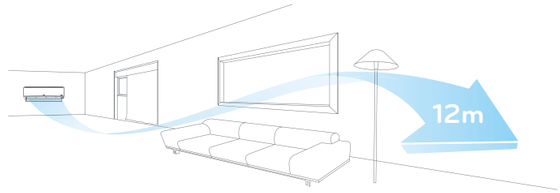
# LIBERO

INVERTER V
Mighty Efficiency

LG Electronics' products have led the global air conditioner market with excellent performance and innovative design.

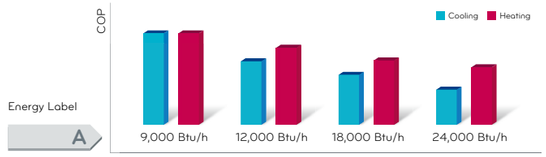
## Powerful Air Flow

Keep cool this summer with our new larger fans that allow you to feel the air up to 12 meters away!
This means that cooling is fast and powerful, allowing you to feel comfortable sooner, as the cool air reaches you. (Available models:CS18AQ/CS24AQ)



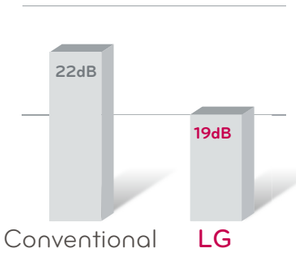

## High Efficiency

LIBERO received AA energy label (cooling/heating) for 9k to 24k respectively

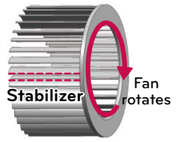



## Low Noise Level

The indoor unit has a quiet operational noise level in the sleep mode to offer you peace and quiet for the bedroom or office. For example, LG model CS09AQ, CS12AQ in sleep mode is only 19dB. In addition, the outdoor units have reduced vibration and noise thanks to a super quiet fan and motor.

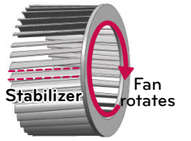



**Conventional Fan**




When the fan rotates, the stabilizer and the fan blade are in parallel (= the contact of lines)
→Instantaneous pressure change is great.

**Skew Fan**




When the fan rotates, the stabilizer and the fan blade are not in parallel (= the contact of points)
→Instantaneous pressure change is small.

# LIBERO-R

INVERTER V
Mighty Efficiency

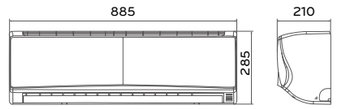
## CS09AQ
## CS12AQ
## CS18AQ
## CS24AQ

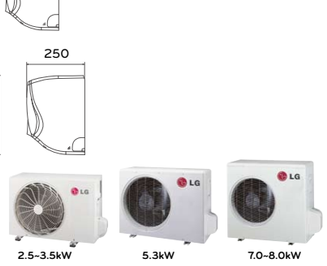
- High Efficiency
- Optimized Cooling and Heating
- Virus & Allergy Safe filter
- Quick & Easy Installation
- Plasma +Triple Filter
- Compatible with Inverter Multi System


CS09AQ / CS12AQ

CS18AQ / CS24AQ

Cooling A
Heating A



2.5~3.5kW 5.3kW 7.0~8.0kW

# LIBERO-E

INVERTER V
Mighty Efficiency

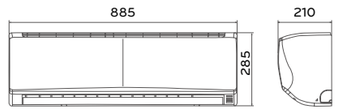
## E09SQ
## E12SQ
## E18SQ
## E24SQ

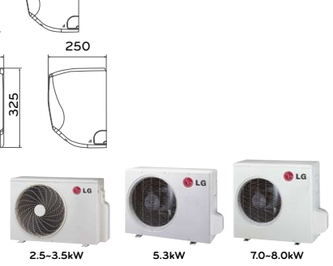
- Optimized Cooling and Heating
- Virus & Allergy Safe filter
- Triple Air Filter
- Quick & Easy Installation
- Low Noise • Auto Cleaning
- Compatible with Inverter Multi System


