LG

# TOTAL HVAC SOLUTION PROVIDER

## ENGINEERING PRODUCT DATA BOOK

**Single Indoor Unit**

**Heat pump, R410A**

**MFL67986347**

LG
Life's Good

**Region : Brazil**

**Published on May. 27, 2024**

# Single Indoor Unit
# General Information

## Model Line Up

# 1. Model Line Up

| Product | Chassis | Capacity Index | Model Name |
|---|---|---|---|
| | | kW | |
| Ceiling Cassette 1-Way | TT | 5.3 | ATNW18GTLP1 |
| | | 7.0 | ATNW24GTLP1 |
| Ceiling Cassette 4-Way | TP | 5.3 | ATNW18GPLP1 |
| | | 7.0 | ATNW24GPLP1 |
| | TN | 10.6 | ATNW36GNLP1 |
| | TM | 14.1 | ATNW48GMLP1 |
| | | 17.6 | ATNW60GMLP1 |
| Ceiling Suspended | VM1 | 10.6 | AVNW36GM1P1 |
| | VM2 | 14.1 | AVNW48GM2P1 |
| | | 17.6 | AVNW60GM2P1 |
| Ceiling Cassette Round | TY | 10.6 | ATNW36GYLP1 |
| | | 17.6 | ATNW60GYLP1 |

* The capacity index may differ from actual capacity values.

# Product Data

## Ceiling Cassette 1-Way

## Ceiling Cassette 4-Way

## Ceiling Suspended

## Ceiling Cassette Round

# Ceiling Cassette 1-Way

1. Specifications
2. List of Functions
3. Accessory Compatibility List
4. Dimensions
5. Piping Diagrams
6. Wiring Diagrams
7. Sound Levels
8. Air flow and temperature distributions

# 1. Specifications

## 1.1 Product

ATNW18GTLP1

| Category | | Unit | Specification |
|---|---|---|---|
| Major | Minor | | |
| Classification | Chassis | - | TT |
| Power Supply | Case 1 | - | 220, 1, 60 |
| | Case 2 | - | - |
| | Limit Range of Voltage(Case 1) | V | 198 ~ 242 |
| | Limit Range of Voltage(Case 2) | V | - |
| Cooling Capacity | Nominal | kW | 4.69 |
| | | Btu/h | 16,000 |
| Heating Capacity | Nominal | kW | 5.28 |
| | | Btu/h | 18,000 |
| Power Input(Indoor) | H/M/L | W | - |
| Running Current | H/M/L | A | - |
| Indoor Fan | Type | - | CFF |
| | Quantity | EA | 1 |
| | Air Flow Rate((SH)/H/M/L) | m³/min | - / 13.3 / 11.8 / 10.8 |
| | Air Flow Rate Range(Min~Max) | m³/min | 10.8~13.3 |
| | External Static Pressure_Factory Set | Pa | - |
| Indoor Fan Motor | Type | - | BLDC |
| | Drive | - | - |
| | Output | W | 30 |
| | | No. | 1 |
| Dehumidification Rate | - | ℓ/h | - |
| Heat Exchanger | Rows x Columns x FPI | - | 2 x 12 x 18 |
| | No. | - | 1 |
| | Fin Type | - | Slit(Half) |
| | Face Area | m² | 0.24 |
| Dimensions | Net(W x H x D) | mm | 1,180 x 132 x 450 |
| | Shipping(W x H x D) | mm | 1,445 x 252 x 538 |
| Weight | Net | kg | 14.5 |
| | Shipping | kg | 17.5 |
| Exterior | Color | - | White |
| | RAL (Classic) | - | RAL 9003 |
| Air Filter | Type | - | Long Life |
| Protection Device | Fuse | - | O |
| | Overload Protector for Fan Motor | - | Thermal Protector for Fan Motor |
| Refrigerant | Type | - | R410A |
| | Control Type | - | - |
| Drain Pipe(Natural Drainage) | O.D / I.D | mm(inch) | - |
| Drain Pipe(using Drain Pump) | O.D / I.D | mm(inch) | Φ32(1-1/4)/Φ25(31/32) |
| Pipe Connecting Socket | Liquid | mm(inch) | Φ6.35 (1/4) |
| | Gas | mm(inch) | Φ12.7 (1/2) |
| | Connection Type(Liquid) | - | Flare |
| | Connection Type(Gas) | - | Flare |
| Sound Pressure Level(Indoor Unit) | Cooling ((SH)/H/M/L) | dB(A) | - / 45.0 / 42.0 / 39.0 |
| | Heating ((SH)/H/M/L) | dB(A) | - / 45.0 / 42.0 / 39.0 |
| Measurement Standard (Pressure Level) | - | - | ISO 3745 |
| Sound Power Level(Indoor Unit) | Cooling ((SH)/H/M/L) | dB(A) | - |
| | Heating ((SH)/H/M/L) | dB(A) | - |
| Measurement Standard (Power Level) | - | - | - |

# 1. Specifications

| Category | | Unit | Specification |
|---|---|---|---|
| Major | Minor | | |
| Connecting Cable | Power and Communication cable(H07RN-F) | mm² × cores | 0.75 x 4 |
| Power Supply Type to Indoor | - | - | - |
| Electrical Characteristic | Indoor Fan Motor_Full Load Amperes (FLA) | A | 0.6 |

***Note***

- Due to our policy of innovation some specifications may be changed without notification.
- Wiring cable size must comply with the applicable local and national code.
  And “Electric characteristics” should be considered for electrical work and design.
- Especially the power cable and circuit breaker should be selected in accordance with that.
- 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.

# 1. Specifications

ATNW24GTLP1

| Category | | Unit | Specification |
|---|---|---|---|
| **Major** | **Minor** | | |
| Classification | Chassis | - | TT |
| Power Supply | Case 1 | - | 220, 1, 60 |
| | Case 2 | - | - |
| | Limit Range of Voltage(Case 1) | V | 198 ~ 242 |
| | Limit Range of Voltage(Case 2) | V | - |
| Cooling Capacity | Nominal | kW | 6.16 |
| | | Btu/h | 21,000 |
| Heating Capacity | Nominal | kW | 6.74 |
| | | Btu/h | 23,000 |
| Power Input(Indoor) | H/M/L | W | - |
| Running Current | H/M/L | A | - |
| Indoor Fan | Type | - | CFF |
| | Quantity | EA | 1 |
| | Air Flow Rate((SH)/H/M/L) | m³/min | - / 16.0 / 14.0 / 12.0 |
| | Air Flow Rate Range(Min~Max) | m³/min | 12.0~16.0 |
| | External Static Pressure_Factory Set | Pa | - |
| Indoor Fan Motor | Type | - | BLDC |
| | Drive | - | - |
| | Output | W | 30 |
| | | No. | 1 |
| Dehumidification Rate | - | ℓ/h | - |
| Heat Exchanger | Rows x Columns x FPI | - | 2 x 12 x 18 |
| | No. | - | 1 |
| | Fin Type | - | Slit(Half) |
| | Face Area | m² | 0.24 |
| Dimensions | Net(W x H x D) | mm | 1,180 x 132 x 450 |
| | Shipping(W x H x D) | mm | 1,445 x 252 x 538 |
| Weight | Net | kg | 14.5 |
| | Shipping | kg | 17.5 |
| Exterior | Color | - | White |
| | RAL (Classic) | - | RAL 9003 |
| Air Filter | Type | - | Long Life |
| Protection Device | Fuse | - | O |
| | Overload Protector for Fan Motor | - | Thermal Protector for Fan Motor |
| Refrigerant | Type | - | R410A |
| | Control Type | - | - |
| Drain Pipe(Natural Drainage) | O.D / I.D | mm(inch) | - |
| Drain Pipe(using Drain Pump) | O.D / I.D | mm(inch) | Φ32(1-1/4)/Φ25(31/32) |
| Pipe Connecting Socket | Liquid | mm(inch) | Φ9.52 (3/8) |
| | Gas | mm(inch) | Φ15.88 (5/8) |
| | Connection Type(Liquid) | - | Flare |
| | Connection Type(Gas) | - | Flare |
| Sound Pressure Level(Indoor Unit) | Cooling ((SH)/H/M/L) | dB(A) | - / 46.0 / 43.0 / 40.0 |
| | Heating ((SH)/H/M/L) | dB(A) | - / 46.0 / 43.0 / 40.0 |
| Measurement Standard (Pressure Level) | - | - | ISO 3745 |
| Sound Power Level(Indoor Unit) | Cooling ((SH)/H/M/L) | dB(A) | - |
| | Heating ((SH)/H/M/L) | dB(A) | - |
| Measurement Standard (Power Level) | - | - | - |
| Connecting Cable | Power and Communication cable(H07RN-F) | mm² × cores | 0.75 x 4 |
| Power Supply Type to Indoor | - | - | - |

# 1. Specifications

| Category | | Unit | Specification |
|---|---|---|---|
| Major | Minor | | |
| Electrical Characteristic | Indoor Fan Motor_Full Load Amperes (FLA) | A | 0.6 |

***Note***

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- Especially the power cable and circuit breaker should be selected in accordance with that.
- 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.

## 2. List of Functions

ATNW18GTLP1, ATNW24GTLP1

| Category | Functions | Availability |
|---|---|---|
| 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) | 4 / 5 / 4 |
| | Fan Speed Auto* | Advanced |
| | Power Cool/Heat | O / X |
| | Swirl Wind* | X |
| | Refresh Mode** | X |
| | Smart Mode** | X |
| | Indirect Wind* | O |
| | Direct Wind* | O |
| | Dry Operation | O |
| Air Purification | Pre-Filter | O |
| | Air Purify | Accessory |
| | Ionizer | X |
| | UVnano | 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* | O |
| | Sleep Timer** | O |
| | Turn On/Off Reservation** | O |
| | Schedule** | O |
| | Two Thermistor Control* | O |
| | Time Limit Control (Energy saving)*** | O |
| | Temperature Setback Timer (Energy saving)*** | - |
| | External On/Off | O |
| Installation | Drain Pump | O |
| | High Ceiling Operation* | O |
| | Duty Rotation / Back up Operation*** | - |
| Special Functions | Wi-Fi Control | Accessory |
| | Comfort Cooling (Humidity Control)*** | O |
| | Auto Elevation Grille | X |
| | Human Detection Function*** | X |
| | Floor Detection Function*** | X |

***Note***

■ 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.

■ Some functions can be limited by remote controller.
■ In case of cassette type indoor units, Plasma kit and Auto Elevation Grille functions are not applicable at the same time.
■ '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)

## 2. List of Functions

- * : These functions need to connect the wired remote controller.
- ** : This functions need to connect to the Standard II / III wired remote controller.
- *** : This functions need to connect to the Standard III wired remote controller.

# 3. Accessory Compatibility List

ATNW18GTLP1, ATNW24GTLP1

| Category | Accessory Name | Model Name | Description | Compatibility |
|---|---|---|---|---|
| Remote Controller | Wired - Premium | PREMTA000 | - | O |
| | | PREMTA000A | - | O |
| | | PREMTA000B | - | O |
| | Wired - RS3 (Standard III) | PREMTB100/PREMTB101 | White | O |
| | | CREMTB100 | White | O |
| | | PREMTBB10/PREMTBB11 | Black | O |
| | Wired - RS2 (Standard II) | PREMTB001 | White | O |
| | | CREMTB001 | White | O |
| | | PREMTBB01 | Black | O |
| | Wired - Simple | PQRCVCL0QW | White | O |
| | | PQRCVCL0Q | Black | O |
| | Wired - Simple for hotel | PQRCHCA0QW | White | O |
| | | PQRCHCA0Q | Black | O |
| | Wireless | PQWRCQ0FDB | For Cooling only | X |
| | | PQWRHQ0FDB | For Heat pump | O |
| | | PWLSSB21C | For Cooling only | X |
| | | PWLSSB21H | For Heat pump | O |
| Dry Contact | Simple | PDRYCB000 | 1 input port, AC 220 - 240V | O |
| | | PDRYCB100 | 1 input port, AC 24V | O |
| | Communication | PDRYCB400 | 2 input port(For Setback) | O |
| | | PDRYCB300 | 8 input port, For 3rd party Themostat | O |
| | | PDRYCB320 | 8 input port, For 3rd Party Thermostat (Analog Input) | O |
| | | PDRYCB500 | For 3rd Party Controller(Modbus RTU) | X |
| Integration Device | Remote Temperature sensor | PQRSTA0 | Room temperature sensor, NTC 10kΩ, include casing | O |
| | Group Control wire | PZCWRCG3 | Cable Assembly for group control (Y-type cable : 0.25m, cable : 9.6m) | O |
| ETC | Extension wire | PZCWRC1 | Extension wire for IDU-wired remote controller (9.6m) | X |
| | 2-Remo Control wire | PZCWRC2 | Y-type cable to connect additional Remote Controller as slave | X |
| | Wi-Fi Modem | PWFMDD200 | Device to use ThinQ app include connection cable | O |
| | Wi-Fi Extension cable | PWYREW000 | USB Extension cable : 10 m | X |
| | Independent Power Module | PRIP0 | For Multi V Indoor Unit | X |
| | Multi-tenant Power module | PINPMB001 | For Multi V Indoor Unit | X |
| | Refrigerant Leakage Detector | PRLDNVS0 | For Multi V Indoor Unit (R410A) | X |
| | Human Detection Sensor | PTVSMA0 | For Cassette 4-way | X |
| | | PTVSAA0 | For Cassette Dual Vane 4-way | X |
| | Floor Detection Sensor | PTFSMA0 | For Cassette Dual Vane 4-way | X |
| | Auto Elevation Grille | PTEGM0 | For Cassette 4-way | X |
| | Air Purification Kit | PTAHTP0 | For Cassette 1-way | O |
| | | PTAHMP0 | For Cassette 4-way | X |
| | | PTAHYP0 | For Cassette Round | X |
| | EEV Kit | PRGK024A0 | For Multi V Indoor Unit | X |
| | Auxiliary Heater Relay Kit | PRARS1 | For Wall Mounted / Art Cool Indoor Units | X |
| | | PRARH1 | For Cassette / Duct Indoor Units | X |
| | Ventilation Kit | PTVK430 | For TR/TQ/TP/TN/TM Chassis | X |
| | | PTVK410 / PTVK420 | For TP/TN/TM Chassis | X |
| | Cassette Cover | PTDCQ | For TR/TQ Chassis | X |
| | | PTDCM | For TP/TN/TM Chassis | X |
| | | PTDCA | For TM-A/TP-B Chassis | X |

***Note***

■ O: Possible, X: Impossible, - : Unconfirmed or irrelevant.

