



MULTI SPLIT

Product Introduction (Smart Inverter)

Contents : Outdoor Unit

1. High Operation Reliability
2. Supreme Energy Efficiency
3. Comfortable Environment
4. Convenient Functions



High Operation Reliability

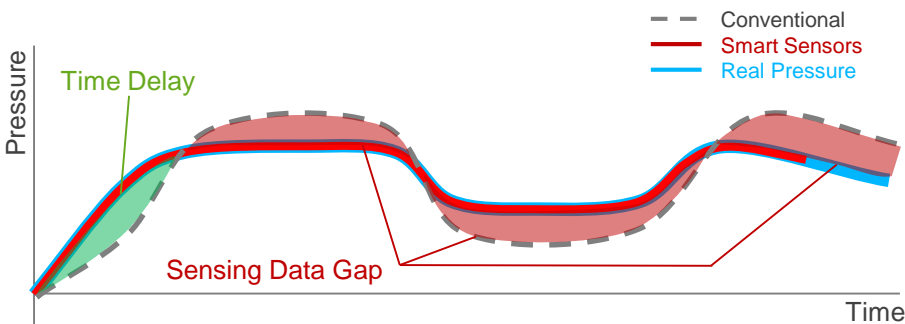
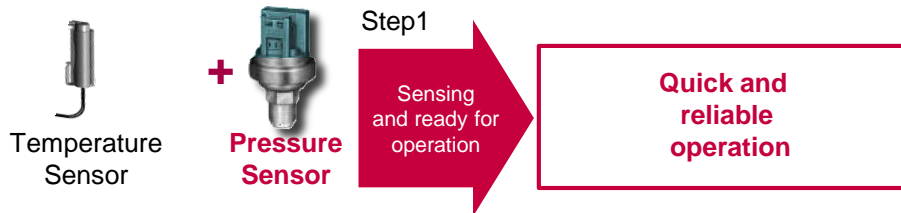
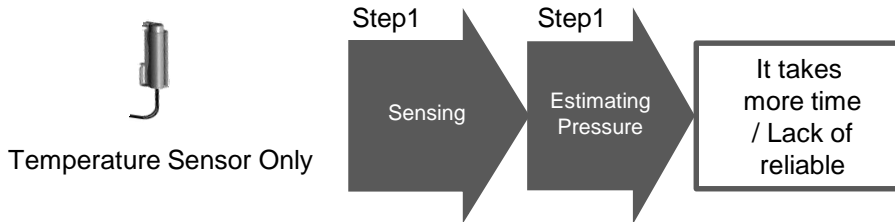
- Quick Cooling & Heating
- Twin Rotary Inverter Compressor

Quick Cooling & Heating

High Operation Reliability

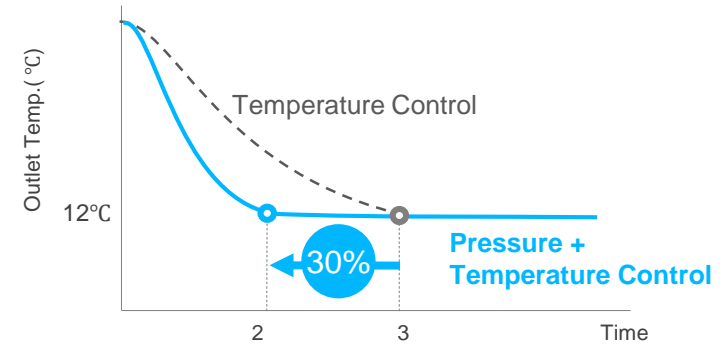
Through the pressure & temperature control, you can save the time to reach the desired temperature. You can experience the quick and reliable operation with the LG Multi Split.

- Quick response due to sensing with ready for operation.
- Ensures to reach target performance point without failing to keep a reliable operation.

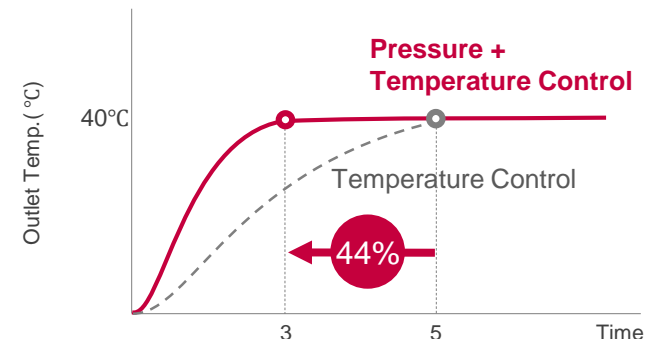


- Pressure control takes less time to reach the desired temperature up to 30% in cooling and 44% in heating with high level of accuracy and stability.

Cooling



Heating



*Based on internal test data

Parts of Inverter Twin Rotary Compressor have been improved to allow for a longer life span.

Twin Rotary Inverter Compressor

• Flow Optimization

Reduced oil inflow by increasing the length of oil discharge pipe, which remains enough oil inside the compressor to prevent compressor abrasion.

• Concentrated Winding Motor

Oil path area is improved by over 50% by increasing the extra stator cavity. Due to this, caloric value of motor is reduced, improving the cooling function of stator coil.

• Twin Rotary Rotor

Upper and lower part rotor offset imbalance in shaft rotor rotation. Vibration and noise is reduced. Max torque load decreased by 45% compared to single rotor.

• Suction Optimization

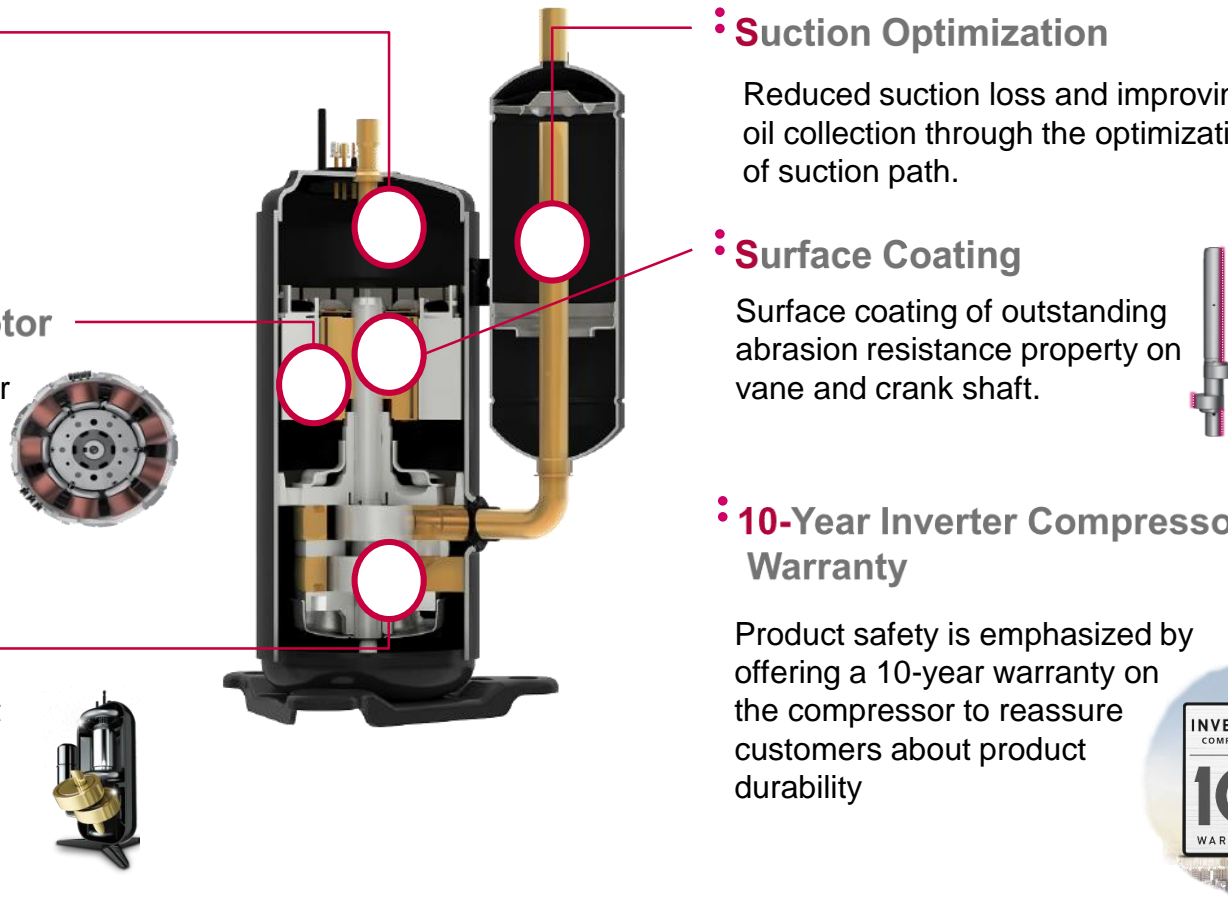
Reduced suction loss and improving oil collection through the optimization of suction path.

• Surface Coating

Surface coating of outstanding abrasion resistance property on vane and crank shaft.

• 10-Year Inverter Compressor Warranty

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





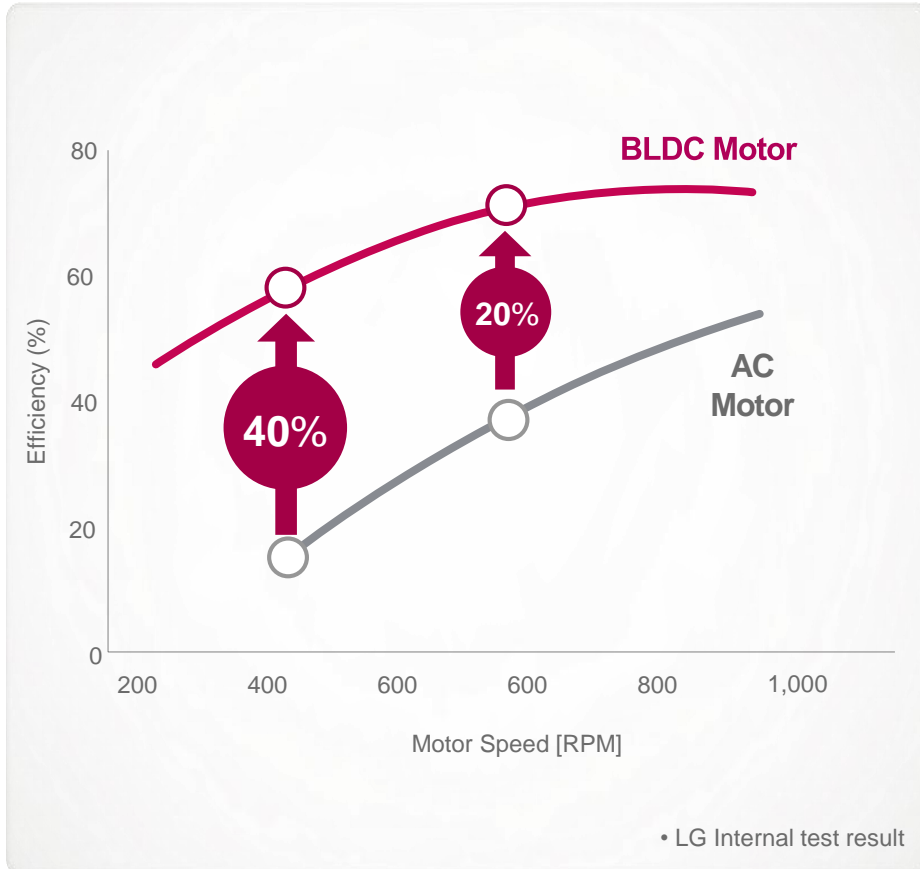
Supreme Energy Efficiency

- High Efficient BLDC Fan Motor
- Peak Current Control
- Optimized Heat Exchanger Path
- Smart Load Control
- Standby Mode

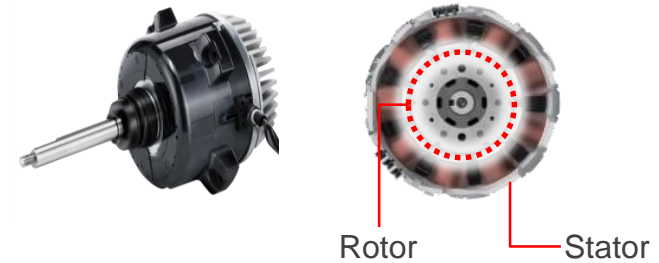
High Efficient BLDC Fan Motor

Supreme Energy Efficiency

LG BLDC fan motor offers additional energy saving up to 40% at low speeds.



BLDC Motor



Rotor

Enable high efficiency through using of 12 Neodymium magnets.



Stator

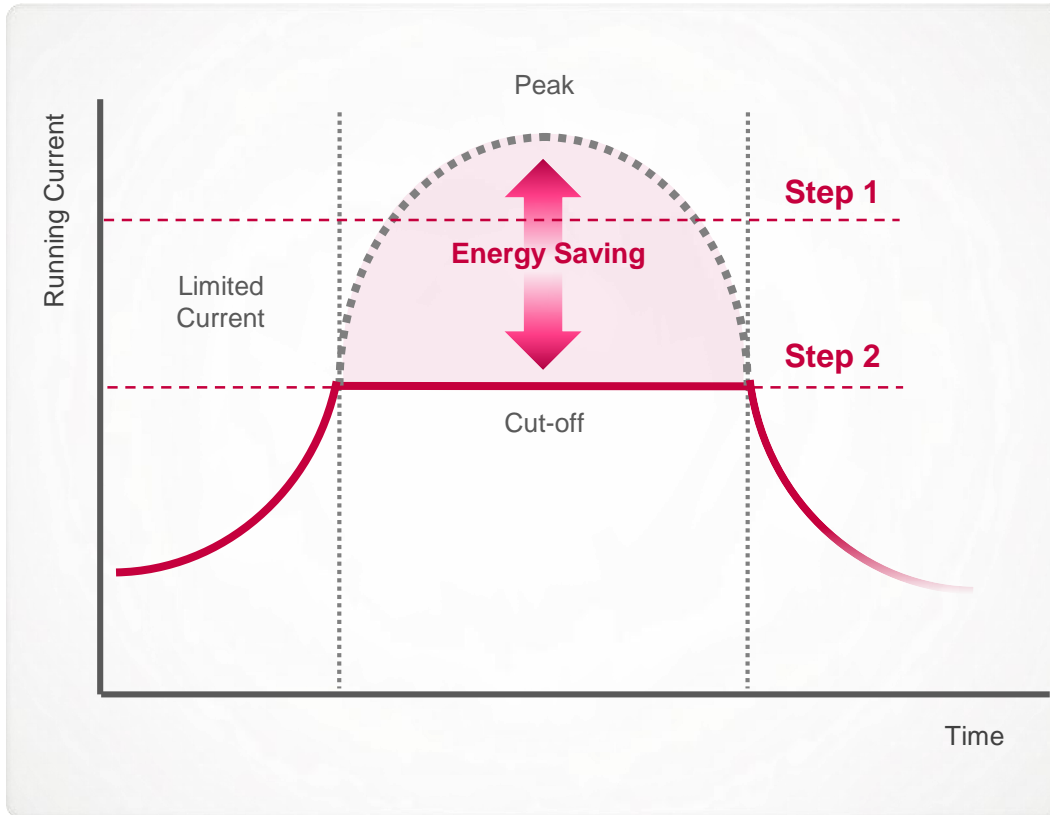
Improved efficiency at low speed by concentrated winding coil.

