Saudi Arabia

2022 LG INVERTER
DIRECT DRIVE PACKAGE

LG | Business Solutions

LG Electronics

http://lge.com
http://partner.lge.com
http://lghvacstory.com

Distribute by :

Copyright © 2022 LG Electronics. All rights reserved.

LG | Business Solutions

Saudi Arabia

2022 LG INVERTER
DIRECT DRIVE PACKAGE

LG Business Solutions

LG Electronics

http://lge.com
http://partner.lge.com
http://lghvacstory.com

Distribute by :

Copyright © 2022 LG Electronics. All rights reserved.

LG Business Solutions

WHY
LG INVERTER
DIRECT DRIVE PACKAGE?

NEW

WORLD TOP LEVEL EFFICIENCY
7.5 ~25RT COOLING & HEATING

LG launches the world top level efficiency
Inverter Single package

NEW

CONVENIENCE

Direct drive fan motor
Easy set-up method (by ESP function)

NEW

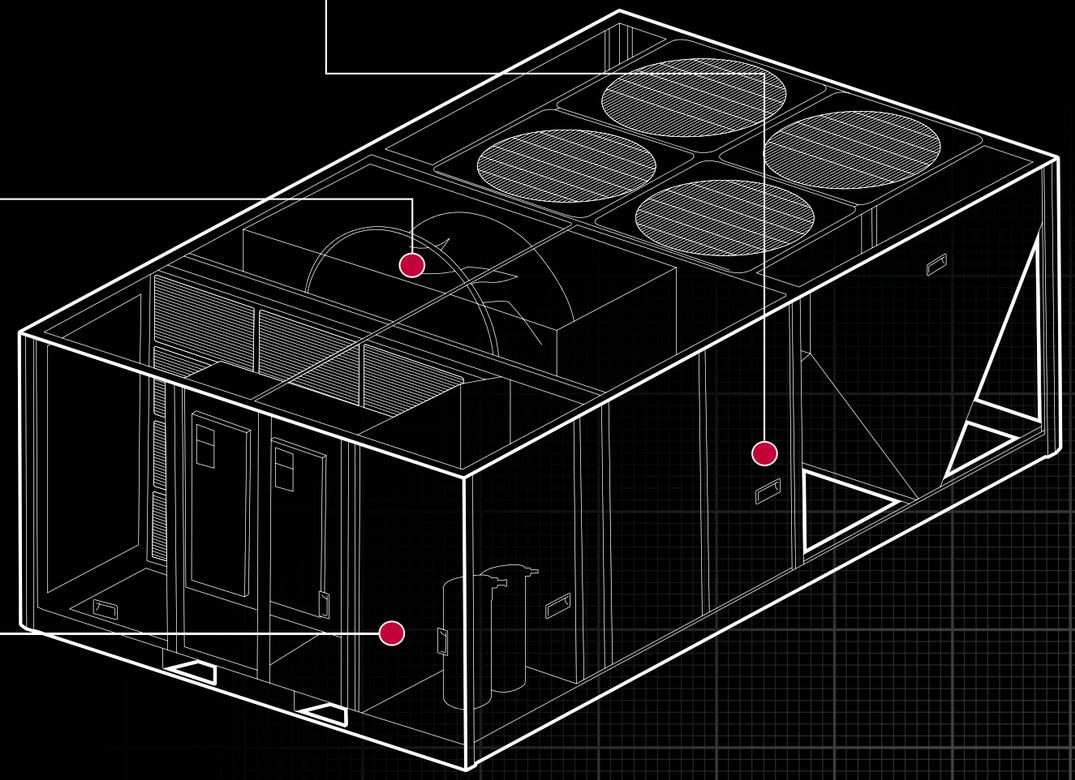
ULTIMATE PERFORMANCE

Superior efficient ultimate inverter compressor
Applied BLDC motors for all fans
Superior level IEER 18.3 (25RT) & 19.0 (20RT)

NEW

EASY ACCESS

Hinged doors made it easy
to service components
3rd party compatible 2 inch filter



DIRECT DRIVE PACKAGE

		Main Building Type	
Cooling Only	3 / 4 / 5RT	 Residence	 Retail Store
	7.5 / 10RT	 Restaurant	 Theater
Cooling & Heating	12.5 / 15RT	 Warehouse	 Super Market
	20 / 25RT	 Shopping Mall	 Industrial Facility

Ø, V, Hz			
1, 220 ~ 240, 50 / 1, 220, 60	3, 220 ~ 240, 50/60	3, 380 ~ 415, 50/60	3, 460, 60
 AK-Q036GH50, AK-Q036GD50 AK-Q048GH50, AK-Q048GD50 AK-Q060GH50, AK-Q060GD50			
	 AK-W090BC00 AK-W120BC00	 AK-W090LC00[1)] AK-W120LC00[1)]	
	 AK-W150BC00 AK-W180BC00	 AK-W150LC00[1)] AK-W180LC00[1)]	
	 AK-W240BC00 AK-W300BC00	 AK-W240LC00 AK-W300LC00	 AK-W240DC00 AK-W300DC00

1) Development and AHRI certification are scheduled by July, '21

Economizer [PKEMD1CA0]

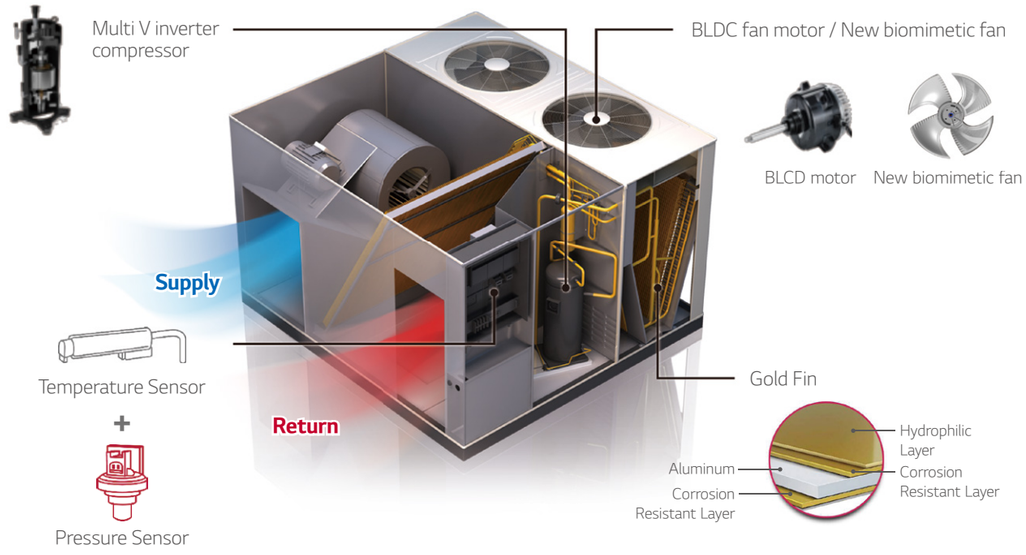
* Economizer can be used from 7.5 to 25 tons.

SUPERIOR EFFICIENCY

World Top level IEER
Superior Partial Load Efficiency
Energy Savings with Linear Control
Superior Efficiency Cooling & Heating
Annual Energy Savings Estimation
Payback
Dual Sensing Control

ADVANCED KEY COMPONENTS FOR HIGH ENERGY EFFICIENCY

High energy efficiency with LG's cutting-edge core components and Inverter leading technology.

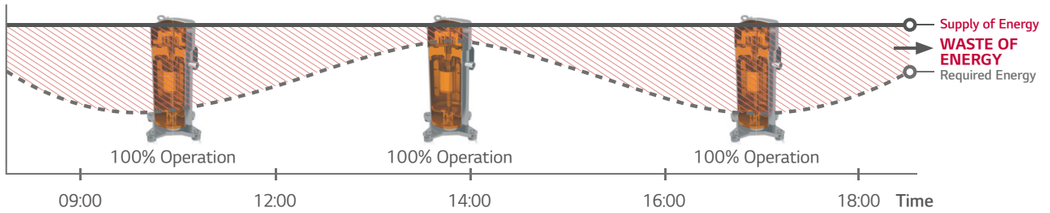


EXCELLENT PARTIAL LOAD EFFICIENCY

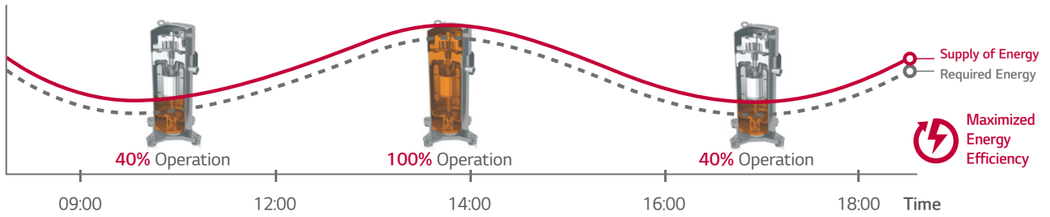
Inverter compressor maximizes energy efficiency through adjusting energy supply as required.

