LG

# TOTAL HVAC SOLUTION PROVIDER

## ENGINEERING PRODUCT DATA BOOK

**MULTI / SINGLE**

**Indoor unit**

**R32 Heat Pump (50 / 60Hz)**

LG
Life's Good

MULTI

Indoor unit

# General information

# Wall Mounted Unit

# General information

1. Model Line Up
2. Nomenclature

# 1. Model Line up

| Category | Picture | Chassis | Nominal Capacity kW(kBtu/h) | Model Name |
|---|---|---|---|---|
| Standard |  | SJ | 2.5(9) | S3NW09JMQFA.EC6BEEU [RMN09.NSJ] |
| Standard |  | SJ | 3.5(12) | S3NW12JMQFA.EC6BEEU [RMN12.NSJ] |

# 2. Nomenclature

# 2. Nomenclature

## 2.1 Nomenclature - Indoor unit

| Model Name | S | 3 | N | W | 0 | 9 | J | M | Q | F | A |
|---|---|---|---|---|---|---|---|---|---|---|---|
| No. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |

**1. A/C Type**

| | |
|---|---|
| S | Split |

**2. Refrigerent**

| | |
|---|---|
| 2 | R22 |
| 3 | R32 |
| 4 | R410A |
| 9 | R290 |

**3. IDU**

| | |
|---|---|
| N | Indoor unit |

**4. C/O, H/P and Inverter**

| | |
|---|---|
| C | C/O |
| H | H/P |
| Q | DC Inverter C/O |
| W | DC Inverter H/P |

**5/6. Btu Capacity**

**7. IDU : Indoor Platform**

| | |
|---|---|
| 1 | S1 |
| 2 | S2 |
| A | SA |
| J | SJ |
| K | SK |
| L | SL |
| R | SR |
| W | SW(SW+) |
| M | SM(SM+) |
| E | SE |
| F | SF |
| 7 | S7 (Signature) |
| V | SV |
| T | T社 Outsourcing |
| H | H社 Outsourcing |

**8. IDU Outdoor Platform**

| | |
|---|---|
| M | Multi |

**9. IDU : Look/Color**

| Code | Platform | Look Name | Description |
|---|---|---|---|
| R | SA<br>SJ<br>SK | Artcool | Mirror Black |
| 1 | | R Look | White Panel(Transparent) |
| 2 | | Semi-R Look | White Panel(Silver Deco) |
| 3 | | E Look | White Panel |
| 4 | | Semi-R Look | White Panel(Red Deco) |
| 5 | | Semi-R Look | White Panel(Gold Deco) |
| Q | | E Look | White Panel(2LED) |
| P | | E Look | White Panel(Matt type) |
| M | SM | Moving Panel | White Panel |
| 1 | SM<br>SM+<br>S2 | R Look | White Panel(Transparent) |
| 2 | | Semi-R Look | White Panel(Silver Deco) |
| 3 | | E Look | White Panel |
| W | | Blowkiss R | White Panel(White Deco) |
| B | | Blowkiss R | White Panel(Black Deco) |
| V | | Blowkiss R | White Panel(Silver Deco) |
| 5 | SW<br>SH | E Look | White Panel |
| 6 | | Semi-R Look | White Panel(Silver Deco) |
| P | | E Look | White Panel(Matt type) |
| 2 | SV | Semi-R Look | White Panel(Silver Deco) |
| 3 | | E Look | White Panel |
| 1 | S3 | - | White Panel |
| W | | - | White Panel(Lighting) |

**10. IDU : Function**

| Code | Wi-Fi | Airflow | Allergy / Dust Filter | Air purification | Ionizer | UVnano | Gen Mode | Ampere Control | B2B |
|---|---|---|---|---|---|---|---|---|---|
| A | None | 2way | | | | | | | |
| W | None | 2way | O | | | | | | |
| Q | None | 2way | | | | | O | | |
| H | None | 2way | O | | O | | | | |
| B | None | 4way | | | | | | | |
| 2 | None | 4way | | | | | | | O |
| U | None | 4way | | | | | | O | |
| V | None | 4way | O | | | | | | |
| R | None | 4way | | | O | | | | |
| S | None | 4way | O | | O | | | | |
| N | None | 4way | | O | | | | | |
| C | None | 4way | | | | O | | | |
| 3 | Wi-Fi | 2way | | | | | | | |
| 1 | Wi-Fi | 2way | O | | | | | | |
| 8 | Wi-Fi | 2way | O | | | | | | O |
| K | Wi-Fi | 2way | | | | | | | O |
| 4 | Wi-Fi | 2way | | | | O | | | |
| 6 | Wi-Fi | 3way | | | | | | | O |
| E | Wi-Fi | 4way | | | | | | | O |
| 5 | Wi-Fi | 4way | | | | | | O | O |
| F | Wi-Fi | 4way | | | | | | | |
| D | Wi-Fi | 4way | O | | | | | | |
| Z | Wi-Fi | 4way | | | O | | | | |
| 7 | Wi-Fi | 4way | | | O | | | | O |
| P | Wi-Fi | 4way | O | | O | | | | |
| M | Wi-Fi | 4way | O | | O | O | | | |
| G | Wi-Fi | 4way | | | O | O | | | |
| J | Wi-Fi | 4way | | | O | | O | | |
| T | Wi-Fi | 4way | | | O | O | O | | |
| L | Wi-Fi | 4way | | | O | | | O | |
| Y | Wi-Fi | 4way | | O | | | | | |
| 9 | Wi-Fi | 4way | | O | | O | | | |
| X | Wi-Fi | 4way | | | | O | | | |

**11. IDU : Cycle No.**

# 2. Nomenclature

## 2.2 Nomenclature - Set

| Model Name | S | 3 | 2 | Q | 1 | 6 | S | A | 1 | 8 | 1 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| No. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |

**1. A/C Type**

| | |
|---|---|
| **S** | Split |

**2. Refrigerent**

| | |
|---|---|
| **2** | R22 |
| **3** | R32 |
| **4** | R410A |
| **9** | R290 |

**3. SET : Indoor unit combination number**

| | |
|---|---|
| **2** | 2 Indoor units |
| **3** | 3 Indoor units |
| **4** | 4 Indoor units |

**4. C/O, H/P and Inverter**

| | |
|---|---|
| **C** | C/O |
| **H** | H/P |
| **Q** | DC Inverter C/O |
| **W** | DC Inverter H/P |

**5/6. Btu Capacity**

**7. SET**

| | |
|---|---|
| **S** | SET |

**8. SET : Outdoor Platform**

| | |
|---|---|
| **A** | UA3 → U12A ('21years ~) |
| **L** | UL2 → U18A ('21years ~) |
| **E** | UE |
| **2** | U24A |
| **P** | UE1+ → U28A ('21years ~) |
| **4** | U4 → U36A ('21years ~) |
| **D** | UD → TBD |
| **U** | **Universal** |

**9/10. SET : Sum of Indoor units Capacity**

| Code | Indoor unit 1 | Indoor unit 2 | Indoor unit 3 |
|---|---|---|---|
| **10** | 5 | 5 | 0 |
| **12** | 5 | 7 | 0 |
| **14** | 5 | 9 | 0 |
| **16** | 7 | 9 | 0 |
| **17** | 5 | 12 | 0 |
| **18** | 9 | 9 | 0 |
| **21** | 9 | 12 | 0 |
| **24** | 12 | 12 | 0 |
| **15** | 5 | 5 | 5 |
| **17** | 5 | 5 | 7 |
| **19** | 5 | 5 | 9 |
| **21** | 5 | 7 | 9 |
| **27** | 9 | 9 | 9 |
| **30** | 9 | 9 | 12 |

**11. SET : Indoor units platform combination No.**

| Code | Indoor unit 1 | Indoor unit 2 | Indoor unit 3 |
|---|---|---|---|
| **W** | SW | SW | |
| **J** | SJ | SJ | |
| **K** | SK | SK | |
| **A** | SW | SJ | |
| **B** | SJ | SK | |
| **C** | SW | SK | |
| **D** | SW | SW | SW |
| **E** | SW | SW | SJ |
| **G** | SW | SJ | SJ |
| **H** | SJ | SJ | SJ |
| **1** | SA | SA | |
| **2** | SA | SJ | |
| **3** | SA | SA | SA |
| **4** | SA | SA | SJ |

# MULTI
## Indoor unit

### Wall Mounted Unit

1. List of Functions
2. Specifications
3. Dimensions
4. Piping diagrams
5. Wiring diagrams
6. Air flow and temperature distribution
7. Sound levels
8. Installation