※ BLDC : Brushless Direct Current motor

Peak Current Control

Supreme Energy Efficiency

Through the peak current control technology, it is possible to save the energy and operation cost. It is useful to prevent excessive electricity charges.



* When using Peak current control, the cooling capacity may not be sufficient.

- By limiting to the maximum running current, the air conditioner can avoid running on the peak current level.
- This function can reduce energy cost during peak periods that electric charge is expensive.

[How to set dip switch]

1 Full Load consumption : 2.5 kW

2 Max power consumption : 1.9 kW

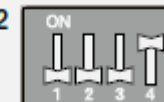
Step1



24%
Save!

3 Max power consumption : 1.7 kW

Step2



32%
Save!

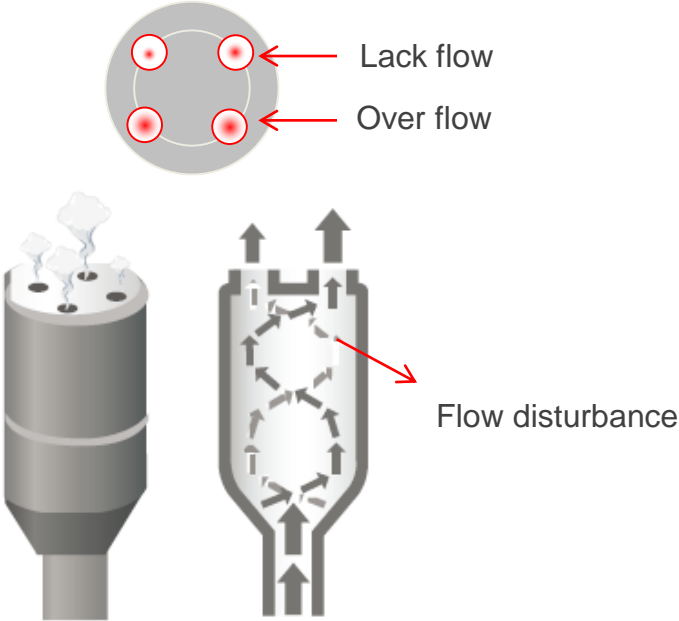
• 7.3kW model
• LG Internal test result

Optimized heat exchanger path and equal distribution improved cycle efficiency up to 5%.

Conventional

- By flow disturbance, energy loss occurs.
- Unequal distribution makes heat transfer efficiency reduced due to over flow & lack flow

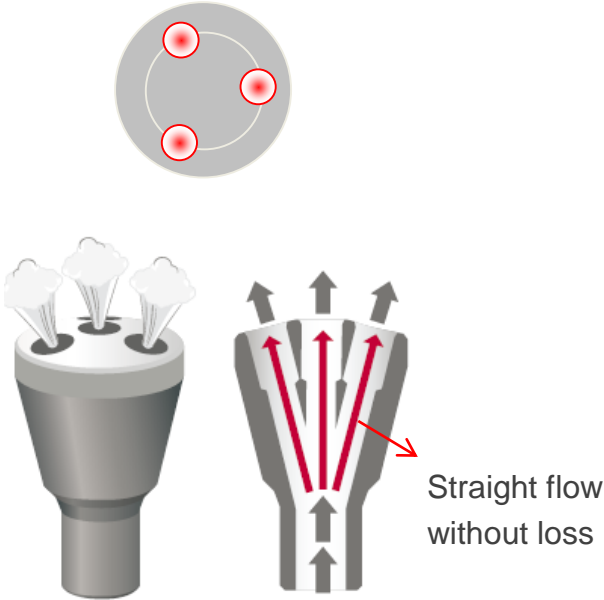
Unequal Distribution



New

- Without flow disturbance, energy loss is reduced.
- Equal distribution makes heat transfer more efficient and reliable.

Equal Distribution



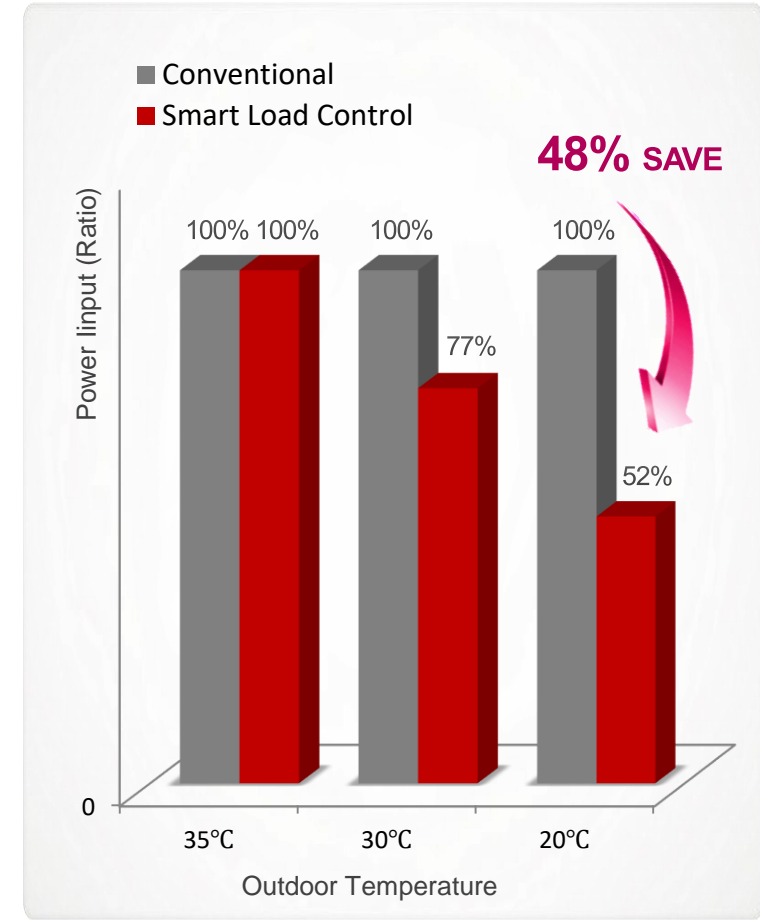
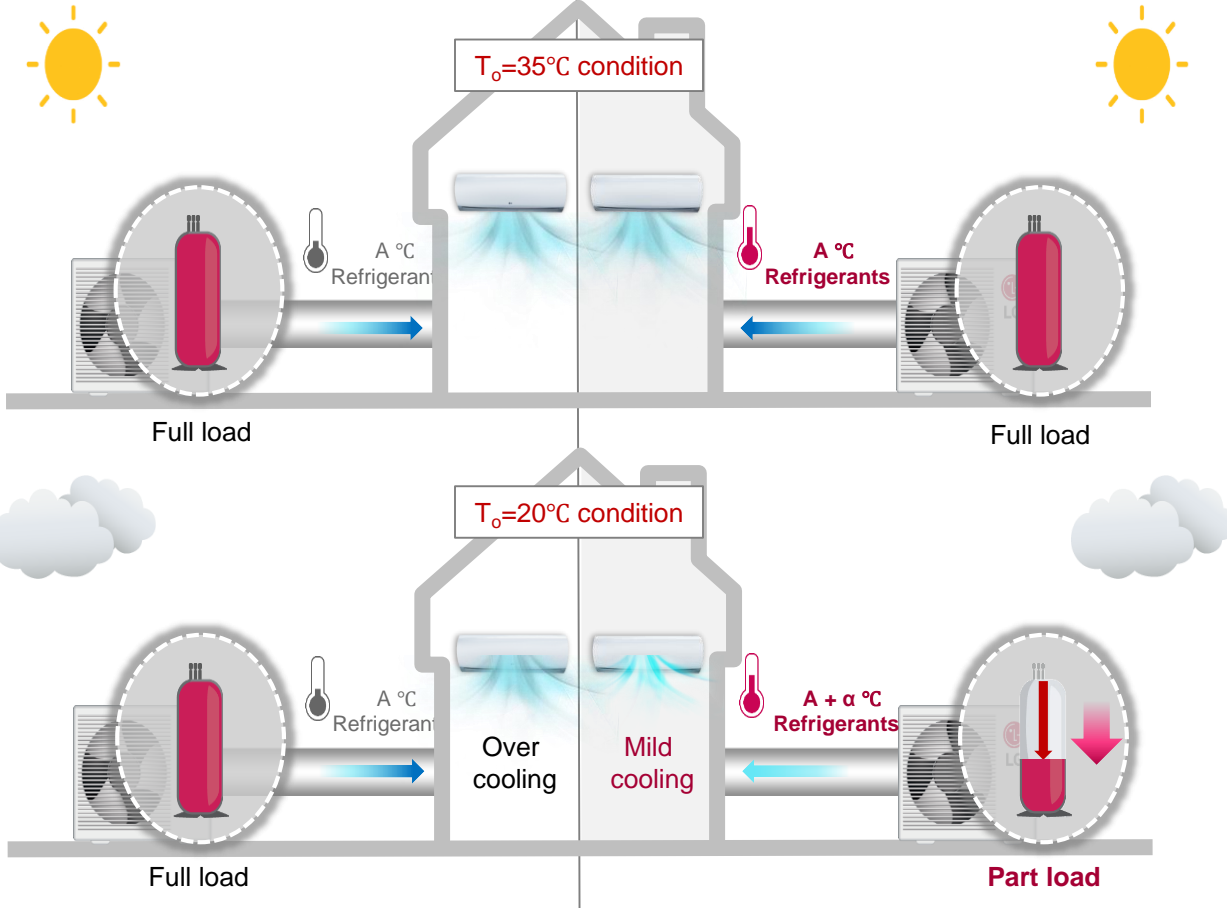
Smart Load Control

Supreme Energy Efficiency

To save operation energy, automatically control the refrigerant temperature according to outside temperature.

- T_o : Outdoor temperature
- A is the indoor unit coil temperature

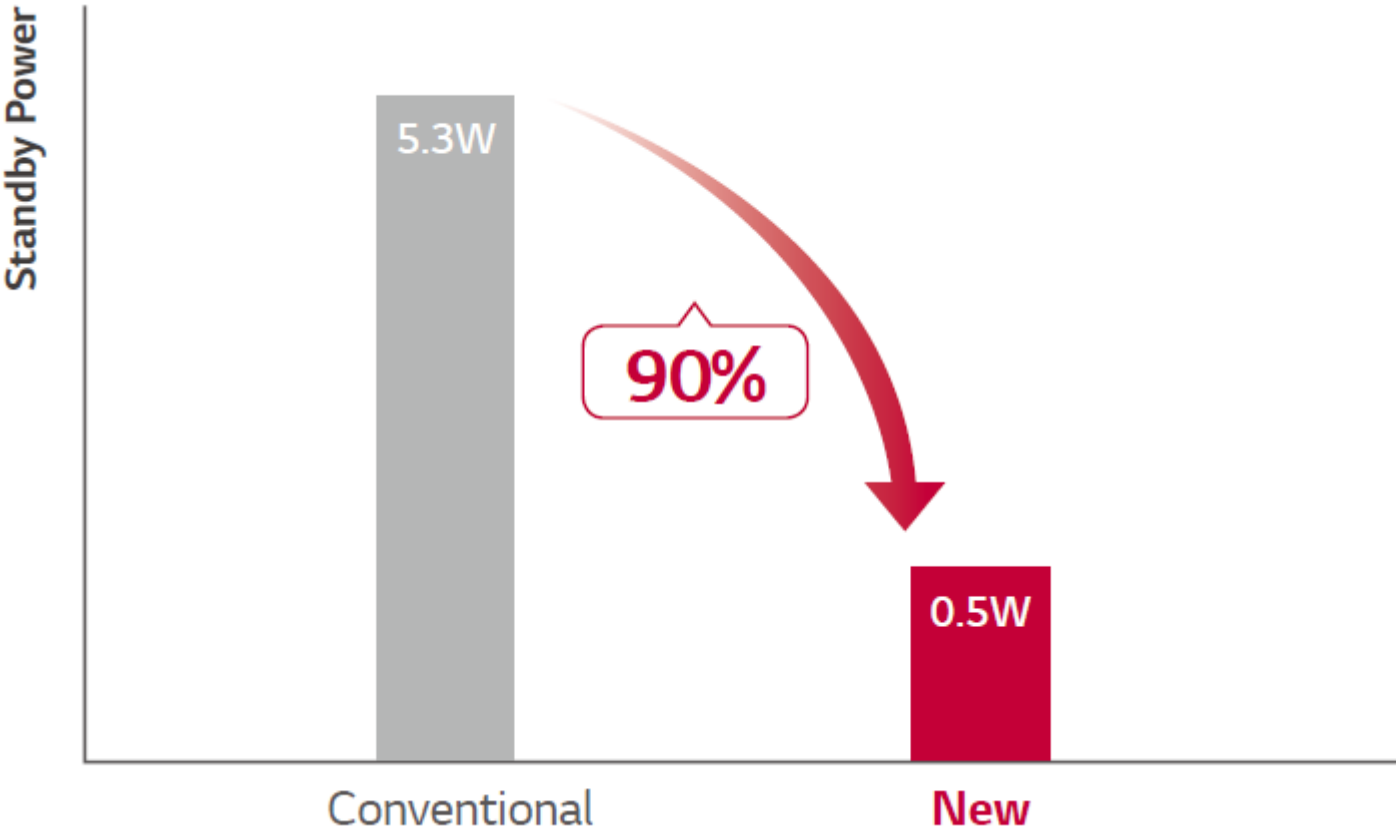
Conventional ←→ Smart Load Control



*Tested Model : 21kBtu/h(6.2kW)

Standby Mode

This function can minimize power consumption by turning power off on the PCB except for the MICOM which receives signals.