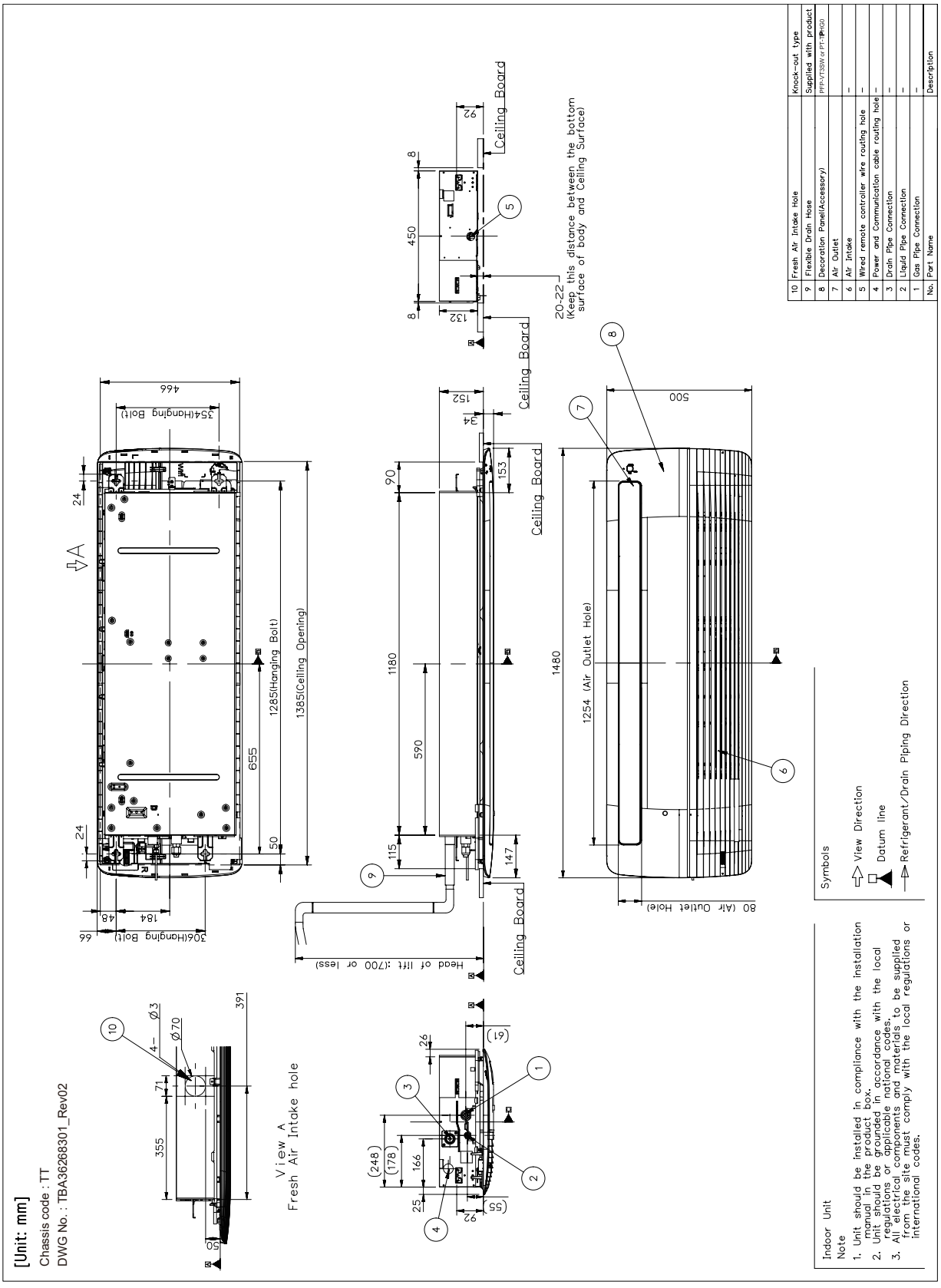
## 3. Accessory Compatibility List

- * : Some advanced functions controlled by individual controller cannot be operated.
- Air Purification Kit and Auto Elevation Grille are not appliable at the same time.
- If there is a difference in development time between the product and the remote controller, some functions cannot be operated.
- If you need more detail, please refer to the Control(BECON) PDB or the manual of product.
  (http://partner.lge.com > Select Your Region : Home> Doc.Library> Product > Control(BECON)).

# 4. Dimensions

## 4.1 Dimensional Drawing (PT-TAHG0)

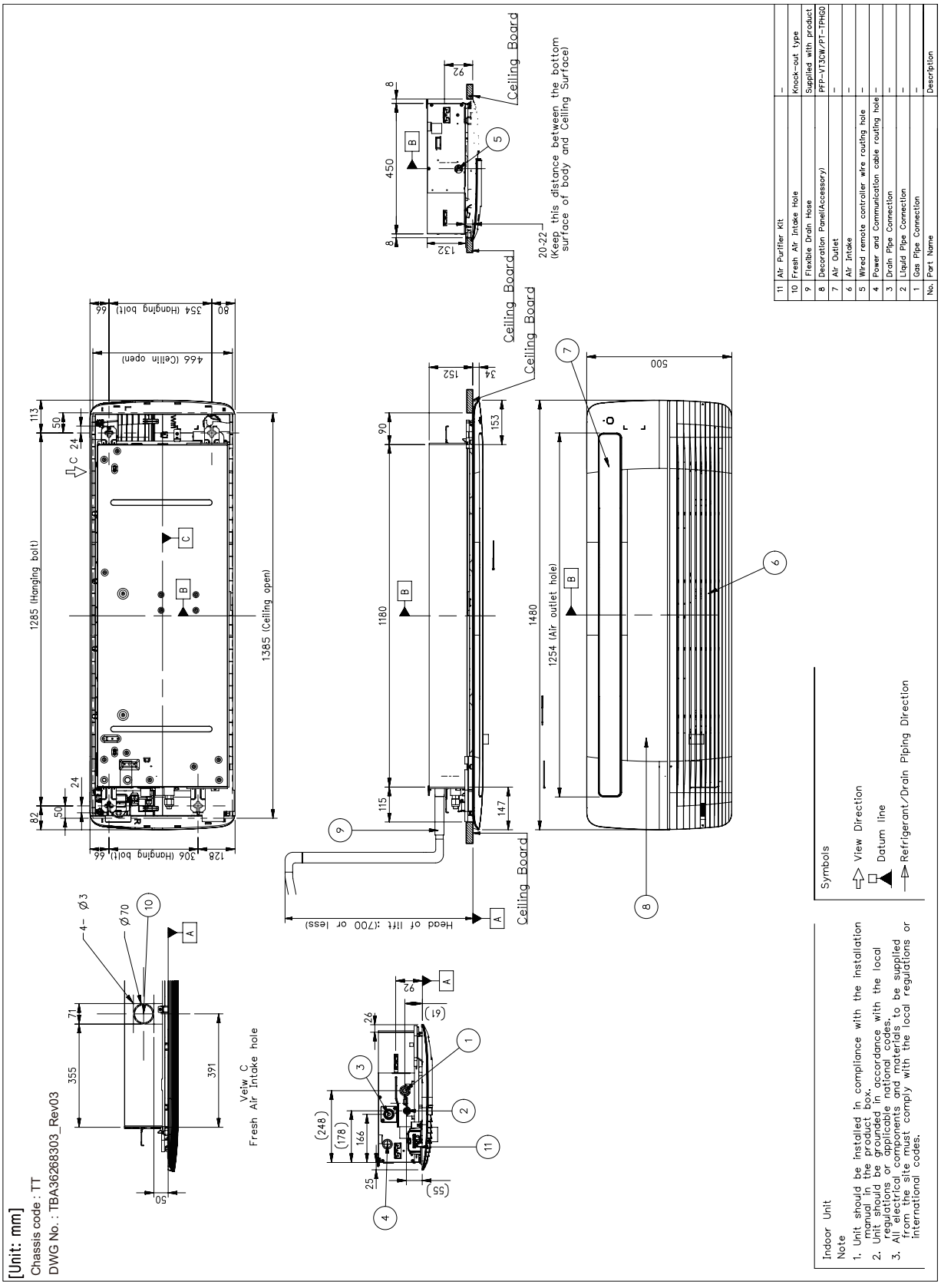
ATNW18GTLP1, ATNW24GTLP1



# 4. Dimensions

## 4.2 Dimensional Drawing (PT-TPHG0)

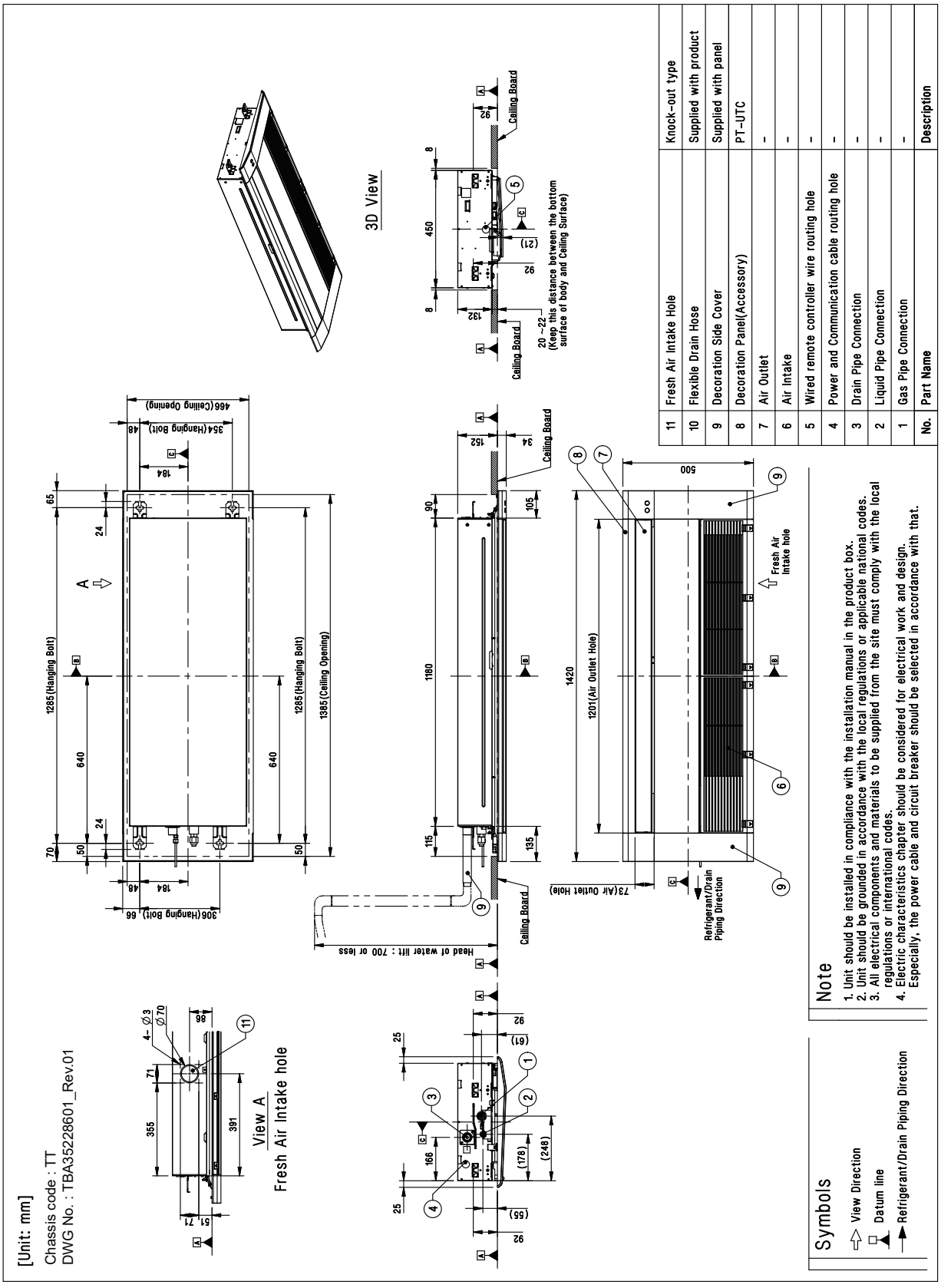
ATNW18GTLP1, ATNW24GTLP1



# 4. Dimensions

## 4.3 Dimensional Drawing (PT-UTC)

ATNW18GTLP1, ATNW24GTLP1




| No. | Part Name | Description |
|---|---|---|
| 11 | Fresh Air Intake Hole | Knock-out type |
| 10 | Flexible Drain Hose | Supplied with product |
| 9 | Decoration Side Cover | Supplied with panel |
| 8 | Decoration Panel(Accessory) | PT-UTC |
| 7 | Air Outlet | - |
| 6 | Air Intake | - |
| 5 | Wired remote controller wire routing hole | - |
| 4 | Power and Communication cable routing hole | - |
| 3 | Drain Pipe Connection | - |
| 2 | Liquid Pipe Connection | - |
| 1 | Gas Pipe Connection | - |

**Note**

1. Unit should be installed in compliance with the installation manual in the product box.
2. Unit should be grounded in accordance with the local regulations or applicable national codes.
3. All electrical components and materials to be supplied from the site must comply with the local regulations or international codes.
4. 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.