# 1. List of functions

## ■ Standard

### ◆ List of function

| Category | Functions | S3NW09JMQFA [RMN09.NSJ]<br>S3NW12JMQFA [RMN12.NSJ] |
|---|---|---|
| Air Flow | Air Supply Outlet | 1 |
| | Airflow Direction Control (left & right) | Auto |
| | Airflow Direction Control (up & down) | Auto |
| | Auto Swing (left & right) | O |
| | Auto Swing (up & down) | O |
| | Airflow Steps (fan/cool/heat) | 6 / 6 / 6 |
| | Fan Speed Auto* | Advanced |
| | Power Cool/Heat | O / O |
| | Swirl Wind* | X |
| | Refresh Mode** | X |
| | Smart Mode** | X |
| | Indirect Wind* | O |
| | Direct Wind* | O |
| | Dry Operation | O |
| Air Purification | Air Purify | X |
| | Ionizer | X |
| | UV-C | X |
| | Pre-Filter | O |
| | PM1.0 Filter | X |
| | Allergy Filter | X |
| Reliability | Hot Start | O |
| | Self Diagnosis | O |
| Convenience | Auto Mode | O |
| | Auto Dry Operation | O |
| | Auto Restart | O |
| | Child Lock* | O |
| | Forced Operation | O |
| | Group Control* | X |
| | Sleep Timer | O |
| | Turn On/Off Reservation | O |
| | Schedule* | O |
| | Two Thermistor Control* | O |
| | External On/Off | X |
| Installation | Drain Pump | X |
| | E.S.P. Control* | X |
| | High Ceiling Operation* | X |
| Special Functions | Wi-Fi | Embedded |
| | Auto Elevation Grille | X |
| | Human Detection Function** | X |
| | Floor Detection Function** | X |

***Note***

1. O : Applied, X : Not Applied, - : Unconfirmed or irrelevant
   Embedded : A kit is provided by default for using this function when the product is manufactured.
   Accessory : Ordered and purchased separately the accessory package referring to the model name provided and install at field. Accessory line-ups varies by region, so check your local catalogue or local sales material.
2. Some functions can be limited by remote controller.
3. In case of cassette type indoor units, Air Purification Kit and Auto Elevation Grille functions are not applicable at the same time.
4. 'Auto Mode' varies depending on the outdoor unit type.
   - Auto Change Over(Single Heat Pump Outdoor Unit)
   - Auto Mode Select(Multi Heat Pump Outdoor Unit)
   - Auto Intensity Control(Cooling Only Outdoor Unit)
5. * : These functions need to connect the wired remote controller.
6. ** : This functions need to connect to the Standard III wired remote controller.

# 1. List of functions

## ◆ Accessory Compatibility List

| Category | | Product | Remark | S3NW09JMQFA [RMN09.NSJ]<br>S3NW12JMQFA [RMN12.NSJ] |
|---|---|---|---|---|
| Wireless Remote Controller | | PQWRHQ0FDB | Heat Pump | O (Embedded) |
| | | PWLSSB21H | Heat Pump | O |
| Wired Remote Controller | Simple | PQRCVCL0Q(W) | Simple | O |
| | | PQRCHCA0Q(W) | for Hotel | O |
| | Standard | PREMTB001 | Standard II (White) | O |
| | | PREMTBB01 | Standard II (Black) | O |
| | | PREMTB100 | Standard III (White) | O |
| | | PREMTBB10 | Standard III (Black) | O |
| | Premium | PREMTA000(A/B) | Premium | X |
| Dry contact | Simple Contact | PDRYCB000 | Simple Dry Contact | O |
| | Communication type | PDRYCB400 | 2 Points Dry Contact (For Setback) | O |
| | | PDRYCB300 | For 3rd Party Thermostat | O |
| | | PDRYCB320 | For 3rd Party Thermostat (Analog Input) | O |
| | | PDRYCB500 | For Modbus | O |
| Gateway | IDU PI485 | PHNFP14A0 | Without case | X |
| | | PSNFP14A0 | With case | X |
| ETC | Remote temperature sensor | PQRSTA0 | - | X |
| | Zone controller | ABZCA | - | X |
| | $CO_2$ Sensor | PES-C0RV0 | For ERV, ERV DX Indoor units | X |
| | Group control wire | PZCWRCG3 | 0.25m | X |
| | 2-Remo Control Wire | PZCWRC2 | 0.25m | X |
| | Extension Wire | PZCWRC1 | 10m | O |
| | Wi-Fi Controller* | PWFMDD200 | - | O (Embedded) |
| | Human detecting sensor | PTVSAA0 | - | X |

***Note***

1. O: Possible, X: Impossible, - : Not applicable, Embedded : Included with product.
2. * : Some advanced functions controlled by individual controller cannot be operated.
3. If there is a difference in development time between the product and the remote controller, some functions cannot be operated.
4. Selecting a wireless remote controller in case of ducted type indoor units requires either a connection to the wired remote controller (Standard II) or an IR receiver accessory to be connected to the duct in order to receive the signal.
5. If you need more detail, please refer to the ***BECON*** PDB or the manual of product. (http://partner.lge.com/global : Home> Doc.Library> Product > Control(BECON))
6. Do not install both the IR Receiver and Wired Remote Controller. This may cause malfunctions.

# 2. Specifications

| Model Name | | | | S3NW09JMQFA [RMN09.NSJ] | S3NW12JMQFA [RMN12.NSJ] |
|---|---|---|---|---|---|
| Power Supply | | | V, Ø, Hz | 220-240, 1, 50 | 220-240, 1, 50 |
| | | | | 220, 1, 60 | 220, 1, 60 |
| Capacity(Nominal) | Cooling | | kW | 2.5 | 3.5 |
| | Heating | | kW | 3.3 | 4.0 |
| Power Input | Min./Nom./Max. | | W | 11 / 18 / 30 | 11 / 19 / 30 |
| Running Current | Min./Nom./Max. | | A | 0.10 / 0.16 / 0.20 | 0.10 / 0.17 / 0.20 |
| Casing Color | | | - | Munsell 7.5BG 10/2 (RAL 9016) | |
| Dimensions | Body | W x H x D | mm | 837 × 308 × 189 | 837 × 308 × 189 |
| | | W x H x D | inch | 32-15/16 x 12-1/8 x 7-7/16 | 32-15/16 x 12-1/8 x 7-7/16 |
| | Shipping | W x H x D | mm | 882 x 385 x 253 | 882 x 385 x 253 |
| | | W x H x D | inch | 34-23/32 x 15-5/32 x 9-31/32 | 34-23/32 x 15-5/32 x 9-31/32 |
| Weight | Body | | kg (lbs) | 8.7 (19.2) | 8.7 (19.2) |
| | Shipping | | kg (lbs) | 11.7 (25.8) | 11.7 (25.8) |
| Heat Exchanger | (Row x Column x Fins per inch) x No. | | - | (2 x 15 x 21) x 1 | (2 x 15 x 21) x 1 |
| | Face Area | | $m^2$ ($ft^2$) | 0.19 (2.05) | 0.19 (2.05) |
| | Corrosion Protection | | - | PCM | PCM |
| | Fin Type | | - | Slit | Slit |
| | Material, Tube / Fin | | - | Cu / Al | Cu / Al |
| Fan | Type | | - | Cross Flow Fan | Cross Flow Fan |
| | Air Flow Rate | SH / H / M / L | $m^3$/min | 12.2 / 9.2 / 7.4 / 5.6 | 12.2 / 9.6 / 8.1 / 5.6 |
| | | SH / H / M / L | $ft^3$/min | 431 / 325 / 261 / 198 | 431 / 339 / 286 / 198 |
| Fan Motor | Type | | - | BLDC | BLDC |
| | Output | | W x No. | 30 x 1 | 30 x 1 |
| Sound Pressure Level | | SH / H / M / L / SL | dB(A) | 44 / 36 / 33 / 27 / 19 | 44 / 40 / 35 / 27 / 19 |
| Sound Power Level | | Rated | dB(A) | 57 | 57 |
| Piping Connections | Liquid | | mm(inch) | Ø 6.35 (1/4) | Ø 6.35 (1/4) |
| | Gas | | mm(inch) | Ø 9.52 (3/8) | Ø 9.52 (3/8) |
| | Drain | O.D. / I.D. | mm | Ø 21.5 / 16.0 | Ø 21.5 / 16.0 |
| Safety Devices | | | - | Fuse | Fuse |
| | | | - | Thermal Protector for Fan Motor | |
| Connections Method | | | - | Flared | Flared |
| Power and Communication Cable (included Earth) | | | No. x $mm^2$ | 4C x 0.75 | 4C x 0.75 |