Energy saving concept comparison

Constant Speed Compressor



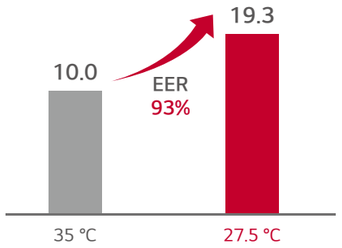
Inverter Compressor

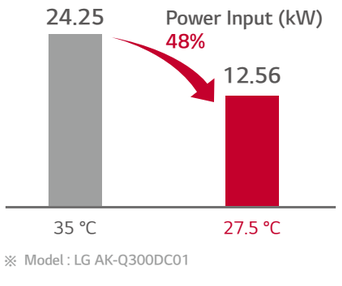


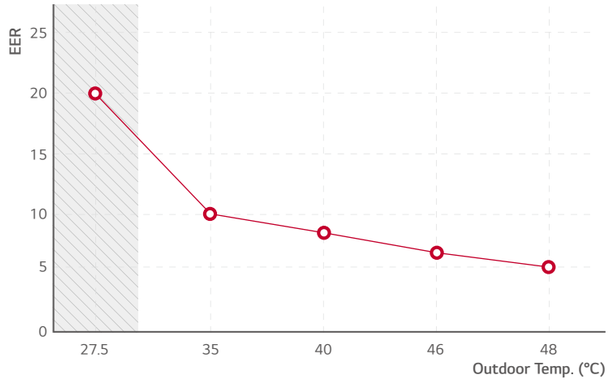
SUPERIOR EFFICIENCY

ANNUAL ENERGY SAVINGS

Target low pressure will be adjusted according to cooling load. LG provides energy saving by preventing On / Off operation with inverter technology.





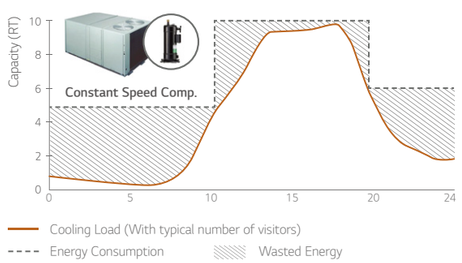
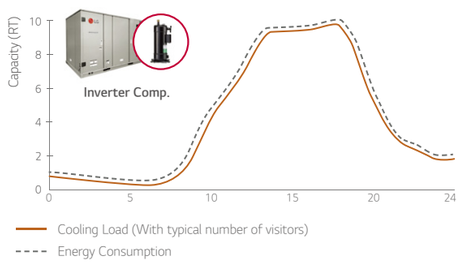
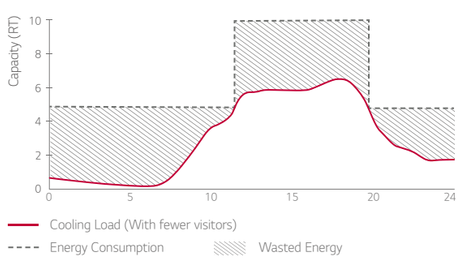
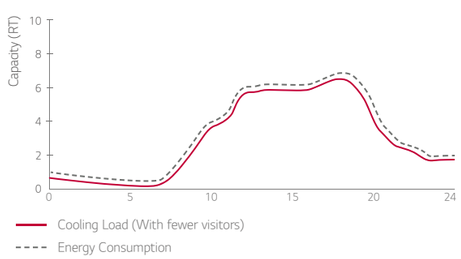


Outdoor Temp. (°C)	27.5	35	40	46	48
EER	19.3	10.0	8.0	6.4	5.9
Power Input (kW)	12.56	24.25	30.12	35.98	37.1

※ Model : LG AK-Q300DC01

ELECTRICITY COST SAVING

During low Demand Periods, customers can save electricity costs because LG Inverter Compressors can match the actual capacity needed without overcooling the spece.

	CONVENTIONAL (CONSTANT SPEED COMPRESSOR)	LG SINGLE PACKAGE (INVERTER COMPRESSOR)
	- Wasted electricity cost with constant speed compressors	- Electricity cost saving with inverter compressors
Cooling Load with Typical Number of Visitors		
Cooling Load with Fewer Visitors		

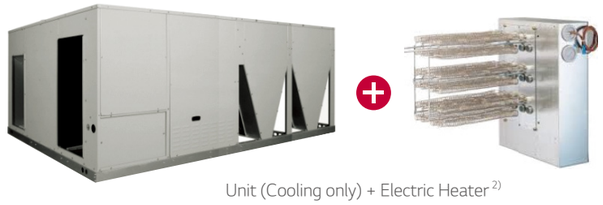
SUPERIOR EFFICIENCY HEAT PUMP

New inverter single package provides both heating and cooling while saving energy.

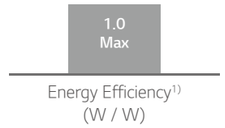
CONVENTIONAL

- Superior initial investment cost by installing electric heater for heating
- Superior electricity charges by auxiliary device

Additional Cost
(About 5% of product price)



Unit (Cooling only) + Electric Heater [2]



Energy Efficiency[1]
(W / W)

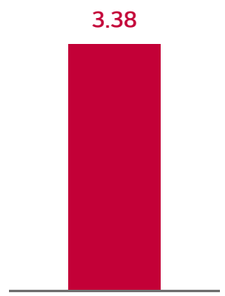
1) Energy efficiency is based on the following conditions :
- Indoor Temp. 21.1°C (70°F) DB / 15.6°C (60°F) WB
- Outdoor Temp. 8.3°C (47°F) DB / 6.1°C (43°F) WB

2) Specification : 25kW / 460V / 3Ø / 60Hz

NEW INVERTER

- No additional investment due to no need for heater installation for heating
- Annual energy savings with superior efficiency heat pump system

Unit (Heat pump)



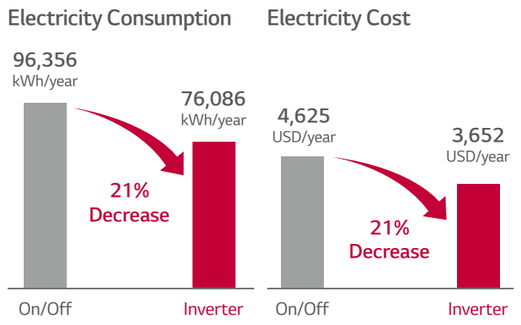
Energy Efficiency[1]
(W / W)

※ This result can be different depending on actual environment
(In regions with low load condition, the efficiency of H/P product is higher.)

SUPERIOR EFFICIENCY

ANNUAL ENERGY SAVINGS ESTIMATION (KSA, RIYADH)

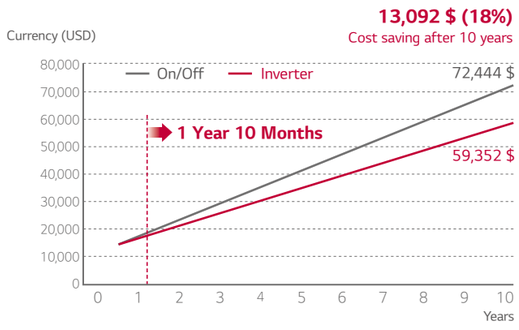
Electricity consumption are expected to decline by 21 % compared to on/off model.



▶ Electric charges : 0.048 USD/kWh
(It may vary by region)

PAYBACK (KSA, RIYADH)

If you purchase the LG smart inverter, You can get back your investment cost after 1 year 10 months.

