



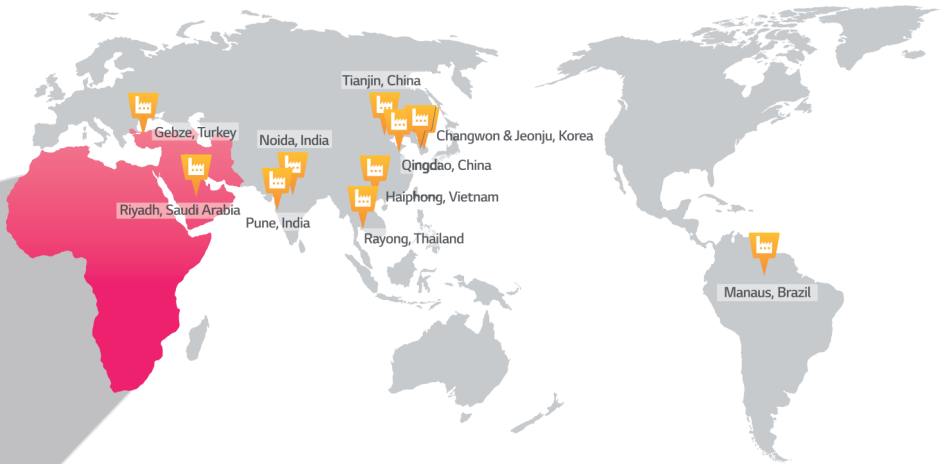
COMMERCIAL AIR CONDITIONERS

# COMMERCIAL AIR CONDITIONERS

**LG HVAC  
SOLUTION**



# GLOBAL PRODUCTION SITE



LG Electronics products sold in Middle East and Africa 'Made in Korea' (except for ceiling suspended unit).

## TOTAL HVAC SOLUTION PROVIDER


Ever since manufacturing Korea's first home grown air conditioner in 1968, LG has remained at the forefront of air conditioning innovation. LG has been the world's top selling manufacturer of residential air conditioning solutions. In 2008, LG achieved to sell the total of more than 100 million air conditioners. Building on its success and technological leadership in the residential air conditioning sector, LG has moved into system air conditioning as well.


The company's range of high performance system air conditioning products provide effective temperature control to large-scale buildings and facilities. Overtime, LG has evolved into the total HVAC and energy solution provider, investing in new technologies and adding chillers, VR<sup>2</sup> systems, and building management systems (BMS) into its comprehensive product portfolio. Along with a wide range of innovative solutions, LG delivers unrivalled customer service.


The company produces top-notch air conditioning professionals at its academies, of which there are nearly 80 worldwide. These centers of excellence provide workshops and training programs that offer invaluable hands-on experience. LG also provides useful tools for HVAC system engineers and installers, including its time saving LG Air Conditioner Technical Solution(LATS) software. Additionally, LG operates several state-of-the-art R&D facilities all across the planet.


One such facility is the Energy Lab, a purpose-built R&D and testing center in northern France. Helping to keep the company ahead of the competition, the scientists and engineers at the Energy Lab study the effects of different environmental conditions on LG's products. This in-depth research and analysis enables LG to tailor its solutions to the specific environmental demands of each individual market. Combining the best technologies with the best ideas, LG's high quality products are now enjoyed by customers in over 100 countries.