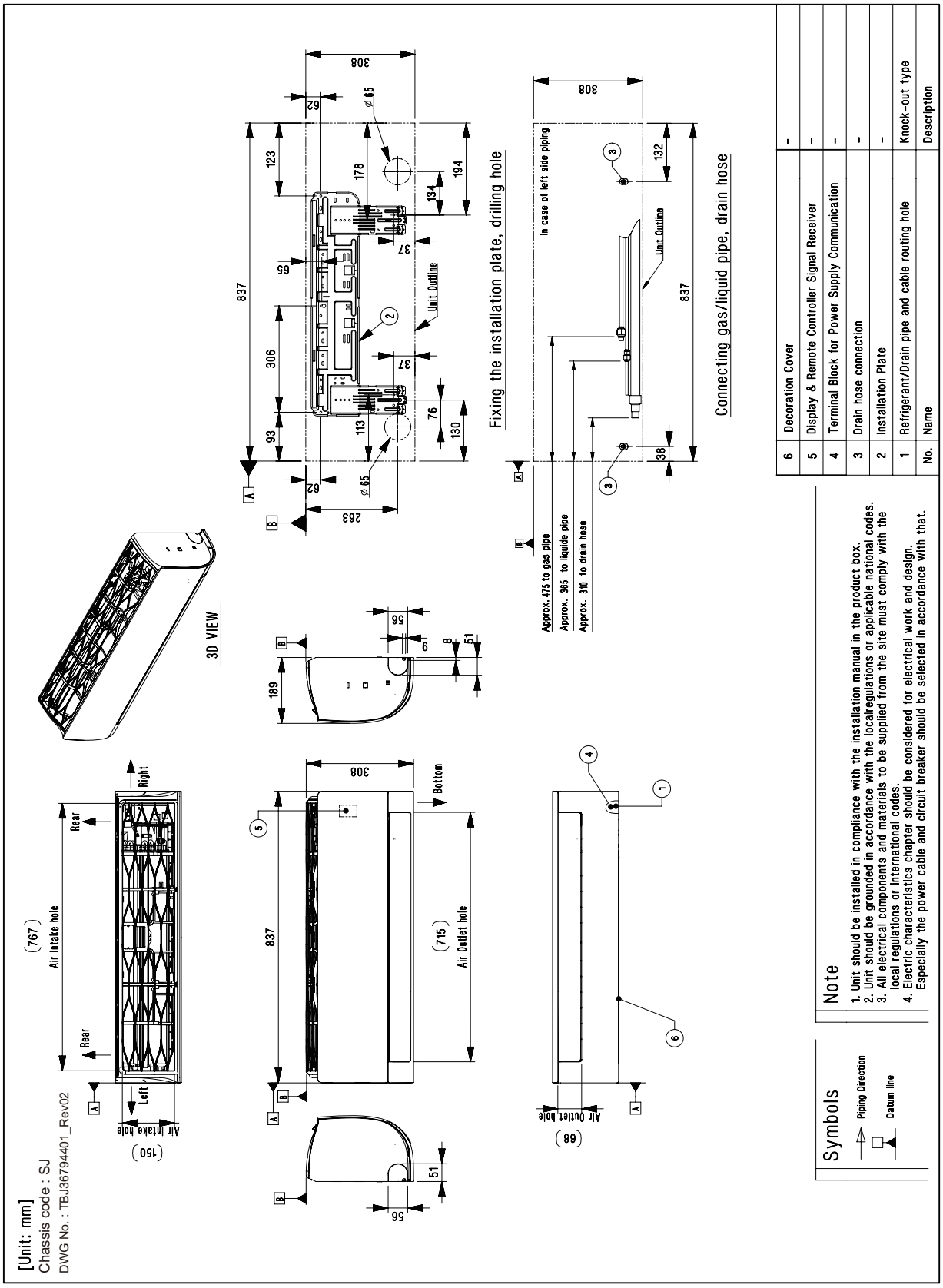
***Note***

1. Due to our policy of innovation some specifications may be changed without notification.
2. Wiring cable size must comply with the applicable local and national code. And “Electric characteristics” chapter should be considered for electrical work and design. Especially the power cable and circuit breaker should be selected in accordance with that.
3. Sound Level Values are measured at Noise Measuring chamber accordance with standard. Therefore, these values depend on the ambient conditions and values are normally higher in actual operation(Sound Pressure : LG Internal standard, Sound Power : EN 12102 (ISO 3741).
4. Capacities are net capacities and based on the following conditions. Refer to the Outdoor Unit Specifications for calculating the real capacity.
   - Cooling : Indoor Ambient Temp. 27°CDB / 19°CWB, Outdoor Ambient Temp. 35°CDB / 24°CWB
   - Heating : Indoor Ambient Temp. 20°CDB / 15°CWB, Outdoor Ambient Temp. 7°CDB / 6°CWB
   - Interconnected Pipe is standard length and difference of Elevation (Outdoor ~ Indoor Unit) is 0m.