**Symbols**

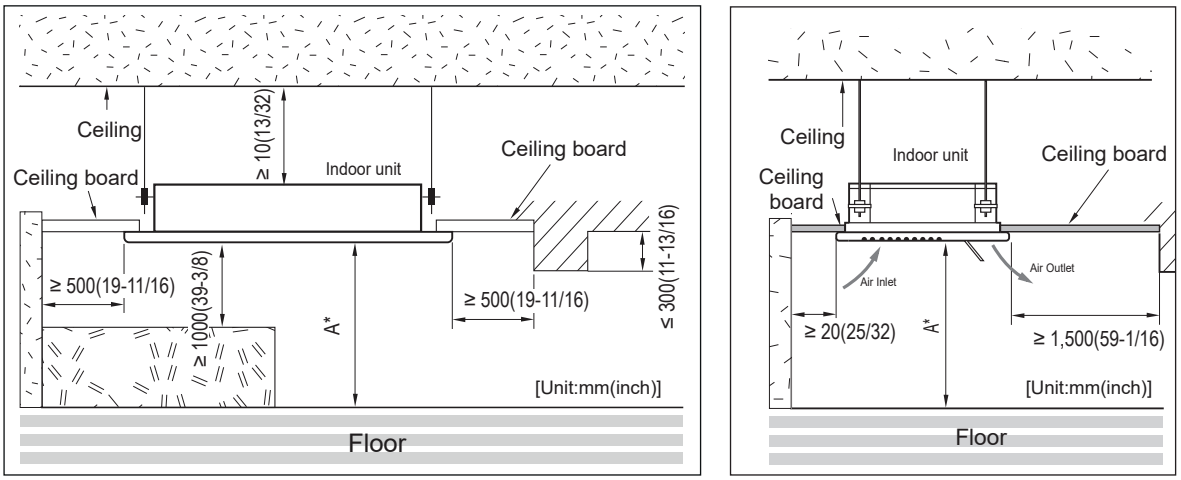
- View Direction
- Datum line
- Refrigerant/Drain Piping Direction

# 4. Dimensions

## 4.4 Installation Space

ATNW18GTLP1, ATNW24GTLP1

*< Minimum Installation Space >*



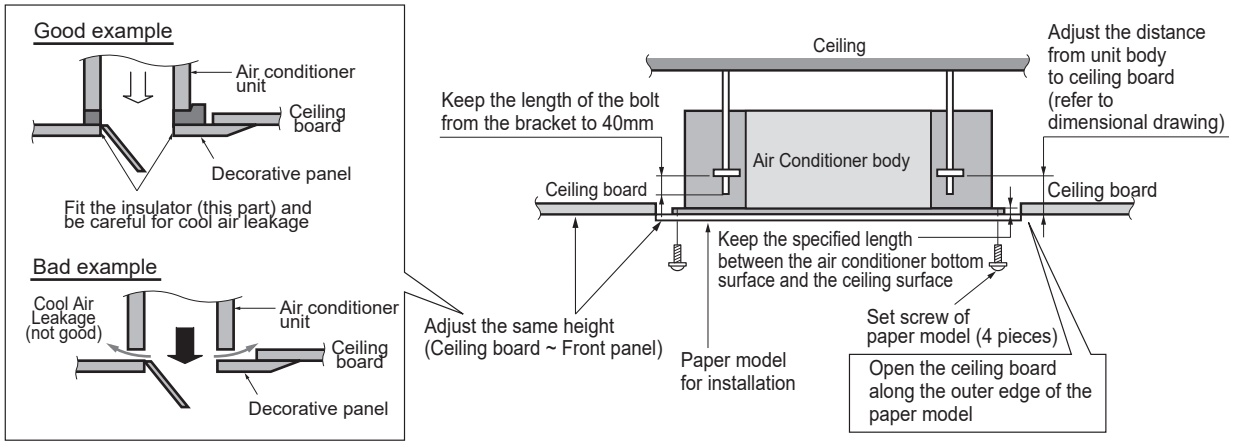

***Notes***

1. **** : A, Installation Height from the floor***

| Type | Installation Height (A) | | |
|---|---|---|---|
| | Min. | *Standard* ** | Max. |
| Ceiling Mounted Cassette 1Way | 1.8 m (5.91 ft) | 2.7 m (8.86 ft) | 3.3 m (9.84 ft) |

*** : Standard Height (Recommended)*
If it exceeds the standard height, set the 'High Ceiling Mode'.
For details about function setting, refer to the installation manual.

*< Cautions for Panel installation >*



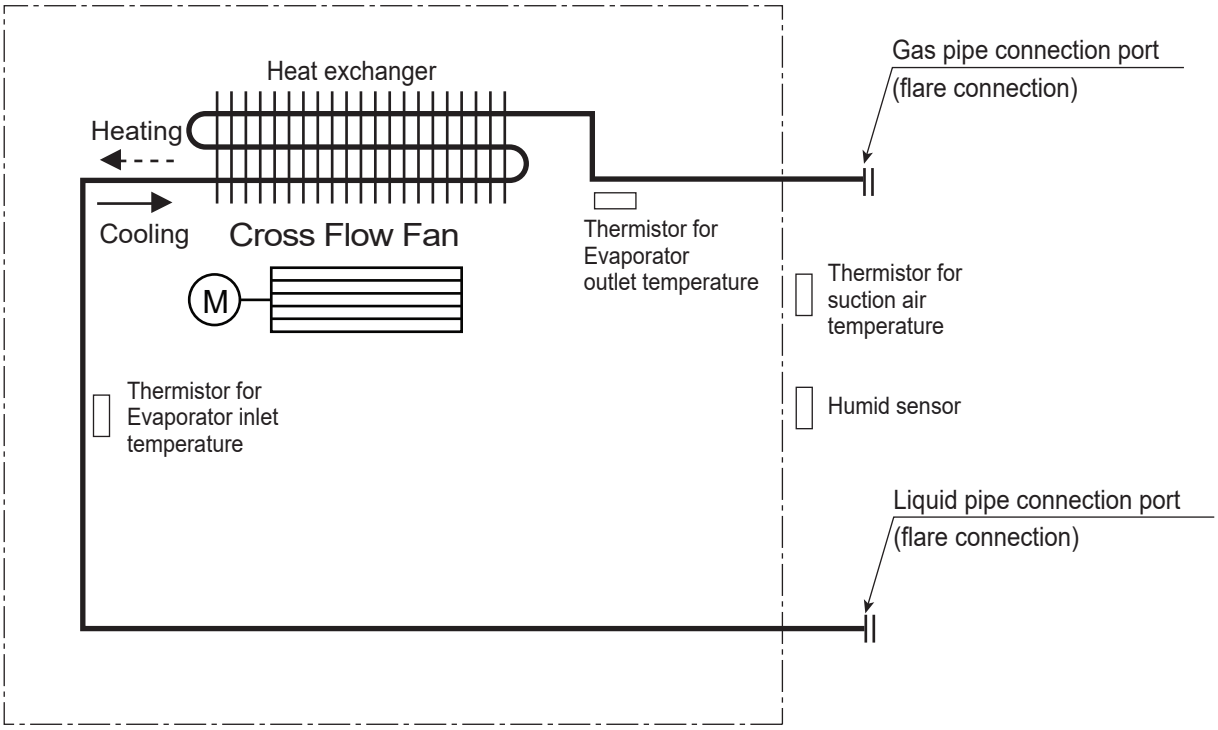

***Note***

- Places where products are installed should not be any obstacles to the air circulation or installation. Ensure the spaces from the wall, ceiling, or other obstacles.
- According to type of indoor unit, external appearance or installed structure could be different.
- According to product type, model line up, sales region..etc, applicability of each chassis could be different.
- Install certainly the decoration panel. Cool air leakage causes sweating or falling of water-drops.

# 5. Piping Diagrams

## 5.1 Normal

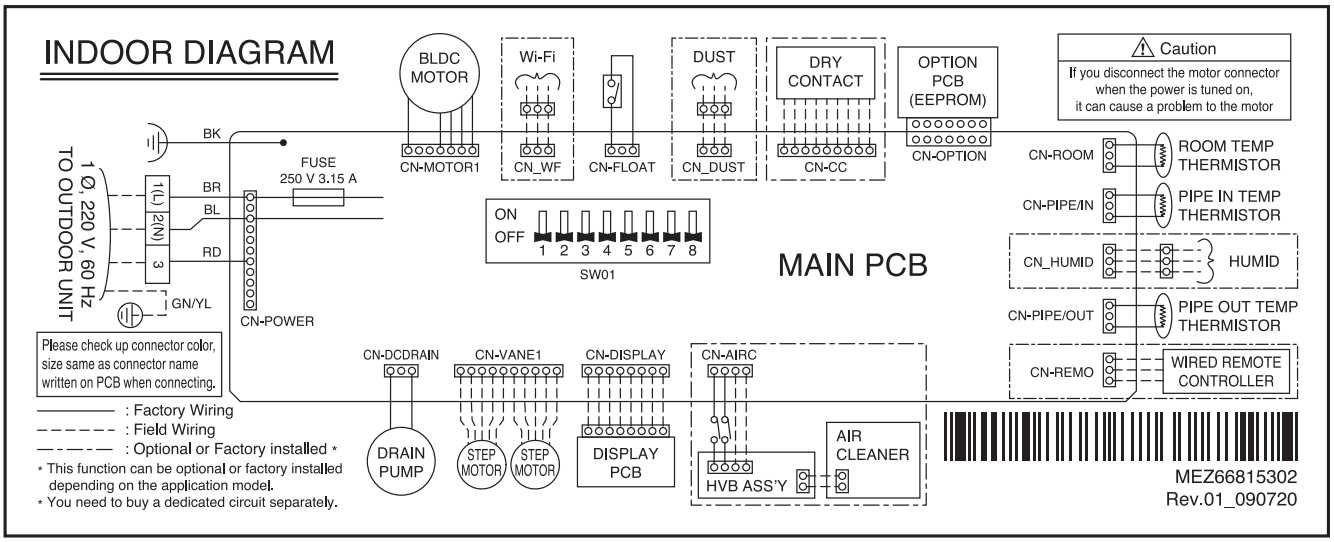
ATNW18GTLP1, ATNW24GTLP1



# 6. Wiring Diagrams

## 6.1 Product

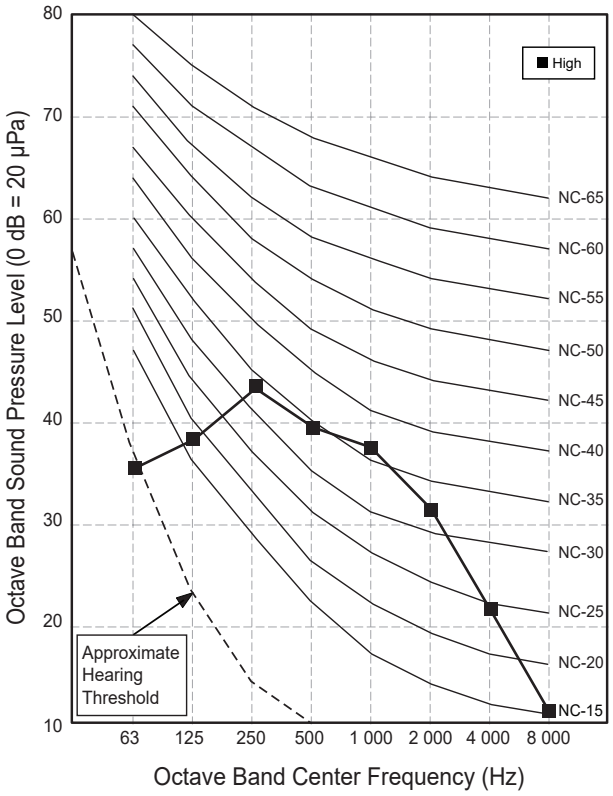
ATNW18GTLP1, ATNW24GTLP1



# 7. Sound Levels

## 7.1 Pressure Levels

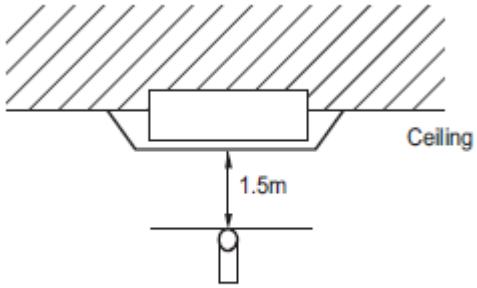
ATNW18GTLP1




| Sound level [ dB(A), @ Standard condition ] | |
|---|---|
| Cooling ((SH)/H/M/L) | - / 45.0 / 42.0 / 39.0 |
| Heating ((SH)/H/M/L) | - / 45.0 / 42.0 / 39.0 |

***Note***

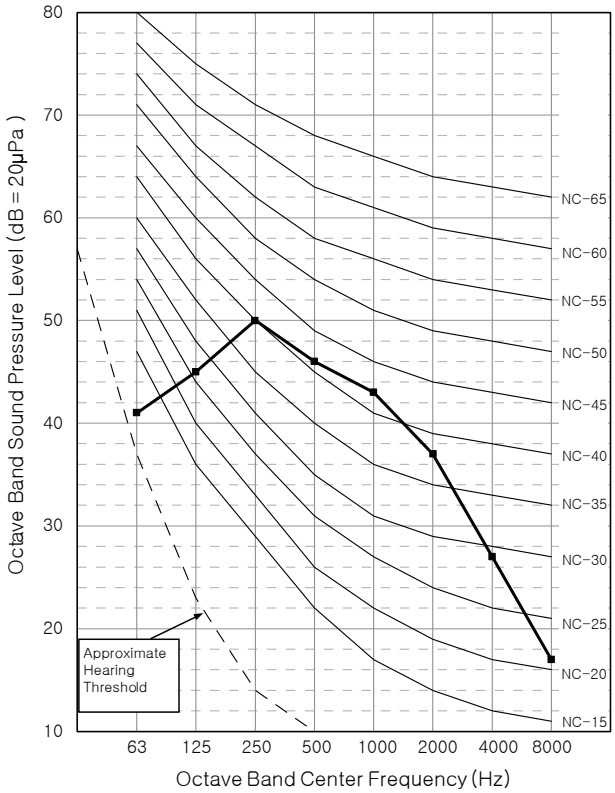
- Sound measured at some distance away from the center of the unit.
- Data is valid at free field condition.
- Reference accoustic pressure 0dB = 20µPa.
- Data is valid at nominal operation condition.
  Refer to the Model Specifications for nominal conditions(Power source and Ambient temperature, etc)
- Sound levels can be increased in accordance with installation and operating conditions.
  (Static pressure mode, used air guide, Room target temperature setting, etc)
- Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard.
  Therefore, these values can be increased owing to ambient conditions during operation.