*Based on 21kBtu/h(6.2kW)



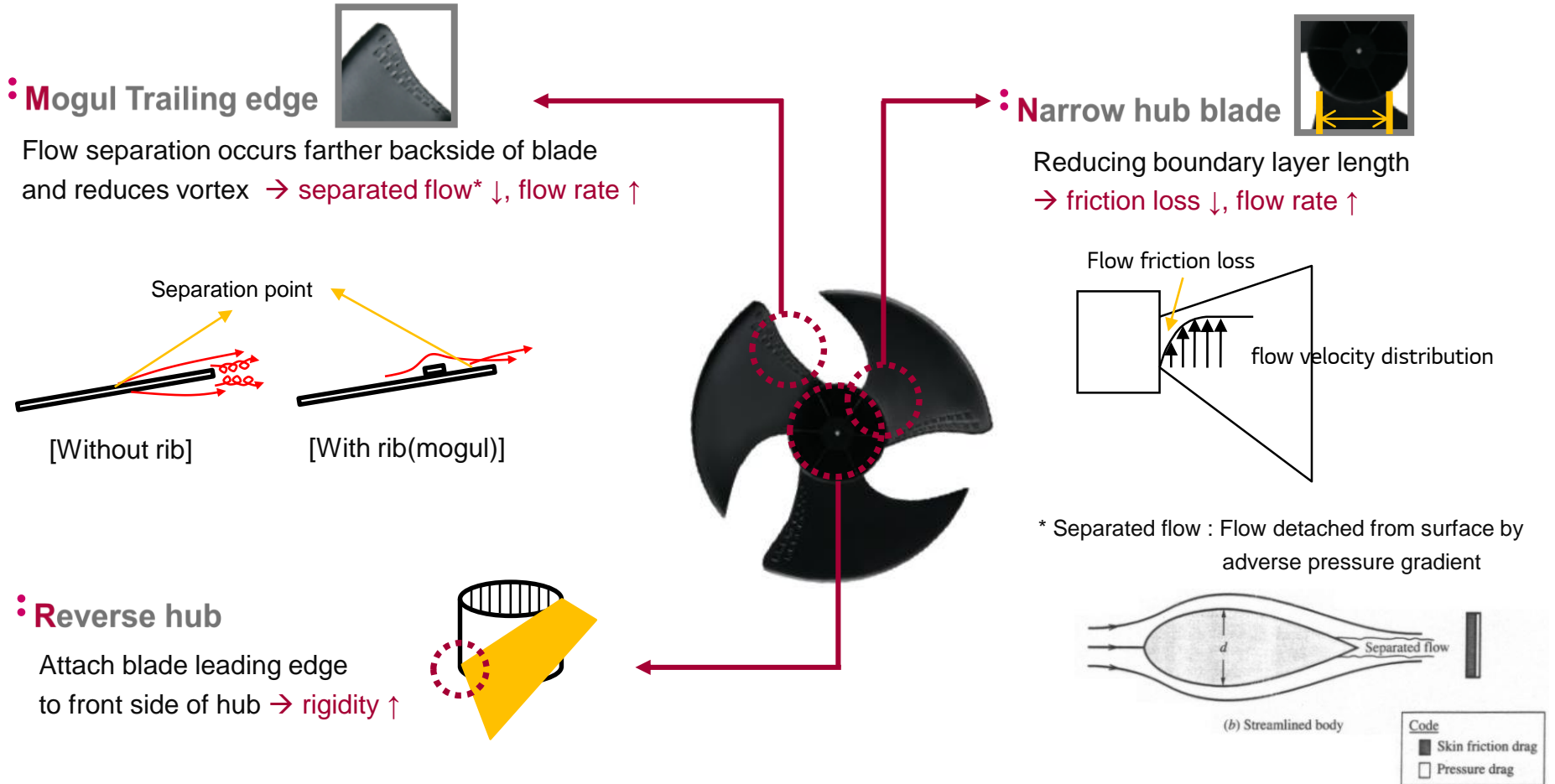
Comfortable Environment

- Improved Fan

Improved Fan ($\geq 8.8\text{kW}$)

Comfortable Environment

The new axial fan of the outdoor unit help to reduce noise levels and to improve the efficiency.



Improved Fan (6.2kW)

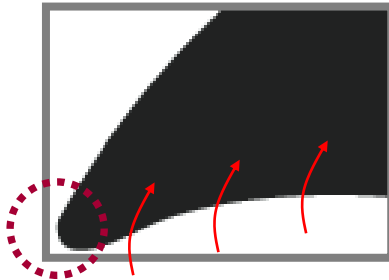
Comfortable Environment

The new axial fan of the outdoor unit help to reduce noise levels and to improve the efficiency.

Thick leading edge

Round and thicken leading edge to enhance tip rigidity and make smooth streamline

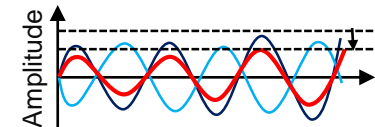
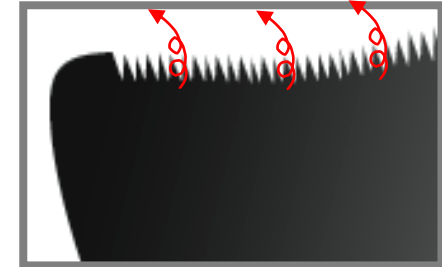
→ noise ↓, flow rate ↑



Saw tooth trailing edge

Reduce vortex intensity

→ noise ↓, flow rate ↑





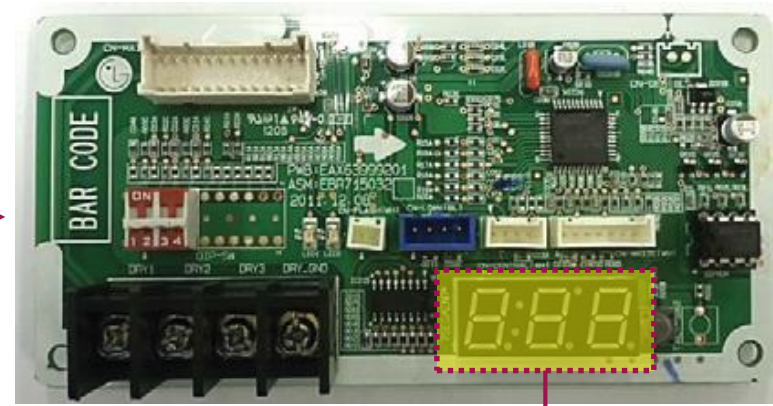
Convenient Functions

- Monitoring PCB
- Wiring Error Check
- LG MV

If there is any problem, without disassembly of chassis, engineers can quickly check air conditioner's error code through 7-segment error indicator.

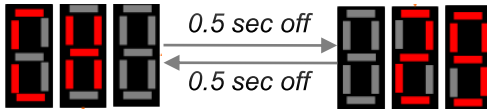


• UL0, UE0 chassis



7-segment error indicator

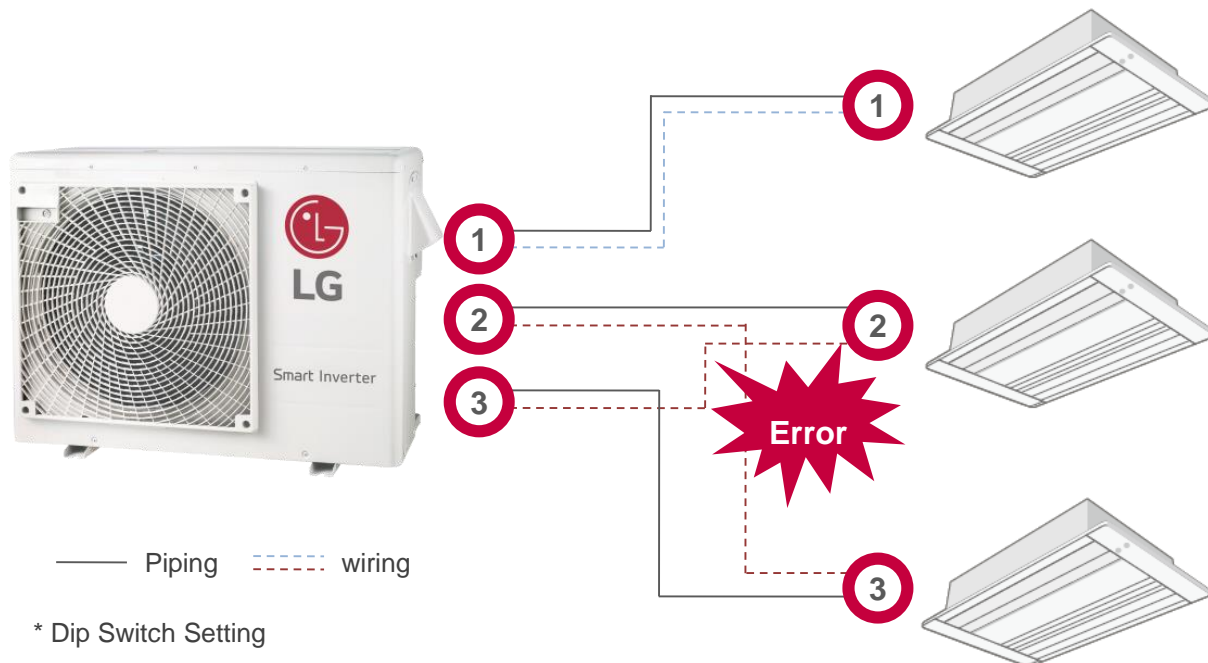
- Displayed Error code



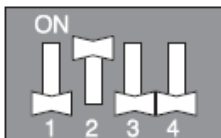
Error Code	Contents	Case of Error	Outdoor Status
21	DC Link Peak (IPM Fault)	Over Rated Current	Off
22	CT 2 (Max CT)	Input Over Current	Off
23	DC Link Low Volt.	DC Link Volt is below 140V dc	Off
	DC Link High Volt.	DC Link Volt is above 420V dc	
25	Low Voltage / Over Voltage	Abnomal AC volt Input	Off
26	DC Compressor Position Error	Compressor Starting Fall Error	Off
27	PSC / PFC Fault Error	Over inverter PCB input Current	Off
29	COMP Over Current	Over inverter Compressor Current	Off

Wiring Error Check

Installers can check whether the transmission cable has been connected correctly by using the wiring error check function. The wiring error check function can reduce the time taken to check for transmission cable errors.



* Dip Switch Setting

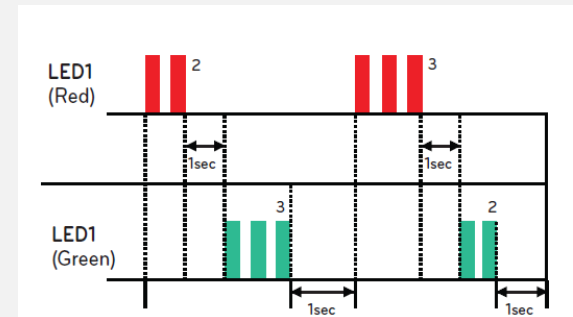


[LED Result]

- If the wiring is correct, the Green LED will light up.
- If the wiring is wrong, display as below
 - Red LED : Piping Number
 - Green LED : Wiring Number (Room)

Ex)

If the Red LED blinks twice and the Green LED blinks 3 times, 2nd pipe is connected to 3rd room



LG MV (Monitoring View)

Convenient Functions

LG MV helps engineers to inspect and monitor air conditioning units easily.

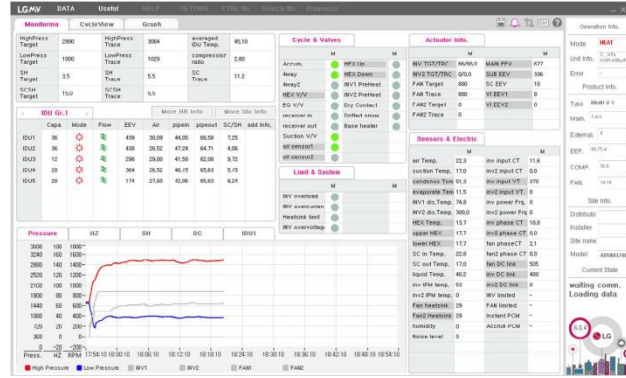


Mobile LGMV (for service)

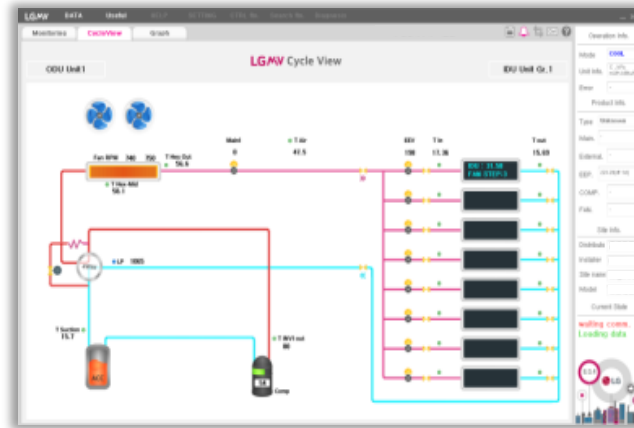


PC based LGMV (for service)

LGMV module (for service)



Operation information



Cycle View

- IDU & ODU Information
- Cycle & Valves
- Sensors & Electricity
- Cycle Diagram
- Actuator Information