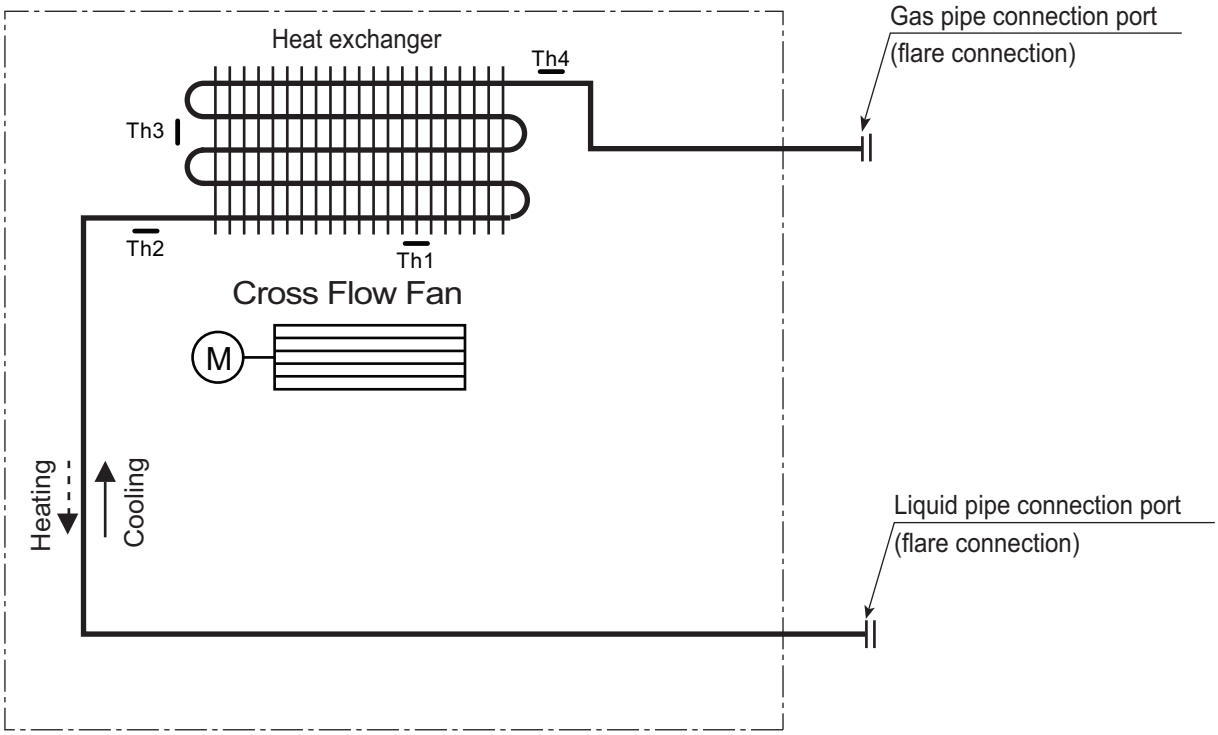
# 3. Dimensions

## ◆ Standard (SJ Chassis)

### S3NW09JMQFA [RMN09.NSJ] / S3NW12JMQFA [RMN12.NSJ]



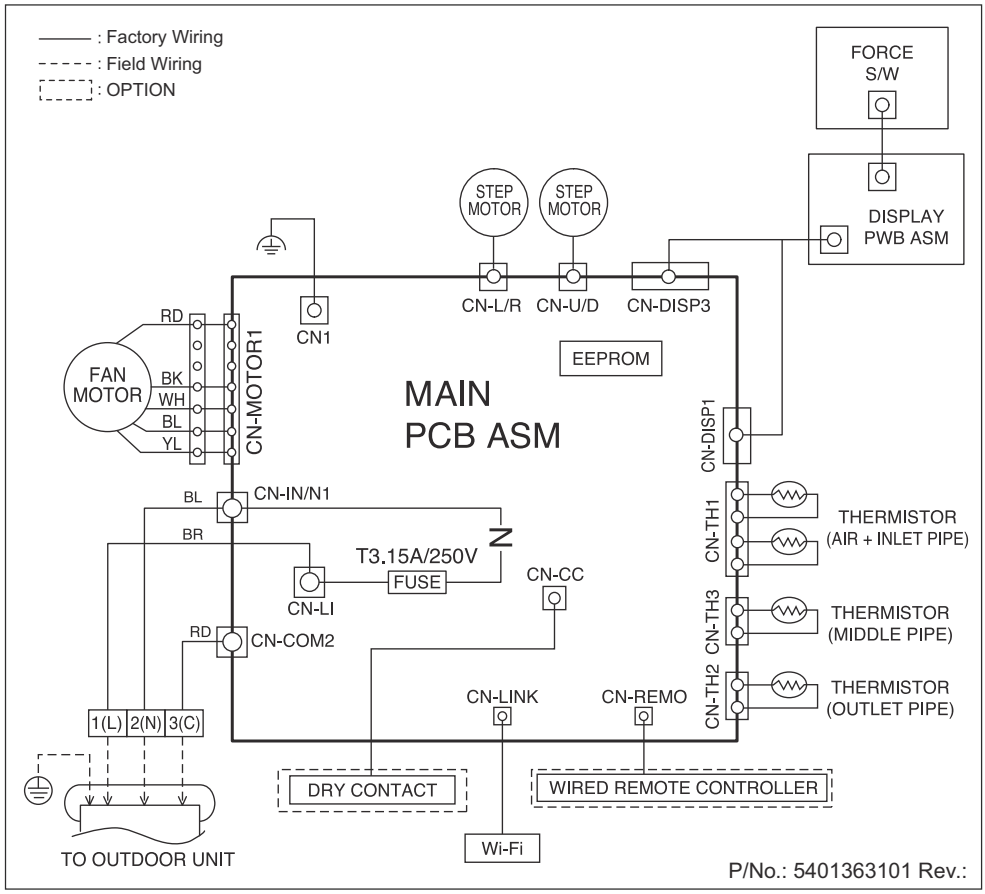
# 4. Piping diagrams




| LOC. | Description | PCB Connector |
|---|---|---|
| Th1 | Thermistor for suction air temperature | CN-TH1 |
| Th2 | Thermistor for evaporator inlet temperature | |
| Th3* | Thermistor for evaporator middle temperature | CN-TH3 |
| Th4 | Thermistor for evaporator outlet temperature | CN-TH2 |

# 5. Wiring Diagrams

## ◆ Models : S3NW09JMQFA [RMN09.NSJ], S3NW12JMQFA [RMN12.NSJ]



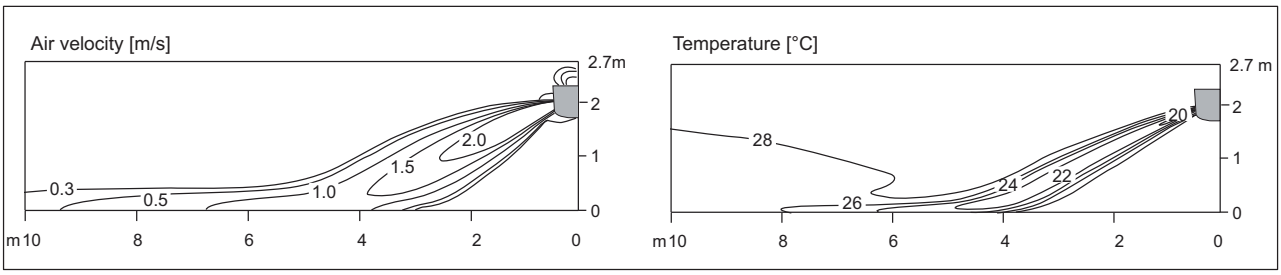
# 6. Air flow and temperature distributions (reference data)

## ■ Models : S3NW09JMQFA [RMN09.NSJ], S3NW12JMQFA [RMN12.NSJ]

### ◆ Cooling

#### Side View

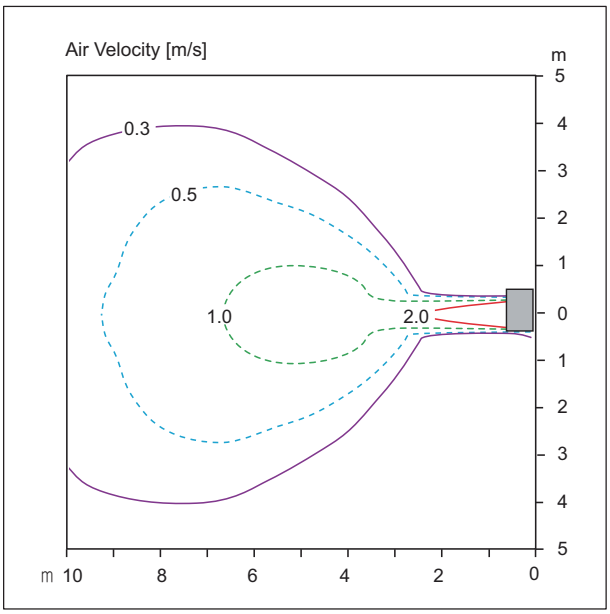
Discharge angle: 35°



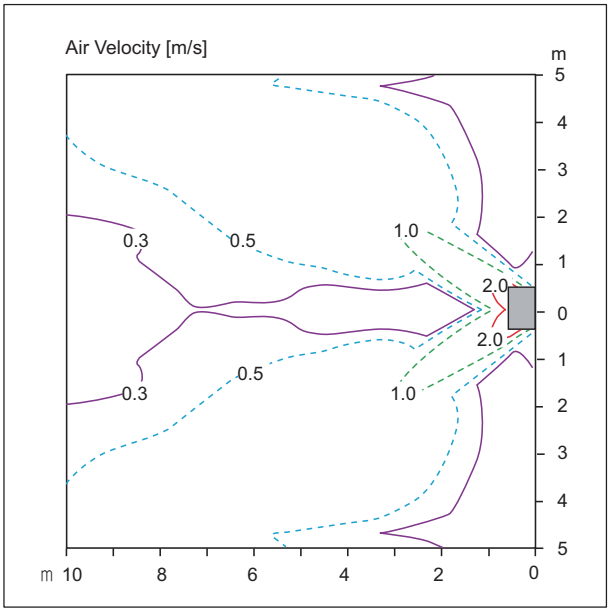

- Vertical Louver : Center
- Fan speed : Super High

#### Top View

Discharge angle: 35°




- Vertical Louver : Center
- Vertical Vane : 0˚
- Fan speed : Super High
- Air speed 0.3m/s Range : 11.5m




- Vertical Louver : Left & Right
- Vertical Vane : 55˚
- Fan speed : Super High

### *Note*

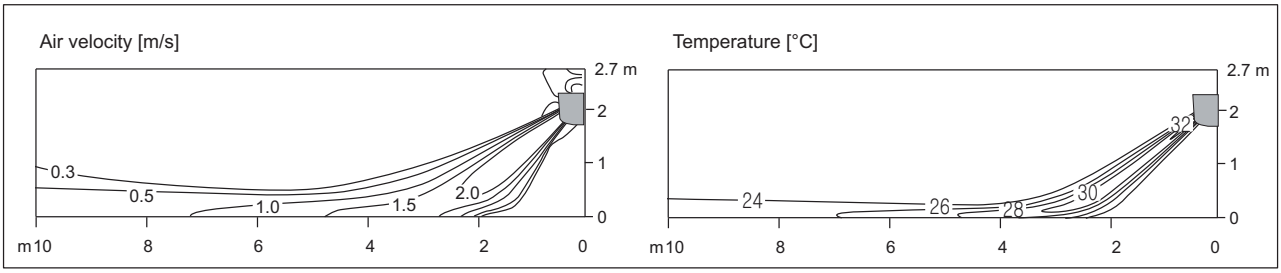
- These figures are accordance with normal certain condition and environment.
  (Airflow step is 'Super High', Air discharge angle is fixed as indicated angle.)
- Indoor airflow distribution under actual installation or operating conditions depends on ambient temperature, ceiling height, product installation direction / location, indoor / Heating load, and other obstacles, etc.

