- ※ Perfect for consumers who are unable to view information about their air conditioner via a display or remote control.

### How it Works

#### Embedded Wi-Fi Model

By using "ThinQ" App and clicking "Start Smart Diagnosis", monitor and check diagnosis results conveniently via Wi-Fi.



#### Non Embedded Wi-Fi Model



### Benefit

Easily comprehensible error messages make detecting a solution and contacting the service center simple and convenient.



#### For Consumer



- Easily check operational status of a product without a display or one that provides limited information.
- Save energy by monitoring key operational information and power consumption.
- Using the Maintenance Guide helps to improve device performance and increase product life-span.

#### For Installer and SVC



- Understand the product better by easily confirming operational status and information.
- Intuitively diagnose problems by comparing current and past usage data.
- Maintain installation capabilities and reduce installation errors by quickly confirming device operational status.

※ For our policy of continuous ThinQ App improvement, specification, design and features are subject to change without prior notice.

## SMART

## Low Refrigerant Detection

Early notification of low refrigerant protects your air conditioner from the risk of damage.

※ Specifications may vary for each model. ※ Depending on the experimental conditions.  
 ※ When connected to Multi ODU, Low Refrigerant Detection function may not be supported.

## How It Works

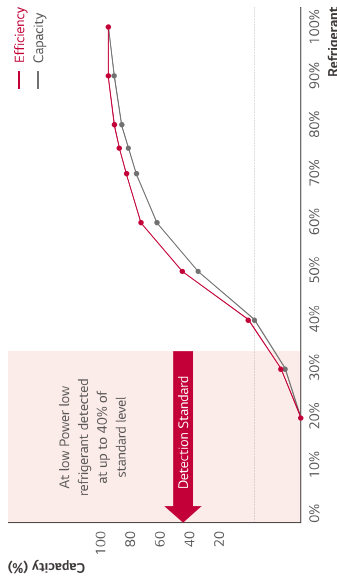
## Capacity and Effectiveness of the Refrigerant Levels

**Early Detection of Low Refrigerant Levels**  
 The Air Conditioner is automatically shut down when low refrigerant level is detected.

## 3 Checkpoints for Low Refrigerant Level:

- 1) The heat exchanger temperature is comparatively cool
- 2) The outdoor unit is working properly
- 3) The energy consumption is working under a standard pattern

If any of the above conditions are not met, for a maximum of 4 times, after 15 minutes of Air Conditioner operation, a low refrigerant level is detected and the Air Conditioner is shut down.



※ This function only works under the following conditions  
 - Indoor/Outdoor temperature is up to 20 degrees Celsius  
 - Cooling and dehumidification mode

## Benefit

## Longer Lifespan for Air Conditioner



Inside Insulator Melting

Oil Fire

Rotor Burnout



※ Some models show CH and 38 alternately on the display.



When low refrigerant level is detected, it alternately shows CH and 36 on the display.

## SIMS

By connecting SIMS chip, you can check the status of your air conditioner and diagnose problems from your smartphone.

※ Specifications may vary for each model. ※ When connected to Multi ODU, SIMS function may not be supported.

## What is the LG SIMS?

Monitor the status of your air conditioner and accurately diagnose problems by connecting it to a smartphone via a SIMS\* chip.



\* SIMS : Smart Inverter Monitoring System

## How It Works



## SIMS App

1. Use a SIMS chip to connect a smartphone to an air conditioner.
2. Monitor and diagnose problems in real time using the SIMS app.

## Benefit

## Easy Monitoring

Diagnose problems anytime, anywhere with a SIMS chip.

## Easy Diagnosis &amp; Quick Response

Easily monitor IDU/ODU and diagnose problems. Save and review diagnostic data.



## Main

- Current outdoor temperature
- Indoor temperature
- Inverter compressor frequency
- Operating opening
- Error code
- Frequency limits Indoor.
- Outdoor fan speed



## Outdoor Unit

- Frequency
- Fan RPM
- DC Link
- Input current
- Input voltage
- EEV operation mode
- Restart timer
- Compressor mode
- EEV opening



## Indoor Unit

- Indoor Unit capacity
- Operation mode
- THW mode
- REM mode
- FAN operating condition
- EEV opening
- Room temperature
- Suction Temperature
- Intermediate temperature
- Exit temperature



## Chart

- Room temperature
- Heat exchanger pipe temperature
- Compressor discharge temperature
- Frequency
- Outdoor temperature
- Compressor suction temperature
- Electric current
- Voltage

## Certificate



※ Smartphone Requirements (OS : 6.1 or later, Android : 2.3 or later)

# ENERGY EFFICIENCY

## Supreme Energy Efficiency

LG's revolutionary Inverter technology boasts powerful yet quiet performance while minimizing energy consumption. With world-class energy efficiency, enjoy comfort as well as energy savings.