* Measuring place : Anechoic chamber

# 7. Sound Levels

ATNW24GTLP1




| Sound level [ dB(A), @ Standard condition ] | |
|---|---|
| Cooling ((SH)/H/M/L) | - / 46.0 / 43.0 / 40.0 |
| Heating ((SH)/H/M/L) | - / 46.0 / 43.0 / 40.0 |

***Note***

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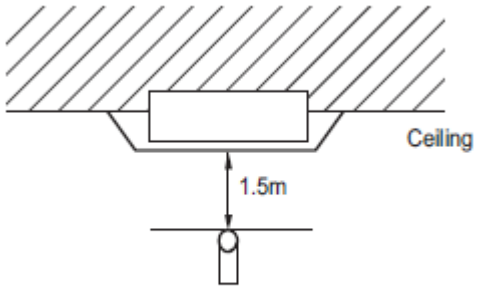


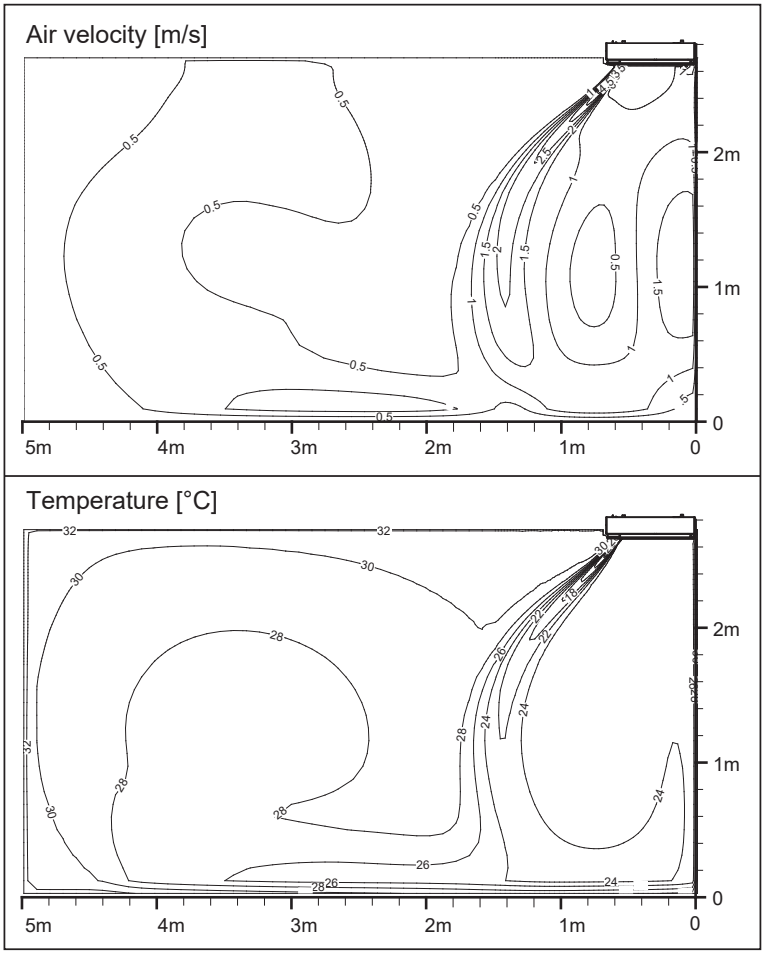

* Measuring place : Anechoic chamber

# 8. Air flow and temperature distributions

## 8.1 Cooling Operation

ATNW18GTLP1

Discharge angle: 50°



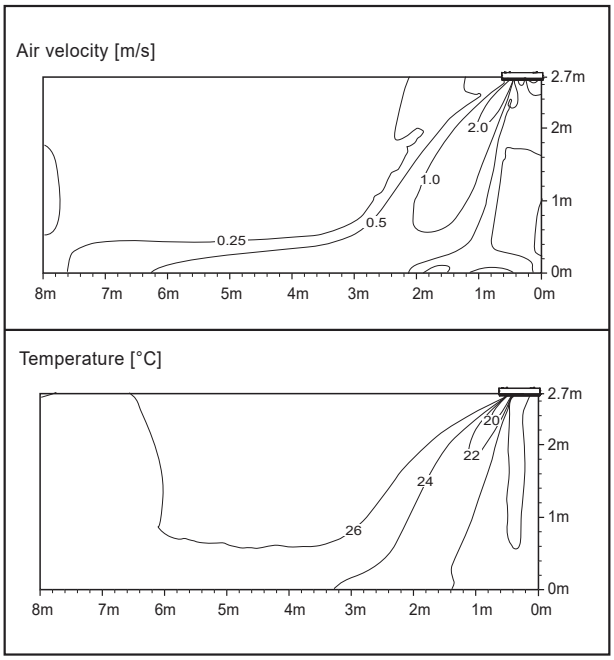

***Note***

- These figures are accordance with normal certain condition and environment.
  (Airflow step is '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.

## 8. Air flow and temperature distributions

ATNW24GTLP1

Discharge angle: 50°

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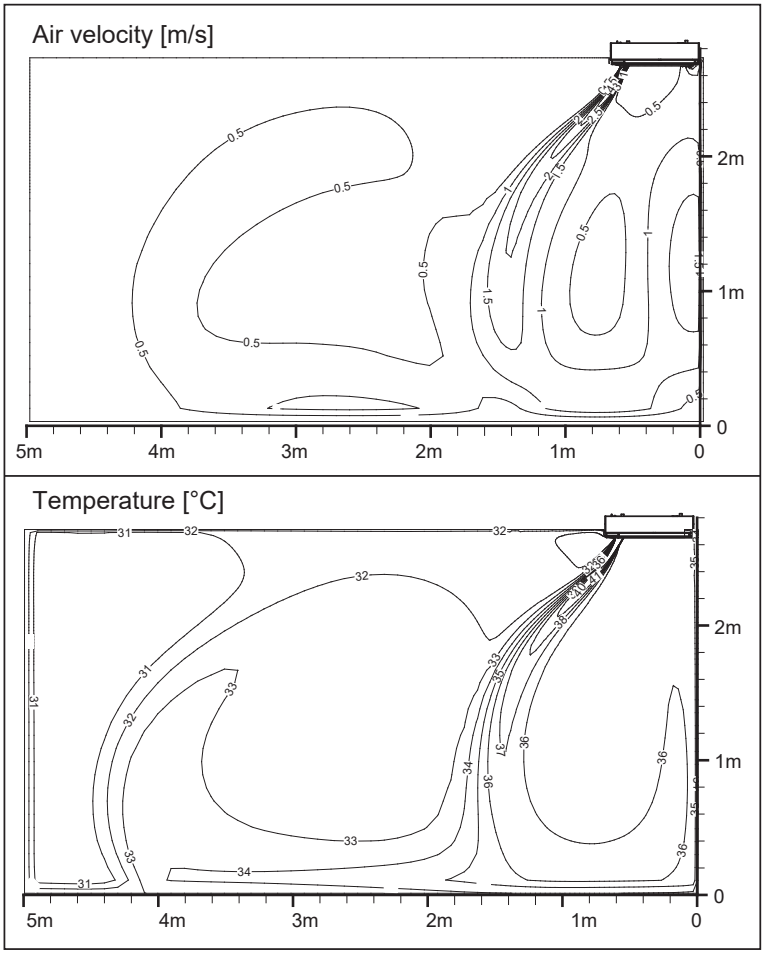
# 8. Air flow and temperature distributions

## 8.2 Heating Operation

ATNW18GTLP1

Discharge angle: 60°



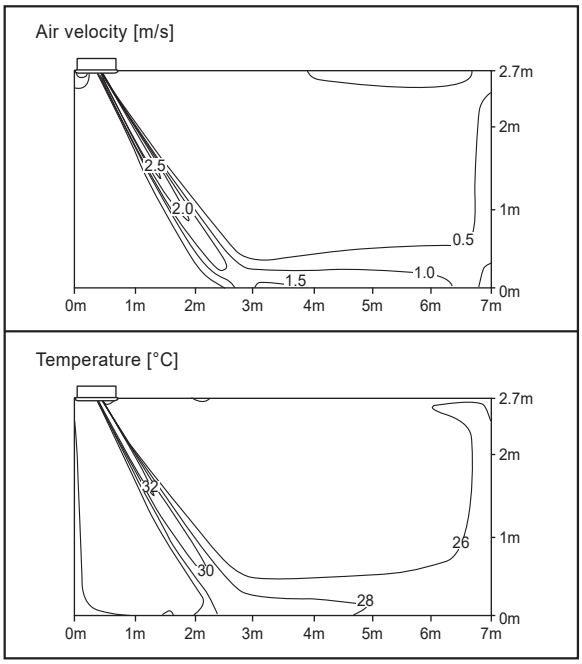

***Note***

- These figures are accordance with normal certain condition and environment.
  (Airflow step is '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.

# 8. Air flow and temperature distributions

## ATNW24GTLP1

Discharge angle: 60°




***Note***

- These figures are accordance with normal certain condition and environment.
  (Airflow step is '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.

# Ceiling Cassette 4-Way

1. Specifications
2. List of Functions
3. Accessory Compatibility List
4. Dimensions
5. Piping Diagrams
6. Wiring Diagrams
7. Sound Levels
8. Air flow and temperature distributions

# 1. Specifications

## 1.1 Product

ATNW18GPLP1

| Category | | Unit | Specification |
|---|---|---|---|
| Major | Minor | | |
| Classification | Chassis | - | TP |
| Power Supply | Case 1 | - | 220, 1, 60 |
| | Case 2 | - | - |
| | Limit Range of Voltage(Case 1) | V | 198~242 |
| | Limit Range of Voltage(Case 2) | V | - |
| Cooling Capacity | Nominal | kW | 5.28 |
| | | Btu/h | 18,000 |
| Heating Capacity | Nominal | kW | 5.28 |
| | | Btu/h | 18,000 |
| Power Input(Indoor) | H/M/L | W | - |
| Running Current | H/M/L | A | - |
| Indoor Fan | Type | - | 2D Turbo |
| | Quantity | EA | 1 |
| | Air Flow Rate((SH)/H/M/L) | m³/min | - / 16.5 / 14.5 / 13.0 |
| | Air Flow Rate Range(Min~Max) | m³/min | 13.0~16.5 |
| | External Static Pressure_Factory Set | Pa | - |
| Indoor Fan Motor | Type | - | BLDC |
| | Drive | - | - |
| | Output | W | 50.3 |
| | | No. | 1 |
| Dehumidification Rate | - | ℓ/h | 1.30 |
| Heat Exchanger | Rows x Columns x FPI | - | 2 x 8 x 19 |
| | No. | - | 1 |
| | Fin Type | - | Louver |
| | Face Area | m² | 0.35 |
| Dimensions | Net(W x H x D) | mm | 840 x 204 x 840 |
| | Shipping(W x H x D) | mm | 922 x 276 x 917 |
| Weight | Net | kg | 21.5 |
| | Shipping | kg | 26.0 |
| Exterior | Color | - | Morning Fog |
| | RAL (Classic) | - | RAL 9001 |
| Air Filter | Type | - | Long Life |
| Protection Device | Fuse | - | O |
| | Overload Protector for Fan Motor | - | Thermal Protector for Fan Motor |
| Refrigerant | Type | - | R410A |
| | Control Type | - | - |
| Drain Pipe(Natural Drainage) | O.D / I.D | mm(inch) | - |
| Drain Pipe(using Drain Pump) | O.D / I.D | mm(inch) | 32.0 / 25.0 |
| Pipe Connecting Socket | Liquid | mm(inch) | Φ6.35 (1/4) |
| | Gas | mm(inch) | Φ12.7 (1/2) |
| | Connection Type(Liquid) | - | Flare |
| | Connection Type(Gas) | - | Flare |
| Sound Pressure Level(Indoor Unit) | Cooling ((SH)/H/M/L) | dB(A) | - / 36.0 / 34.0 / 32.0 |
| | Heating ((SH)/H/M/L) | dB(A) | - / 36.0 / 34.0 / 32.0 |
| Measurement Standard (Pressure Level) | - | - | ISO 3745 |
| Sound Power Level(Indoor Unit) | Cooling ((SH)/H/M/L) | dB(A) | - |
| | Heating ((SH)/H/M/L) | dB(A) | - |
| Measurement Standard (Power Level) | - | - | - |

# 1. Specifications

| Category | | Unit | Specification |
|---|---|---|---|
| Major | Minor | | |
| Connecting Cable | Power and Communication cable(H07RN-F) | mm² × cores | 0.75 x 4 |
| Power Supply Type to Indoor | - | - | - |
| Electrical Characteristic | Maximum Fuse Amperes (MFA) | A | 15 |
| | Indoor Fan Motor_Full Load Amperes (FLA / Max) | A | 0.6 |

***Note***

■ Due to our policy of innovation some specifications may be changed without notification.
■ Wiring cable size must comply with the applicable local and national code.
And “Electric characteristics” should be considered for electrical work and design.
■ Especially the power cable and circuit breaker should be selected in accordance with that.
■ 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.