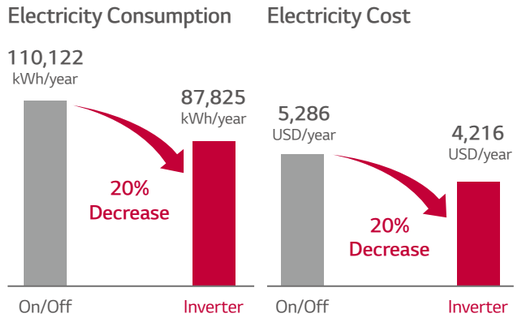


[Condition]
- Capacity : 20RT Single Package
- Operation time : 24 hours
- Cooling partial load and power consumption calculated based on yearly weather data (target indoor temperature : 24°C)

* This result can be different depending on actual environment

ANNUAL ENERGY SAVINGS ESTIMATION (KSA, JEDDAH)

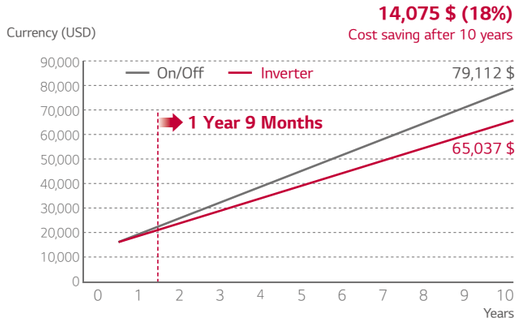
Electricity consumption are expected to decline by 20 % compared to on/off model.



▶ Electric charges : 0.048 USD/kWh
(It may vary by region)

PAYBACK (KSA, JEDDAH)

If you purchase the LG smart inverter, You can get back your investment cost after 1 year 9 months.

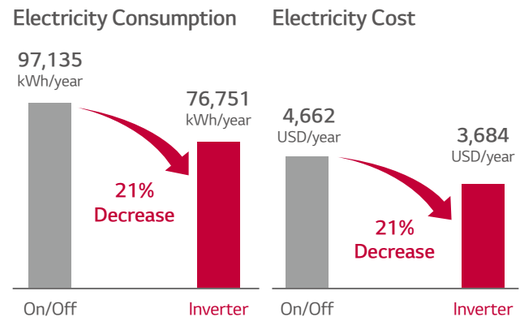


[Condition]
- Capacity : 20RT Single Package
- Operation time : 24 hours
- Cooling partial load and power consumption calculated based on yearly weather data (target indoor temperature : 24°C)

* This result can be different depending on actual environment

ANNUAL ENERGY SAVINGS ESTIMATION (KSA, DAMMAM)

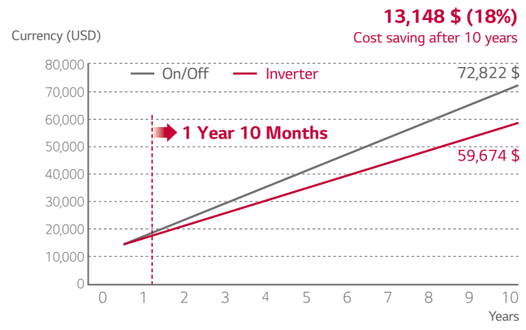
Electricity consumption are expected to decline by 21 % compared to on/off model.



▶ Electric charges : 0.048 USD/kWh
(It may vary by region)

PAYBACK (KSA, DAMMAM)

If you purchase the LG smart inverter, You can get back your investment cost after 1 year 10 months.



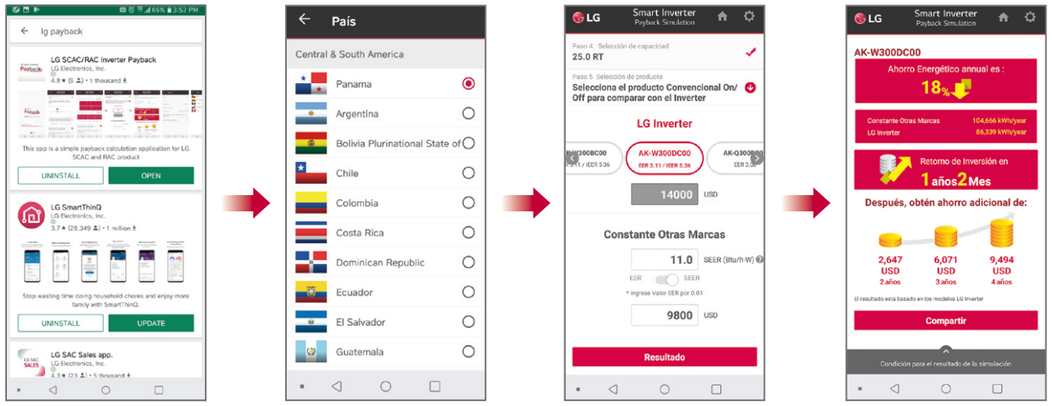
[Condition]
- Capacity : 20RT Single Package
- Operation time : 24 hours
- Cooling partial load and power consumption calculated based on yearly weather data (target indoor temperature : 24°C)

* This result can be different depending on actual environment

SUPERIOR EFFICIENCY

APPLICATION – LG INVERTER PAYBACK APP

You can easily simulate on mobile via payback app. (Install "LG SCAC / RAC Inverter Payback")



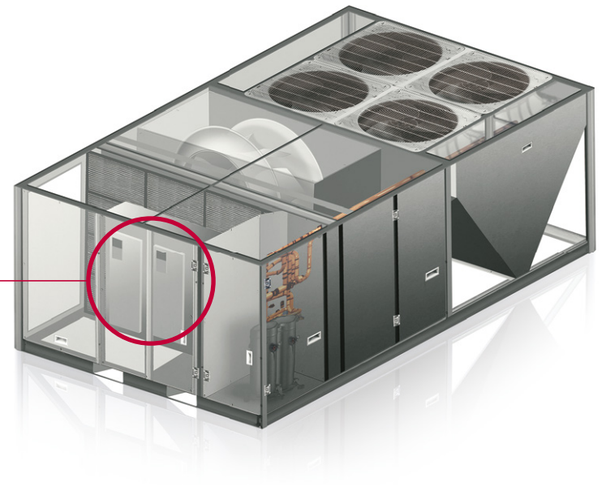
DUAL SENSING CONTROL

New model can be operated by dual sensors for comfort and efficient operation. (Temperature & Humidity)

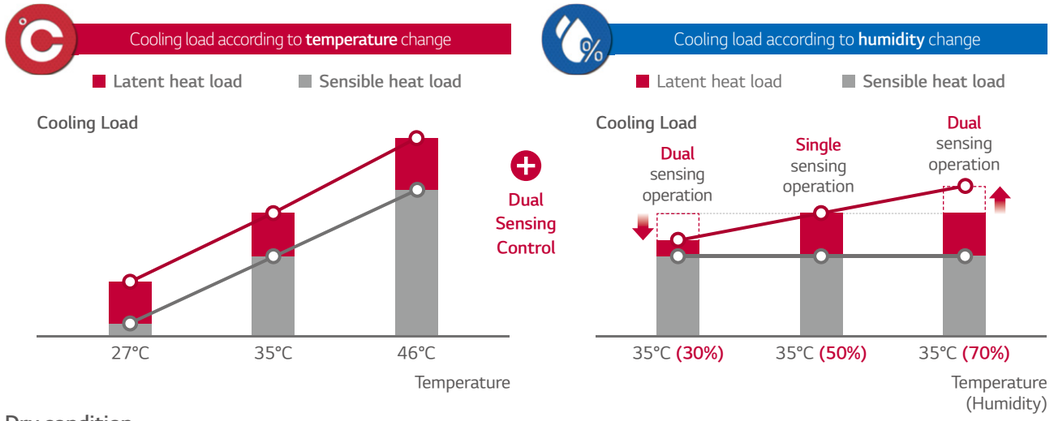
Why do we need dual sensing?

To provide a comfortable cooling and increase energy savings sensing both temperature and humidity is required.

Humidity Sensor



DUAL SENSING CONTROL



Dry condition

Dual sensing Control is a function that changes evaporation temperature according to temperature & humidity.

CONVETNTIONAL	NEW INVERTER
- Excessive latent heat elimination regardless of humidity - Waste Energy to eliminate latent heat	- Comfortable environment by making the room less dry - Increased Seasonal Efficiency

1) Te : Evaporation Temperature 2) Temperature & humidity of outdoor

Wet condition

In wet summer season, the system senses the high humidity level and increases operating ratio to decrease humidity level rapidly for making room condition in comfort zone.