※ Based on F09HIT Model. ※ Specifications may vary for each model.

### High Efficient Compressor and Reversing Valve

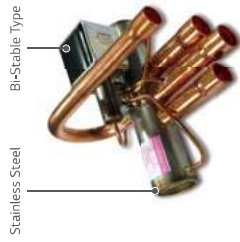
#### Rotary Compressor and Motor Efficiency

The number of suction connections has been reduced from two to one to increase the efficiency of the refrigerant compression during low speed conditions. The DC motor in LG air conditioners remains unsurpassable incomparable to in the world's top class efficiencies.



#### Bi-Stable Reversing Valve

The input power of 4 way valve has been reduced to 0W by using a Bi-Stable type.



### Improved Inverter Drive Efficiency

Used to optimize the time of current flow by controlling the number of converter switching according to energy consumption status. Displays comparatively higher performance and advanced energy efficiency than conventional Inverter air conditioner by reducing power loss with an advanced material component called SiC.



## Active Energy Control 4 - Step

LG's Active Energy Control adjusts the energy consumption level and cooling capacity by controlling maximum frequency of the compressor motor.

※ Specifications may vary for each model. ※ Depending on the experimental conditions.  
 ※ When connected to Multi ODU, Active Energy Control function may not be supported. ※ Active Energy Control works only cooling mode.

### Concept & Benefit



### How It Works

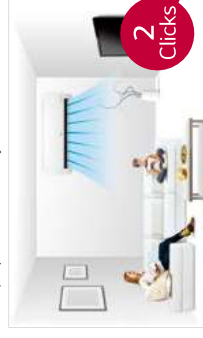
**NORMAL** 100% energy usage  
 Many people and high-activity level.



**STEP 1** 80% energy usage  
 Few people and moderate-activity levels.



**STEP 2** 60% energy usage  
 Fewer people and low-activity levels.



**STEP 3** 40% energy usage  
 Fewest people with no activity.



# ENERGY EFFICIENCY

## Energy Display

LG's Energy Display panel monitors the amount of energy levels used. Reduce energy consumption while enjoying a comfortable indoor environment by checking your energy level directly on the AC panel.

※ Specifications may vary for each model. ※ When connected to Multi ODU, Energy Display function may not be supported.

### How it Works

#### Magic Display & Remote Control

With the push of a button on the remote control, indoor unit's LCD display shows the current and total energy use, thus making the users aware of reducing energy consumption.



### Benefit

#### Normal Mode

Current Setting Temp.



#### Electric Power

Displays Current Energy Use





## COMFORT

## Low Noise

LG air conditioners operate at 19dB low noise level.

※ Specifications may vary for each model.

## How It Works

## LG's Unique Skew Fan

By minimizing the surface pressure of the fan blade when in contact with the air, the noise produced by the air conditioning unit is reduced to a remarkably low level.

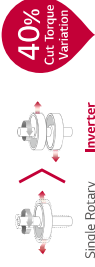


15%  
Fitted  
Stabilizer

Conventional  
Skew Fan

## AMVC (Active Low Vibration Control)

A speed-error component estimates the load to compensate for imbalances, which are the primary causes of vibration and noise, enabling the rotation of the motor without vibration at low Hz levels.



40%  
Cut torque  
Variation

Single Rotary  
Inverter

## Benefit

## BLDC Fan Motor

By strong torque and powerful IND magnetism as well as precise speed control of BLDC motor provides substantial air volume and high static pressure, while keeping electrical and mechanical noise lower, and making high-speed operation available.



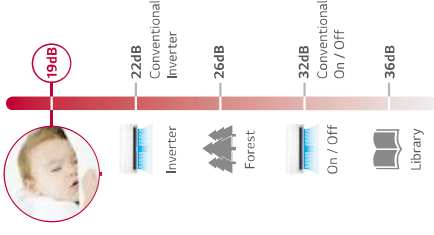
AC Motor  
BLDC Motor

AC Motor

- Low efficiency.
- Heat problem during overhauling.
- Difficult precise speed control.