Contents : Indoor Unit

1. Common - Wi-Fi Remote Control
- Scheduled operation

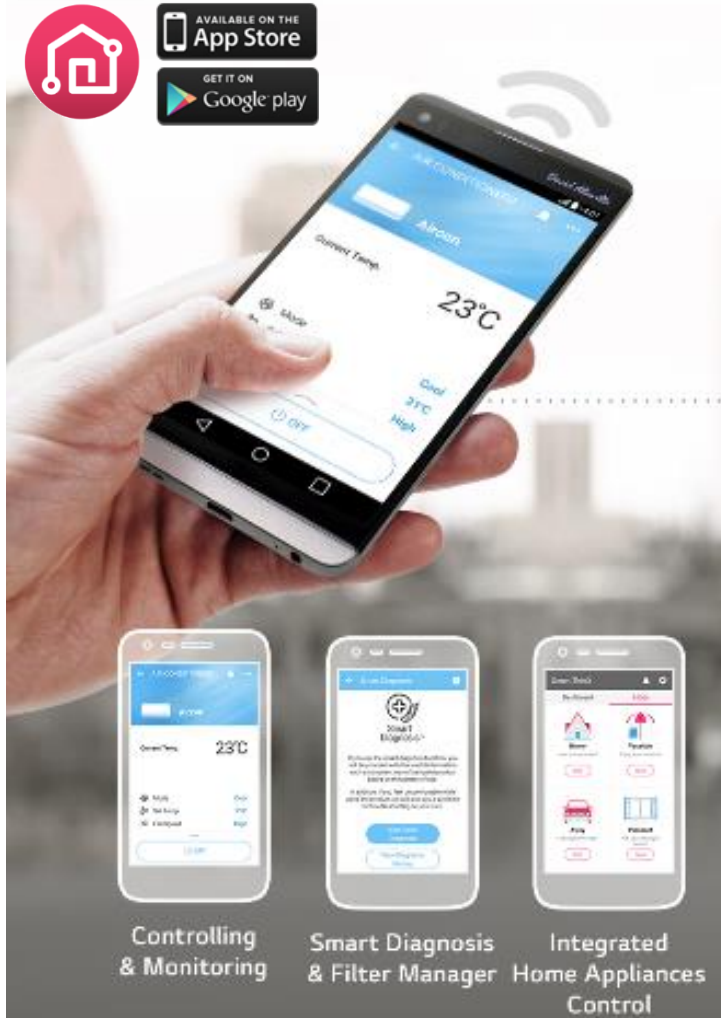
2. Wall Mounted Unit

3. Ceiling Mounted Cassette(1 Way)

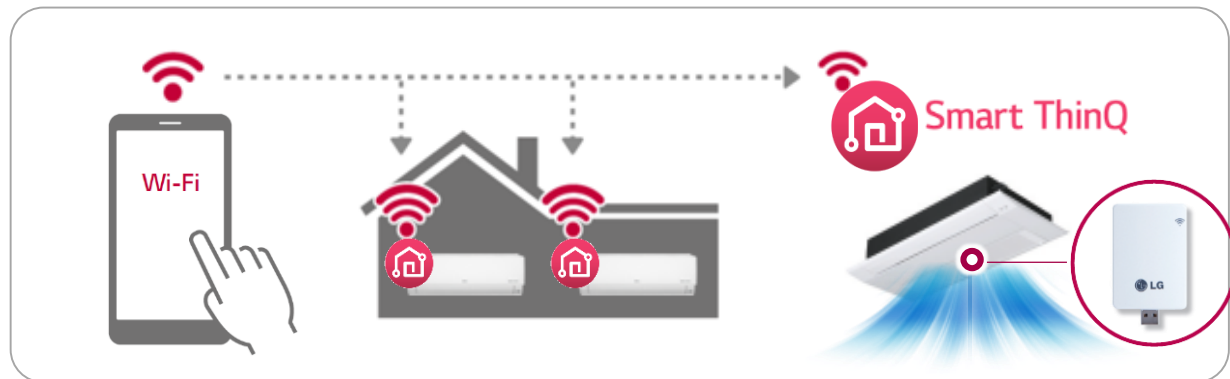
4. Ceiling Concealed Duct

} Same as single indoor unit contents

Control your air conditioners via using the smart internet devices as Android or iOS based smartphones.



• Access your air conditioner anytime and from anywhere



Wi-Fi Modem (Accessory)

• Simple operation for various functions

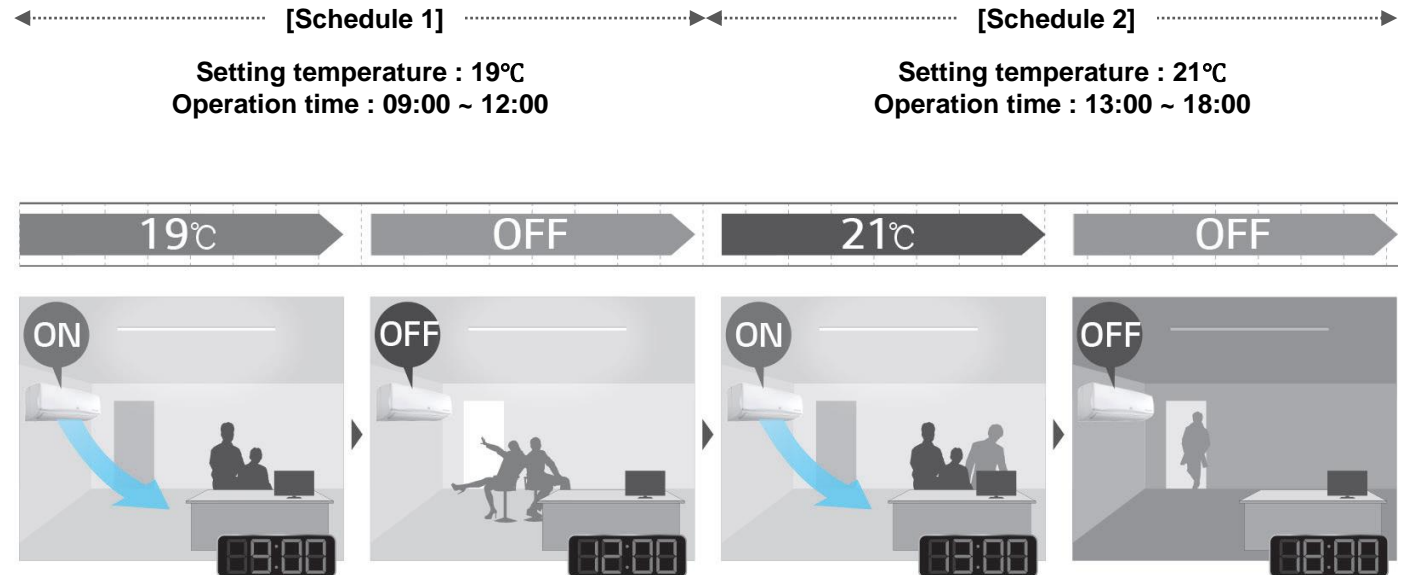
- On/Off
- Mode Selection
- Current temperature
- Set temperature
- Vane Control
- Reservation
- Energy Monitoring
- Filter Management
- Smart Diagnosis

※ Search "LG Smart ThinQ" on Google market or Appstore then download the app.

※ Embedded : Wall Mounted Unit Artcool Mirror(SJ, SK chassis)
 Accessory : Ceiling Mounted Cassette(1 Way, 5kW)

Scheduled operation

You can set the daily temperature and automatic on/off time for one week.



※ Two weekly reservation
Max. 14 schedule for a week



Wired remote controller(accessory)

※ This function is wired remote controller(accessory) only
※ Standard : Wireless remote controller



Wall Mounted Unit

- Plasmaster Ionizer Plus
- Auto Cleaning
- Fast Cooling & Heating
- Comfort Air
- Low Noise
- Quick & Easy Installation

Plasmaster Ionizer

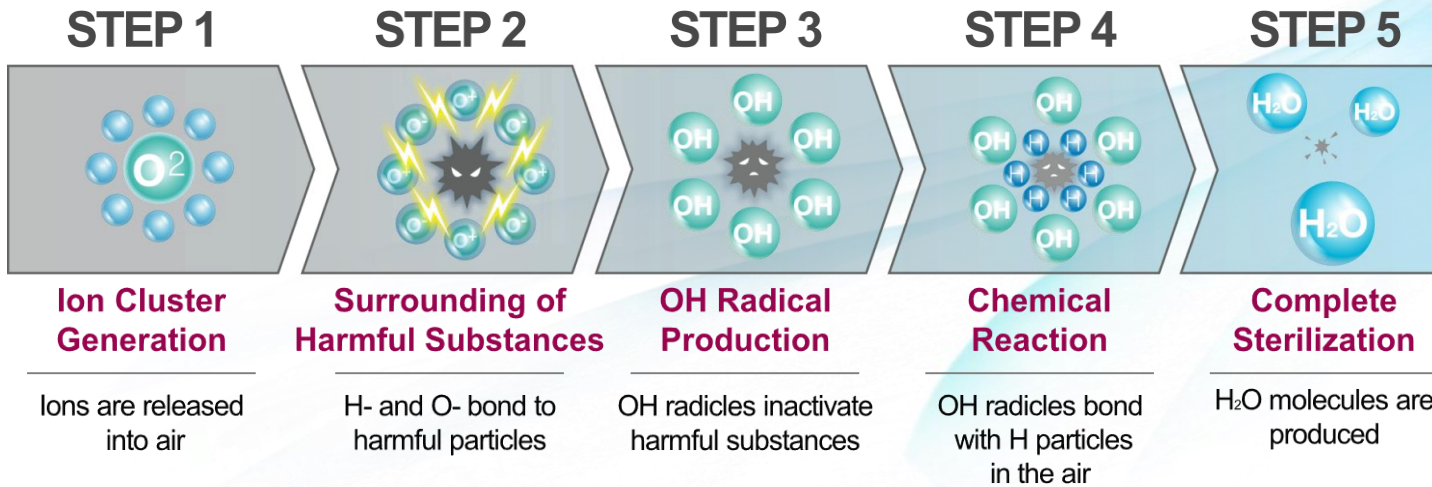
* Specifications may vary for each model.(Deluxe model)

Wall Mounted Unit

The powerful plasma ionizer protects you from odors and harmful substance.

• Sterilization and Deodorization (Utilizes Over 3 Million Ions)

Plasmaster Ionizer^{PLUS} reduces harmful microscopic particles by infusing the air passing through the air conditioner with over 3 millions ions.



• Certificate

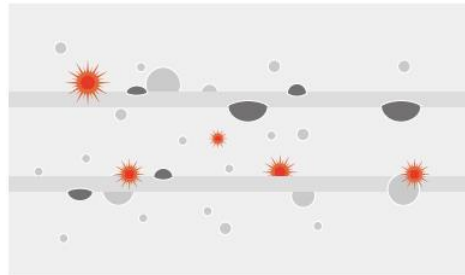


Intertek, Verification Certifying of Antibacterial Function of Plasmaster Ionizer+ / Ionizer

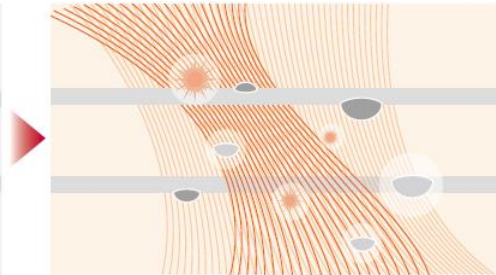
The interior of the air conditioner is maintained clean by drying off the heat exchanger, then sterilizing the interior once more.

• Cleans Filter with Regular Airflow

The comprehensive auto cleaning function prevents the formation of bacteria and mold on the heat exchanger, providing a more pleasant and comfortable environment.



- By eliminating the humidity left in the air conditioner, the auto cleaning function removes substances that might be harmful to human body.



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



- By preventing the polluting of the heat exchanger by various germs and bacteria, the cooling performance and longevity of the air conditioner remains unchanged even after 10 years of usage.

• Removes Harmful Particles

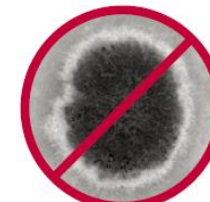
Auto Cleaning provides clean air by preventing bacteria, mold and odors that can otherwise accumulate in an indoor unit



Bacteria
Prevention



Odor
Elimination

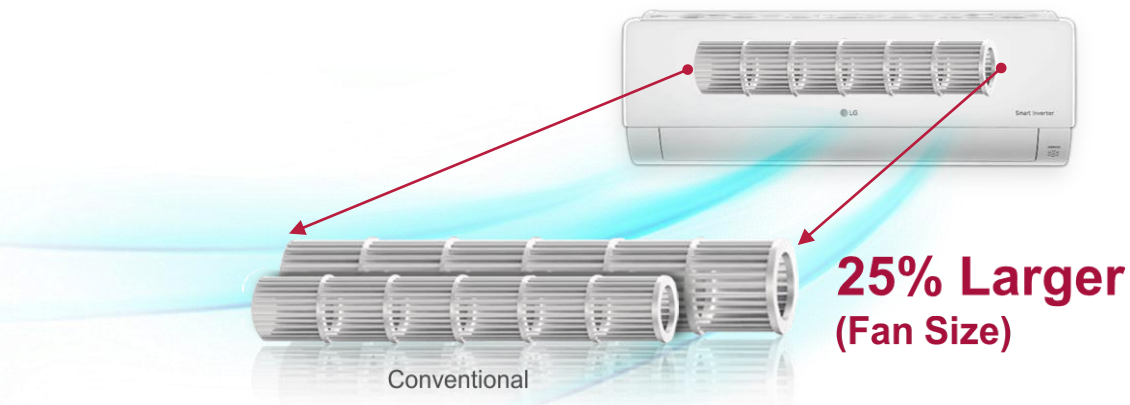


Mold
Elimination

The cool air flow reaches all the corners of the room, keeping the space cool and comfortable.