# 6. Air flow and temperature distributions (reference data)

## ◆ Heating

### Side View

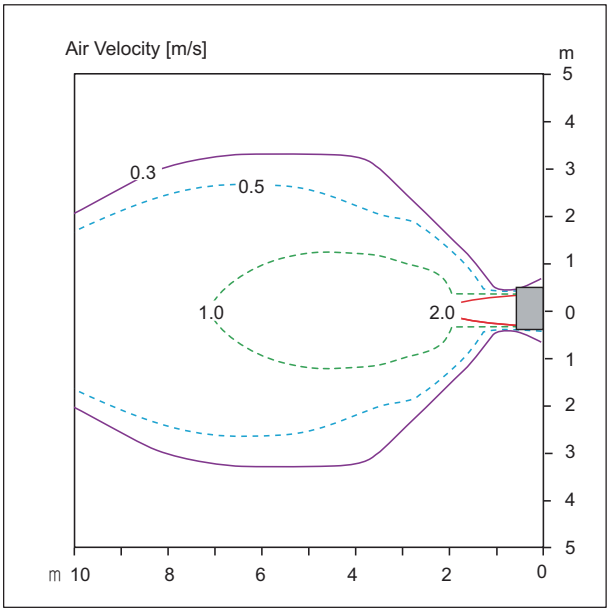
Discharge angle: 55°



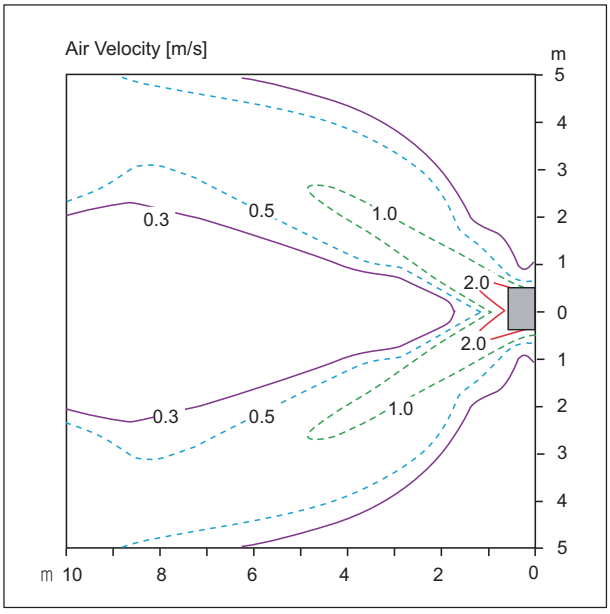

- Vertical Louver : Center
- Fan speed : Super High

### Top View

Discharge angle: 55°




- Vertical Louver : Center
- Vertical Vane : 0˚
- Fan speed : Super High
- Air speed 0.3m/s Range : 13.5m




- Vertical Louver : Left & Right
- Vertical Vane : 55˚
- Fan speed : Super High

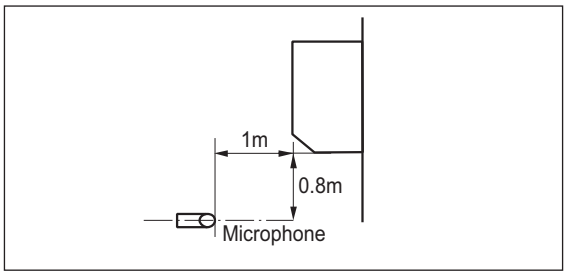
## *Note*

- These figures are accordance with normal certain condition and environment.
  (Airflow step is 'Super High', Air discharge angle is fixed as indicated angle.)
- Indoor airflow distribution under actual installation or operating conditions depends on ambient temperature, ceiling height, product installation direction / location, indoor / Heating load, and other obstacles, etc.

# 7. Sound levels

## 7.1 Sound pressure level

### ■ Overall

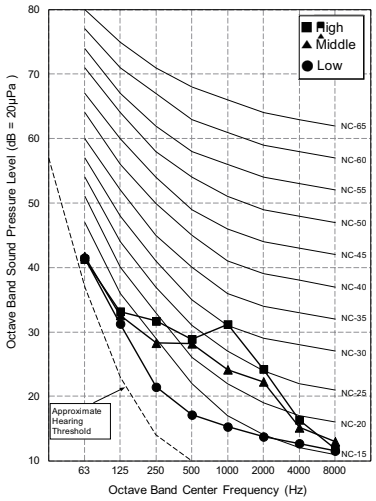



***Note***

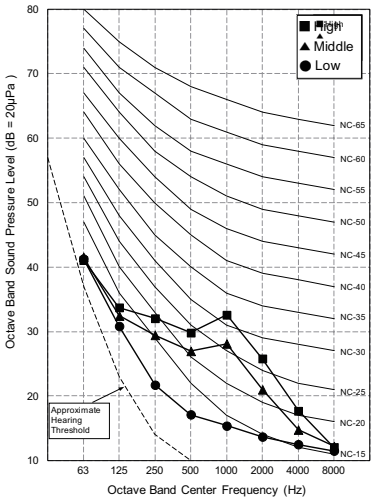
1. Sound measured at some distance away from the center of the unit.
2. Data is valid at free field condition.
3. Reference accoustic pressure 0dB = 20μPa.
4. Data is valid at nominal operation condition.
   Refer to the Model Specifications for nominal conditions(Power source and Ambient temperature, etc)
5. Sound levels can be increased in accordance with installation and operating conditions. (Static pressure mode, used air guide, Room target temperature setting, etc)
6. Sound level will vary depending on a range of factors such as the construction(acoustic absorption coefficient) of particular room in which the equipment in installed.
7. Sound pressure level is measured on the rated condition in the anechoic rooms. (LG Internal Standard)
   Therefore, these values can be increased owing to ambient conditions during operation.

| Model (Standard 2) | 50Hz, 220-240V | | |
|---|---|---|---|
| | Sound pressure Levels [dB(A)] | | |
| | H | M | L |
| S3NM09JA3FA [S09ET NSJ] | 36 | 33 | 27 |
| S3NM12JA3FA [S12ET NSJ] | 40 | 35 | 27 |

**S3NW09JMQFA [RMN09.NSJ]**




**S3NW12JMQFA [RMN12.NSJ]**



# 7. Sound levels

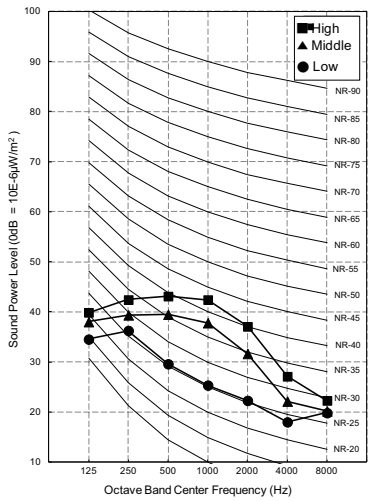
## 7.2 Sound power level

***Note***

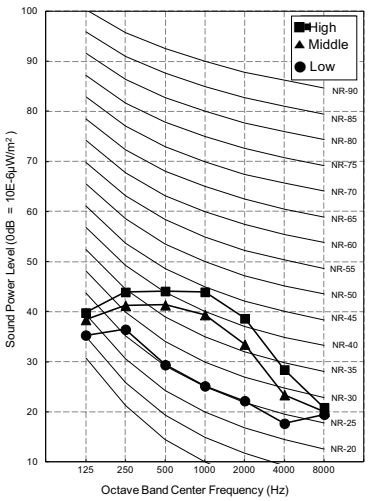
1. Data is valid at diffuse field condition.
2. Data is valid at nominal operation condition.
   Refer to the Model Specifications for nominal conditions(Power source and Ambient temperature, etc)
3. Sound level can be increased in static pressure mode or used air guide.
4. Sound level will vary depending on a range of factors such as the construction (acoustic absorption coefficient).
5. Reference acoustic intensity 0dB = 10E-6μW/$m^2$
6. Sound power level is measured on the rated condition in the reverberation rooms by ISO 3741 standard.
   Therefore, these values can be increased owing to ambient conditions during operation.

