powered by
DUAL Inverter Compressor™

What is the Dual Inverter Compressor?

A compressor is the heart of an air conditioner, and monitoring whether it works properly, effectively, or noisily can cause stress as well as cost money. LG's Dual Inverter Compressor provides an effective solution, resulting in an air conditioner that cools faster, lasts longer, and operates quieter than conventional models.

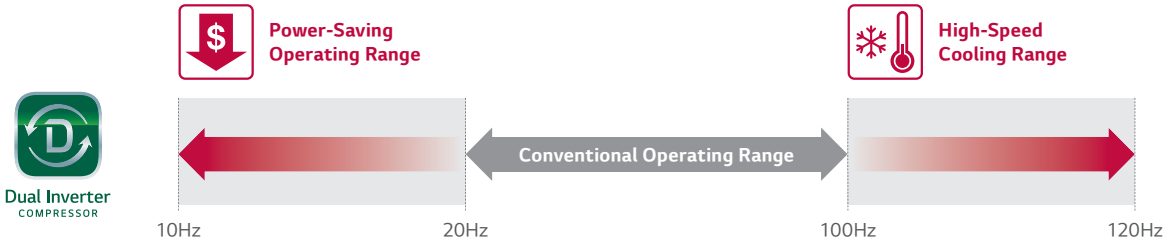
Product Reliability Improvement

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 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-friendly. 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.

How it Works

Utilizing a small amount of the R32 refrigerant also qualifies it to be a highly green efficient system.

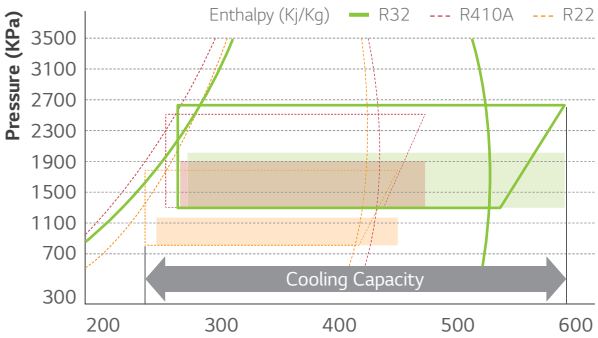
Alleviate Global Warming & Ozone Layer Destruction

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

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

High Compressibility

R32's high compressibility rate gives more powerful cooling performance and efficiency compared to existing refrigerant R22 and R410A.



UVnano™

New UV LED technology "UVnano" is applied to LG DUALCOOL, and it keeps the fan (inside of indoor unit) 99.99% bacteria-clean with ultraviolet light to ensure that the air passing through is clean too.

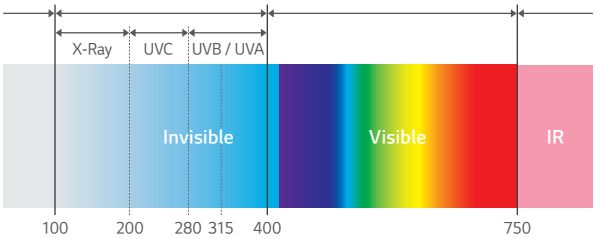
※ UVnano is an integrated marketing name that applies LG Electronics' entire home appliances and it is a compound of the words UV(ultraviolet) and nanometer (unit of length).

What is UVnano and How It Works?

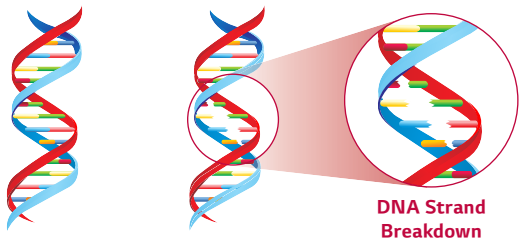
- Emit Ultraviolet rays of UVC wavelength directly damage the DNA of microorganisms (bacterial/MOLD/virus), making it impossible to multiply.
- High absorption into DNA at 260 to 270 nm wavelengths

DNA Absorption Efficiency by Wavelength

Electromagnetic Spectrum and Types



Destruction Nuclear Sequence (Chain)



Before irradiation After irradiation

Ultraviolet light is a form of radiation which is not visible to the human eye. It's in an invisible part of the "electromagnetic spectrum". Radiated energy, or radiation, is given off by many objects: a light bulb, a crackling fire, and stars are some examples of objects which emit radiation.