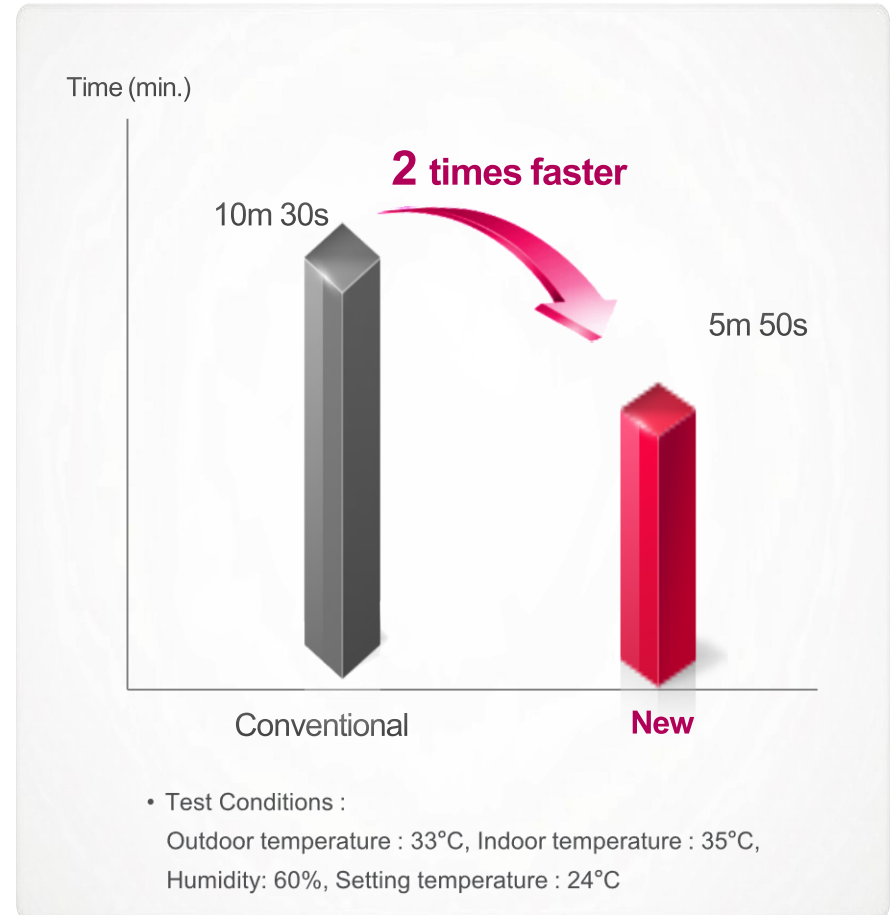
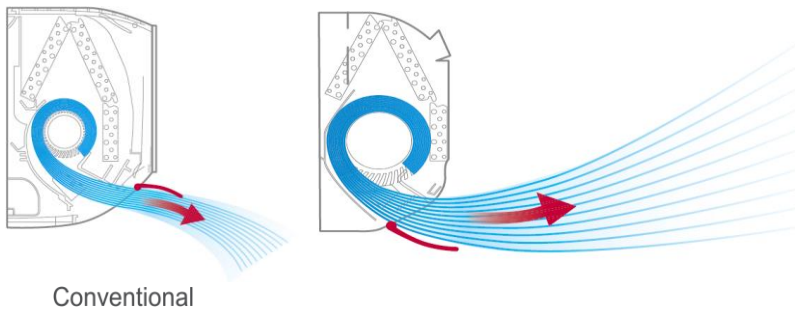
• Bigger Skew Fan

A 25% larger skew fan expels more powerful blasts of air.



• Cooling Outlet

A larger, optimally designed cooling outlet expels air farther and cools spaces faster.



Fast Cooling (Jet Cool)

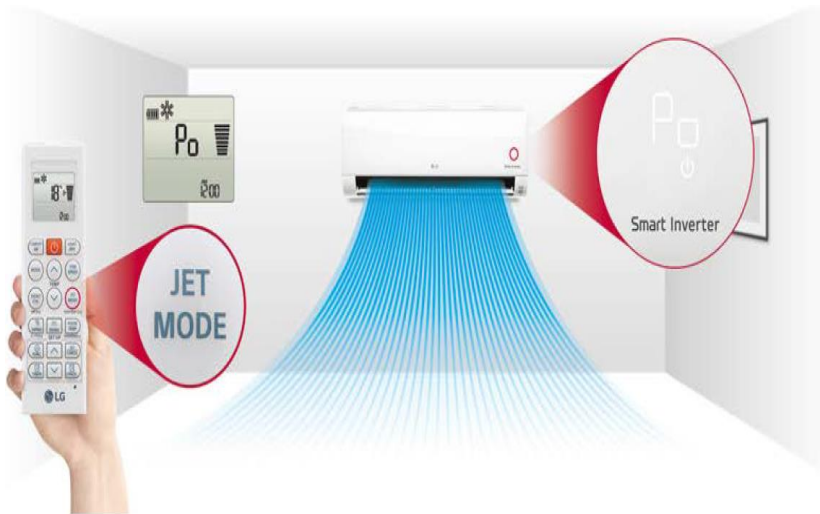
* Specifications may vary for each model.

Wall Mounted Unit

LG air conditioners provide optimized high-speed airflow, which can cool rooms faster while delivering cool air evenly in every direction.

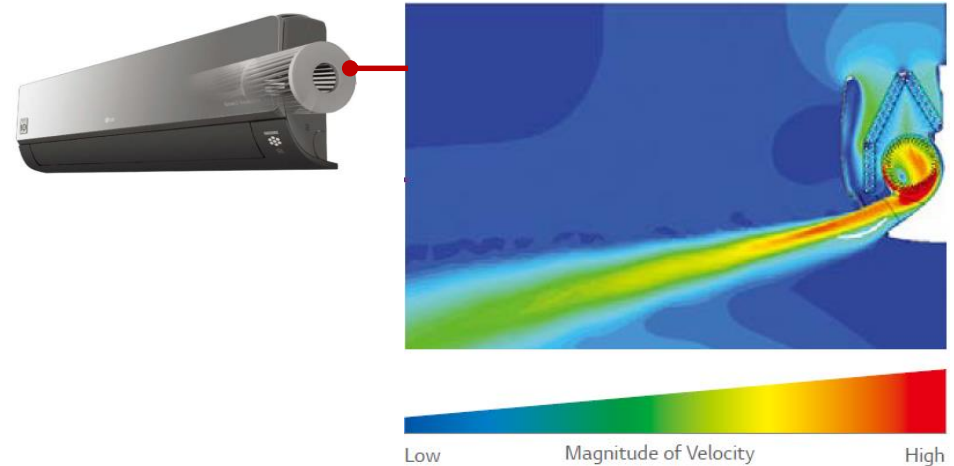
• One Click “Jet Mode”

Reduces the temperature of outflowing air to 18°C for 30 minutes with just one click.



• More Powerful Performance

By reducing the second vortex, which decreases airflow within the air outlet, and enlarging the fan size, the amount of airflow is increased to 13.0 CMM.



Fast Cooling (4 Way Swing)

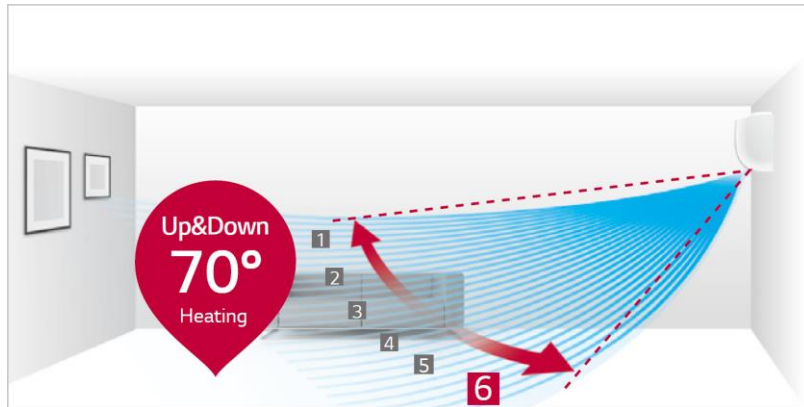
* Specifications may vary for each model.

Wall Mounted Unit

Cool air reaches out to all directions and each corner of the room regardless of where the air conditioner is installed.

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 55°

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

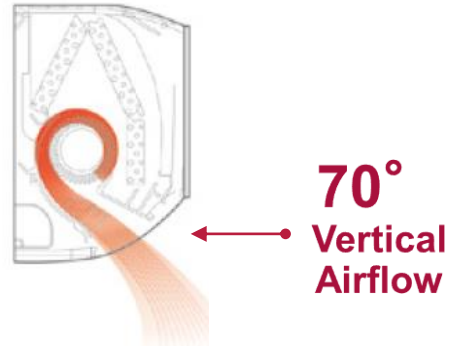


* Angle can be different from each model and working mode.

It is possible to create a warm and comfortable living environment by heating a wider space in a shorter time.

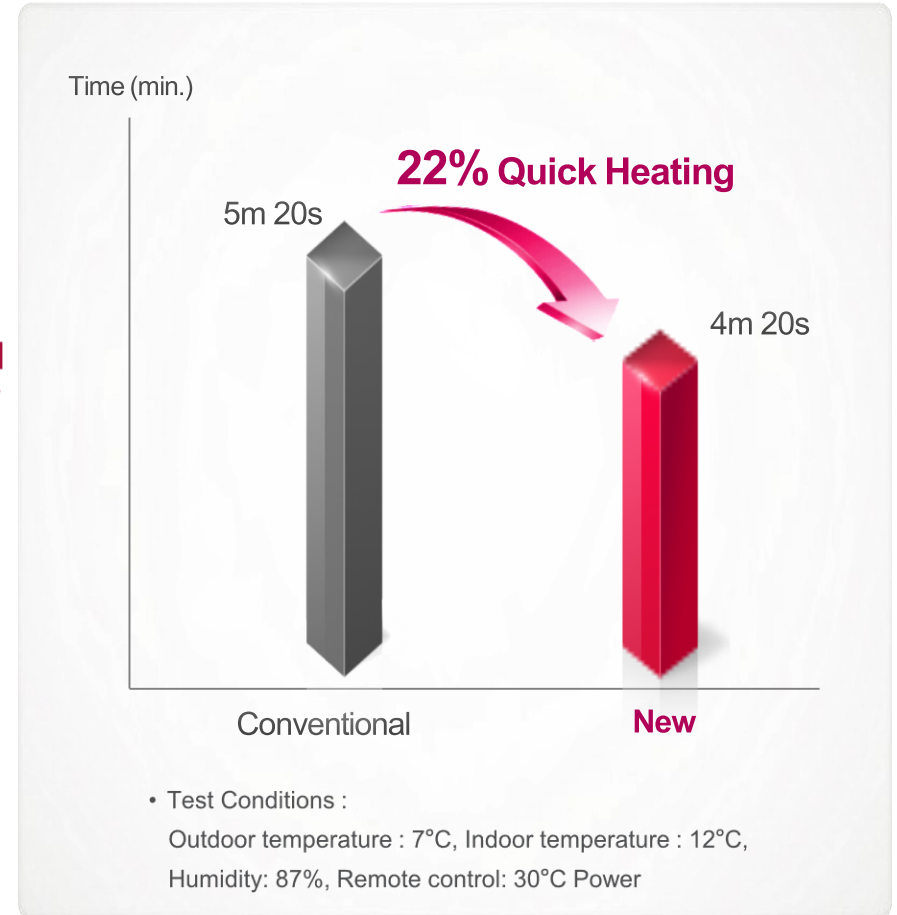
• Vertical Airflow

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



• 4Way Auto Swing

4 Way Auto Swing adjusts airflow allowing for optimal distribution of warm air to living areas and enabling quick heating.



LG Air Conditioner provides soft and comfortable air to your living space.

• Comfort Vane

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

Scene 1: Inclines to a maximum 70° angle

Scene 2: Declines to a maximum 0° angle.



• Remote Controller Display

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



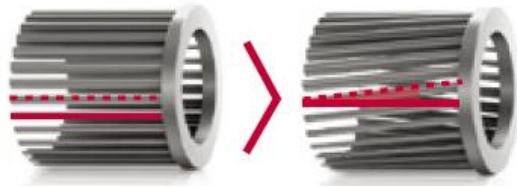
• Remote Controller Display

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

LG Air Conditioner operates at 19dB low noise level, moreover provide healthy soft air.

LG's Unique Skew Fan

By minimizing the surface pressure



Conventional

Skew Fan

15°
Tilted
Stabilizer

BLDC Fan Motor

By Precise speed control with strong torque and powerful ND magnetism



AC Motor

BLDC Motor

Advanced
Motor



Quick & Easy Installation

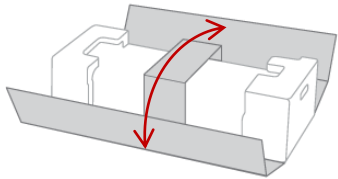
* Specifications may vary for each model.

Wall Mounted Unit

By reducing the manpower and time required for installation, it is now possible to install in a shorter period of time.

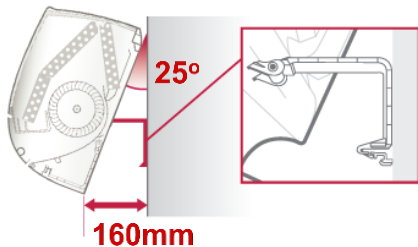
• Simple Packaging

Open the packaging with just one touch.



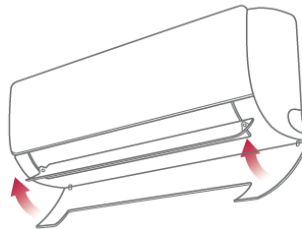
• Installation Support Clip

Adequate space between the wall and the unit for easier installation.



• Detachable Bottom Cover

Detachable for easier installation and access.



• Wider Tubing Space

Hide the unorganized parts, making it appear clean and tidy.



* Please visit the site below for more details.

https://www.youtube.com/watch?v=LqTULo_YmbM



Ceiling Mounted Cassette

- Stylish Design
- Large Capacity
- Minimized Height
- Moving Air Flow
- Flexible Installation
- Concealed piping
- Two Thermistors Control
- High head drain pump

Due to stylish design, LG 1 Way Cassette is equipped with various spaces in residential environment.



Living Room



Kitchen



Hotel

Large Capacity

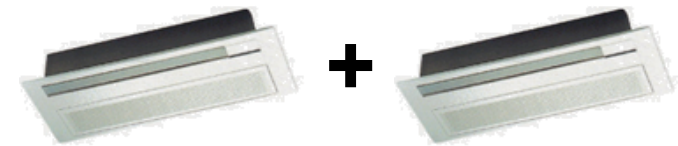
Ceiling Mounted Cassette

We reduce the maintenance and installation cost in order to cover living room with only one large capacity air conditioner.