| Model (Standard plus) | Sound power Levels [dB(A)] |
|---|---|
| | H |
| S3NW09JMQFA [RMN09.NSJ] | 57 |
| S3NW12JMQFA [RMN12.NSJ] | 57 |

**S3NW09JMQFA [RMN09.NSJ]**




**S3NW12JMQFA [RMN12.NSJ]**



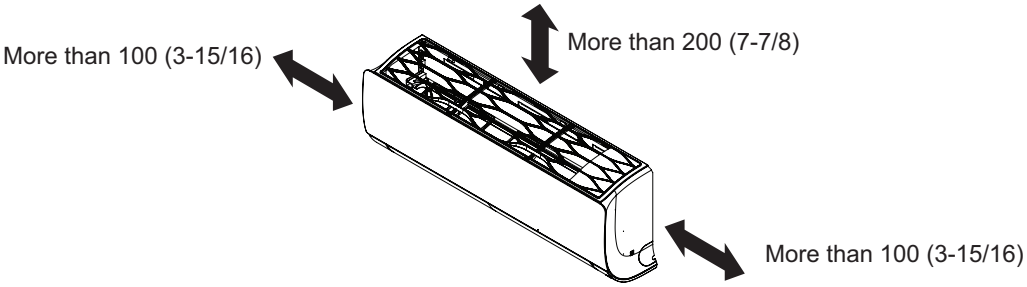
# 8. Installation

- Please read the instruction sheets completely before installing the product.
- When the power cord is damaged, replacement work shall be performed by authorized personnel only.
- Installation work must be performed in accordance with the national wiring standards.
- Teach the customer the operation and maintenance procedures, using the operation manual. (air filter cleaning, temperature control, etc.)

## 8.1 Selection of the best location

- The unit must be installed indoor area.
- Do not install the unit near the door.
- There should not be any obstacles to the air circulation or installation. Ensure the spaces from the wall, ceiling, or other obstacles.
- The place where the indoor unit can be connected with outdoor unit easily.
- The place where the unit is leveled.
- The place shall allow easy water drainage.
- The place where bear a load exceeding four times of the indoor unit weight.
- The mounting ceiling or wall should be solid enough to protect it from the vibration.
- The place where the unit is not affected by an electrical noise.
- The place where noise prevention is taken into consideration.
- The place where the maintenance space for product is sufficient.
- There should not be any heat source or steam near the unit.

[Unit : mm(inch)]

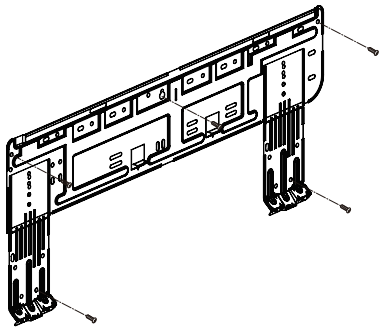


# 8. Installation

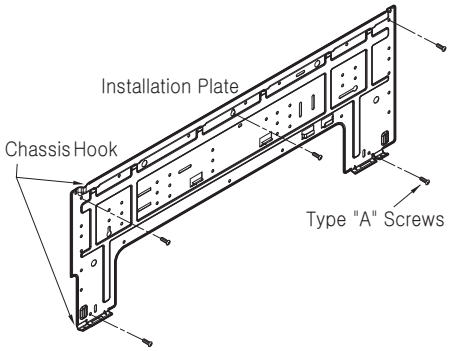
## ■ Fixing Installation Plate

- The wall you select should be strong and solid enough to prevent vibration.
  1. Mount the installation plate on the wall with type "A" screws which are provided with product. (Refer to the Installation manual.) If mounting the unit on a concrete wall, use anchor bolts.
     - Mount the installation plate horizontally by aligning the centerline using Horizontal meter.
  2. Measure the wall and mark the centerline. It is also important to use caution concerning the location of the installation plate. Routing of the wiring to power outlets is through the walls typically. Drilling the hole through the wall for piping connections must be done safely.

**SJ Chassis**

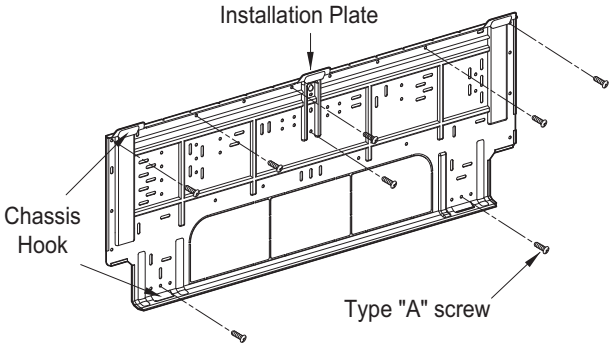


**SK Chassis**




* According to product type, model line up, sales region..etc, applicability of each chassis could be different.

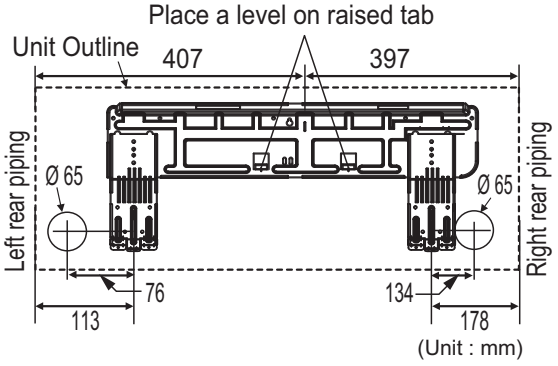
**SV Chassis**



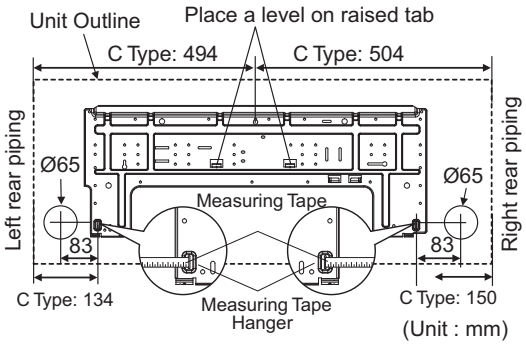

* According to product type, model line up, sales region..etc, applicability of each chassis could be different.

## ■ The lower left and the right side piping of Installation Plate

**SJ chassis**



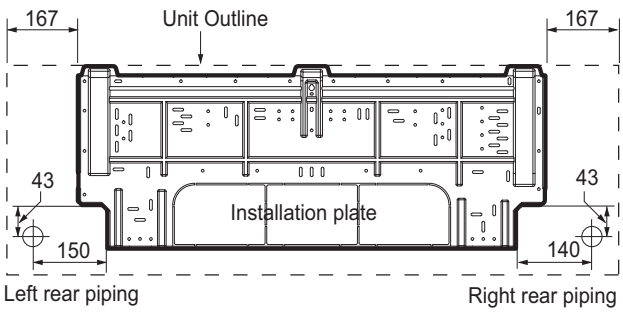

**SK chassis**




* According to product type, model line up, sales region..etc, applicability of each chassis could be different.

# 8. Installation

**SV chassis**




(Unit : mm)

* According to product type, model line up, sales region..etc, applicability of each chassis could be different.

## ⚠ CAUTION

**In case that the unit is installed near the sea, the installation parts may be corroded by salt. The installation parts (and the unit) should be taken appropriate anti-corrosion measures.**

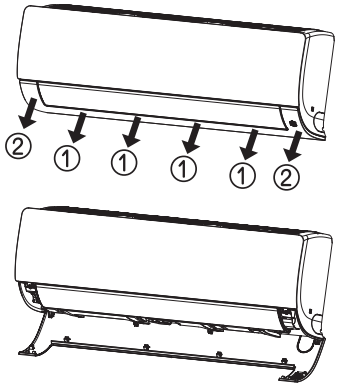
# 8. Installation

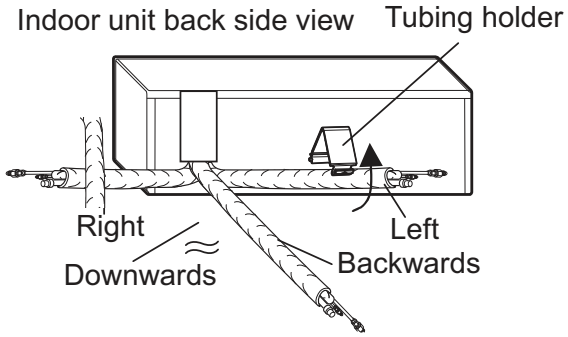
## 8.2 Connection of pipes and cables

### 8.2.1 Preparing work for installation

#### ■ SJ/SK chassis

1. Pull the cover at the bottom of the indoor unit. Pull the cover ①→②.
2. Remove the chassis cover from the unit.
3. Pull back the tubing holder.
4. Remove pipe port cover and positioning the tubing.