UVC Applied Product

LG Product

Humidifier Stand AC Water Purifier Refrigerator

Various Product Lines

Utensil Earbud Surgery Kit Air Cleaning Robot

Benefit & Verification

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

Test Result

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

TÜVRheinland®

※ Test Condition
- Test Model : S3NM12JL1GA(SJ), S3NM24K21GA(SK)
- Test Standard : LG test method with referenced to ISO 20743:2007
- Bacteria : Staphylococcus aureus, Staphylococcus epidermidis, Klebsiella pneumoniae

PERFECT HEALTHCARE

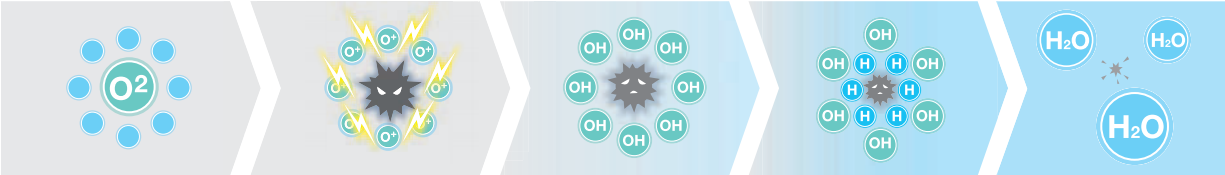
Plasmaster™ Ionizer+

The powerful Plasmaster Ionizer+ protects you from bad odors and Escherichia coli and Staphylococcus in the surface with over 3 million ions to Reduce to make a safer, and cleaner environment.

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

How It Works

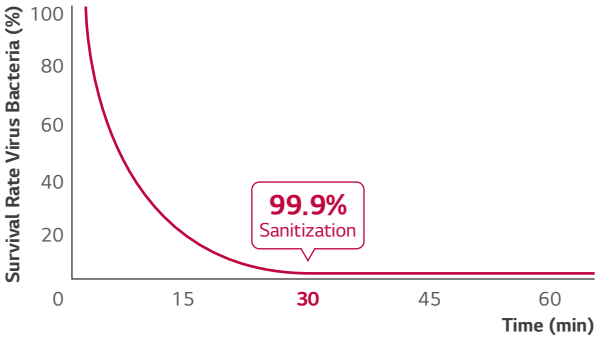
Reduction and Deodorization (Utilizes Over 3 Million Ions)
Plasmaster Ionizer+ reduces E.coli and Staphylococcus in the surface with over 3 million ions.



Ion Cluster Generation	Surrounding Harmful Substances	OH Radical Production	Chemical Reaction	Sterilization
Ions are released into air	H- and O- bond to harmful particles	OH radicles inactivate harmful substances	OH radicles bond with H particles	H_2O molecules are produced

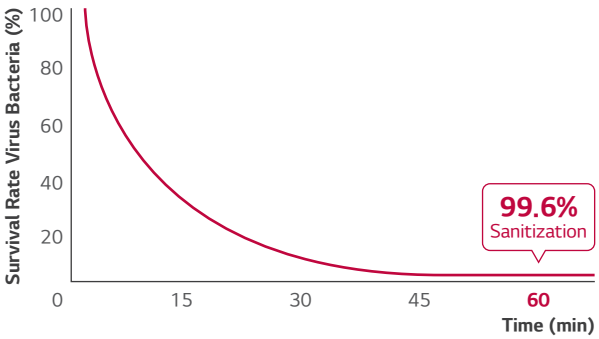
Test Result

Reduction Performance Evaluations
Reduce Bacteria E.coli over 99.9% in 30 min.