LG(5.0kW)

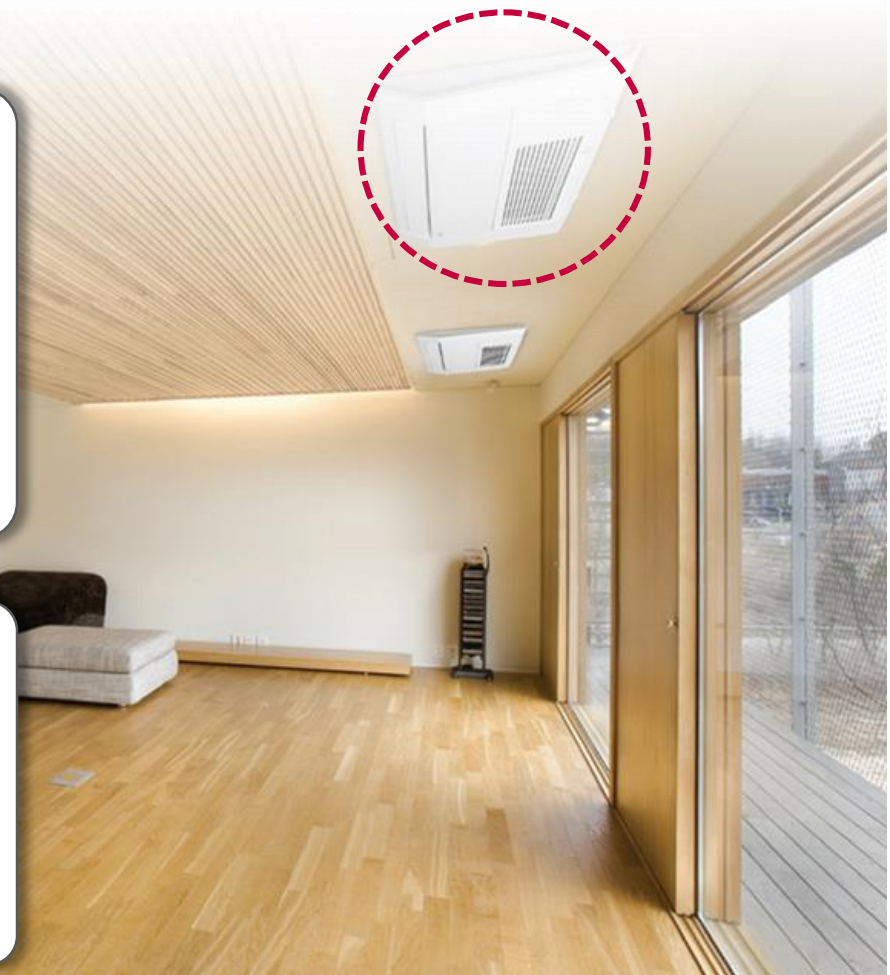
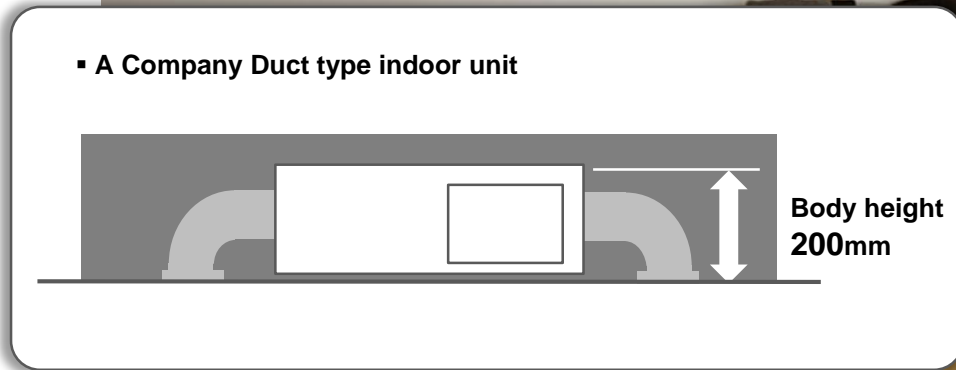


2.5kW + 2.5kW



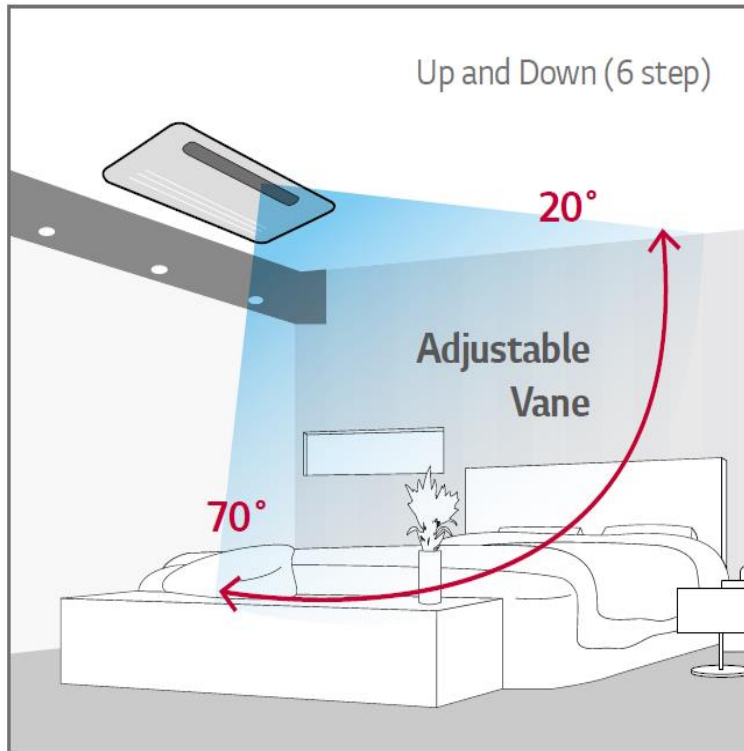
Minimized Height

1 Way Ceiling Cassette with slim height has reduced the restriction which enables flexible installation in narrow ceiling space.

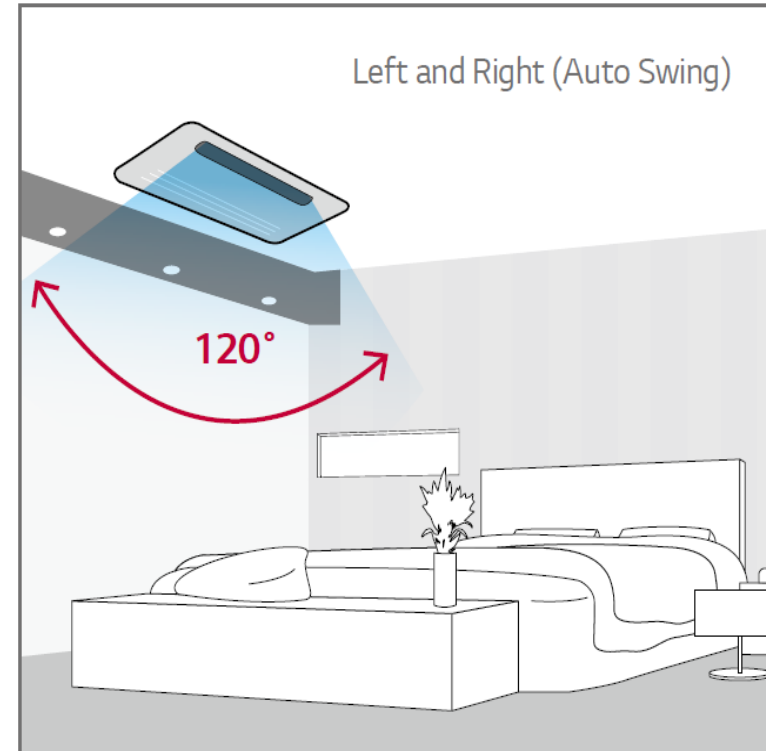


There are 6 different steps to control air flow direction. Also 1 Way cassette has vane to move auto swing between left and right as 120 degree.

6 different steps



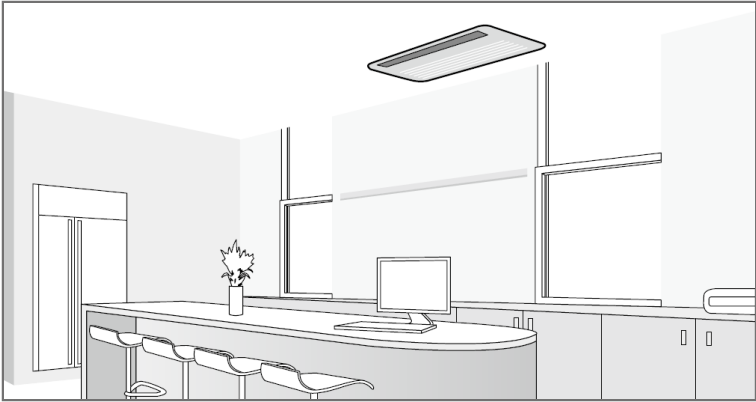
Auto Swing(left and right)



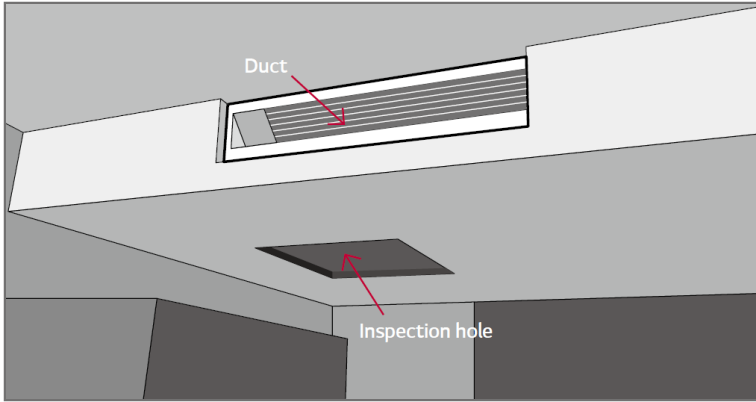
Flexible Installation

The access for inspection at 1 Way Cassette does not require additional ducted space making the installation environment uncomplicated.

1 Way Cassette



Duct

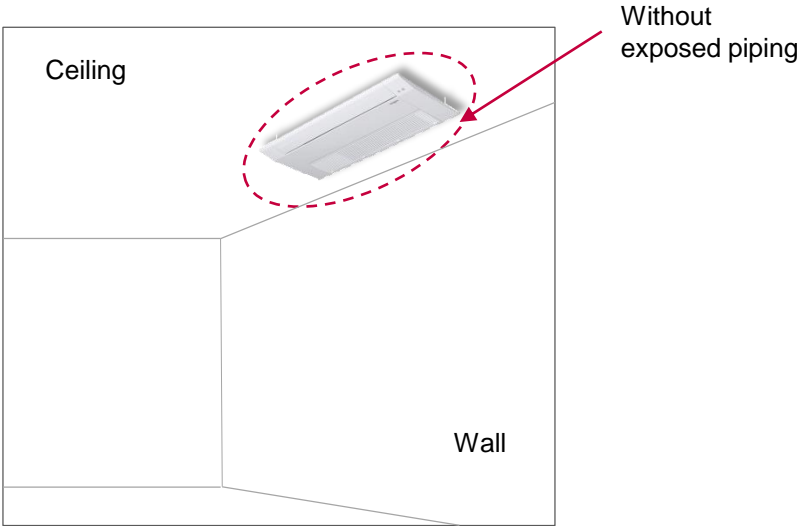


Concealed piping

LG 1 Way Cassette offers neat interior except to exposed piping. This especially benefits residential space.

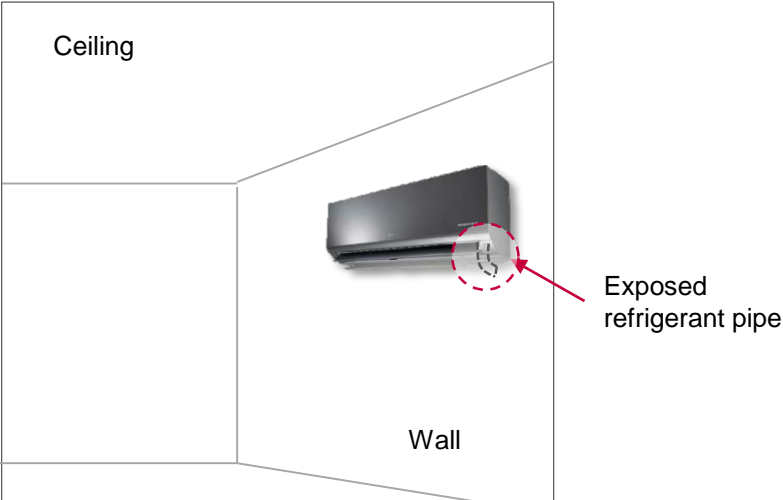
1 Way Cassette

Without exposed piping, you can experience neat environment.



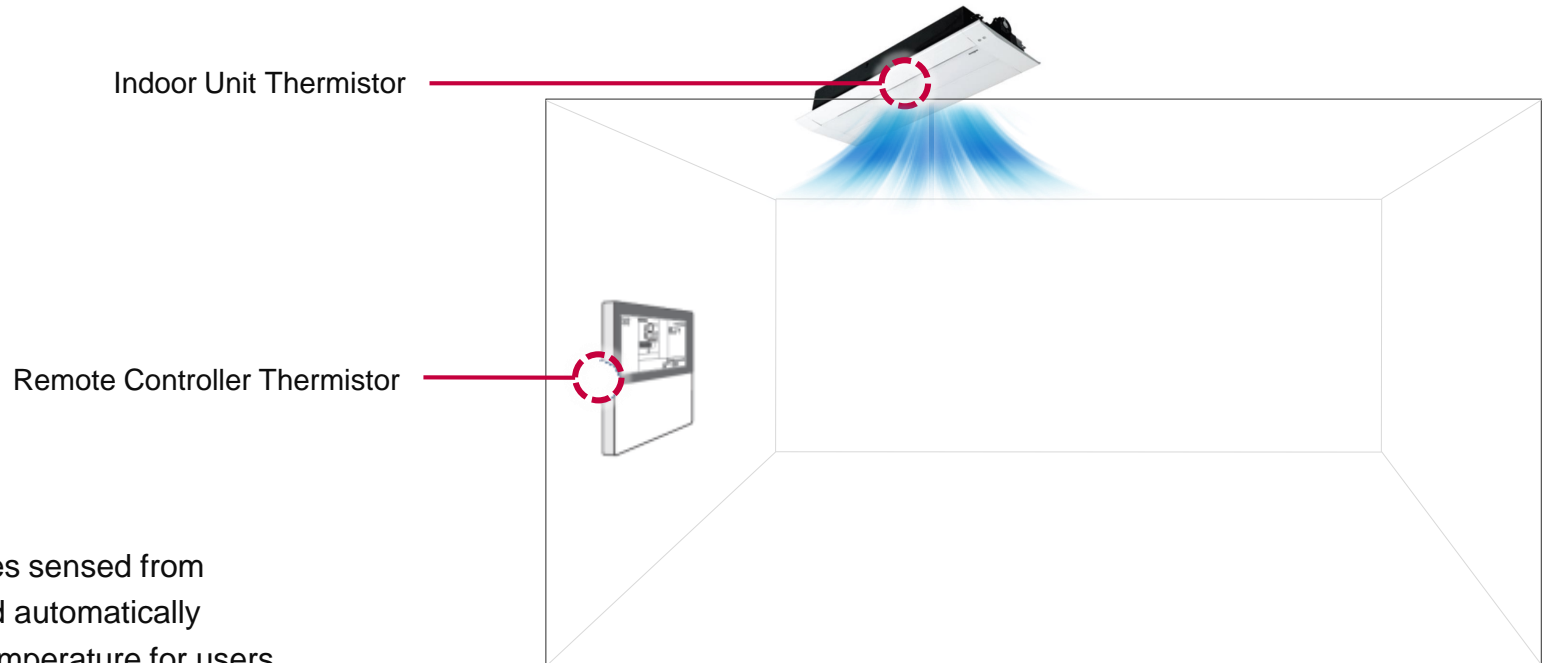
Wall mounted

Exposed refrigerant pipe affects interior, requiring an extra cover for hiding pipe.