# 1. Specifications

ATNW24GPLP1

| Category | | Unit | Specification |
|---|---|---|---|
| Major | Minor | | |
| Classification | Chassis | - | TP |
| Power Supply | Case 1 | - | 220, 1, 60 |
| | Case 2 | - | - |
| | Limit Range of Voltage(Case 1) | V | 198~242 |
| | Limit Range of Voltage(Case 2) | V | - |
| Cooling Capacity | Nominal | kW | 7.03 |
| | | Btu/h | 24,000 |
| Heating Capacity | Nominal | kW | 7.62 |
| | | Btu/h | 26,000 |
| Power Input(Indoor) | H/M/L | W | - |
| Running Current | H/M/L | A | - |
| Indoor Fan | Type | - | 2D Turbo |
| | Quantity | EA | 1 |
| | Air Flow Rate((SH)/H/M/L) | m³/min | - / 17.0 / 15.0 / 13.0 |
| | Air Flow Rate Range(Min~Max) | m³/min | 13.0~17.0 |
| | External Static Pressure_Factory Set | Pa | - |
| Indoor Fan Motor | Type | - | BLDC |
| | Drive | - | - |
| | Output | W | 50.3 |
| | | No. | 1 |
| Dehumidification Rate | - | ℓ/h | 2.40 |
| Heat Exchanger | Rows x Columns x FPI | - | 2 x 8 x 19 |
| | No. | - | 1 |
| | Fin Type | - | Louver |
| | Face Area | m² | 0.35 |
| Dimensions | Net(W x H x D) | mm | 840 x 204 x 840 |
| | Shipping(W x H x D) | mm | 922 x 276 x 917 |
| Weight | Net | kg | 21.5 |
| | Shipping | kg | 26.0 |
| Exterior | Color | - | Mornig Fog |
| | RAL (Classic) | - | RAL 9001 |
| Air Filter | Type | - | Long Life |
| Protection Device | Fuse | - | O |
| | Overload Protector for Fan Motor | - | Thermal Protector for Fan Motor |
| Refrigerant | Type | - | R410A |
| | Control Type | - | - |
| Drain Pipe(Natural Drainage) | O.D / I.D | mm(inch) | - |
| Drain Pipe(using Drain Pump) | O.D / I.D | mm(inch) | 32.0 / 25.0 |
| Pipe Connecting Socket | Liquid | mm(inch) | Φ9.52 (3/8) |
| | Gas | mm(inch) | Φ15.88 (5/8) |
| | Connection Type(Liquid) | - | Flare |
| | Connection Type(Gas) | - | Flare |
| Sound Pressure Level(Indoor Unit) | Cooling ((SH)/H/M/L) | dB(A) | - / 38.0 / 36.0 / 34.0 |
| | Heating ((SH)/H/M/L) | dB(A) | - / 38.0 / 36.0 / 34.0 |
| Measurement Standard (Pressure Level) | - | - | ISO 3745 |
| Sound Power Level(Indoor Unit) | Cooling ((SH)/H/M/L) | dB(A) | - |
| | Heating ((SH)/H/M/L) | dB(A) | - |
| Measurement Standard (Power Level) | - | - | - |
| Connecting Cable | Power and Communication cable(H07RN-F) | mm² × cores | 0.75 x 4 |
| Power Supply Type to Indoor | - | - | - |

# 1. Specifications

| Category | | Unit | Specification |
|---|---|---|---|
| Major | Minor | | |
| Electrical Characteristic | Maximum Fuse Amperes (MFA) | A | 25 |
| | Indoor Fan Motor_Full Load Amperes (FLA / Max) | A | 0.6 |

***Note***

- Due to our policy of innovation some specifications may be changed without notification.
- Wiring cable size must comply with the applicable local and national code.
  And “Electric characteristics” should be considered for electrical work and design.
- Especially the power cable and circuit breaker should be selected in accordance with that.
- 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.

# 1. Specifications

ATNW36GNLP1

| Category | | Unit | Specification |
|---|---|---|---|
| Major | Minor | | |
| Classification | Chassis | - | TN |
| Power Supply | Case 1 | - | 220, 1, 60 |
| | Case 2 | - | - |
| | Limit Range of Voltage(Case 1) | V | 198~242 |
| | Limit Range of Voltage(Case 2) | V | - |
| Cooling Capacity | Nominal | kW | 9.09 |
| | | Btu/h | 31,000 |
| Heating Capacity | Nominal | kW | 10.55 |
| | | Btu/h | 36,000 |
| Power Input(Indoor) | H/M/L | W | - |
| Running Current | H/M/L | A | - |
| Indoor Fan | Type | - | 2D Trubo |
| | Quantity | EA | 1 |
| | Air Flow Rate((SH)/H/M/L) | m³/min | - / 23.0 / 21.0 / 19.0 |
| | Air Flow Rate Range(Min~Max) | m³/min | 19.0~23.0 |
| | External Static Pressure_Factory Set | Pa | - |
| Indoor Fan Motor | Type | - | BLDC |
| | Drive | - | - |
| | Output | W | 124 |
| | | No. | 1 |
| Dehumidification Rate | - | ℓ/h | 2.50 |
| Heat Exchanger | Rows x Columns x FPI | - | 2 x 10 x 19 |
| | No. | - | 1 |
| | Fin Type | - | Louver |
| | Face Area | m² | 0.43 |
| Dimensions | Net(W x H x D) | mm | 840 x 246 x 840 |
| | Shipping(W x H x D) | mm | 922 x 318 x 917 |
| Weight | Net | kg | 25.5 |
| | Shipping | kg | 29.7 |
| Exterior | Color | - | Morning Fog |
| | RAL (Classic) | - | RAL 9001 |
| Air Filter | Type | - | Long Life |
| Protection Device | Fuse | - | O |
| | Overload Protector for Fan Motor | - | Thermal Protector for Fan Motor |
| Refrigerant | Type | - | R410A |
| | Control Type | - | - |
| Drain Pipe(Natural Drainage) | O.D / I.D | mm(inch) | - |
| Drain Pipe(using Drain Pump) | O.D / I.D | mm(inch) | 32.0 / 25.0 |
| Pipe Connecting Socket | Liquid | mm(inch) | Φ9.52 (3/8) |
| | Gas | mm(inch) | Φ15.88 (5/8) |
| | Connection Type(Liquid) | - | Flare |
| | Connection Type(Gas) | - | Flare |
| Sound Pressure Level(Indoor Unit) | Cooling ((SH)/H/M/L) | dB(A) | - / 40.0 / 38.0 / 36.0 |
| | Heating ((SH)/H/M/L) | dB(A) | - / 40.0 / 38.0 / 36.0 |
| Measurement Standard (Pressure Level) | - | - | ISO 3745 |
| Sound Power Level(Indoor Unit) | Cooling ((SH)/H/M/L) | dB(A) | - |
| | Heating ((SH)/H/M/L) | dB(A) | - |
| Measurement Standard (Power Level) | - | - | - |
| Connecting Cable | Power and Communication cable(H07RN-F) | mm² × cores | 0.75 x 4 |
| Power Supply Type to Indoor | - | - | - |

# 1. Specifications

| Category | | Unit | Specification |
|---|---|---|---|
| Major | Minor | | |
| Electrical Characteristic | Maximum Fuse Amperes (MFA) | A | 25 |
| | Indoor Fan Motor_Full Load Amperes (FLA / Max) | A | 0.8 |

***Note***

- Due to our policy of innovation some specifications may be changed without notification.
- Wiring cable size must comply with the applicable local and national code.
  And “Electric characteristics” should be considered for electrical work and design.
- Especially the power cable and circuit breaker should be selected in accordance with that.
- 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.

# 1. Specifications

ATNW48GMLP1

| Category | | Unit | Specification |
|---|---|---|---|
| Major | Minor | | |
| Classification | Chassis | - | TM |
| Power Supply | Case 1 | - | 220, 1, 60 |
| | Case 2 | - | - |
| | Limit Range of Voltage(Case 1) | V | 198~242 |
| | Limit Range of Voltage(Case 2) | V | - |
| Cooling Capacity | Nominal | kW | 13.78 |
| | | Btu/h | 47,000 |
| Heating Capacity | Nominal | kW | 15.53 |
| | | Btu/h | 53,000 |
| Power Input(Indoor) | H/M/L | W | - |
| Running Current | H/M/L | A | - |
| Indoor Fan | Type | - | 2D Turbo |
| | Quantity | EA | 1 |
| | Air Flow Rate((SH)/H/M/L) | m³/min | - / 31.0 / 28.0 / 25.0 |
| | Air Flow Rate Range(Min~Max) | m³/min | 25.0~31.0 |
| | External Static Pressure_Factory Set | Pa | - |
| Indoor Fan Motor | Type | - | BLDC |
| | Drive | - | - |
| | Output | W | 124 |
| | | No. | 1 |
| Dehumidification Rate | - | ℓ/h | 5.20 |
| Heat Exchanger | Rows x Columns x FPI | - | 3 x 12 x 19 |
| | No. | - | 1 |
| | Fin Type | - | Louver |
| | Face Area | m² | 0.53 |
| Dimensions | Net(W x H x D) | mm | 840 x 288 x 840 |
| | Shipping(W x H x D) | mm | 922 x 360 x 917 |
| Weight | Net | kg | 28.5 |
| | Shipping | kg | 33.0 |
| Exterior | Color | - | Morning Fog |
| | RAL (Classic) | - | RAL 9001 |
| Air Filter | Type | - | Long Life |
| Protection Device | Fuse | - | O |
| | Overload Protector for Fan Motor | - | Thermal Protector for Fan Motor |
| Refrigerant | Type | - | R410A |
| | Control Type | - | - |
| Drain Pipe(Natural Drainage) | O.D / I.D | mm(inch) | - |
| Drain Pipe(using Drain Pump) | O.D / I.D | mm(inch) | 32.0 / 25.0 |
| Pipe Connecting Socket | Liquid | mm(inch) | Φ9.52 (3/8) |
| | Gas | mm(inch) | Φ19.05 (3/4) |
| | Connection Type(Liquid) | - | Flare |
| | Connection Type(Gas) | - | Flare |
| Sound Pressure Level(Indoor Unit) | Cooling ((SH)/H/M/L) | dB(A) | - / 47.0 / 45.0 / 42.0 |
| | Heating ((SH)/H/M/L) | dB(A) | - / 47.0 / 45.0 / 42.0 |
| Measurement Standard (Pressure Level) | - | - | ISO 3745 |
| Sound Power Level(Indoor Unit) | Cooling ((SH)/H/M/L) | dB(A) | - |
| | Heating ((SH)/H/M/L) | dB(A) | - |
| Measurement Standard (Power Level) | - | - | - |
| Connecting Cable | Power and Communication cable(H07RN-F) | mm² × cores | 0.75 x 4 |
| Power Supply Type to Indoor | - | - | - |

# 1. Specifications

| Category | | Unit | Specification |
|---|---|---|---|
| Major | Minor | | |
| Electrical Characteristic | Maximum Fuse Amperes (MFA) | A | 40 |
| | Indoor Fan Motor_Full Load Amperes (FLA / Max) | A | 0.8 |

***Note***

- Due to our policy of innovation some specifications may be changed without notification.
- Wiring cable size must comply with the applicable local and national code.
  And “Electric characteristics” should be considered for electrical work and design.
- Especially the power cable and circuit breaker should be selected in accordance with that.
- 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.

# 1. Specifications

ATNW60GMLP1

| Category | | Unit | Specification |
|---|---|---|---|
| Major | Minor | | |
| Classification | Chassis | - | TM |
| Power Supply | Case 1 | - | 220, 1, 60 |
| | Case 2 | - | - |
| | Limit Range of Voltage(Case 1) | V | 198~242 |
| | Limit Range of Voltage(Case 2) | V | - |
| Cooling Capacity | Nominal | kW | 14.65 |
| | | Btu/h | 50,000 |
| Heating Capacity | Nominal | kW | 17.00 |
| | | Btu/h | 58,000 |
| Power Input(Indoor) | H/M/L | W | - |
| Running Current | H/M/L | A | - |
| Indoor Fan | Type | - | 2D Turbo |
| | Quantity | EA | 1 |
| | Air Flow Rate((SH)/H/M/L) | m³/min | - / 31.0 / 28.0 / 25.0 |
| | Air Flow Rate Range(Min~Max) | m³/min | 25.0~31.0 |
| | External Static Pressure_Factory Set | Pa | - |
| Indoor Fan Motor | Type | - | BLDC |
| | Drive | - | - |
| | Output | W | 124 |
| | | No. | 1 |
| Dehumidification Rate | - | ℓ/h | 6.30 |
| Heat Exchanger | Rows x Columns x FPI | - | 3 x 12 x 19 |
| | No. | - | 1 |
| | Fin Type | - | Louver |
| | Face Area | m² | 0.53 |
| Dimensions | Net(W x H x D) | mm | 840 x 288 x 840 |
| | Shipping(W x H x D) | mm | 922 x 360 x 917 |
| Weight | Net | kg | 28.5 |
| | Shipping | kg | 33.0 |
| Exterior | Color | - | Morning Fog |
| | RAL (Classic) | - | RAL 9001 |
| Air Filter | Type | - | Long Life |
| Protection Device | Fuse | - | O |
| | Overload Protector for Fan Motor | - | Thermal Protector for Fan Motor |
| Refrigerant | Type | - | R410A |
| | Control Type | - | - |
| Drain Pipe(Natural Drainage) | O.D / I.D | mm(inch) | - |
| Drain Pipe(using Drain Pump) | O.D / I.D | mm(inch) | 32.0 / 25.0 |
| Pipe Connecting Socket | Liquid | mm(inch) | Φ9.52 (3/8) |
| | Gas | mm(inch) | Φ19.05 (3/4) |
| | Connection Type(Liquid) | - | Flare |
| | Connection Type(Gas) | - | Flare |
| Sound Pressure Level(Indoor Unit) | Cooling ((SH)/H/M/L) | dB(A) | - / 47.0 / 45.0 / 42.0 |
| | Heating ((SH)/H/M/L) | dB(A) | - / 47.0 / 45.0 / 42.0 |
| Measurement Standard (Pressure Level) | - | - | ISO 3745 |
| Sound Power Level(Indoor Unit) | Cooling ((SH)/H/M/L) | dB(A) | - |
| | Heating ((SH)/H/M/L) | dB(A) | - |
| Measurement Standard (Power Level) | - | - | - |
| Connecting Cable | Power and Communication cable(H07RN-F) | mm² × cores | 0.75 x 4 |
| Power Supply Type to Indoor | - | - | - |

# 1. Specifications

| Category | | Unit | Specification |
|---|---|---|---|
| Major | Minor | | |
| Electrical Characteristic | Maximum Fuse Amperes (MFA) | A | 40 |
| | Indoor Fan Motor_Full Load Amperes (FLA / Max) | A | 0.8 |

***Note***

- Due to our policy of innovation some specifications may be changed without notification.
- Wiring cable size must comply with the applicable local and national code.
  And “Electric characteristics” should be considered for electrical work and design.
- Especially the power cable and circuit breaker should be selected in accordance with that.
- 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.