CONVETNTIONAL	NEW INVERTER
- High humidity condition is not considered by only sensing the room temperature - General latent heat elimination regardless of humidity	- Comfortable environment - With quick latent heat elimination by sensing humidity - At higher humidity, the compressor runs more powerfully

1) Te : Evaporation Temperature 2) Temperature & humidity of outdoor

CONVENIENCE

Direct Drive Fan Motor
Convertible Duct Connection
Enhanced Structure
Sliding Type Filter

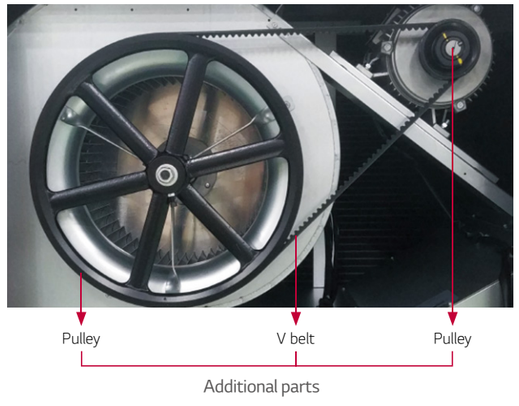
DIRECT DRIVE FAN MOTOR

Easy maintenance

Beltless direct drive system is easy to maintain and cost effective.

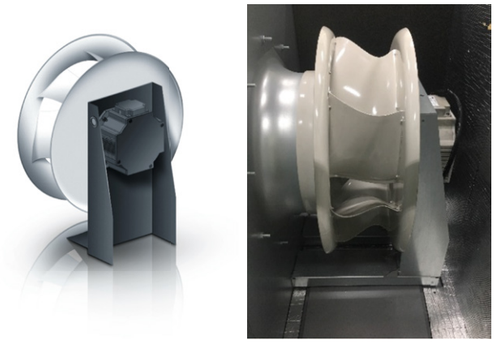
CONVENTIONAL

- Motor alignment, pulley and belt adjustment are required
- Grease periodically
- High cost of replacement and repair with large number of parts



NEW INVERTER

- No need to adjust pulley and belt periodically
- No need to grease periodically
- Low cost of replacement and repair with fewer parts



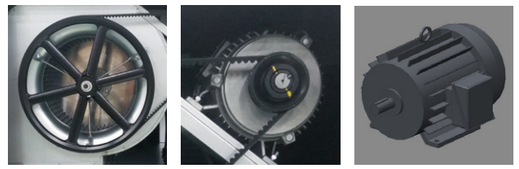
No additional parts
(Reduced parts and labor costs)

Easy installation

By applying a high static pressure motor, It has wide E.S.P coverage and easy to set the air volume.

CONVENTIONAL

- It is necessary to change the pulley and motor to change airflow



Pulley change | Turn adjust (Variable pulley) | Motor change

※ Motor operation range (Based on 9,400 CFM)

Standard		Medium		High	
0.1 in.Aq	0.4 in.Aq	0.5 in.Aq	1.0 in.Aq	1.1 in.Aq	1.4 in.Aq

NEW INVERTER

- Set RPM by simple touch on remote Control to change airflow

※ ESP Setting guide (Wired Remote Controller) :
- Standard III (PREMTB100/10) : Menu → Setting → Installer → ESP setting
- Standard II (PREMTB001/01) : ◎ Button click → 03 : XX → ESP setting

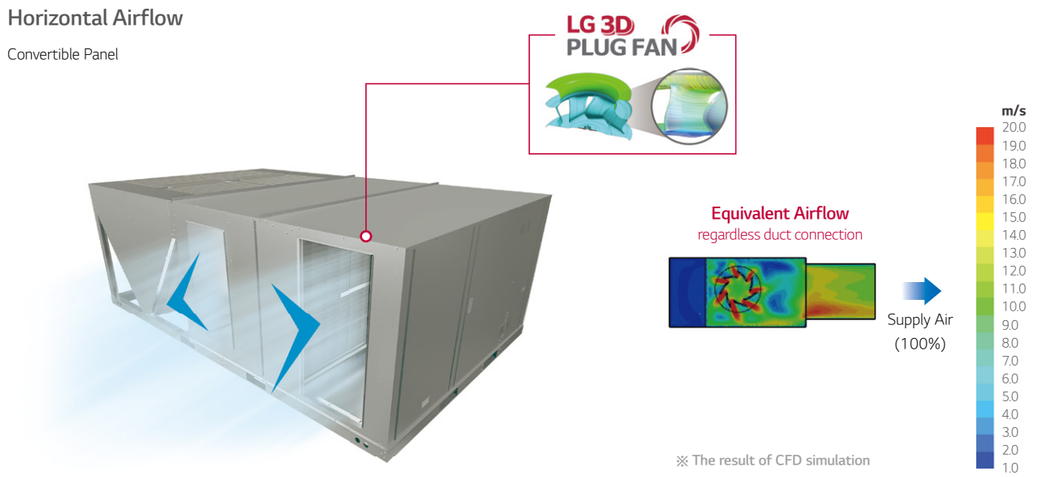
※ Motor operation range (Based on 9,200 CFM)

High		
0 in.Aq	Largest 10HP BLDC Motor	2.0 in.Aq

CONVENIENCE

CONVERTIBLE DUCT CONNECTION

*One model allows duct installation in various directions and can be installed on various sites. Additionally, LG 3D PLUG FAN minimizes the flow resistance and enables to take out the air in all directions, so there is no air loss.

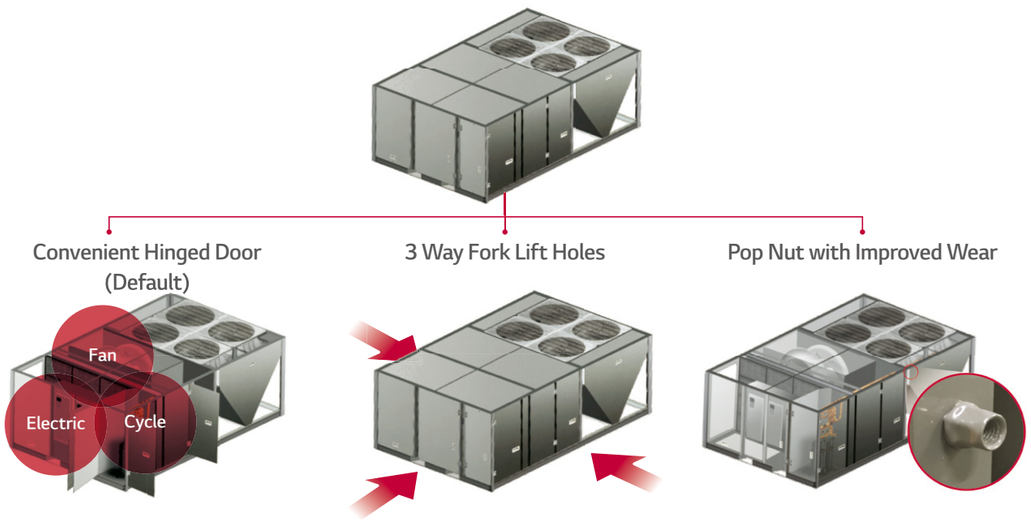


※ The result of CFD simulation

* With one model, It can be installed either horizontally or Toply. However, competitors have separate models depending on the type of connection.

ENHANCED STRUCTURE

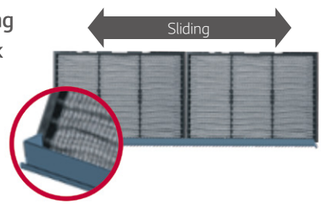
By applying the hinged door, Installation & maintenance working time has been shortened. In addition, 3 way fork lift holes easy to carry the product in various places and pop nut structure increases screw wear reliability.



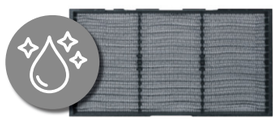
SLIDING TYPE FILTER

Easy maintenance and extended product life with sliding type filter. The pre-filter is easy to clean with water and replaceable 2 inch filter can also be installed.

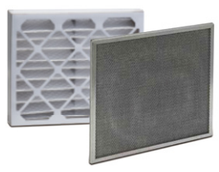
Easy Sliding Filter Rack



Easy Cleaning with Water



Replaceable 2 inch Filter[1)]



1) Specification : 25 x 20 (in.) x 6 (EA)
※ When 2inch filter is applied, Static pressure drops by 0.142 in.Aq.