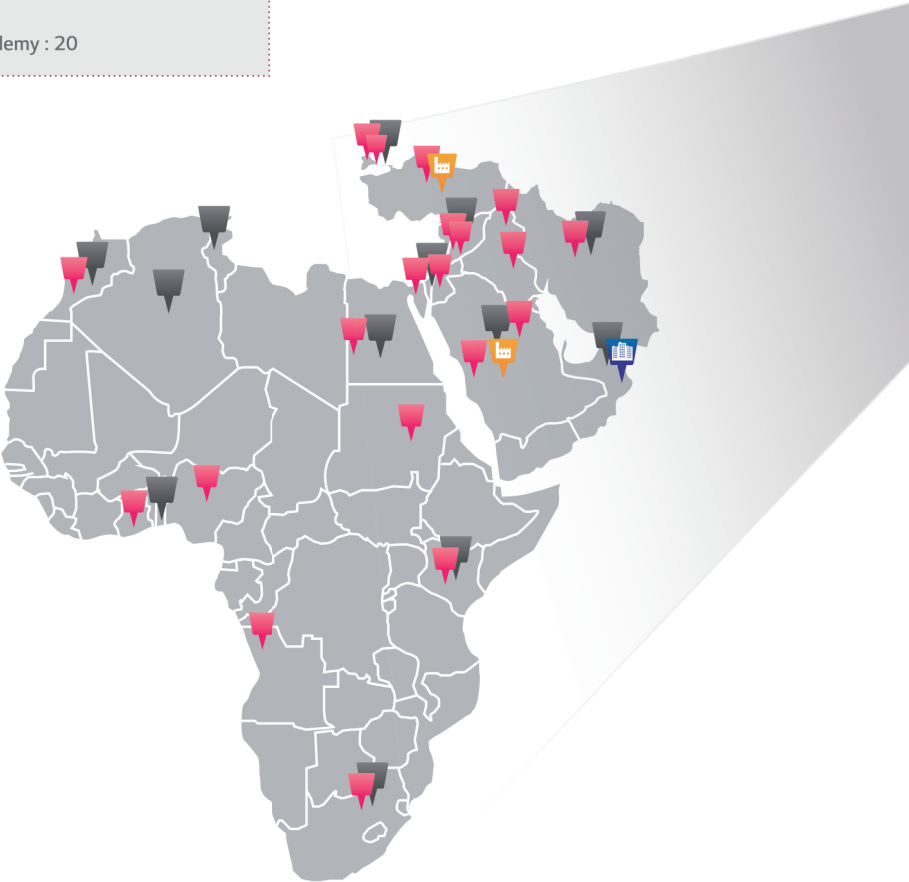
# MIDDLE EAST/AFRICA INFRASTRUCTURE

 MEA B2B Regional Head office : 1

 Producing Center : 2

 Sales Office : 13

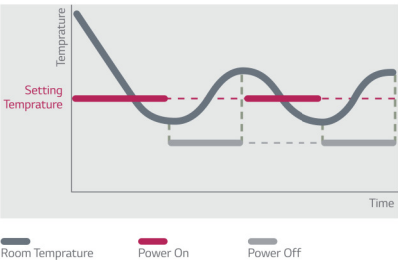
 Academy : 20



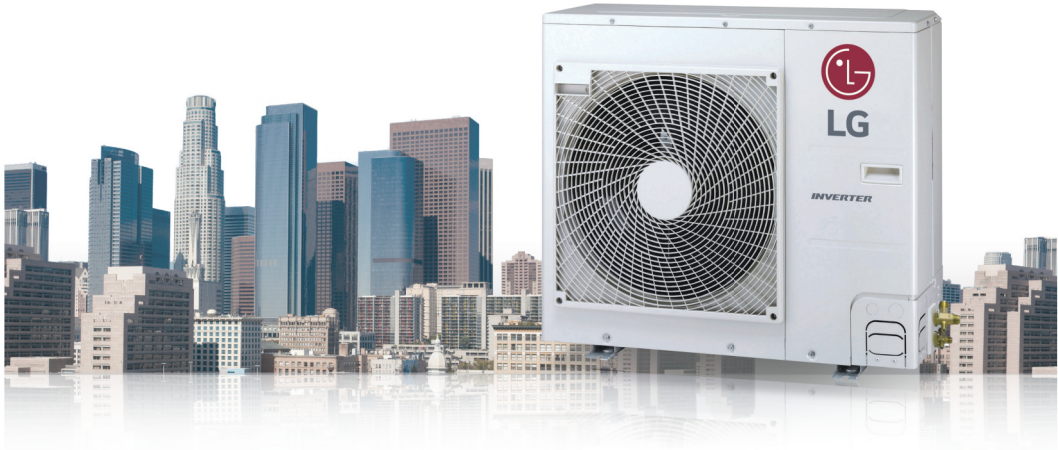
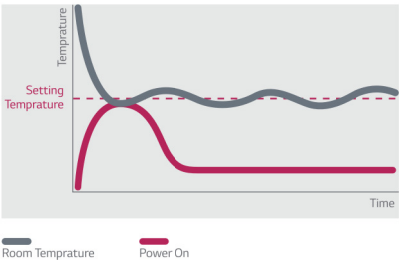
# COMFORTABLE OPERATION