## 2. List of Functions

ATNW18GPLP1, ATNW24GPLP1, ATNW36GNLP1, ATNW48GMLP1, ATNW60GMLP1

| Category | Functions | Availability |
|---|---|---|
| Air Flow | Air Supply Outlet | 4 |
| | Airflow Direction Control (left & right) | X |
| | Airflow Direction Control (up & down) | Auto |
| | Auto Swing (left & right) | X |
| | Auto Swing (up & down) | O |
| | Airflow Steps (fan/cool/heat) | 4 / 5 / 4 |
| | Fan Speed Auto* | X |
| | Power Cool/Heat | O / X |
| | Swirl Wind* | O |
| | Refresh Mode** | X |
| | Smart Mode** | X |
| | Indirect Wind* | O |
| | Direct Wind* | O |
| | Dry Operation | O |
| Air Purification | Pre-Filter | O |
| | Air Purify | Accessory |
| | Ionizer | X |
| | UVnano | X |
| Reliability | Hot Start | O |
| | Self Diagnosis | O |
| Convenience | Auto Mode | O |
| | Auto Dry Operation** | X |
| | Auto Restart | O |
| | Child Lock* | O |
| | Forced Operation | O |
| | Group Control* | O |
| | Sleep Timer** | O |
| | Turn On/Off Reservation** | O |
| | Schedule** | O |
| | Two Thermistor Control* | O |
| | Time Limit Control (Energy saving)*** | O |
| | Temperature Setback Timer (Energy saving)*** | - |
| | External On/Off | O |
| Installation | Drain Pump | O |
| | High Ceiling Operation* | O |
| | Duty Rotation / Back up Operation*** | - |
| Special Functions | Wi-Fi Control | Accessory |
| | Comfort Cooling (Humidity Control)*** | O |
| | Auto Elevation Grille | Accessory(PTEGM0) |
| | Human Detection Function*** | Accessory |
| | Floor Detection Function*** | X |

***Note***

■ 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.

■ Some functions can be limited by remote controller.

■ In case of cassette type indoor units, Plasma kit and Auto Elevation Grille functions are not applicable at the same time.

■ '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)

## 2. List of Functions

- * : These functions need to connect the wired remote controller.
- ** : This functions need to connect to the Standard II / III wired remote controller.
- *** : This functions need to connect to the Standard III wired remote controller.

# 3. Accessory Compatibility List

ATNW18GPLP1, ATNW24GPLP1

| Category | Accessory Name | Model Name | Description | Compatibility |
|---|---|---|---|---|
| Remote Controller | Wired - Premium | PREMTA000 | - | O |
| | | PREMTA000A | - | O |
| | | PREMTA000B | - | O |
| | Wired - RS3 (Standard III) | PREMTB100/PREMTB101 | White | O |
| | | PREMTBB10/PREMTBB11 | Black | O |
| | Wired - RS2 (Standard II) | PREMTB001 | White | O |
| | | PREMTBB01 | Black | O |
| | Wired - Simple | PQRCVCL0QW | White | O |
| | | PQRCVCL0Q | Black | O |
| | Wired - Simple for hotel | PQRCHCA0QW | White | O |
| | | PQRCHCA0Q | Black | O |
| | Wireless | PQWRCQ0FDB | For Cooling only | X |
| | | PQWRHQ0FDB | For Heat pump | O |
| | | PWLSSB21C | For Cooling only | X |
| | | PWLSSB21H | For Heat pump | O |
| Dry Contact | Simple | PDRYCB000 | 1 input port, AC 220 - 240V | O |
| | | PDRYCB100 | 1 input port, AC 24V | O |
| | Communication | PDRYCB400 | 2 input port(For Setback) | O |
| | | PDRYCB300 | 8 input port, For 3rd party Themostat | O |
| | | PDRYCB320 | 8 input port, For 3rd Party Thermostat (Analog Input) | O |
| | | PDRYCB500 | For 3rd Party Controller(Modbus RTU) | O |
| Integration Device | Remote Temperature sensor | PQRSTA0 | Room temperature sensor, NTC 10kΩ, include casing | O |
| | Group Control wire | PZCWRCG3 | Cable Assembly for group control (Y-type cable : 0.25m, cable : 9.6m) | O |
| ETC | Extension wire | PZCWRC1 | Extension wire for IDU-wired remote controller (9.6m) | O |
| | 2-Remo Control wire | PZCWRC2 | Y-type cable to connect additional Remote Controller as slave | X |
| | Wi-Fi Modem | PWFMDD200 | Device to use ThinQ app include connection cable | O |
| | Wi-Fi Extension cable | PWYREW000 | USB Extension cable : 10 m | O |
| | Independent Power Module | PRIP0 | For Multi V Indoor Unit | X |
| | Multi-tenant Power module | PINPMB001 | For Multi V Indoor Unit | X |
| | Refrigerant Leakage Detector | PRLDNVS0 | For Multi V Indoor Unit (R410A) | X |
| | Human Detection Sensor | PTVSMA0 | For Cassette 4-way | O |
| | | PTVSAA0 | For Cassette Dual Vane 4-way | X |
| | Floor Detection Sensor | PTFSMA0 | For Cassette Dual Vane 4-way | X |
| | Auto Elevation Grille | PTEGM0 | For Cassette 4-way | X |
| | Air Purification Kit | PTAHTP0 | For Cassette 1-way | X |
| | | PTAHMP0 | For Cassette 4-way | O |
| | | PTAHYP0 | For Cassette Round | X |
| | EEV Kit | PRGK024A0 | For Multi V Indoor Unit | X |
| | Auxiliary Heater Relay Kit | PRARS1 | For Wall Mounted / Art Cool Indoor Units | X |
| | | PRARH1 | For Cassette / Duct Indoor Units | X |
| | Ventilation Kit | PTVK430 | For TR/TQ/TP/TN/TM Chassis | X |
| | | PTVK410 / PTVK420 | For TP/TN/TM Chassis | X |
| | Cassette Cover | PTDCQ | For TR/TQ Chassis | X |
| | | PTDCM | For TP/TN/TM Chassis | X |
| | | PTDCA | For TM-A/TP-B Chassis | X |

***Note***

■ O: Possible, X: Impossible, - : Unconfirmed or irrelevant.
■ * : Some advanced functions controlled by individual controller cannot be operated.
■ Air Purification Kit and Auto Elevation Grille are not appliable at the same time.
■ If there is a difference in development time between the product and the remote controller, some functions cannot be operated.

# 3. Accessory Compatibility List

■ If you need more detail, please refer to the Control(BECON) PDB or the manual of product.
(http://partner.lge.com > Select Your Region : Home> Doc.Library> Product > Control(BECON)).

## 3. Accessory Compatibility List

ATNW36GNLP1, ATNW48GMLP1, ATNW60GMLP1

| Category | Accessory Name | Model Name | Description | Compatibility |
|---|---|---|---|---|
| Remote Controller | Wired - Premium | PREMTA000 | - | O |
| | | PREMTA000A | - | O |
| | | PREMTA000B | - | O |
| | Wired - RS3 (Standard III) | PREMTB100/PREMTB101 | White | O |
| | | PREMTBB10/PREMTBB11 | Black | O |
| | Wired - RS2 (Standard II) | PREMTB001 | White | O |
| | | PREMTBB01 | Black | O |
| | Wired - Simple | PQRCVCL0QW | White | O |
| | | PQRCVCL0Q | Black | O |
| | Wired - Simple for hotel | PQRCHCA0QW | White | O |
| | | PQRCHCA0Q | Black | O |
| | Wireless | PQWRCQ0FDB | For Cooling only | O |
| | | PQWRHQ0FDB | For Heat pump | O |
| | | PWLSSB21C | For Cooling only | O |
| | | PWLSSB21H | For Heat pump | O |
| Dry Contact | Simple | PDRYCB000 | 1 input port, AC 220 - 240V | O |
| | | PDRYCB100 | 1 input port, AC 24V | O |
| | Communication | PDRYCB400 | 2 input port(For Setback) | O |
| | | PDRYCB300 | 8 input port, For 3rd party Themostat | O |
| | | PDRYCB320 | 8 input port, For 3rd Party Thermostat (Analog Input) | O |
| | | PDRYCB500 | For 3rd Party Controller(Modbus RTU) | O |
| Integration Device | Remote Temperature sensor | PQRSTA0 | Room temperature sensor, NTC 10kΩ, include casing | O |
| | Group Control wire | PZCWRCG3 | Cable Assembly for group control (Y-type cable : 0.25m, cable : 9.6m) | O |
| ETC | Extension wire | PZCWRC1 | Extension wire for IDU-wired remote controller (9.6m) | O |
| | 2-Remo Control wire | PZCWRC2 | Y-type cable to connect additional Remote Controller as slave | X |
| | Wi-Fi Modem | PWFMDD200 | Device to use ThinQ app include connection cable | O |
| | Wi-Fi Extension cable | PWYREW000 | USB Extension cable : 10 m | O |
| | Independent Power Module | PRIP0 | For Multi V Indoor Unit | X |
| | Multi-tenant Power module | PINPMB001 | For Multi V Indoor Unit | X |
| | Refrigerant Leakage Detector | PRLDNVS0 | For Multi V Indoor Unit (R410A) | X |
| | Human Detection Sensor | PTVSMA0 | For Cassette 4-way | O |
| | | PTVSAA0 | For Cassette Dual Vane 4-way | X |
| | Floor Detection Sensor | PTFSMA0 | For Cassette Dual Vane 4-way | X |
| | Auto Elevation Grille | PTEGM0 | For Cassette 4-way | X |
| | Air Purification Kit | PTAHTP0 | For Cassette 1-way | X |
| | | PTAHMP0 | For Cassette 4-way | O |
| | | PTAHYP0 | For Cassette Round | X |
| | EEV Kit | PRGK024A0 | For Multi V Indoor Unit | X |
| | Auxiliary Heater Relay Kit | PRARS1 | For Wall Mounted / Art Cool Indoor Units | X |
| | | PRARH1 | For Cassette / Duct Indoor Units | X |
| | Ventilation Kit | PTVK430 | For TR/TQ/TP/TN/TM Chassis | X |
| | | PTVK410 / PTVK420 | For TP/TN/TM Chassis | X |
| | Cassette Cover | PTDCQ | For TR/TQ Chassis | X |
| | | PTDCM | For TP/TN/TM Chassis | X |
| | | PTDCA | For TM-A/TP-B Chassis | X |

***Note***

■ O: Possible, X: Impossible, - : Unconfirmed or irrelevant.
■ * : Some advanced functions controlled by individual controller cannot be operated.
■ Air Purification Kit and Auto Elevation Grille are not appliable at the same time.
■ If there is a difference in development time between the product and the remote controller, some functions cannot be operated.

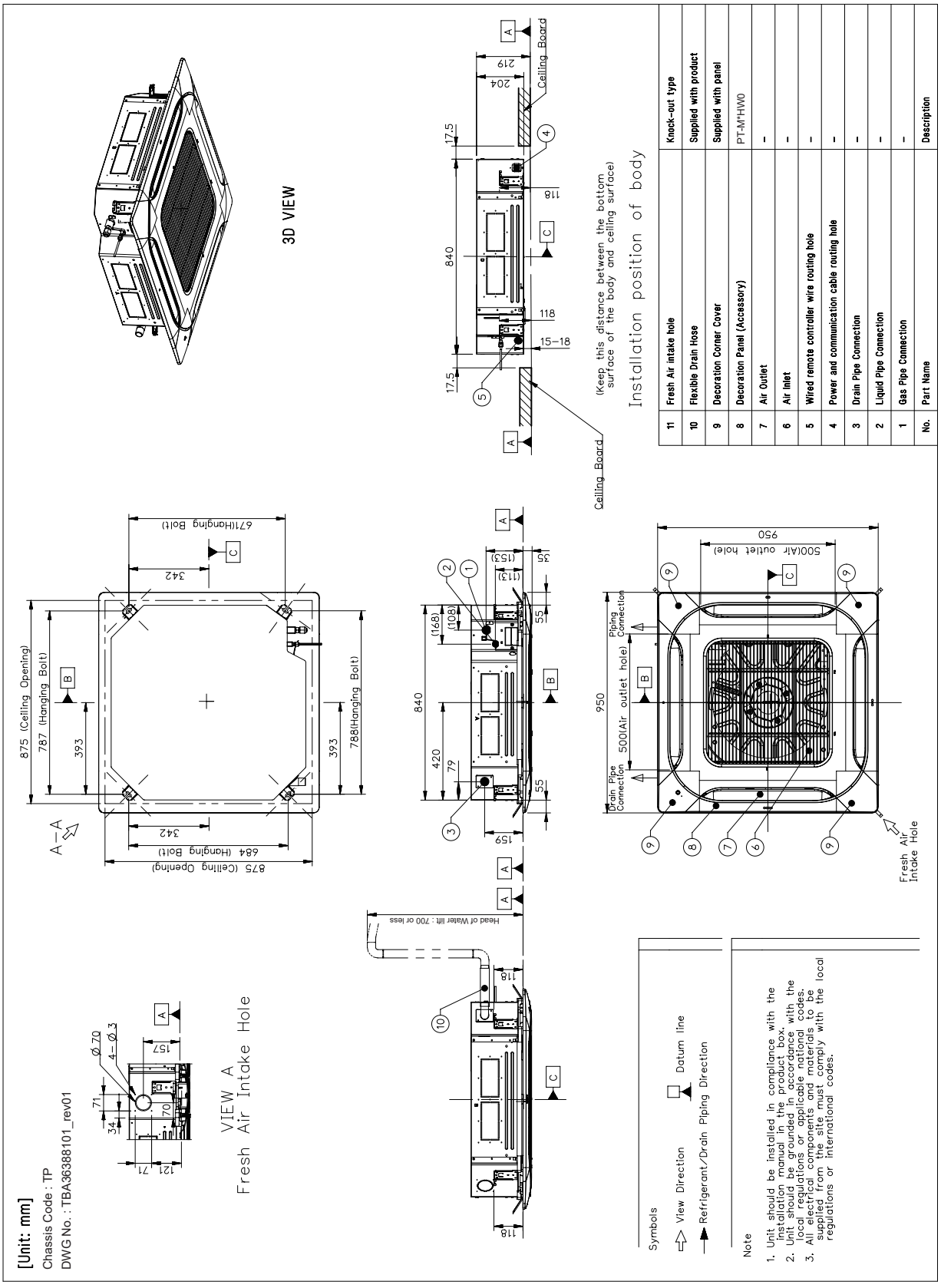
# 3. Accessory Compatibility List

■ If you need more detail, please refer to the Control(BECON) PDB or the manual of product.
(http://partner.lge.com > Select Your Region : Home> Doc.Library> Product > Control(BECON)).