RELIABILITY

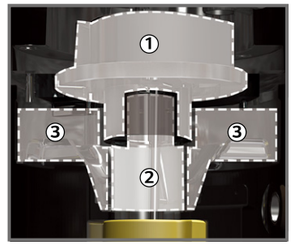
Ultimate Inverter Compressor
Protection for Voltage Fluctuation
Black Fin

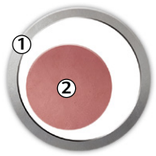
ULTIMATE INVERTER COMPRESSOR

By applying world class technology of Multi V, superior efficient and reliable operation has been achieved.
18 years of inverter technology applied to LG new single package.

CONVENTIONAL	NEW COMPRESSOR
- Inner bearing type - Low speed operation with unstable structure	- Increased durability and reliability with outer bearing type - Superior speed operation with reduction of bearing load and vibration

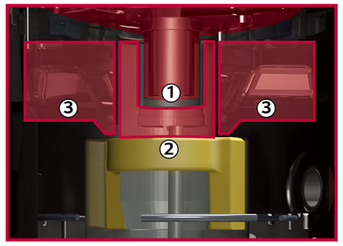
6.8 HP

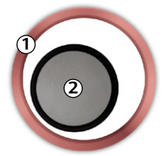




① Material : PTFE[1)]
①+② Structure : Inner Bearing
③ Supporter

9.6 HP





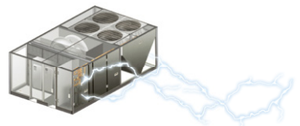
① Material : PEEK[2)]
①+② Structure : Outer Bearing
③ Supporter

1) PTFE : Polytetra fluoro ethylene
2) PEEK : Polyether ether ketone
※ Conventional : JBA068MAC (6.8 HP) x 2EA in product
New inverter : JBA096MAC (9.6 HP) x 2EA in product

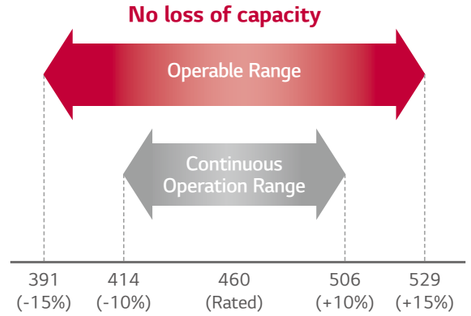
PROTECTION FOR VOLTAGE FLUCTUATION

Below low voltage limit, inverter compressor reduces frequency (Hz) and boost DC voltage, over high voltage limit, cuts off the relay to prevent damage of DC capacitor. And inverter is able to operate at a wider voltage range than constant speed model.

	Constant	LG Inverter
Low & High Voltage detection	No protection logic	Automatic detection and blocking
CT (Current transformer) current limit	On/Off operation	Inverter Control without stopping
DC peak detection	No need	Automatic detection and blocking
N phase reverse wiring (3 phase only)	No detection	Automatic detection
Missing phase detection (3 phase only)	No detection	Automatic detection



Product Protection



※ The allowable operation range is ±10% of rated voltage (460V).
※ This result can be different depending on actual environment.

BLACK FIN

The black coating with enhanced complex resin is applied for strong protection from various corrosive external conditions such as salt contamination and air pollution including fumes from factories. This improvement in durability prolongs the product's lifespan and lowers both the operational and maintenance costs.

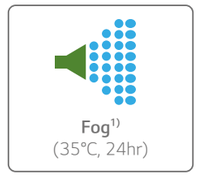
Black Fin's performance of corrosion resistance is improved based on Conventional Fin.

Longer Lifespan, Lower Maintenance Costs

※ Verification of corrosion resistance performance.

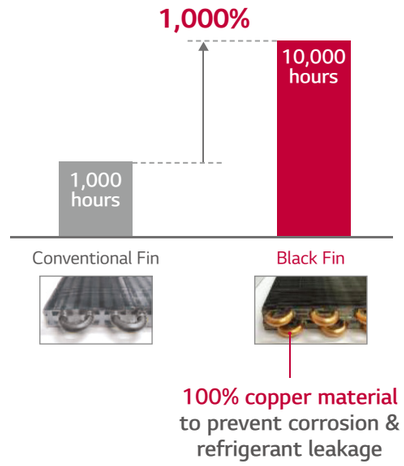
SST (Salt Spray Test)

Test Process



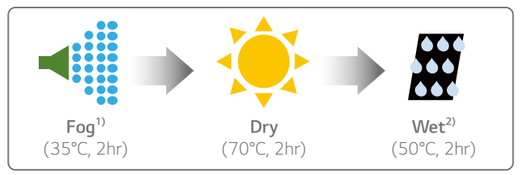
Test process is conducted according to ISO 9227.
1) Salty water concentration : NaCl aqueous solution (5%)

Test Result (0.05% Area of defects compared to initial)



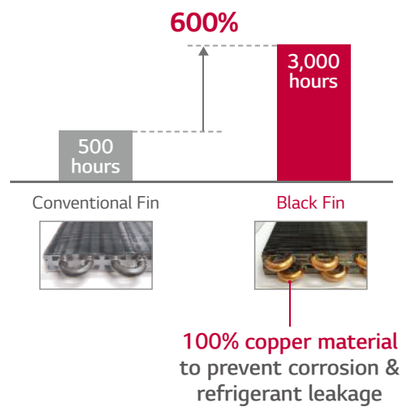
CCT (Cyclic Corrosion Test)

Test Process



Test process is conducted according to ISO 14933.
1) Salty water concentration : NaCl aqueous solution (5%)
2) Deionized water
※ Dry condition changed : 60°C, 4hr → 70°C, 2hr

Test Result (0.05% Area of defects compared to initial)



NEW DESIGN REMOTE CONTROLLER DESIGN

LG Individual Controller provides intuitive GUI with color LCD and touch type interface button.

Premium	Standard III	Standard II
(PREMTA000)	(PREMTB100)	(PREMTB001)

※ Installed at field, ordered and purchased separately by the corresponding model name, supplied with separate package.

GROUP CONTROL

Group Control allows the user to control the operation of multiple units at once. This is the appropriate solution to control a big area as a one zone.

Appealing Design

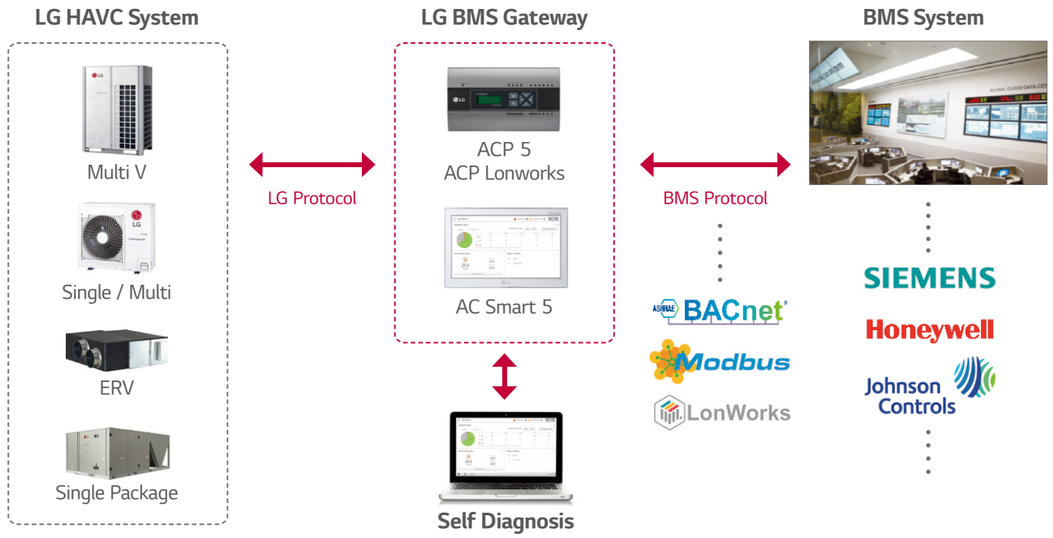
Conventional

New

Controller & Installation Cost Saving

3rd PARTY BMS SYSTEM COMPATIBILITY

LG Inverter Single Package can be connected with gateway products for different protocols such as Modbus, BACnet and LonWorks. And gateway product offers self diagnosis interface thanks to smart GUI included.