E09SQ / E12SQ

E18SQ / E24SQ

Cooling A
Heating A



2.5~3.5kW 5.3kW 7.0~8.0kW

# Specifications

| Model | INDOOR UNIT / OUTDOOR UNIT | | CS09AQ NB0 / S09AQU UB0 | CS12AQ NB0 / S12AQU UB0 | CS18AQ NC0 / S18AQU UC0 | CS24AQ NC0 / S24AQU UC0 |
|---|---|---|---|---|---|---|
| Cooling Capacity | | kW | 0.89~2.50~3.70 | 0.89~3.50~4.04 | 0.9 ~ 5.2 ~ 6.0 | 0.90~7.03~8.65 |
| Heating Capacity | | kW | 0.89~3.20~5.00 | 0.89~4.00~6.00 | 0.9 ~ 6.3 ~ 9.0 | 0.90~8.44~11.40 |
| Low Temp. Heating Capacity(-7°C) | | kW | 3.20 | 3.80 | 5.50 | 8.50 |
| Power Input | Cooling/Heating | W | 550/700 | 880/960 | 1,500/1,650 | 2,190/2,330 |
| EER | | W/W | 4.55 | 3.98 | 3.47 | 3.21 |
| COP | | W/W | 4.6 | 4.17 | 3.82 | 3.62 |
| Annual energy consumption | Cooling | kWh | 275 | 440 | 750 | 1095 |
| Power Supply | | Ø / V / Hz | 1 / 220-240 / 50 | 1 / 220-240 / 50 | 1 / 220-240 / 50 | 1/220-240/50 |
| Air Flow Rate | Indoor,Max | $m^3$/min | 12 | 12 | 19.5 | 22 |
| | Outdoor,Max | $m^3$/min | 33 | 33 | 60 | 60 |
| Sound Pressure Level | Indoor,H/M/L | dB(A)±3 | 38 / 33 / 23 / 19 | 39 / 33 / 23 / 19 | 42/40/35/29 | 45/40/35/29 |
| | Outdoor,Max | dB(A)±3 | 45 | 45 | 51 | 53 |
| Sound Power Level | Indoor,Max | dB(A) | 57 | 57 | 63 | 65 |
| | Outdoor,Max | dB(A) | 65 | 65 | 70 | 70 |
| Operation Range | Cooling(Outdoor) | °C | -10~48 | -10~48 | -10~48 | -10~48 |
| | Heating(Outdoor) | °C | -10~24 | -10~24 | -15~24 | -10~24 |
| Compressor | Type | | Rotary | 1P Rotary | Twin Rotary | Twin Rotary |
| Fan(Indoor) | Motor Output | W | 20 | 20 | 20 | 20 |
| Fan(Outdoor) | Motor Output | W | 43 | 43 | 85 | 124 |
| Running Current | Cooling/Heating | A | 2.4 / 3.1 | 4.0/4.3 | 6.6/7.3 | 9.8/10.4 |
| Starting Current | Cooling/Heating | A | 2.4 / 3.1 | 4.0/4.3 | 6.6/7.3 | 9.8/10.4 |
| Max Current | Cooling/Heating | A | 10.0 | 10.0 | 12.5 | 19.0 |
| Circuit Breaker* | | A | 15 | 15 | 20 | 25 |
| Power Supply Cable | | No.*$mm^2$ | 3*1.0 | 3*1.0 | 3*1.5 | 3*2.5 |
| Power and Transmission Cable | No.*$mm^2$ | No.*$mm^2$ | 4x1.0 (Including Earth) | 4x1.0 | 4x1.0 | 4x1.0 |
| Refrigerant & Charge (at 7.5 m) | | g | R410A, 1,000 | R410A, 1,000 | R410A, 1,350 | R410A, 1,800 |
| Additional Refrigerant charge | | g/m | 20 | 20 | 20 | 35 |
| Piping Connections | Liquid Side | mm(in) | 6.35(1/4) | 6.35(1/4) | 6.35(1/4) | 9.52(3/8) |
| | Gas Side | mm(in) | 9.52(3/8) | 9.52(3/8) | 12.7(1/2) | 15.88(5/8) |
| Piping Length (Min/Max) | | m | 2 / 20 | 2 / 20 | - /20 | - /30 |
| Max. Elevation Difference | | m | 10 | 10 | 10 | 15 |
| Drain Hose(O.D / I.D.) | | mm | 21.5 /16.0 | 21.5/16.0 | 21.5/16.0 | 21.5/16.0 |
| Dimensions | Indoor (WxHxD) | mm | 885x285x210 | 885x285x210 | 1,030x325x250 | 1,030x325x250 |
| | Outdoor (WxHxD) | mm | 770x545x288 | 770x545x288 | 870x655x320 | 870x800x320 |
| Net Weight | Indoor | kg | 11 | 11 | 17 | 17 |
| | Outdoor | kg | 34 | 34 | 51 | 60 |

Note: 1. Capacities are based on the following conditions:
Cooling: - Indoor Temperature 27°C DB /19°C WB
- Outdoor Temperature 35°C DB /24°C WB
Heating: - Indoor Temperature 20°C DB / 15°C WB
- Outdoor Temperature 7°C DB / 6°C WB