※ Test Conditions :
Space : 52m³ Chamber (measuring with the specimen in the center of test chamber)
Temperature & Humidity : Normal
Bacteria : E coil colon bacillus
Tested by Intertek

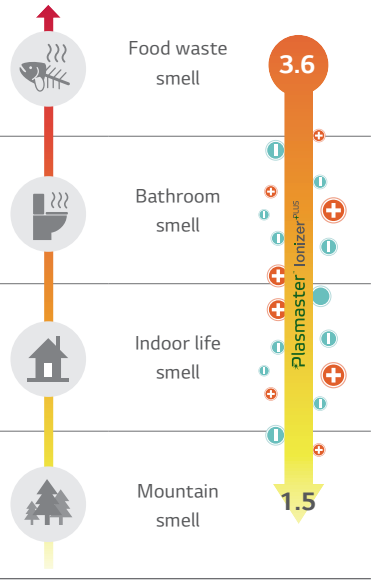
Sterilize staphylococcus over 99.6% in 60 min



※ Test Conditions :
Space : 52m³ Chamber (Measuring with the specimen in the center of test chamber)
Temperature & Humidity : Normal
Bacteria : Staphylococus Aureus
Tested by Intertek

Odor strength decrease in 60 minutes
An odor of measured as 2 European odor units (ouE/m³) or less indicates that the level of odor falls within permissible limits.

Odor strength level	Offensive odor substance sensitivity
4. Very Strong	Food waste smell
3. Strong	Bathroom smell
2. Moderate	Indoor life smell
1. Light	Mountain smell



Odor strength reduces from 3.6 to 1.5, to include airborn odor as well as that on the curtains, clothes and other similar materials.
※ Test conditions : Space : 8m³ Chamber
Temperature & Humidity : Normal
Tested by Intertek

PM 1.0 Auto Sensor

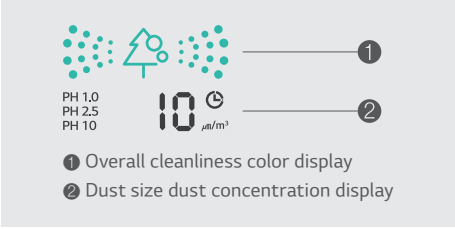
As AC turns on, PM 1.0 sensor automatically operates to capture and remove microscopic dust particles including ultra fine dust.

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

- AQI (Air Quality Index) is displayed in unit of 1 within 8~999 μg/m³.
- 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 (μg/m³)		
		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 10μm or less (Generated from workplace combustion, vehicle exhaust, etc.)
- Ultrafine Dust : Dust with particle size of 2.5μm or less (Composed of ion component, carbon compound, and metal compound)
- Super Ultrafine dust* : Dust with particle size of 1.0μm or less (Cigarette smoke, etc.)

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

* Minimum capturing size of particle : 0.02μm

※ PM : 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.

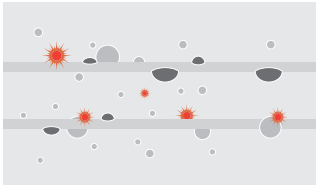
Pain Point

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.

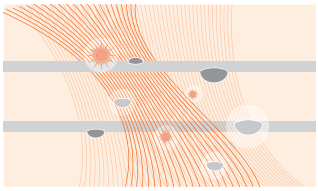
How It Works

Cleans Filter with Regular Air Flow

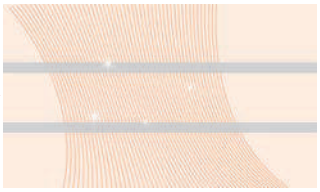
The comprehensive auto cleaning function prevents the formation of bacteria and mold on the heat exchanger, providing an enhanced environment.



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.