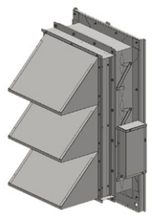
1) ACP 5 (BACnet IP/Modbus TCP) : PACP5A000
ACP LonWorks (Modbus) Interface : PLNWKB000

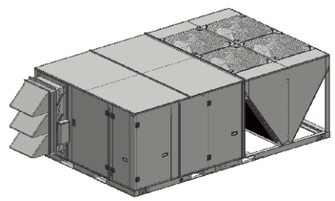
ECONOMIZER (MODEL : PKEMD1CA0)

Provides outside air to a room to save energy and improve the air quality indoors.

FUNCTION
- Differential Enthalpy Control
- Includes Outdoor Air Rain Hood
- Washable 1” Stainless Filter
- Motorized 2-Position and Manual Operation Available
- Damper Operation with Wired Remote Controller
- AMCA Certified Low Leak Air Damper
- Easy maintenance

SPECIFICATIONS
- Economizer Size : 1,149 x 743 x 597
- Filter Efficiency : MERV6
- Filter Size : 925 x 508 x 25
- Damper Opening Size : 930 x 510



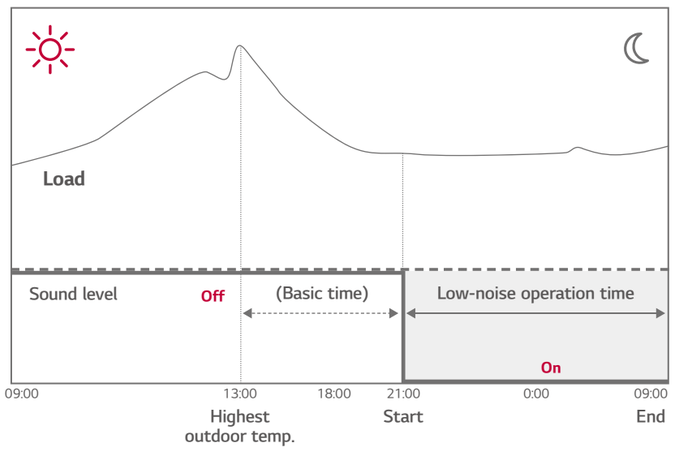


LOW NOISE OPERATION

The Low-Noise Operation is possible regardless of the time where noise sensitive areas. Instead of installer setting, the low noise operation is set by a building manager easily.

Conventional

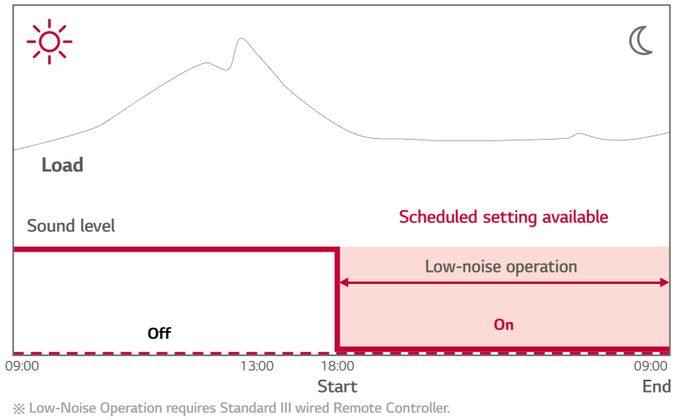
Outdoor Unit setting only



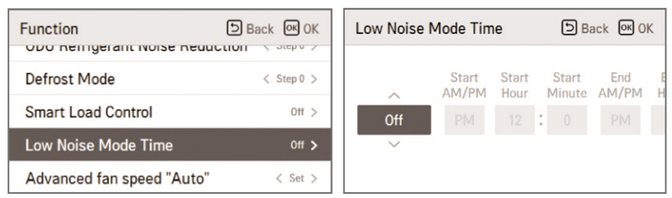
Only outdoor unit dip switch setting is possible.

New Inverter

Standard III wired Remote Controller setting possible



※ Low-Noise Operation requires Standard III wired Remote Controller.



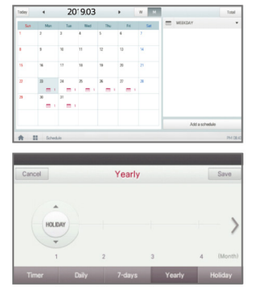
Can be easily activated in the remote controller.

EASY SCHEDULING

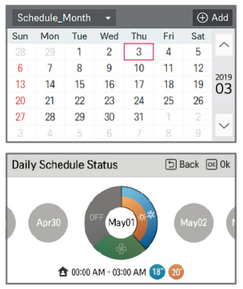
Schedule function allows customers to arrange the operation setting of equipment according to their desired schedule. Customers easily schedule daily, weekly, monthly, yearly plan with a calendar, also an exception date enables patterned schedule.

ACP / AC Smart

ACP EZ Touch



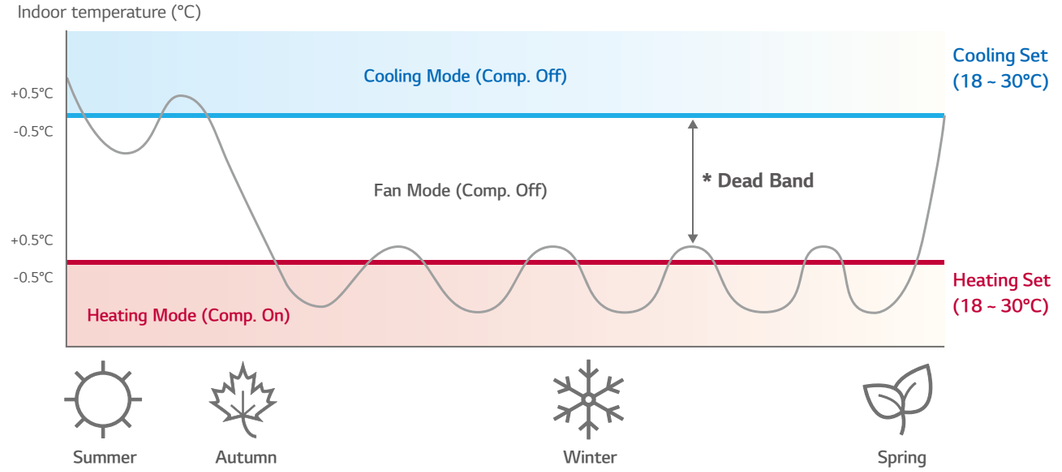
Premium R/C



Standard III R/C

2 SET POINT CONTROL

Auto Changeover can manage room temperature with changing Heating/Cooling mode and Compressor-off automatically. With setting heating and cooling set temperature just one time, comfortable condition will continue at all times. It is also possible to reduce the energy use by broadening the set temperature gap of cooling and heating.



※ 2 Set point Control requires Standard III or Premium wired remote Controller.
- Model : PREMTB100(Standard III), PREMTA000 / PREMTA000A / PREMTA000B (Premium)

* Minimum temperature gap : Setting value (0 ~ 5°C)

SPECIFICATION

COOLING ONLY (Horizontal Flow)