Two Thermistors Control

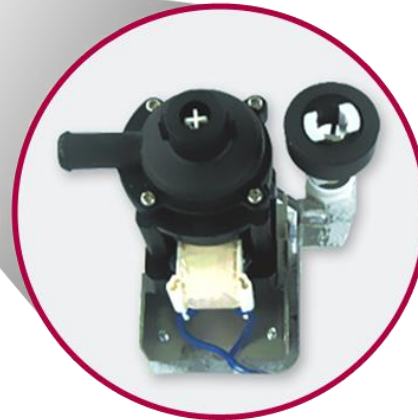
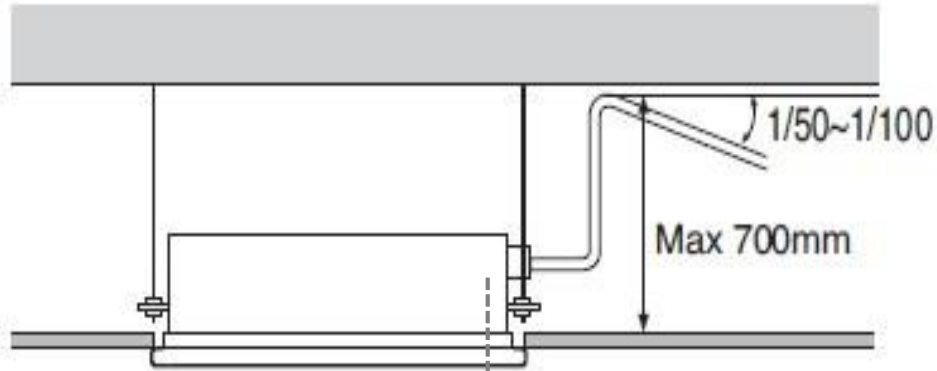
The indoor temperature can be checked using the thermistors in the remote controller as well as from the indoor unit. Two thermistors can check optimize indoor air temperature for a more comfortable environment.



Compares temperatures sensed from different positions, and automatically selects the optimum temperature for users

High head drain pump

High drain pump prevents damage of products and ceiling by proper draining of dew condensation which is generated from the evaporator of indoor.



High head drain pump



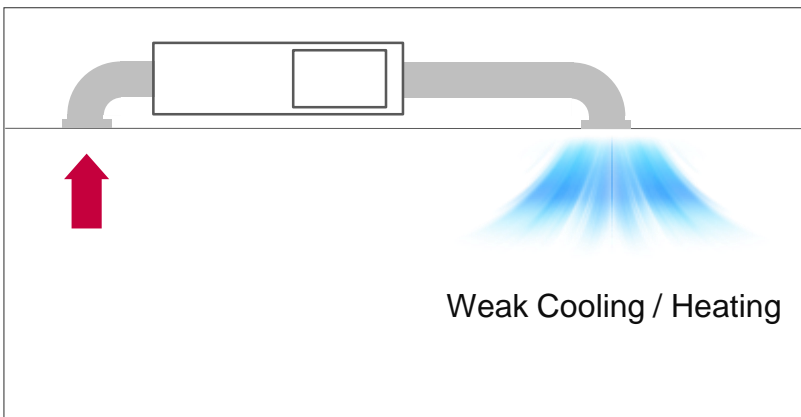
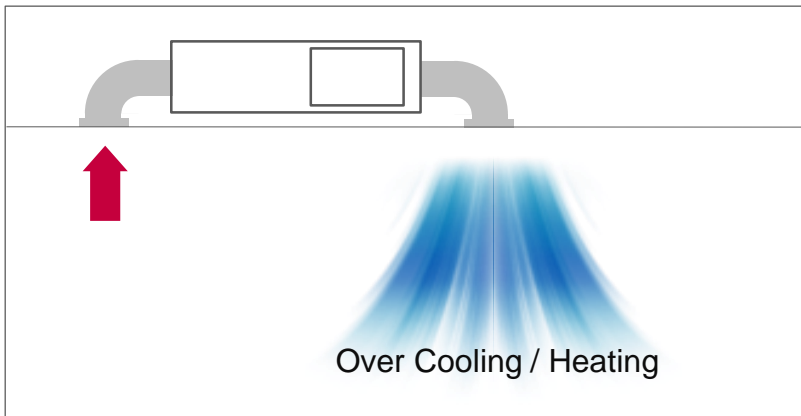
Ceiling Concealed Duct

- E.S.P. (External Static Pressure) Control
- High Head Drain Pump
- Two Thermistors Control
- Quiet Operation
- Flexible Installation
- Minimized Height
- Easy Service & Maintenance

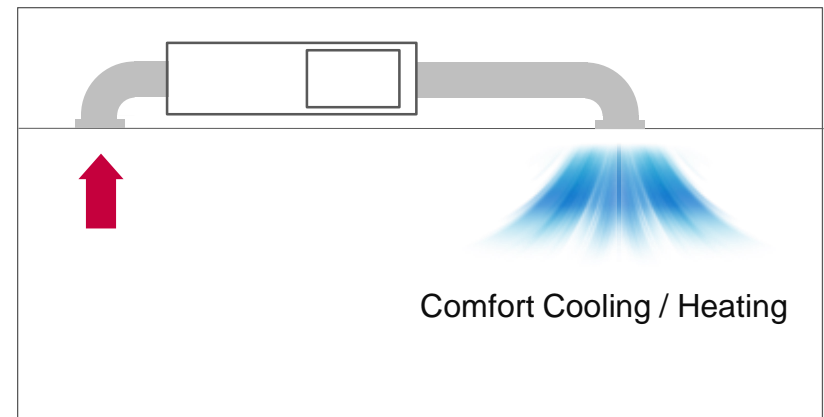
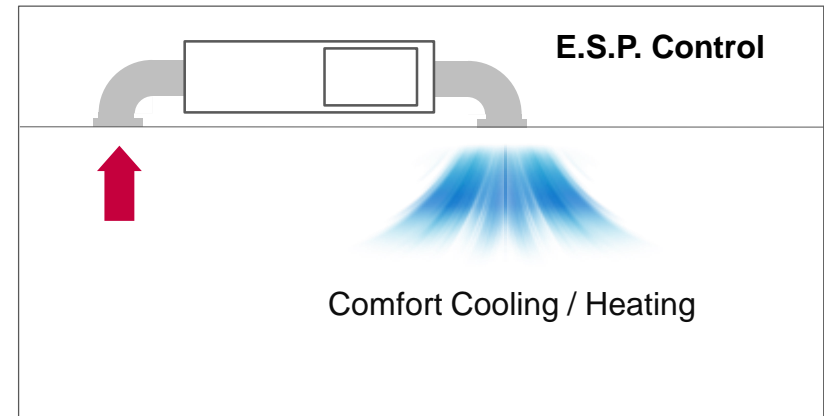
E.S.P. (External Static Pressure) Control

E.S.P. control function can make air volume controlled easily with remote controller. The BLDC motor can control fan speed and air volume regardless of the external static pressure.

Conventional



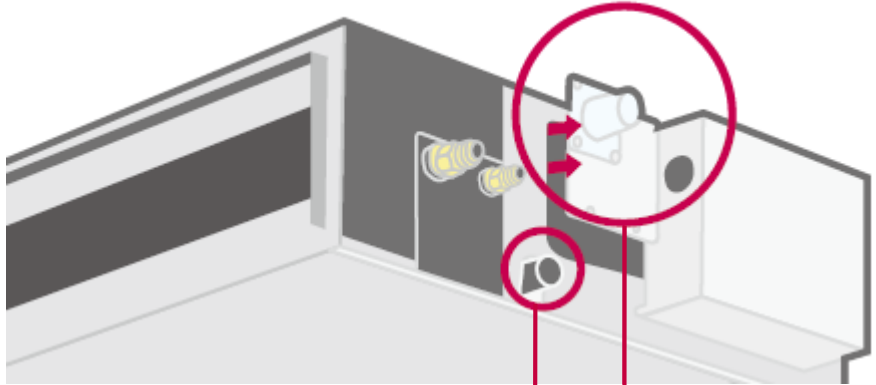
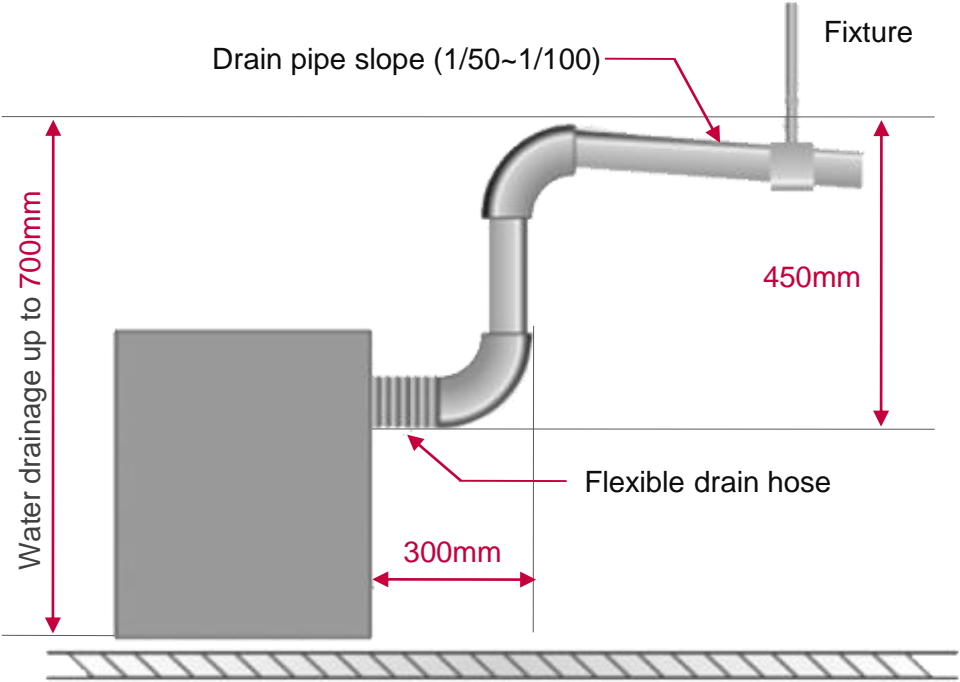
MULTISPLIT



* No additional accessories are necessary.

High Head Drain Pump

High head drain pump automatically drains water up to 700mm of drain-head height. It provides perfect solution for water drainage.



Available for natural drainage

Detachable drain pump

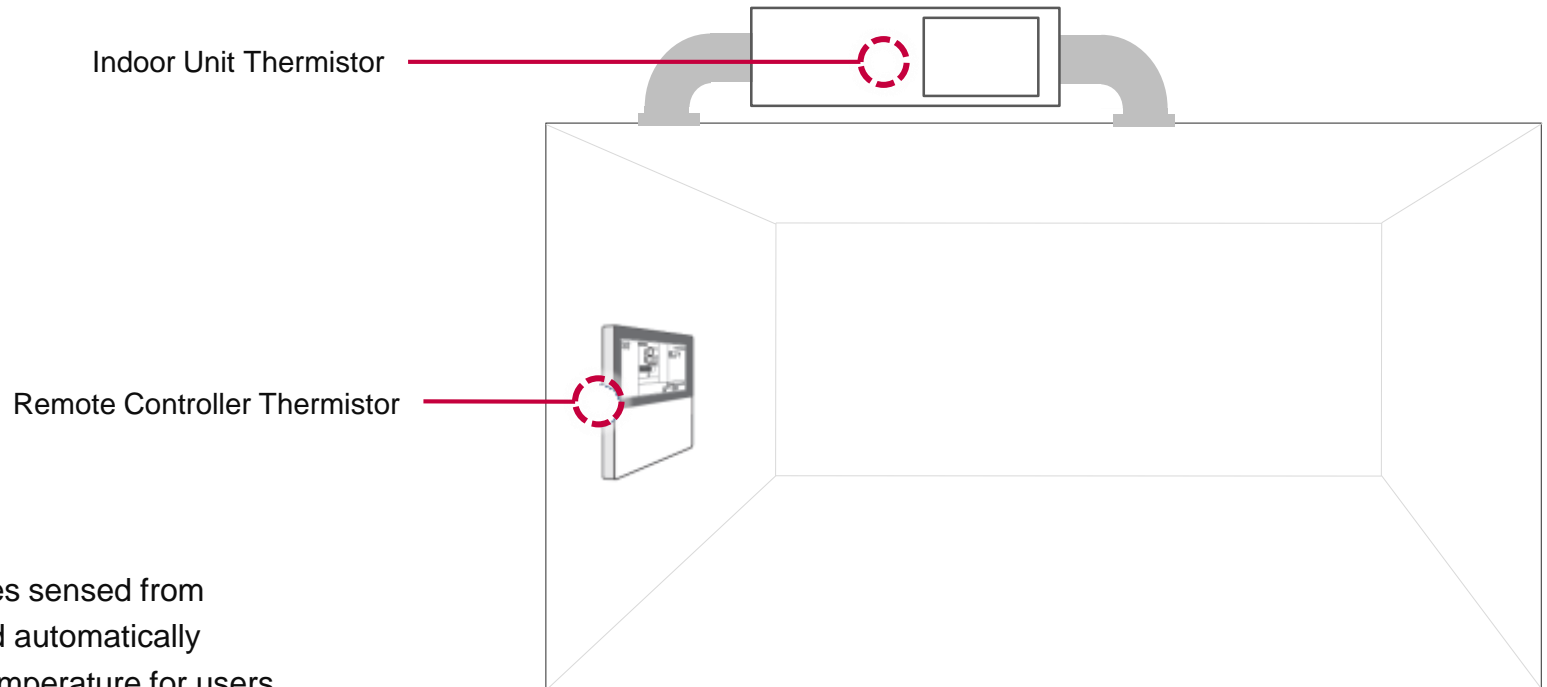


Accessory (ABDPG)

* H-inverter : included / Standard Inverter : Accessory (ABDPG) / Low-static duct : Included

Two Thermistors Control

The indoor temperature can be checked using the thermistors in the remote controller as well as from the indoor unit. Two thermistors can check optimize indoor air temperature for a more comfortable environment.