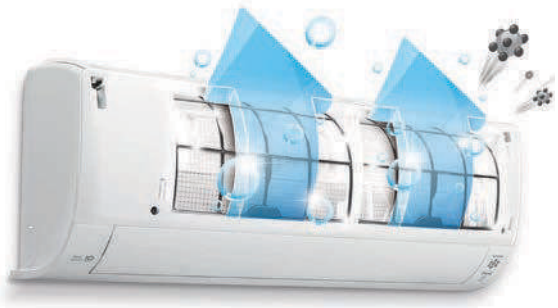


By preventing polluting of the heat exchanger caused by various germs and bacteria.

Benefit

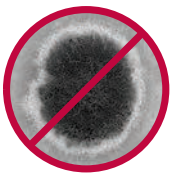
Removes Harmful Particles

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



Bacteria Prevention

Odor Prevention



Mold Prevention

Embedded Wi-Fi

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

LG ThinQ

LG ThinQ

Download the LG ThinQ app from Google or Apple app stores.

ANDROID iOS

How it Works

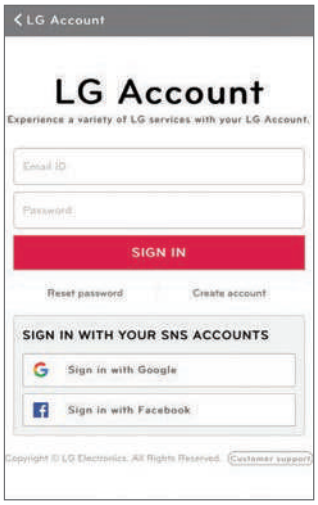
Embedded Wi-Fi modem

Enable "LG ThinQ" on your air conditioner.

By using the embedded Wi-Fi modem, get ready for innovation without boundaries.

Easy Registration and Log-in

Follow the interactive set-up LG Account steps that will activate LG 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

Energy Monitoring | Smart Diagnosis | Filter Management

Integrated Home Appliances Control

Monitor and control your LG appliances from one place.

Straight-forward management

Reservation | Energy Monitoring | Smart Diagnosis | Filter Management

Access your air conditioner anytime and from anywhere

with a Wi-Fi equipped device and LG's exclusive control app, LG ThinQ.

ARTCOOL GALLERY

Wi-Fi

R32

Voice Control | Embedded Wi-Fi | Auto Cleaning | Gold Fin™ | 3 Way Swing | Jet Cool | Fast

Dual Inverter COMPRESSOR

EUROVENT CERTIFIED PERFORMANCE www.eurovent-certification.com

LG participates in the ECP programme for EUROVENT VRF program.
Check ongoing validity of certification : www.eurovent-certification.com