Once the desired temperature is achieved, unlike conventional air conditioners that turn the compressor on and off, LG inverter units adjust and constantly vary the compressor speed to maintain the desired temperature with minimal fluctuation to ensure that your comfort is not compromised.

Conventional



LG Inverter





# Why LG Commercial Air Conditioners

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## LG INVERTER TECHNOLOGY CUTS POWER CONSUMPTION

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LG has taken the initiative to develop new, highly efficient, inverter technology. In addition to consuming less electricity, the company's advanced inverter systems have powerful performance and enhanced reliability.

A clear illustration of how innovative technology can make a real difference, LG's Inverter compressor provides a welcome reduction in power usage (up to 25%) and operational costs. Designed for commercial spaces, such as offices and retail stores, the new model offers effective comfort, greater endurance and exceptional seasonal energy efficiency.

# INVERTER SINGLE SPLIT



# INVERTER SINGLE SPLIT

## Line-Up

### Cooling Only

#### CEILING CASSETTE

		 	 	 	 	 	 
kBtu / kW	18 / 5.3	24 / 7.0	28 / 8.2	34 / 10.0	46 / 13.5	54 / 15.8	
Indoor Model Name	ATNQ18GPLT0	ATNQ24GNLT0	ATNQ30GNLT0	ATNQ36GMLT0	ATNQ48GMLT0	ATNQ54GMLT0	
Outdoor Model Name	ATUQ18GPLT0	ATUQ24GNLT0	ATUQ30GNLT0	ATUQ36GMLT0	ATUQ48GMLT0	ATUQ54GMLT0	

#### CEILING CONCEALED DUCT (MIDDLE STATIC)

		 	 	 	 	 	 
kBtu / kW	18 / 5.3	24 / 7.0	28 / 8.2	34 / 10.0	46 / 13.5	54 / 15.8	
Indoor Model Name	ABINQ18GM1T0	ABINQ24GM1T0	ABINQ30GM1T0	ABINQ36GM3T0	ABINQ48LM3T0	ABINQ54LM3T0	
Outdoor Model Name	ABUQ18GM1T0	ABUQ24GM1T0	ABUQ30GM1T0	ABUQ36GM3T0	ABUQ48LM3T0	ABUQ54LM3T0	

## CEILING SUSPENDED

								
								
kBtu / kW		18 / 5.3	24 / 7.0	28 / 8.2	34 / 10.0	46 / 13.5	54 / 15.8	
Indoor Model Name		AVNQ18GLT0	AVNQ24GKLT0	AVNQ30GKLT0	AVNQ36GLLT0	AVNQ48GLLT0	AVNQ54GLLT0	
Outdoor Model Name		AVUQ18GLT0	AVUQ24GKLT0	AVUQ30GKLT0	AVUQ36GLLT0	AVUQ48GLLT0	AVUQ54GLLT0	

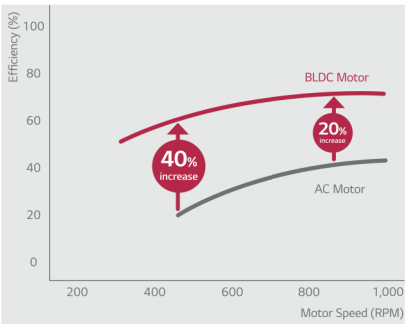
## SINGLE PACKAGE

						
Capacity		3 RT	4 RT	5 RT	20 RT	23 RT
Model Name		AK-Q036GH50	AK-Q048GH50	AK-Q060GH50	AK-Q2408C01	AK-Q3008C01

# ENERGY EFFICIENCY

## BLDC Fan Motor

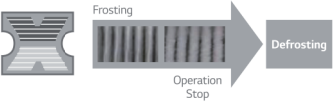
The BLDC Fan motor is more efficient than a conventional AC motor, offering an additional 40% energy savings at low speeds and 20% at high speeds.