Compares temperatures sensed from different positions, and automatically selects the optimum temperature for users

Quiet Operation

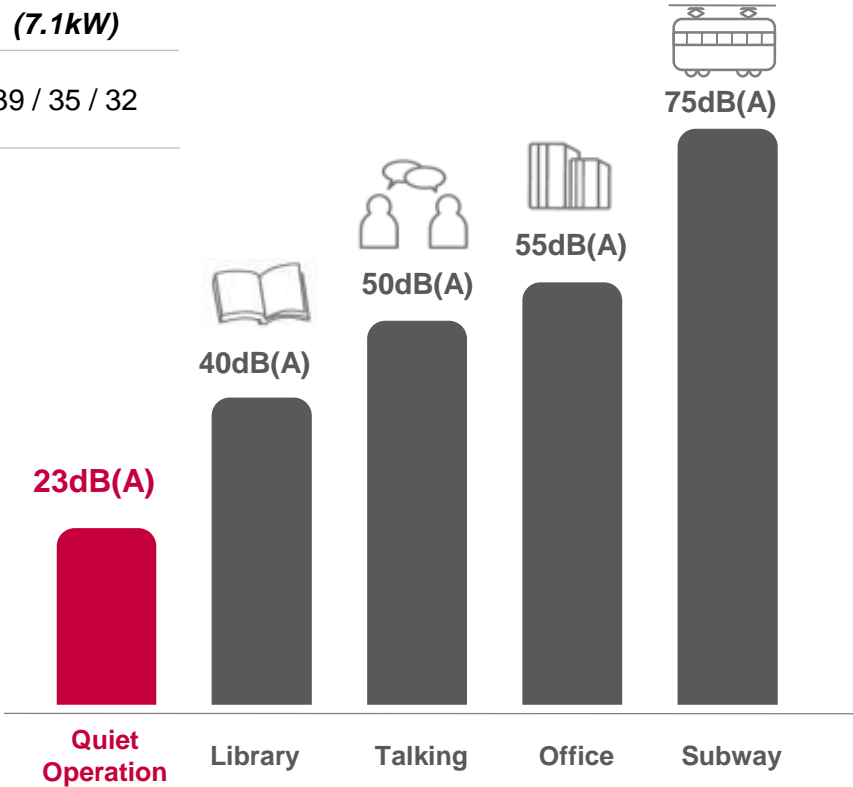
The noise level of low static ducts have been reduced, even though ESP has been increased.

Unit : dB(A)

<i>Low-static duct</i>	9kBtu/h (2.5kW)	12kBtu/h (3.5kW)	18kBtu/h (5.0kW)	24kBtu/h (7.1kW)
Sound Pressure (High / Medium / Low)	30 / 26 / 23	31 / 28 / 27	36 / 34 / 31	39 / 35 / 32

Unit : dB(A)

<i>Mid-static duct</i>	18kBtu/h (5.0kW)	24kBtu/h (7.1kW)
Sound Pressure (High / Medium / Low)	34 / 32 / 30	35 / 34 / 32

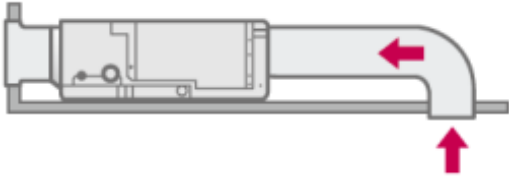


Flexible Installation

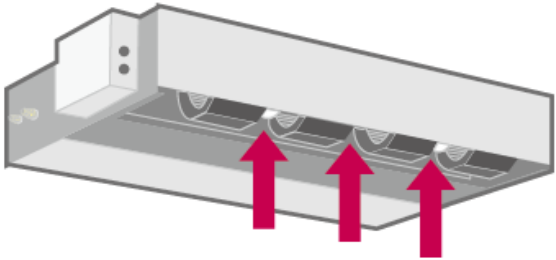
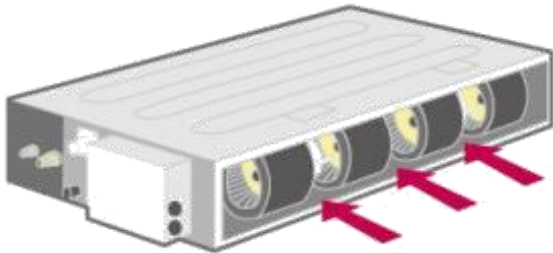
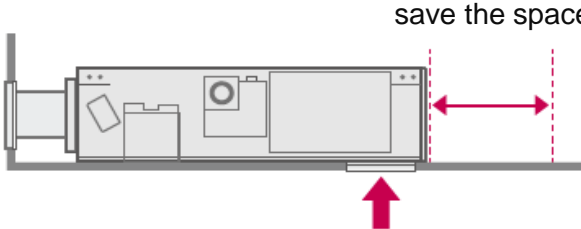
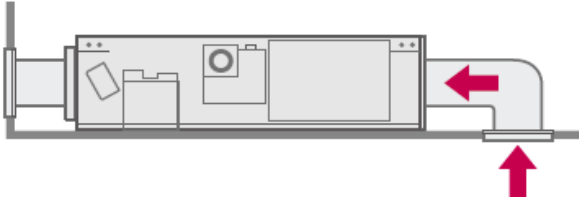
The new low static duct allows the air intake at the rear or bottom under installation condition.

Conventional

MULTISPLIT



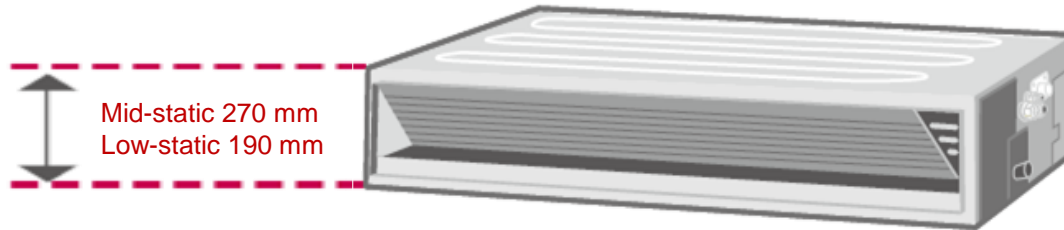
Only one way for air intake



Various way for air intake

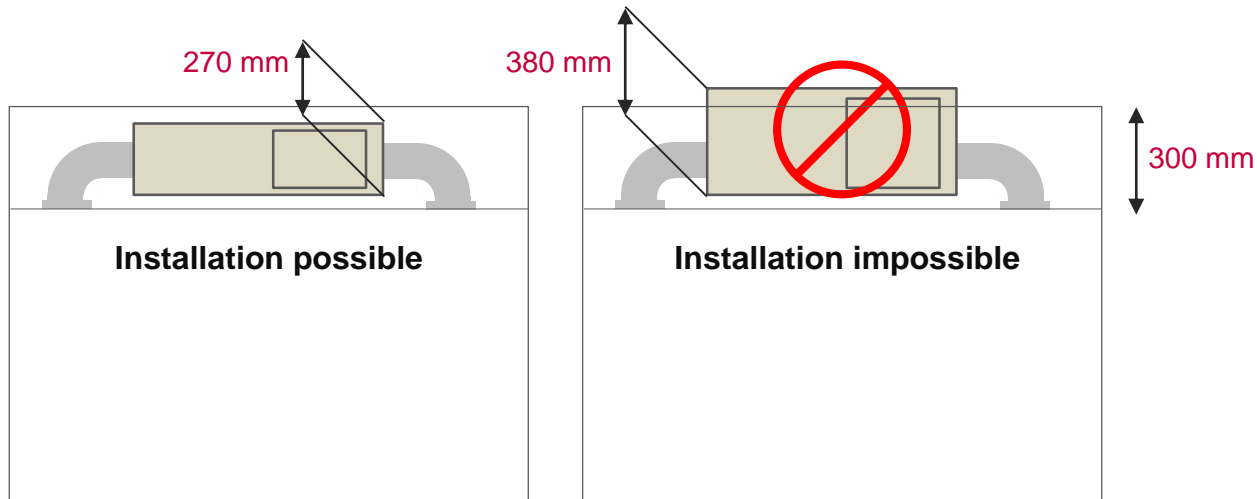
Minimized Height

The mid-static ducts provide ideal solution for installation in limited space.



* Applied to new mid-static duct

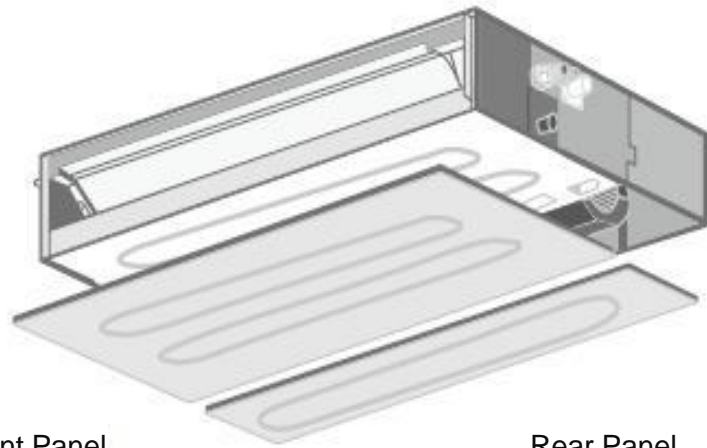
	LG	A Company
Low-static Duct	190 mm	200 mm



Users don't need to open whole panel for maintenance, since panel is divided into one for heat exchanger and one for fan/motor. Easily detach and attach the filter even in limited space.

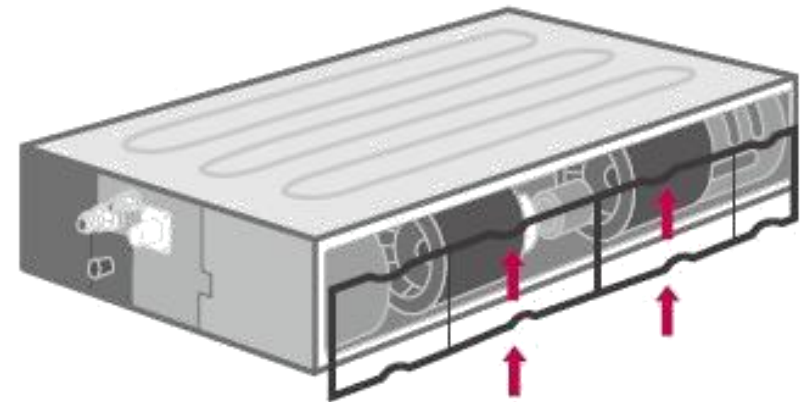
Easy Service Panel

Easy detach / attach Filter



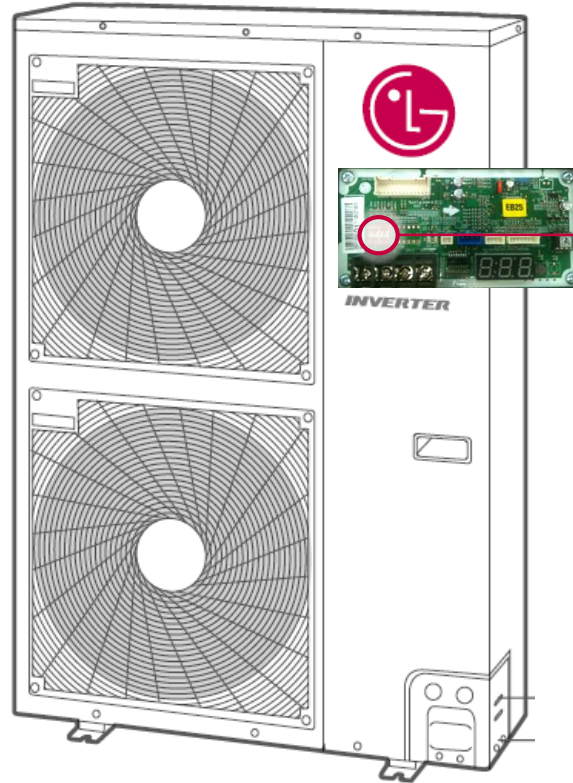
Front Panel
(Heat Exchanger)

Rear Panel
(Fan / Motor)



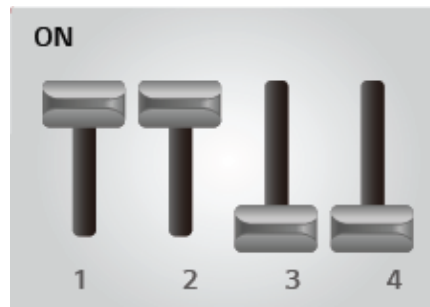
App.Mode Lock

Setting operation mode to either cooling-only or heating-only by adjusting dip switch, in order to prevent mixed use of cooling and heating.

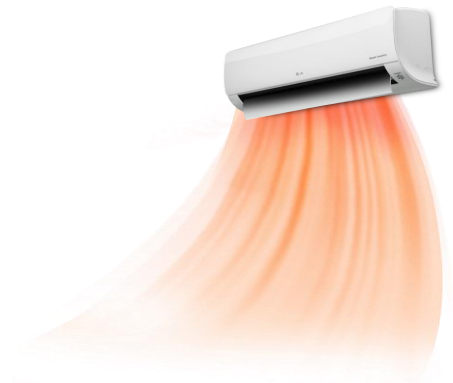
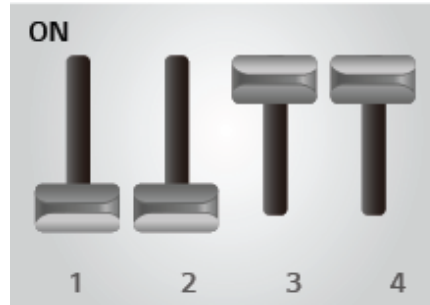


Dip Switch Setting

Cooling Only



Heating Only



* In some countries, government support incentive in case of using heating only.
If you use heating only mode, you can receive incentive from government.