2. Annual energy consumption: based on average use of 500 running hours per year at nominal condition

# Specifications

| Model | INDOOR UNIT / OUTDOOR UNIT | | E09SQ NB0 / E09SQU UB0 | E12SQ NB0 / E12SQU UB0 | E18SQ NC0 / S18AQU UC0 | E24SQ NC0 / S24AQU UC0 |
|---|---|---|---|---|---|---|
| Cooling Capacity | | kW | 0.89~2.50~3.70 | 0.90~3.50~4.04 | 0.90 ~ 5.20 ~ 6.00 | 0.90 ~ 7.03 ~ 8.65 |
| Heating Capacity | | kW | 0.89~3.20~4.10 | 0.89~4.00~5.10 | 0.90 ~ 6.30 ~ 9.00 | 0.90 ~ 8.44 ~ 11.40 |
| Low Temp. Heating Capacity(-7°C) | | kW | 3.00 | 3.60 | 5.50 | 8.50 |
| Power Input | Cooling/Heating | W | 600 / 770 | 1,010 / 1,050 | 1,500 / 1,650 | 2,190 / 2,330 |
| EER | | W/W | 4.17 | 3.47 | 3.47 | 3.21 |
| COP | | W/W | 4.16 | 3.81 | 3.82 | 3.62 |
| Annual energy consumption | Cooling | kWh | 300 | 505 | 750 | 1095 |
| Power Supply | | Ø / V / Hz | 1 / 220-240 / 50 | 1 / 220-240 / 50 | 1 / 220-240 / 50 | 1 / 220-240 / 50 |
| Air Flow Rate | Indoor,Max | $m^3$/min | 12 | 12 | 19.5 | 22 |
| | Outdoor,Max | $m^3$/min | 27 | 27 | 50 | 60 |
| Sound Pressure Level | Indoor,H/M/L | dB(A)±3 | 38 / 33 / 23 / 19 | 39 / 33 / 23 / 19 | 42 / 40 / 35 / 29 | 45 / 40 / 35 / 29 |
| | Outdoor,Max | dB(A)±3 | 47 | 47 | 51 | 53 |
| Sound Power Level | Indoor,Max | dB(A) | 57 | 57 | 63 | 65 |
| | Outdoor,Max | dB(A) | 65 | 65 | 70 | 70 |
| Operation Range | Cooling(Outdoor) | °C | -5~48 | -5~48 | -10~48 | -10~48 |
| | Heating(Outdoor) | °C | -10~24 | -10~24 | -10~24 | -10~24 |
| Compressor | Type | | Rotary | Rotary | Twin Rotary | Twin Rotary |
| Fan(Indoor) | Motor Output | W | 20 | 20 | 30 | 30 |
| Fan(Outdoor) | Motor Output | W | 43 | 43 | 84 | 124 |
| Running Current | Cooling/Heating | A | 2.66 / 3.40 | 4.60 / 4.65 | 6.6 / 7.3 | 9.8 / 10.4 |
| Starting Current | Cooling/Heating | A | 2.66 / 3.40 | 4.60 / 4.65 | 6.6 / 7.3 | 9.8 / 10.4 |
| Max Current | Cooling/Heating | A | 10.0 | 10.0 | 12.5 | 19.0 |
| Circuit Breaker* | | A | 15 | 15 | 20 | 25 |
| Power Supply Cable | | No.*$mm^2$ | 3 x 1.0 | 3 x 1.0 | 3 x 1.5 | 3 x 2.5 |
| Power and Transmission Cable | No.*$mm^2$ | No.*$mm^2$ | 4x1.0 (Including Earth) | 4x1.0 (Including Earth) | 4x1.0 (Including Earth) | 4x1.0 (Including Earth) |
| Refrigerant & Charge (at 7.5 m) | | g | R410A, 900(31.75) | R410A,900 | R410A, 1,350 | R410A, 1,800 |
| Additional Refrigerant charge | | g/m | 20(0.22) | 20 | 20 | 35 |
| Piping Connections | Liquid Side | mm(in) | 6.35(1/4) | 6.35(1/4) | 6.35(1/4) | 9.52(3/8) |
| | Gas Side | mm(in) | 9.52(3/8) | 9.52(3/8) | 12.70(1/2) | 15.88(5/8) |
| Piping Length (Min/Max) | | m | 3(9.84) / 15(49.2) | 3 / 15 | - / 20 | - / 30 |
| Max. Elevation Difference | | m | 7(23.0) | 7 | 15 | 15 |
| Drain Hose(O.D / I.D.) | | mm | 21.5 / 16.0 (0.85 / 0.63) | 21.5 / 16.0 | 21.5 / 16.0 | 21.5 / 16.0 |
| Dimensions | Indoor (WxHxD) | mm | 885x285x210 | 885x285x210 | 1,030x325x250 | 1,030x325x250 |
| | Outdoor (WxHxD) | mm | 717x483x230 | 717x483x230 | 870x655x320 | 870x800x320 |
| Net Weight | Indoor | kg | 11 | 11 | 17 | 17 |
| | Outdoor | kg | 28 | 28 | 46 | 60 |

Note: 1. Capacities are based on the following conditions:
Cooling: - Indoor Temperature 27°C DB /19°C WB
- Outdoor Temperature 35°C DB /24°C WB
Heating: - Indoor Temperature 20°C DB / 15°C WB
- Outdoor Temperature 7°C DB / 6°C WB

2. Annual energy consumption: based on average use of 500 running hours per year at nominal condition