BLDC Motor

- Low electric and mechanical noise.
- Precise speed control durable.



## Comfort Air (Indirect Air)

LG provides pure hygienic and temperature regulated atmosphere surrounding your living space. An automatic vane angle adjustment sets perfect vane angle and air volume.

※ Specifications may vary for each model.

## Concept

Comfort Air changes the air flow angle to ensure that air is directed away from occupants to promote more comfortable environments optimized for sleeping and more.

## How It Works

## Comfort Vane

This option conveniently sets an AC's louvers to a preset position so that outflowing air is directed away from a room's occupants.



1 touch  
Comfort Air

2 touch  
Comfort Air

## Scene 1: Inclines to a maximum 80° angle.

Sets vane angle to highest position :  
Optimized for gentle airflow cooling.

## Indoor Unit Display



Remote Controller Display



## Scene 2: Declines to a maximum 10° angle.

Sets vane angle to lowest position :  
Optimized for gentle airflow heating.

## Indoor Unit Display



Remote Controller Display



## 4 Way Swing

Cool air reaches out to the entire room regardless of where the air conditioner is installed.

※ Specifications may vary for each model.

## How It Works

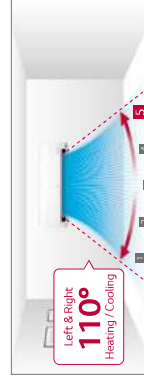
## 6-Step Vane, Control up to 70°

The vertical vane, which moves up and down, has 6 different settings including full-auto swing.



## 5-Step Louver, Control up to 110°

The louver, which sways left and right, has 5 different settings including full-auto-swing.



※ Angle can be different from each model and working mode.

## Quick &amp; Easy Installation

LG air conditioners are designed for an easy and efficient installation, making it possible to install several units in a short period of time.

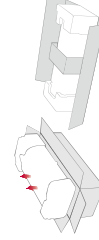
※ Specifications may vary for each model.

## Concept

By reducing the manpower and time required for installation, it is now possible to install more units in less time.

## How It Works

## One Simple Packing Box

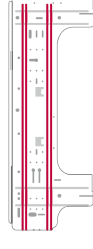


Conventional

LG

## Installation Plate Improvement

LG's installation plate is larger and customized to reduce installation time.



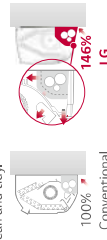
## Installation Support Clip

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



## Wider Tubing Space

The space provided for tubing facilitates the whole installation process and hides the unorganized parts, making it appear clean and tidy.



100%  
Conventional

146%  
LG

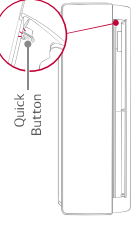
## Detachable Bottom Cover

The air conditioner's bottom cover is detachable for easier installation and access.



## Quick button for running test

The test button is conveniently located and easy to find.



# EXTREME DURABILITY

## Gold Fin™

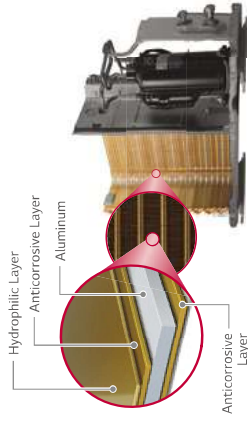
The Gold Fin™ coating protects the surface of the heat exchanger from unnecessary wear and corrosion.

※ Specifications may vary for each model. ※ Depending on the experimental conditions.

### How It Works

**Corrosion-resistant protective layer**

The gold-colored special coating on the fin of the heat exchanger prevents corrosion, extending the life of the unit.



### Test Result

Conventional Fin



Gold Fin™



\* Test result 360 hrs. after being exposed to sodium chloride.

## Silent Mode

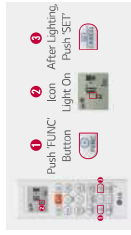
Silent mode ensures a tranquil and serene experience for the user by reducing noise disturbances while you are resting.

※ Specifications may vary for each model.  
 ※ Depending on the experimental conditions.  
 ※ When connected to Multi Outdoor unit, Silent Mode is working by simply setting the dip switch on the PCB of the outdoor unit.