Single Combination

UNIT				9K	12K
INDOOR				**A09FT NSF**	**A12FT NSF**
Capacity	Cooling	Min. / Rated / Max.	kW	0.89 / 2.50 / 3.70	0.89 / 3.50 / 4.04
	Heating	Min. / Rated / Max.	kW	0.89 / 3.30 / 4.10	0.89 / 4.00 / 5.10
	Heating -7°C	Rated	kW	3.20	3.50
Power Input	Cooling / Heating	Rated	W	658 / 831	1,050 / 1,108
EER			W/W	3.80	3.33
S.E.E.R.				6.80	6.60
P design C			kW	2.50	3.50
COP			W/W	3.97	3.61
S.C.O.P		(Average / Warmer)		4.00 / 4.60	4.00 / 4.60
P design H (Average / Warmer)			kW	2.70 / 1.50	2.70 / 1.50
Energy Label (A+++ to D Scale)	Cooling			A++	A++
	Heating	(Average / Warmer)		A+ / A++	A+ / A++
Annual Energy Consumption	Cooling		kWh	129	186
	Heating	(Average / Warmer)	kWh	945 / 457	945 / 457
Sound Pressure	Cooling	S / L / M / H	dB(A)	27 / 35 / 39 / 45	27 / 35 / 39 / 45
	Heating	L / M / H	dB(A)	35 / 39 / 45	35 / 39 / 45
Sound Power	Cooling		dB(A)	60	60
Air Flow Rate	Cooling	S / L / M / H / Max. (Power)	m^3/min	6.0 / 7.6 / 9.0 / 10.0	6.0 / 7.6 / 9.0 / 10.0
	Heating	L / M / H	m^3/min	6.1 / 7.8 / 9.3	6.1 / 7.8 / 9.3
Dehumidification Rate			l/h	1.1	1.3
Running Current	Cooling	Min. / Rated / Max.	A	1.10 / 3.20 / 6.00	1.10 / 4.90 / 6.00
	Heating	Min. / Rated / Max.	A	1.10 / 4.10 / 7.00	1.10 / 5.10 / 7.00
Starting Current	Cooling / Heating	Rated	A	3.20 / 4.10	4.90 / 5.10
Power Supply			Ø / V / Hz	1 / 220-240 / 50	1 / 220-240 / 50
Circuit Breaker			A	15	15
Power Supply Cable			N x mm^2	3 x 1.0	3 x 1.0
Power & Transmission Cable			N x mm^2	4 x 1.0 (Including Earth)	4 x 1.0 (Including Earth)
Dimension			mm	600 x 600 x 146	600 x 600 x 146
Net Weight			kg	14.4	14.4
Fan Motor Output			W	16.7	16.7
OUTDOOR				**A09FT UL2**	**A12FT UL2**
Operation Range	Cooling	Min. / Max.	°C DB	-15 / 48	-15 / 48
	Heating	Min. / Max.	°C DB	-10 / 24	-10 / 24
Sound Pressure	Cooling / Heating	High	dB(A)	51 / 51	51 / 51
Sound Power	Cooling	High	dB(A)	65	65
Air Flow Rate		High	m^3/min	35	35
Piping	Liquid (ODU / IDU)	Min. / Max.	m	3 / 20	3 / 20
	Elevation (ODU / IDU)	Min. / Max.	m	10	10
Piping Connection	Liquid	OD (Outside)	mm (inch)	6.35 (1/4)	6.35 (1/4)
	Gas	OD (Outside)	mm (inch)	9.52 (3/8)	9.52 (3/8)
Drain Hose Size		OD (Outside)	mm (inch)	21.5 (27/32)	21.5 (27/32)
Refrigerant	Type			R32	R32
	Charge at 7.5m		kg	0.800	0.800
			t-CO_2 eq	0.540	0.540
	Additional Charge		g/m	20	20
	GWP			675	675
Fan Motor Output			W	43	43
Compressor Type				Inverter Twin Rotary	Inverter Twin Rotary
Net Weight			kg	34.4	34.4
Dimension			mm	770 x 545 x 288	770 x 545 x 288
ACCESSORIES & OTHERS					
Multi Compatible				-	-
PI 485				Y	Y
Dry Contact				Y	Y
Wired Remote Controller				-	-

※ This product contains Fluorinated greenhouse gases (R32).
※ S : Sleep / L : Low / M : Medium / H : High
※ GWP : Global warming potential
※ t-CO_2eq : F-gas(kg)*GWP/1000
※ Specification, design and feature are subject to change without prior notice.

Megaclima
DESDE 1993

30 Anos na climatização e tratamento de ar

video 2"

Apresentação Megaclima

video 7"

Por dentro da Megaclima

Delegação de Lisboa
Tel: 219 151 792
lisboa@megaclima.pt

Delegação de Queluz
Tel: 21 925 00 28
queluz@megaclima.pt

Serviços Centrais
Rua Francisco Ribeirinho, 28
Centro Empresarial Abrunheira – Escritório 11
Abrunheira 2710-736 Sintra
Tel:219 253 300
www.megaclima.pt
geral@megaclima.pt