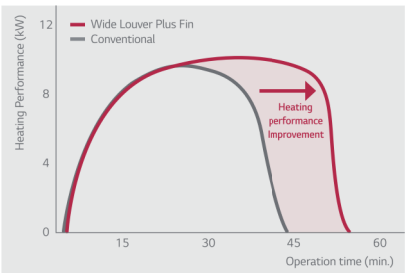
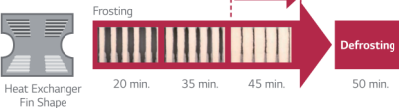
## Wide Louver Plus Fin

Wide Louver Plus fin technology increases 11% of full load heating performance and 6% of COP compared to conventional fin. It can slow down frosting of heat exchanger and postpone the start of defrosting operation.

### Conventional



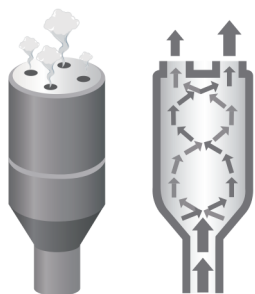
### Wide Louver Plus



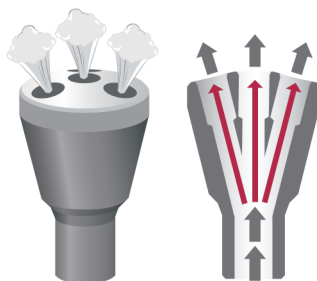
## Optimised Heat Exchanger Path

Optimised heat exchanger path improved cycle efficiency up to 5%.

**Conventional**  
Unequal Distribution



**New**  
Equal Distribution






# PERFORMANCE

## Quick Operating Response

**Conventional**



Temperature Sensor Only

**Step 1**

Sensing current temperature of refrigerant, indoor and outdoor temperature


**Step 2**

Estimating Pressure

Finding recorded target pressure to operate compressor, based on the corresponding temperature data

This algorithm is more likely to be impacted by temperature change and it takes more time to calculate proper operation range of compressor to target point.

**LG Inverter**



Temperature Sensor    Pressure Sensor

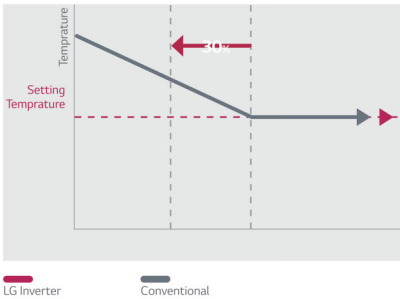
**Step 1**

Sensing refrigerant pressure and temperature simultaneously to make sure compressor ready for target cooling operation

This ensures to reach target: performance point without failing to keep a reliable operation.

## Shorten Time to Reach Setting Temperature

It takes up to 30% less time to reach the desired temperature with a high level of accuracy and stability.



## High Ambient Operation

More accurate control of compressor operation from pressure sensing mechanism ensures stable performance against extreme outdoor conditions.