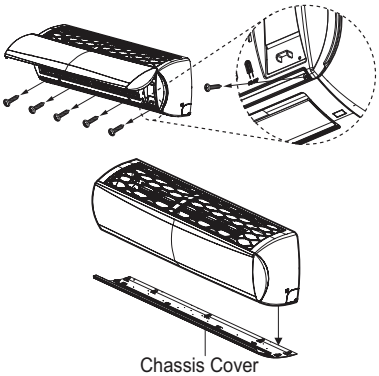



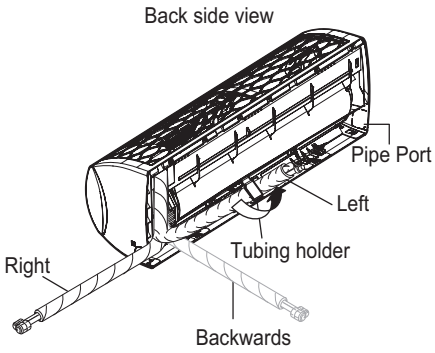

※ The feature can be changed according to type of model.

* The feature can be changed according to type of model.
* According to product type, model line up, sales region..etc, applicability of each chassis could be different.

#### ■ SV chassis

1. Open the panel of the indoor unit.
2. Remove the chassis cover from the unit by loosing 5 screws.
3. Pull back the tubing holder.
4. Remove pipe port cover and position the piping.

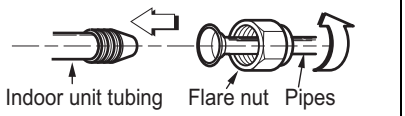


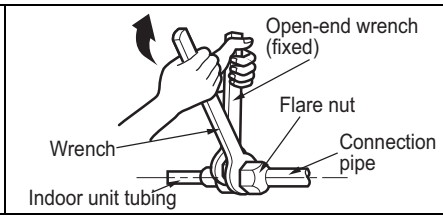



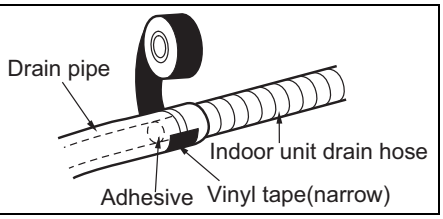

* The feature can be changed according to type of model.
* According to product type, model line up, sales region..etc, applicability of each chassis could be different.

# 8. Installation

## ■ Connecting the installation pipe and drain hose



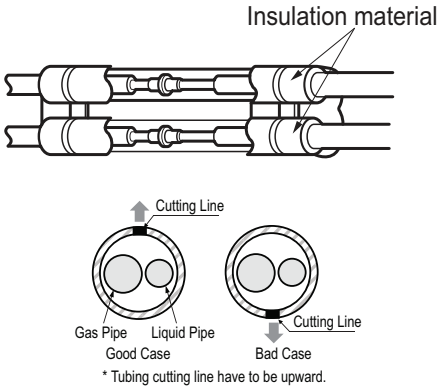



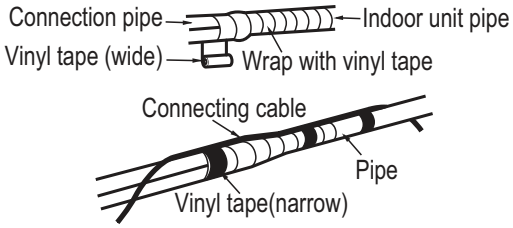




1. Align the center of the pipes and sufficiently tighten the flare nut by hand.
2. Tighten the flare nut with a wrench.
3. When needed to extend the drain hose of indoor unit, assembly the drain pipe as shown on the drawing.

## ■ Wrap the insulation material around the connecting portion.

1. Overlap the connection pipe insulation material and the indoor unit pipe insulation material. Bind them together with vinyl tape so that there may be no gap.
2. Set the tubing cutting line upward. Wrap the area which accommodates the rear piping housing section with vinyl tape.
3. Bundle the piping and drain hose together by wrapping them with vinyl tape sufficient enough to cover where they fit into the rear piping housing section. Be sure that the drain hose is located at the lowest side of the bundle. Locating at the upper side can cause overflow from the drain pan through the inside of the unit.




## ⚠ CAUTION

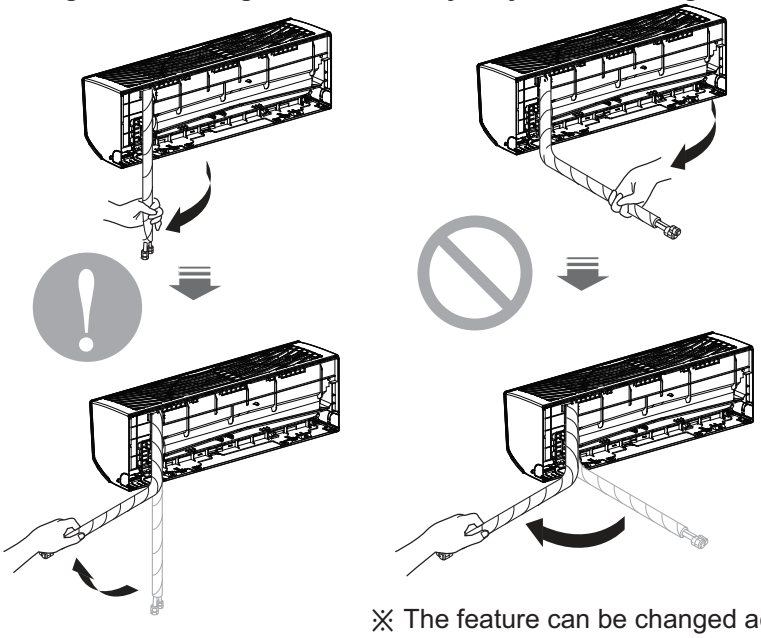
If the drain hose is routed inside the room insulate the hose with an insulation material* so that dripping from sweating condensation) will not damage furniture or floors.

* Foamed polyethylene or equivalent is recommended.

# 8. Installation

## ⚠ CAUTION

- **Press on the tubing cover and unfold the tubing to downward slowly. And then bend to the left side slowly.**
- **Following bending case from right to left directly may cause damage to the tubing.**



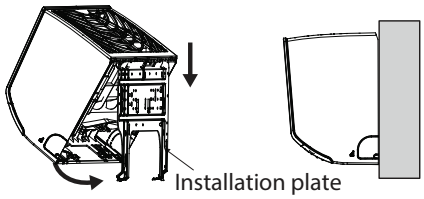
※ The feature can be changed according to type

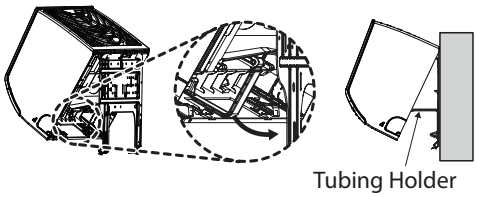
- Installation Information. For right piping. Follow the instruction above.

## 8.2.2 Installation of Indoor Unit

### ■ Seat the indoor unit on the installation plate

1. Hook the indoor unit onto the upper portion of the installation plate.(engage the three hooks at the top of the indoor unit with the upper edge of the installation plate) Ensure that the hooks areproperly seated on the installation plate by moving it left and right
2. Unlock the tubing holder from the chassis and mount between the chassis and installation plate in order to separate the bottom side of the indoor unit from the wall.



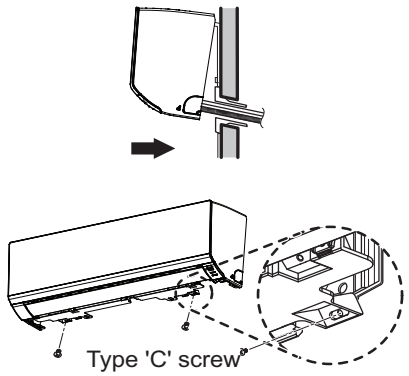




* The feature can be changed according to type of model.