# 4. Dimensions

## 4.1 Dimensional Drawing

ATNW18GPLP1, ATNW24GPLP1



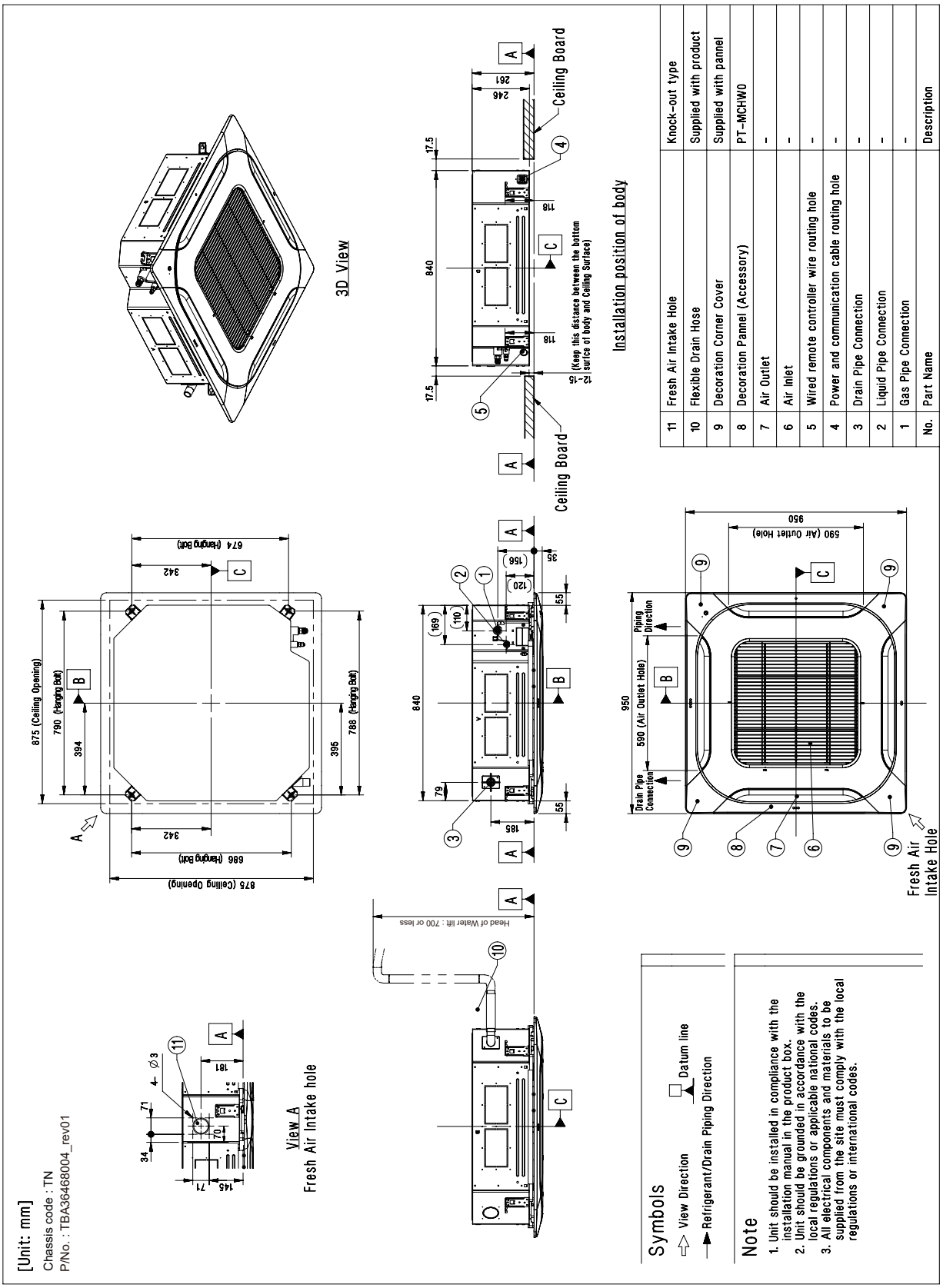

| No. | Part Name | Description |
|---|---|---|
| 11 | Fresh Air intake hole | Knock-out type |
| 10 | Flexible Drain Hose | Supplied with product |
| 9 | Decoration Corner Cover | Supplied with panel |
| 8 | Decoration Panel (Accessory) | PT-M*HW0 |
| 7 | Air Outlet | - |
| 6 | Air Inlet | - |
| 5 | Wired remote controller wire routing hole | - |
| 4 | Power and communication cable routing hole | - |
| 3 | Drain Pipe Connection | - |
| 2 | Liquid Pipe Connection | - |
| 1 | Gas Pipe Connection | - |

Symbols
View Direction
Datum line
Refrigerant/Drain Piping Direction

Note
1. Unit should be installed in compliance with the installation manual in the product box.
2. Unit should be grounded in accordance with the local regulations or applicable national codes.
3. All electrical components and materials to be supplied from the site must comply with the local regulations or international codes.

## 4. Dimensions

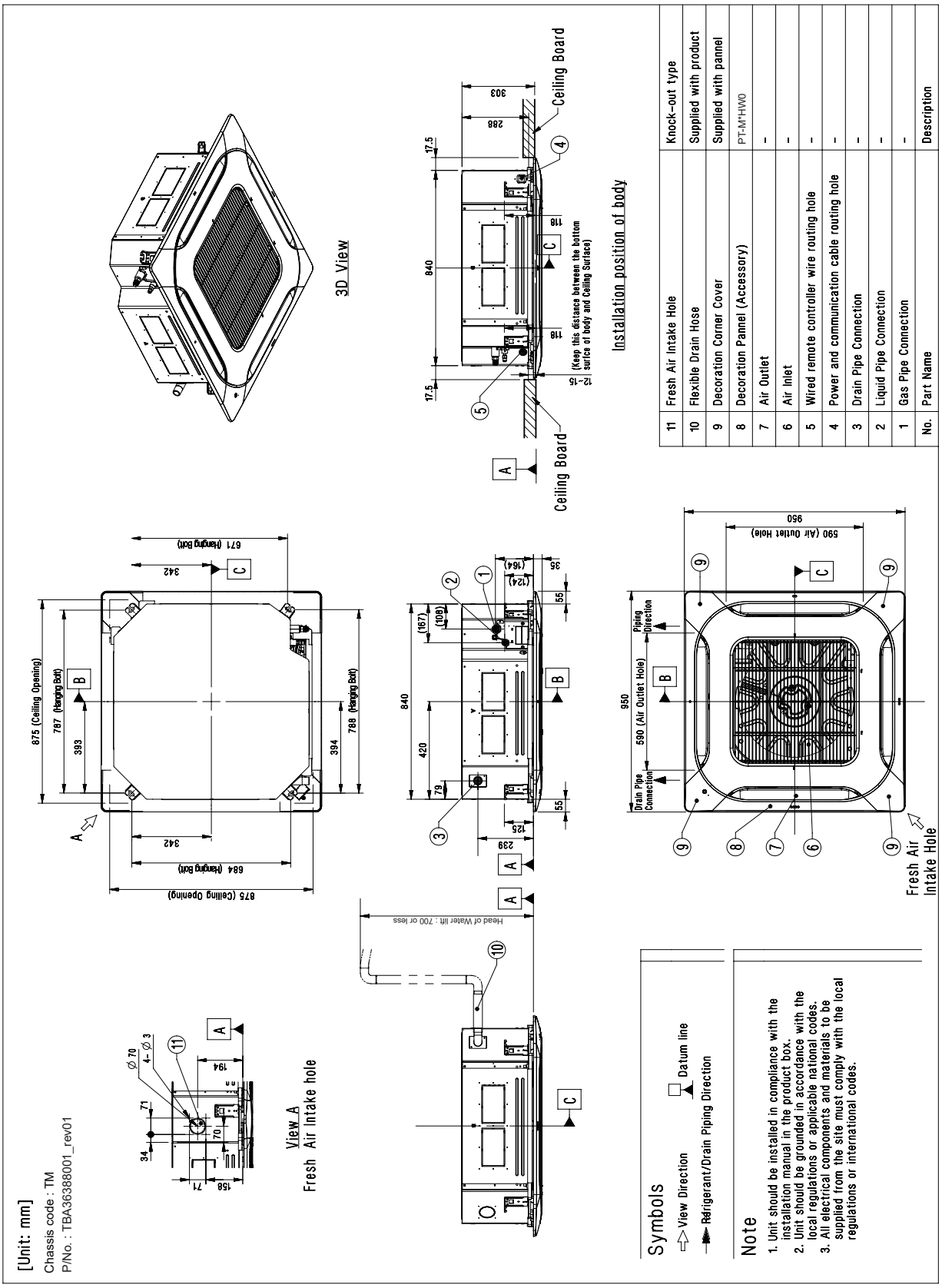
ATNW36GNLP1




| No. | Part Name | Description |
|---|---|---|
| 11 | Fresh Air Intake Hole | Knock-out type |
| 10 | Flexible Drain Hose | Supplied with product |
| 9 | Decoration Corner Cover | Supplied with pannel |
| 8 | Decoration Pannel (Accessory) | PT-MCHW0 |
| 7 | Air Outlet | - |
| 6 | Air Inlet | - |
| 5 | Wired remote controller wire routing hole | - |
| 4 | Power and communication cable routing hole | - |
| 3 | Drain Pipe Connection | - |
| 2 | Liquid Pipe Connection | - |
| 1 | Gas Pipe Connection | - |

## 4. Dimensions

ATNW48GMLP1, ATNW60GMLP1



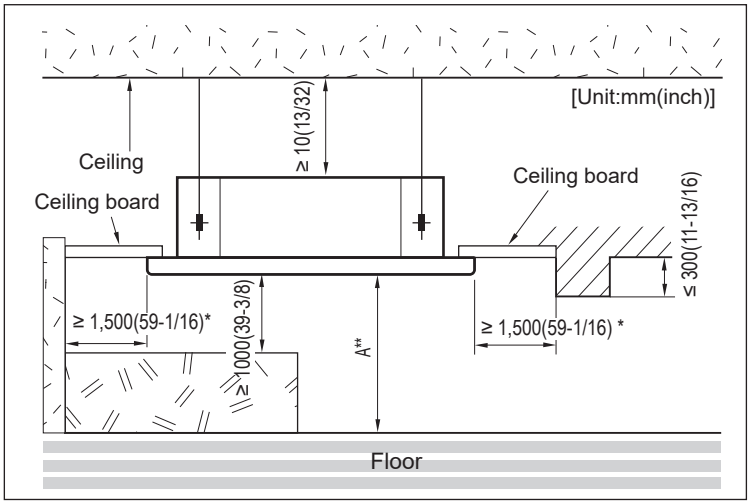

| No. | Part Name | Description |
|---|---|---|
| 11 | Fresh Air Intake Hole | Knock-out type |
| 10 | Flexible Drain Hose | Supplied with product |
| 9 | Decoration Corner Cover | Supplied with pannel |
| 8 | Decoration Pannel (Accessory) | PT-M*HW0 |
| 7 | Air Outlet | - |
| 6 | Air Inlet | - |
| 5 | Wired remote controller wire routing hole | - |
| 4 | Power and communication cable routing hole | - |
| 3 | Drain Pipe Connection | - |
| 2 | Liquid Pipe Connection | - |
| 1 | Gas Pipe Connection | - |

# 4. Dimensions

## 4.2 Installation Space

ATNW18GPLP1, ATNW24GPLP1, ATNW36GNLP1, ATNW48GMLP1, ATNW60GMLP1

*< Minimum Installation Space >*




***Notes***

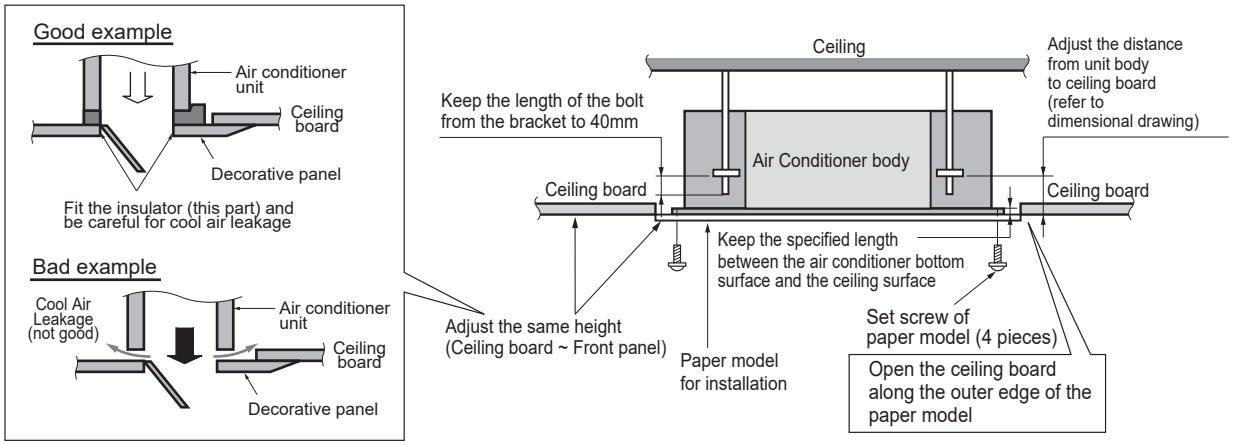
1. * : Minimum Installation Space to Air flow direction
   A separation distance of at least 1,500 mm is required throughout the airflow direction.