### How It Works

In Silent Mode, the overall sound level of the outdoor unit drops by up to 3dB and the sound level of the indoor unit also decreases.

Press the Silent Button

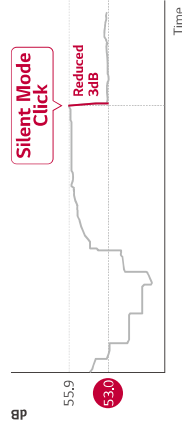


Controls the Outdoor Compressor



### Test Result

Noise Comparison Graph



※ Test Conditions

Spec.: Selecting Silent Mode reduces the noise of an outdoor fan unit by 3dB. Assessment: 36.2 dB emitted from center/side of unit at a distance of 1m.

## 10-Year Inverter Compressor Warranty

With confidence in product quality and a desire to enhance the lives of customers, LG provides a 10-year warranty on the Residential Air Conditioners' Inverter Compressor.

※ Specifications may vary for each model.

### What is the 10 Year Warranty?

With the 10-year warranty on the compressor, users can be assured of the functionality of our product for a longer period of time.



### Benefit & Verification

Reliable Air Conditioner

Product safety is emphasized by offering a 10-year warranty on the compressor to reassure customers about product durability.

Verification

TUV Rheinland, Long Term Accelerated-reliability Test & High Marginal Test



Single Rotary Type Twin Rotary Type

※ Long Term Accelerated-Reliability test  
 LG's unique testing method with reinforced operating condition for a product life assurance to test and determine the product life cycle in a short period of time by accelerating the life cycle.

※ High Marginal test  
 Test method to secure durability in various adverse conditions that may occur in the field by performing comp reliability test against higher pressure and temperature than the designed range of pressure and temperature which the comp operates in.  
 ※ Verification obtained from TUV Rheinland for 10-year product life cycle.

**DUAL**  
**INVERTER**  
**COMPRESSOR**

**10**  
 YEAR  
**WARRANTY**

# COMFORT

# EXTREME DURABILITY

## Fast Cooling

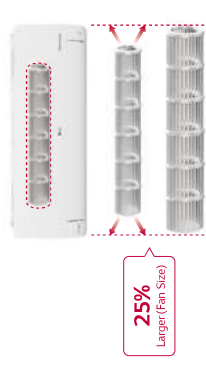
The cool airflow rapidly reaches all the corners of the room, keeping the space cool and comfortable.

※ Specifications may vary for each model. ※ Depending on the experimental conditions.

### Pain Point

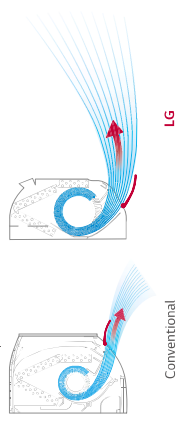
**Bigger Skew Fan**

A 25% larger skew fan emanates highly powerful blasts of air.



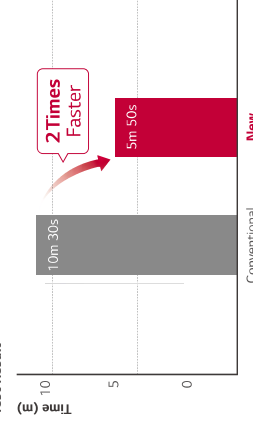
**Cooling Outlet**

A larger, optimally designed cooling outlet emanates to large areas and cools spaces faster.



### Test Result

Test Result

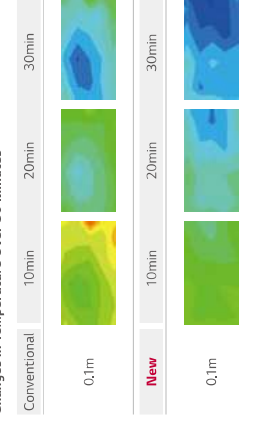


※ Test Conditions:

Indoor temperature 33°C, Outdoor temperature 35°C, Relative humidity 60%, Setting temperature 26°C, Test room size: 4.3 m \* 7.0 m \* 2.3 m

# FAST COOLING & HEATING

Changes in Temperature Over 30 Minutes



※ Test Conditions:

Outdoor temperature : 35°C, Indoor temperature : 33°C, Humidity : 60%, Remote control : 26°C High, Test room size : 4.3 m \* 7.0 m \* 2.3 m