# 8. Installation

## 8.2.3 Finishing the indoor unit installation

1. Mount the tubing holder in the original positon.
2. Ensure that the hooks are properly seated on the installation plate by moving it left and right.
3. Press the lower left and right sides of the unit against the installation plate until the hooks engage into their slots (clicking sound).
4. Finish the assembly by screwing the unit to the installation plate by using two pieces of type "C" screws. And assemble a chassis cover. (SJ/SK chassis) Recovery the chassis cover in Original place. (SV chassis)




* The feature can be changed according to type of model.

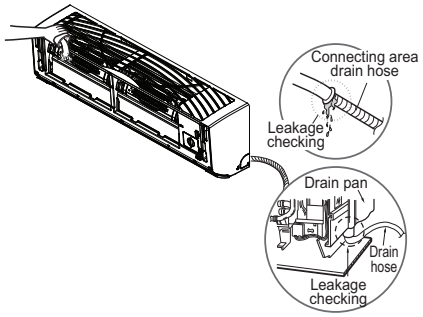
**⚠ CAUTION**

- **The indoor unit can be dropped from the wall, the indoor unit is not screwed correct position on the install plate.**
- **To avoid the gap between the indoor unit and wall , screw the indoor unit to the install plate correctly.**

## 8.2.4 Checking the Drainage

### ◆ To check the drainage.

1. Pour a glass of water on the evaporator.
2. Ensure the water flows through the drain hose of the indoor unit without any leakage and goes out the drain exit.

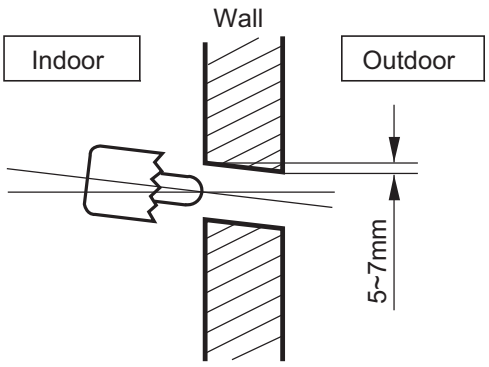



* The feature can be changed according to type of model.

# 8. Installation

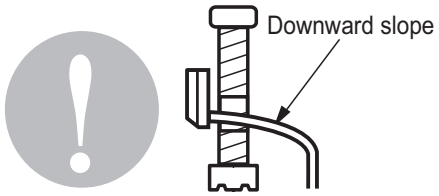
## ◆ Drill a Hole in the wall

1. Drill the piping hole with a ø 70mm hole core drill. Drill the piping hole at either the right or the left with the holes slightly slanted to the outdoor side.

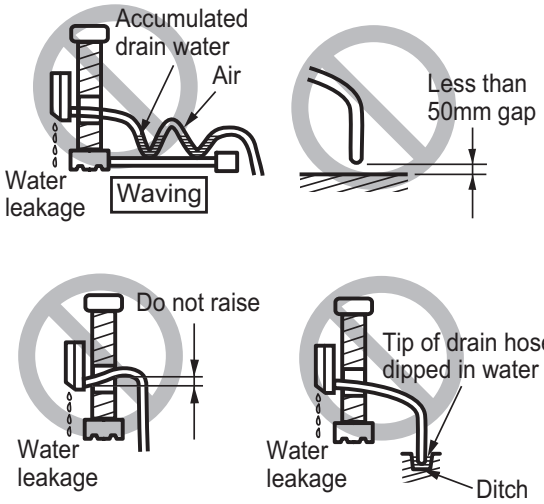



## ◆ Drain Piping

1. The drain hose should point downward for easy drain flow




2. Do not make drain piping like the following.




* The feature can be changed according to type of model.

# 8. Installation

## 8.3 Wiring the cable to the indoor units

### 8.3.1 General instructions

- All field supplied parts and materials, electric works must conform to local codes. Use copper wire only.
- Follow the ***"WIRING DIAGRAM"*** attached to the unit body to wire the outdoor unit, indoor units and the remote controller.
- All wiring must be performed by an authorized electrician.
- A circuit breaker capable of shutting down the power supply to the entire system must be installed.

**⚠ CAUTION**

After the confirmation of the above conditions, prepare the wiring as follows:

- Never fail to have separate power specially for the air conditioner.
- Provide a circuit breaker switch between power source and the unit.
- Confirm the Specification of power source.
- Confirm that electrical capacity is sufficient.
- Be sure that the starting voltage is maintained at more than 90 percent of the rated voltage marked on the name plate.
- Confirm that the cable thickness is as specified in the power sources specification.
  (Particularly note the relation between cable length and thickness.)
- Do not install the leakage breaker in a place which is wet or moist.
  Water or moist may cause short circuit.
- The following troubles would be caused by voltage drop-down.
  - » Vibration of a magnetic switch, damage on the contact point there of, fuse breaking, disturbance to the normal function of a overload protection device.
  - » Proper starting power is not given to the compressor.

### 8.3.2 Wiring connection

- Connect the wires to the terminals on the control board individually according to the outdoor unit connection.
- Ensure that the color of the wires of outdoor unit and the terminal No. are the same as those of indoor unit respectively.
- In case of the system with multiple indoor units, mark each indoor unit as unit A, unit B, etc and be sure the terminal board wiring to the outdoor unit and indoor units are properly matched. If wiring and piping between the outdoor unit and an indoor unit are mismatched, the system may cause a malfunction.

### 8.3.3 Clamping of cables

1. Arrange 2 power cables on the control panel.
2. First, fasten the steel clamp with a screw to the inner boss of control panel.
3. For connecting of communication (transmission) cable, put the cable(or thinner cable) on the clamp and tighten it with a plastic clamp to the other boss of the control panel. In case that communication (transmission) cable is not needed to connect, fix the other side of the clamp with a screw strongly.

# 8. Installation

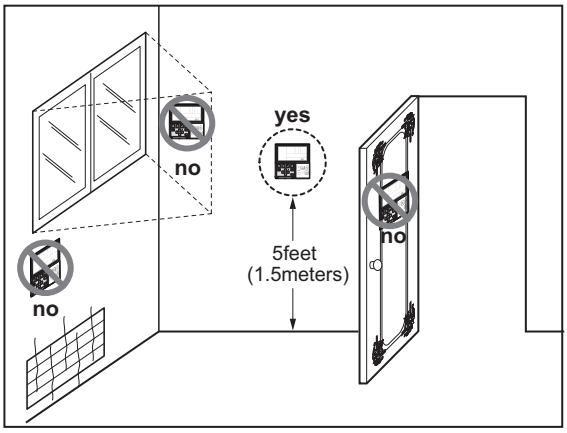
**⚠ WARNING**

- Make sure that the screws of the terminal are fixed tightly.
- The screw which fasten the wiring in the casing of electrical fittings are liable to come loose from vibrations to which the unit is subjected during the course of transportation. Check them and make sure that they are all tightly fastened. (If they are loose, it could give rise to burn-out of the wires.)
- Make sure to attach the sealing material or (field supplied) to hole of wiring to prevent the infiltration of foreign particle from outside. Otherwise a short-circuit may occur inside the electric parts box.
- When clamping the wires, be sure no pressure is applied to the wire connections by using the included clamping material to make appropriate clamps. Also, when wiring, make sure the cover on the electric parts box fits snugly by arranging the wires neatly and attaching the electric parts box cover firmly. When attaching the electric parts box cover, make sure no wires get caught in the edges. Pass wiring through the wiring through holes to prevent damage to them.
- Make sure the remote controller wiring, the wiring between the units, and other electrical wiring do not pass through the same locations outside of the unit, separating them properly, otherwise electrical noise (external static) could cause product malfunction.

## 8.3.4 Wired Remote Controller Installation (Optional)

Since the room temperature sensor is in the remote controller, the remote controller box should be installed in a place away from direct sunlight, high humidity and direct supply of cold air to maintain proper space temperature.

Install the remote controller about 5ft(1.5m) above the floor in an area with good air circulation at an average temperature.




- **Do not install the remote controller where it can be affected by :**
  - Drafts, or dead spots behind doors and in corners.
  - Hot or cold air from ducts.
  - Radiant heat from sun or appliances.
  - Concealed pipes and chimneys.
  - Uncontrolled areas such as an outside wall behind the remote controller.
  - This remote controller is equipped with a seven segment LED. display. For proper display of the remote controller LED's, the remote controller should be installed properly. (The standard height is 1.2~1.5 m from floor level.)

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http://partner.lge.com



Printed in Korea September / 2023

The air conditioners manufactured by LG have received ISO9001 certificate for quality assurance and ISO14001 certificate for environmental management system.
The specifications, designs, and information in this brochure are subject to change without notice.