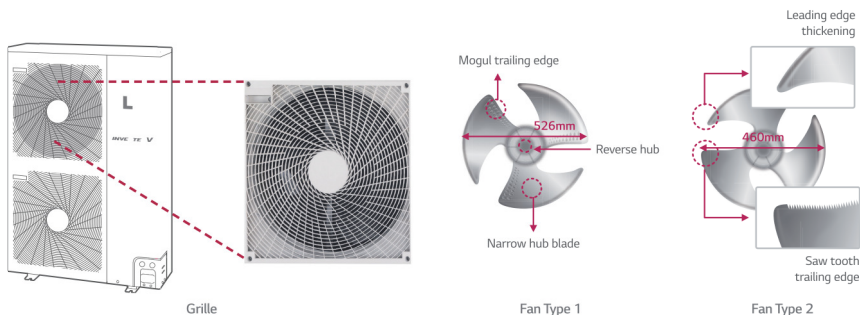
Cooling Operation Range: 0°C ~ 54°C



# QUIET OPERATION

## Improved Grille & Fan

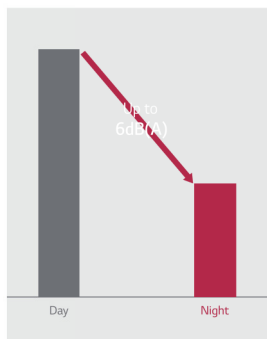
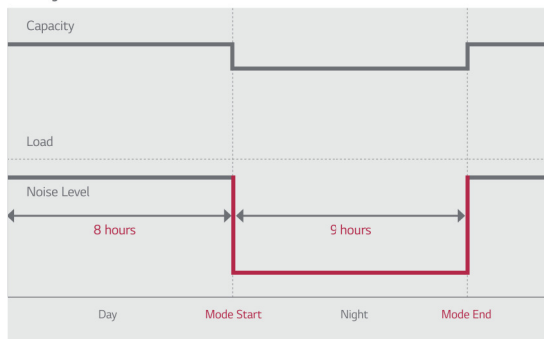
The new grille shape design on the outdoor unit helps to disperse air more efficiently which improves heat exchange and reduces noise level. The new axial Fan has a thick front edge and smooth rear edge, this provides a high efficiency, low noise, wide fan, as well as improving the air flow rate.



## Night Silent Operation

Night silent operation can reduce noise levels at night time by simply setting the dip switch on the PCB of the outdoor unit.

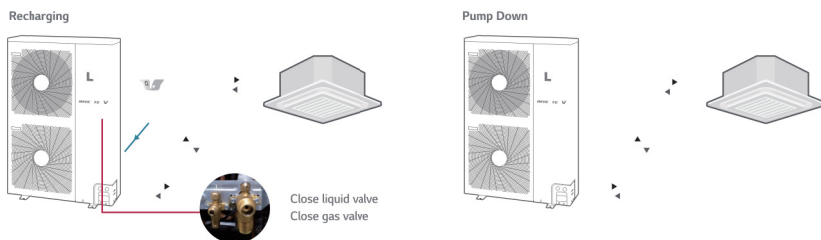
### • Cooling Mode



# CONVENIENCE

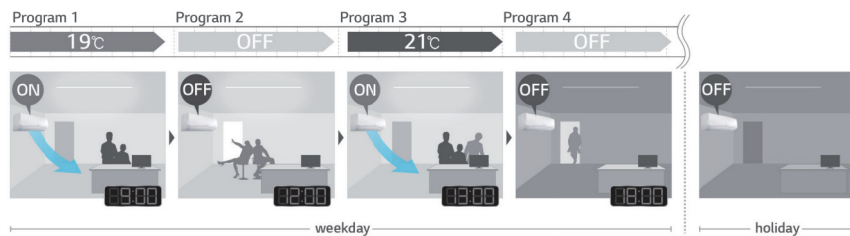
## Forced Cooling Operation

The forced cooling operation allows refrigerant to be recharged or pumped down, regardless of the indoor temperature. More importantly this function can be used when indoor units are being moved or repaired.



## Weekly Program

You can set up 2 reservations for one day, and up to 14 reservations for a week.





## LG Electronics

<http://www.lg.com> <http://partner.lge.com>

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### LG Distributor in UAE



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The air conditioners manufactured by LG have received ISO9001 certificate for quality assurance and ISO14001 certificate for environmental management system.