1 Phase 220 ~ 240V 50Hz
1 Phase 220V 60Hz

Nominal Capacity			RT	3	4	5
Model Name			-	AK-C03620	AK-C04820	AK-C06020
Cooling Capacity	Net Capacity		kW (Rated/Max)	10.26	13.50	17.25
			Btu/h (Rated/Max)	35,000	46,500	59,200
	Gross Capacity		kW (Rated/Max)	10.55	14.07	17.58
			Btu/h (Rated/Max)	36,000	48,000	60,000
Power Input	Cooling		kW	2.69	3.86	5.10
EER			Btu/Wh	13.00	12.05	11.60
SEER			Btu/Wh	18.0	17.0	17.0
Power Supply			V, Ø, Hz	230, 1, 60	230, 1, 60	230, 1, 60
Running Current	Cooling	Rated	A	11.7	16.9	22.5
Wiring Connections	Power Supply Cable (Included Earth)		No. x mm²	3C × 4.0	3C × 4.0	3C × 4.0
Dimensions		W x H x D	mm	1,280 × 1,065 × 1,110	1,280 × 1,065 × 1,110	1,280 × 1,065 × 1,110
		W x H x D	inch	50-13/32 × 41-29/32 × 43-23/32	50-13/32 × 41-29/32 × 43-23/32	50-13/32 × 41-29/32 × 43-23/32
Net Weight			kg (lbs)	174 (384)	174 (384)	174 (384)
Compressor (#1, A Cycle)	Type		-	Twin Rotary	Twin Rotary	Twin Rotary
	Motor Output		W x No.	4,000 x 1	4,000 x 1	4,000 x 1
Compressor (#2, B Cycle)	Type		-			
	Motor Output		W x No.			
Refrigerant	Type		-	R410A	R410A	R410A
	Precharged Amount (A-circuit)		g	3,600	3,600	3,600
	Precharged Amount (B-circuit)					
	Control		-	EEV	EEV	EEV
Refrigerant Oil	Type		-	FVC68D	FVC68D	FVC68D
	Charged Volume		cc x No.	1,300 x 1	1,300 x 1	1,300 x 1
Indoor Side Fan	Type		-	Centrifugal Blower Fan	Centrifugal Blower Fan	Centrifugal Blower Fan
	Diameter		mm (inch)	Direct	Direct	Direct
	Air Flow Rate	Nominal	m³/min	34.0	45.3	49.8
		Nominal	ft³/min	1,200	1,600	1,760
Dehumidification Rate			ℓ/h	2.23	3.47	5.58
Outdoor Side Heat Exchanger	Fin Type		-	Gold fin / Wide Louver plus	Gold fin / Wide Louver plus	Gold fin / Wide Louver plus
Outdoor Side Fan	Fan Type		-	Propeller	Propeller	Propeller
	Motor Type		-	BLDC	BLDC	BLDC
Sound Pressure Level	Cooling	Rated	dB(A)	75	75	75
Drain Connection Size			-	NPT 3/4	NPT 3/4	NPT 3/4
Operation Range (Outdoor Temperature)	Cooling	Min. ~ Max.	℃ DB (℉ DB)	-5 (23.0) ~ 54 (129.2)	-5 (23.0) ~ 54 (129.2)	-5 (23.0) ~ 54 (129.2)

COOLING ONLY

3 Phase, 400V 60Hz

Nominal Capacity			RT	7.5	10
Model Name			-	AK-Q0909C01	AK-Q1209C02
Cooling Capacity	Net Capacity		kW (Rated/Max)	26.4	36.6
			Btu/h (Rated/Max)	90,000	125,000
	Gross Capacity		kW (Rated/Max)	27.5	38.4
			Btu/h (Rated/Max)	94,000	131,000
Power Input	Cooling		kW	7.50	10.60
EER			Btu/Wh	12.0	11.8
SEER			Btu/Wh		
Power Supply			V, Ø, Hz	400, 3, 60	400, 3, 60
Running Current	Cooling	Rated	A	11.8	16.3
Wiring Connections	Power Supply Cable (Included Earth)		No. x mm²	4C × 8.4	4C × 8.4
Dimensions		W x H x D	mm	2,250 × 1,106 × 1,130	2,230 × 1,237 × 1,958
		W x H x D	inch	88-19/32 × 43-17/32 × 44-1/2	87-25/32 × 48-11/16 × 77-3/32
Net Weight			kg (lbs)	343 (756)	530 (1,168)
Compressor (#1, A Cycle)	Type		-	HSS DC SCROLL	HSS DC SCROLL
	Motor Output		W x No.	5,300 × 1	5,300 × 1
Compressor (#2, B Cycle)	Type		-		
	Motor Output		W x No.		
Refrigerant	Type		-	R410A	R410A
	Precharged Amount (A-circuit)		g	6900.0	13000.0
	Precharged Amount (B-circuit)				
	Control		-	EEV	EEV
Refrigerant Oil	Type		-	FVC68D	FVC68D
	Charged Volume		cc x No.	1,200 × 1	1,200 × 1
Indoor Side Fan	Type		-	Sirocco Fan	Sirocco Fan
	Diameter		mm (inch)	Belt	Belt
	Air Flow Rate	Nominal	m³/min	85.0	113.3
		Nominal	ft³/min	3,000	4,000
Dehumidification Rate			ℓ/h	9.9	13.8
Outdoor Side Heat Exchanger	Fin Type		-	Gold fin / Wide Louver plus	Gold fin / Wide Louver plus
Outdoor Side Fan	Fan Type		-	Propeller	Propeller
	Motor Type		-	BLDC	BLDC
Sound Pressure Level	Cooling	Rated	dB(A)	70	75
Drain Connection Size			-	Male PT 3/4"	Female NPT 1"
Operation Range (Outdoor Temperature)	Cooling	Min. ~ Max.	℃ DB (℉ DB)	-5 ~ 54 (23.0~129.2)	-5 ~ 54 (23.0~129.2)

SPECIFICATION

COOLING ONLY

3 Phase, 400V 60Hz

Nominal Capacity			RT	12.5	15
Model Name			-	AK-Q1509C02	AK-Q1809C02
Cooling Capacity	Net Capacity		kW (Rated/Max)	40	52.5
			Btu/h (Rated/Max)	136,000	180,000
	Gross Capacity		kW (Rated/Max)	41.5	54.2
			Btu/h (Rated/Max)	141,800	185,100
Power Input	Cooling		kW	11.70	15.50
EER			Btu/Wh	11.6	11.6
SEER			Btu/Wh		
Power Supply			V, Ø, Hz	400, 3, 60	400, 3, 60
Running Current	Cooling	Rated	A	18.1	24.0
Wiring Connections	Power Supply Cable (Included Earth)		No. x mm²	4C × 8.4	4C × 8.4
Dimensions		W x H x D	mm	2,230 × 1,237 × 1,958	2,230 × 1,242 × 3,520
		W x H x D	inch	87-25/32 × 48-11/16 × 77-3/32	87-25/32 × 48-29/32 × 138-19/32
Net Weight			kg (lbs)	530 (1,168)	885 (1,951)
Compressor (#1, A Cycle)	Type		-	HSS DC SCROLL	HSS DC SCROLL
	Motor Output		W x No.	5,300 × 1	4,200 × 1
Compressor (#2, B Cycle)	Type		-		HSS DC SCROLL
	Motor Output		W x No.		4,200 × 1
Refrigerant	Type		-	R410A	R410A
	Precharged Amount (A-circuit)		g	13000.0	9000.0
	Precharged Amount (B-circuit)				9000.0
	Control		-	EEV	EEV
Refrigerant Oil	Type		-	FVC68D	FVC68D
	Charged Volume		cc x No.	1,200 × 1	1,200 × 1
Indoor Side Fan	Type		-	Sirocco Fan	Sirocco Fan
	Diameter		mm (inch)	Belt	Belt
	Air Flow Rate	Nominal	m³/min	141.6	169.9
		Nominal	ft³/min	5,000	6,000
Dehumidification Rate			ℓ/h	15.6	20.7
Outdoor Side Heat Exchanger	Fin Type		-	Gold fin / Wide Louver plus	Gold fin / Wide Louver plus
Outdoor Side Fan	Fan Type		-	Propeller	Propeller
	Motor Type		-	BLDC	BLDC
Sound Pressure Level	Cooling	Rated	dB(A)	75	85
Drain Connection Size			-	Female NPT 1"	Female NPT 1"
Operation Range (Outdoor Temperature)	Cooling	Min. ~ Max.	°C DB (°F DB)	-5 ~ 54 (23.0~129.2)	-5 ~ 54 (23.0~129.2)

COOLING ONLY

3 Phase, 400V 60Hz

Nominal Capacity			RT	20	25
Model Name			-	AK-Q2409C01	AK-Q3009C01
Cooling Capacity	Net Capacity		kW (Rated/Max)	70.6	80.9
			Btu/h (Rated/Max)	241,000	276,000
	Gross Capacity		kW (Rated/Max)	73.6	85
			Btu/h (Rated/Max)	251,100	290,000
Power Input	Cooling		kW	21.50	26.20
EER			Btu/Wh	11.2	10.5
SEER			Btu/Wh		
Power Supply			V, Ø, Hz	400, 3, 60	400, 3, 60
Running Current	Cooling	Rated	A	34.0	42.0
Wiring Connections	Power Supply Cable (Included Earth)		No. x mm²	4C × 13.3	4C × 13.3
Dimensions		W x H x D	mm	2,230 × 1,242 × 3,520	2,230 × 1,242 × 3,520
		W x H x D	inch	87-25/32×48-29/32×138-19/32	87-25/32×48-29/32×138-19/32
Net Weight			kg (lbs)	950 (2,094)	950 (2,094)
Compressor (#1, A Cycle)	Type		-	HSS DC SCROLL	HSS DC SCROLL
	Motor Output		W x No.	5,300 × 1	5,300 × 1
Compressor (#2, B Cycle)	Type		-	HSS DC SCROLL	HSS DC SCROLL
	Motor Output		W x No.	5,300 × 1	5,300 × 1
Refrigerant	Type		-	R410A	R410A
	Precharged Amount (A-circuit)		g	12000.0	12000.0
	Precharged Amount (B-circuit)			12000.0	12000.0
	Control		-	EEV	EEV
Refrigerant Oil	Type		-	FVC68D	FVC68D
	Charged Volume		cc x No.	1,400 × 1	1,400 × 1
Indoor Side Fan	Type		-	Sirocco Fan	Sirocco Fan
	Diameter		mm (inch)	Belt	Belt
	Air Flow Rate	Nominal	m³/min	226.5	283.2
		Nominal	ft³/min	8,000	10,000
Dehumidification Rate			ℓ/h	26.18	29.82
Outdoor Side Heat Exchanger	Fin Type		-	Gold fin / Wide Louver plus	Gold fin / Wide Louver plus
Outdoor Side Fan	Fan Type		-	Propeller	Propeller
	Motor Type		-	BLDC	BLDC
Sound Pressure Level	Cooling	Rated	dB(A)	85	85
Drain Connection Size			-	Female NPT 1"	Female NPT 1"
Operation Range (Outdoor Temperature)	Cooling	Min. ~ Max.	°C DB (°F DB)	-5 ~ 54 (23.0~129.2)	-5 ~ 54 (23.0~129.2)

SPECIFICATION

COOLING & HEATING

3 Phase, 380 ~ 415V, 50/60Hz

Nominal Capacity			RT	7.5	10	15
Model Name			-	AK-W110LH00	AK-W130LH00	AK-W160LH00
Cooling Capacity	Net Capacity		kW (Rated/Max)	26.4 / 34.6	34.3 / 38.1	51.0 / 64.5
			Btu/h (Rated/Max)	90,000 / 118,000	117,000 / 130,000	174,000 / 220,000
	Gross Capacity		kW (Rated/Max)	27.0 / 35.2	35.2 / 39.0	52.6 / 66.1
			Btu/h (Rated/Max)	91,960 / 119,960	120,000 / 133,000	179,500 / 225,500
Power Input	Cooling		kW	7.37 / 15.0	10.08 / 15.5	15.26 / 30.00
EER			Btu/Wh	12.2	11.6	11.4
SEER			Btu/Wh	20	19	18.5
Power Supply			V, Ø, Hz	380~415, 3, 50/60	380~415, 3, 50/60	380~415, 3, 50/60
Running Current	Cooling	Rated	A	11.8	15.9	23.4
Wiring Connections	Power Supply Cable (Included Earth)		No. x mm²	4C × 13.3	4C × 13.3	4C × 21.2
Dimensions		W x H x D	mm	1,130 × 1,242 × 2,250	1,130 × 1,242 × 2,250	2,230 × 1,242 × 2,400
		W x H x D	inch	44-1/2 × 48-29/32 × 88-19/32	44-1/2 × 48-29/32 × 88-19/32	87-25/32 × 48-29/32 × 94-1/2
Net Weight			kg (lbs)	440(970)	440(970)	705 (1,554)
Compressor (#1, A Cycle)	Type		-	HSS DC SCROLL	HSS DC SCROLL	HSS DC SCROLL
	Motor Output		W x No.	5,500 x 1	5,500 x 1	5,300 x 1
Compressor (#2, B Cycle)	Type		-			HSS DC SCROLL
	Motor Output		W x No.			5,300 x 1
Refrigerant	Type		-	R410A	R410A	R410A
	Precharged Amount (A-circuit)		g	9000	9000	5200.0
	Precharged Amount (B-circuit)					5200.0
	Control		-	EEV	EEV	EEV
Refrigerant Oil	Type		-	FW68D	FW68D	FW68D
	Charged Volume		cc x No.	1,500 x 1	1,500 x 1	1,200 x 1
Indoor Side Fan	Type		-	Plug Fan	Plug Fan	Plug Fan
	Diameter		mm (inch)	Direct	Direct	Direct
	Air Flow Rate	Nominal	m³/min	85	113	170
		Nominal	ft³/min	3,000	4,000	6,000
Dehumidification Rate			ℓ/h	9.1	12.1	18.1
Outdoor Side Heat Exchanger	Fin Type		-	Black fin / Wide Louver plus	Black fin / Wide Louver plus	Black fin / Wide Louver plus
Outdoor Side Fan	Fan Type		-	Propeller	Propeller	Propeller
	Motor Type		-	BLDC	BLDC	BLDC
Sound Pressure Level	Cooling	Rated	dB(A)	80	80	80
Drain Connection Size			-	Male NPT 3/4"	Male NPT 3/4"	Male NPT 1"
Operation Range (Outdoor Temperature)	Cooling	Min. ~ Max.	°C DB (°F DB)	-5 ~ 54 (23.0~129.2)	-5 ~ 54 (23.0~129.2)	-5 ~ 54 (23.0~129.2)

* In case of Heatpump model, AHRI certification program is limited up to 20RT model. so, LG will provide LG laboratory test report of 25RT model.

COOLING & HEATING

3 Phase, 380 ~ 415V, 50/60Hz

Nominal Capacity			RT	20	25
Model Name			-	AK-W270LH00	AK-W320LH00
Cooling Capacity	Net Capacity		kW (Rated/Max)	70.0 / 90.3	81.0 / 101.1
			Btu/h (Rated/Max)	240,000 / 308,000	276,000 / 345,000
	Gross Capacity		kW (Rated/Max)	72.3 / 92.3	83.6 / 103.8
			Btu/h (Rated/Max)	246,900 / 314,900	285,200 / 354,200
Power Input	Cooling		kW	21.3 / 32.1	26.0 / 39.2
EER			Btu/Wh	11.3	10.6
SEER			Btu/Wh	19.0	18.3
Power Supply			V, Ø, Hz	380~415, 3, 50/60	380~415, 3, 50/60
Running Current	Cooling	Rated	A	33.0	40.0
Wiring Connections	Power Supply Cable (Included Earth)		No. x mm²	4C × 33.6	4C × 33.6
Dimensions		W x H x D	mm	2,230 × 1,242 × 3,520	2,230 × 1,242 × 3,520
		W x H x D	inch	87-25/32 × 48-29/32 × 138-19/32	87-25/32 × 48-29/32 × 138-19/32
Net Weight			kg (lbs)	915 (2,017)	915 (2,017)
Compressor (#1, A Cycle)	Type		-	HSS DC SCROLL	HSS DC SCROLL
	Motor Output		W x No.	5,500 × 1	5,500 × 1
Compressor (#2, B Cycle)	Type		-	HSS DC SCROLL	HSS DC SCROLL
	Motor Output		W x No.	5,500 × 1	5,500 × 1
Refrigerant	Type		-	R410A	R410A
	Precharged Amount (A-circuit)		g	9000.0	9000.0
	Precharged Amount (B-circuit)			9000.0	9000.0
	Control		-	EEV	EEV
Refrigerant Oil	Type		-	FW68D	FW68D
	Charged Volume		cc x No.	1,500 × 1	1,500 × 1
Indoor Side Fan	Type		-	Plug Fan	Plug Fan
	Diameter		mm (inch)	Direct	Direct
	Air Flow Rate	Nominal	m³/min	227	261
		Nominal	ft³/min	8,000	9,200
Dehumidification Rate			ℓ/h	24.1	30.1
Outdoor Side Heat Exchanger	Fin Type		-	Black fin / Wide Louver plus	Black fin / Wide Louver plus
Outdoor Side Fan	Fan Type		-	Propeller	Propeller
	Motor Type		-	BLDC	BLDC
Sound Pressure Level	Cooling	Rated	dB(A)	77	77
Drain Connection Size			-	Male NPT 1"	Male NPT 1"
Operation Range (Outdoor Temperature)	Cooling	Min. ~ Max.	°C DB (°F DB)	-5 ~ 54 (23.0 ~ 129.2)	-5 ~ 54 (23.0 ~ 129.2)

* In case of Heatpump model, AHRI certification program is limited up to 20RT model. so, LG will provide LG laboratory test report of 25RT model.