2. ***** : A, Installation Height from the floor***

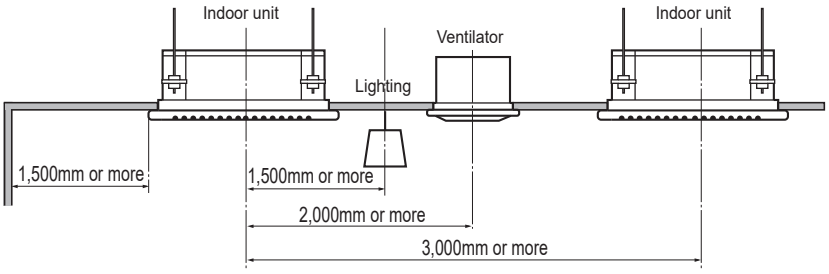
| Capacity Class | Installation Height (A) | | |
|---|---|---|---|
| | Min. | *Standard* *** | Max. |
| < 10 kW | 2.0 m (6.56 ft) | 2.7 m (8.86 ft) | 3.6 m (11.81 ft) |
| ≥ 10 kW | 2.5 m (8.20 ft) | 3.2 m (10.50 ft) | 4.2 m (13.78 ft) |

**** : Standard Height (Recommended)*
If it exceeds the standard height, set the 'High Ceiling Mode'.
For details about function setting, refer to the installation manual.

*< Cautions for Panel installation >*




*< Series installation >*




※ According to type of indoor unit, external appearance could be different.

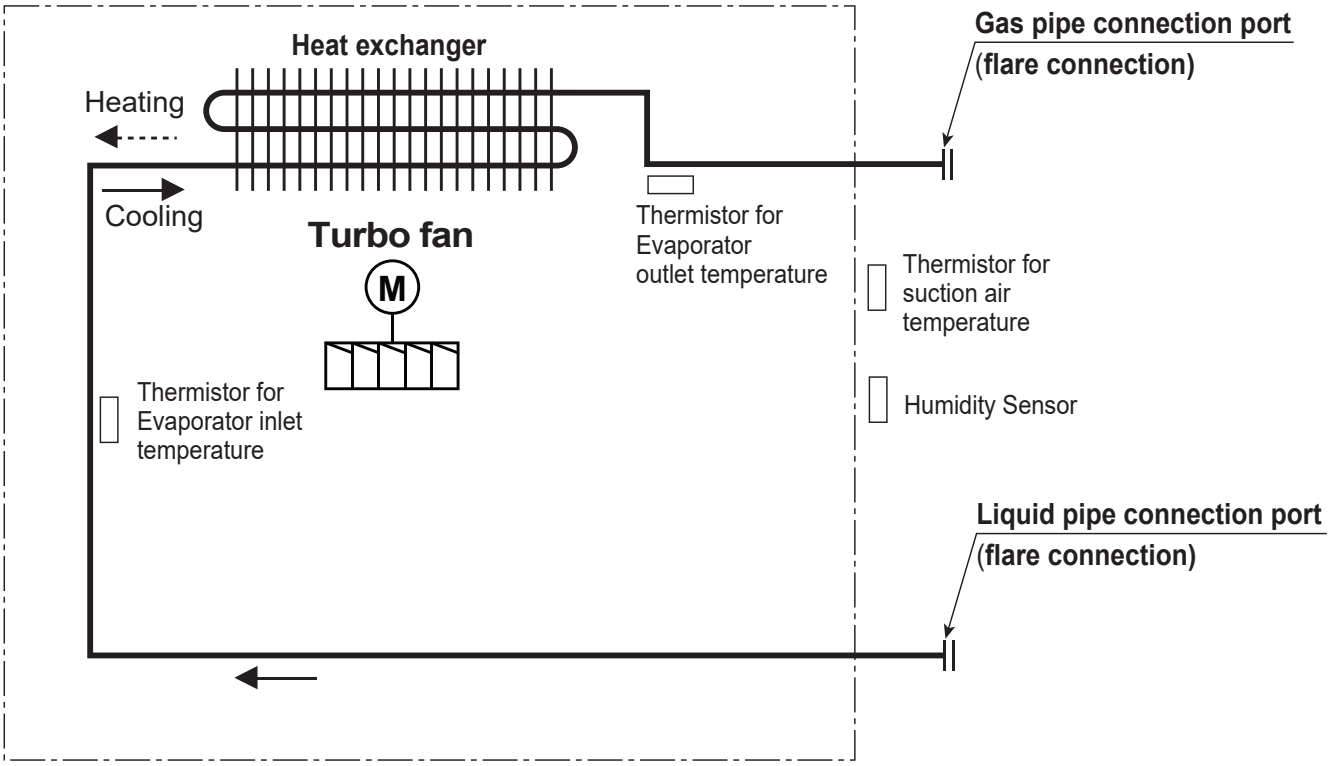
***Note***

- Places where products are installed should not be any obstacles to the air circulation or installation. Ensure the spaces from the wall, ceiling, or other obstacles.
- According to type of indoor unit, external appearance or installed structure could be different.
- According to product type, model line up, sales region..etc, applicability of each chassis could be different.
- Install certainly the decoration panel. Cool air leakage causes sweating or falling of water-drops.

# 5. Piping Diagrams

## 5.1 Normal

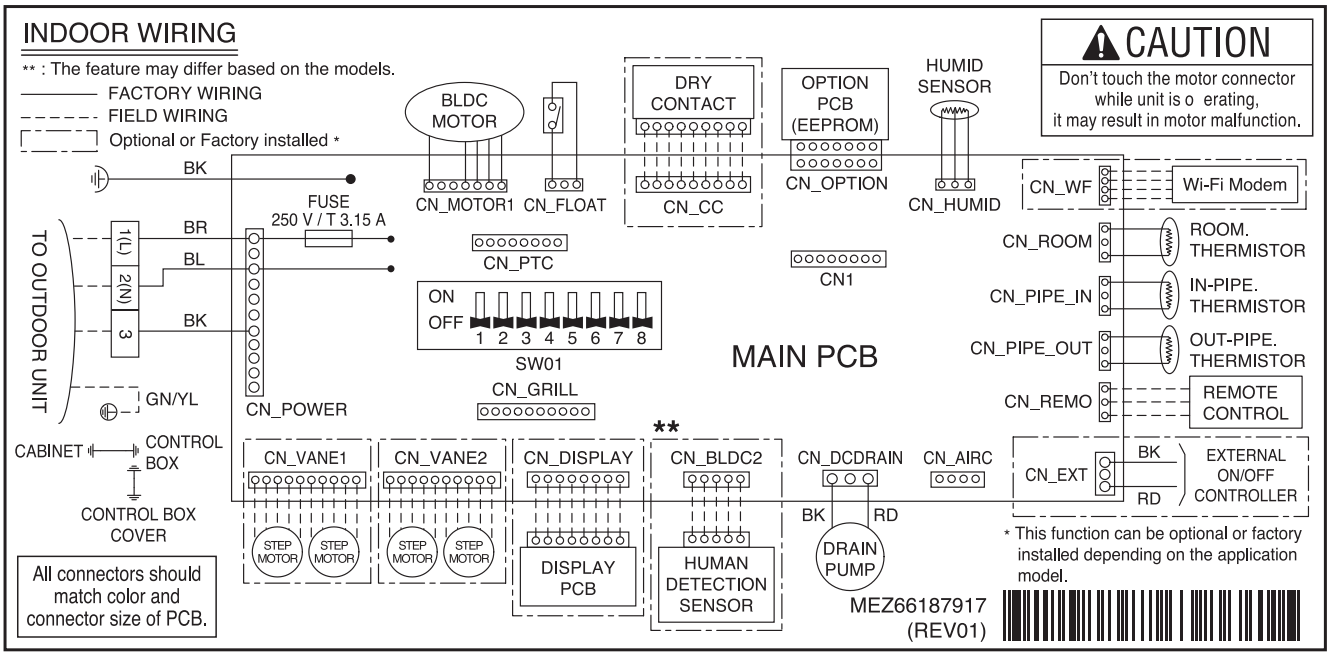
ATNW18GPLP1, ATNW24GPLP1, ATNW36GNLP1, ATNW48GMLP1, ATNW60GMLP1



# 6. Wiring Diagrams

## 6.1 Product

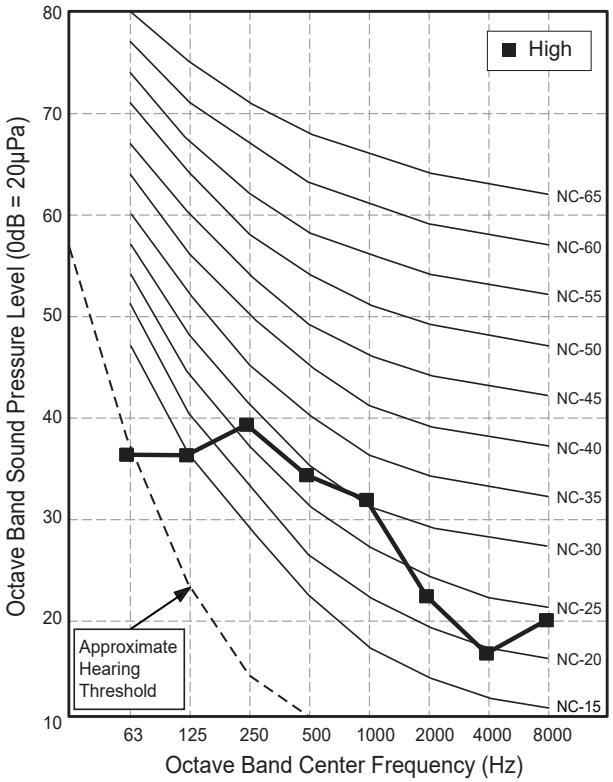
ATNW18GPLP1, ATNW24GPLP1, ATNW36GNLP1, ATNW48GMLP1, ATNW60GMLP1



# 7. Sound Levels

## 7.1 Pressure Levels

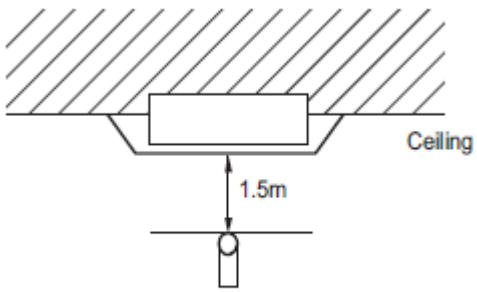
ATNW18GPLP1




| Sound level [ dB(A), @ Standard condition ] | |
|---|---|
| Cooling ((SH)/H/M/L) | - / 36.0 / 34.0 / 32.0 |
| Heating ((SH)/H/M/L) | - / 36.0 / 34.0 / 32.0 |

***Note***

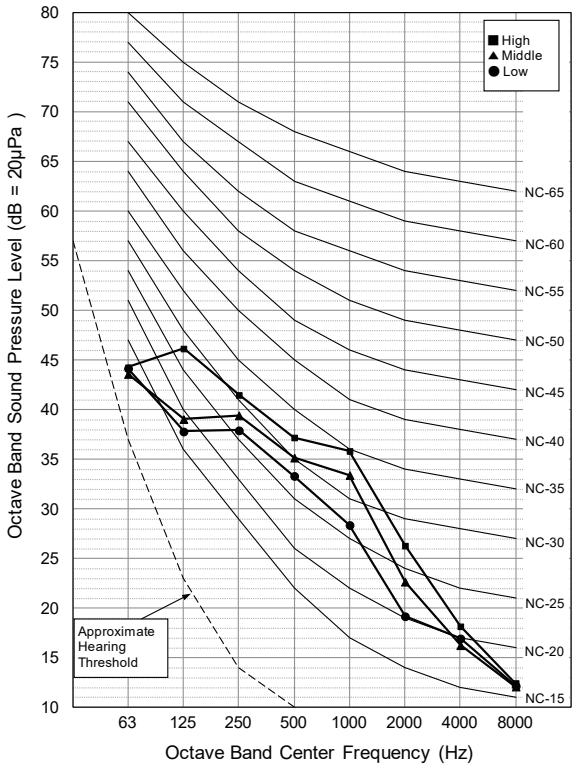
- Sound measured at some distance away from the center of the unit.
- Data is valid at free field condition.
- Reference accoustic pressure 0dB = 20μPa.
- Data is valid at nominal operation condition.
  Refer to the Model Specifications for nominal conditions(Power source and Ambient temperature, etc)
- Sound levels can be increased in accordance with installation and operating conditions.
  (Static pressure mode, used air guide, Room target temperature setting, etc)
- Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard.
  Therefore, these values can be increased owing to ambient conditions during operation.




* Measuring place : Anechoic chamber

## 7. Sound Levels

ATNW24GPLP1




| Sound level [ dB(A), @ Standard condition ] | |
|---|---|
| Cooling ((SH)/H/M/L) | - / 38.0 / 36.0 / 34.0 |
| Heating ((SH)/H/M/L) | - / 38.0 / 36.0 / 34.0 |

***Note***

- Sound measured at some distance away from the center of the unit.
- Data is valid at free field condition.
- Reference accoustic pressure 0dB = 20μPa.
- Data is valid at nominal operation condition.
  Refer to the Model Specifications for nominal conditions(Power source and Ambient temperature, etc)
- Sound levels can be increased in accordance with installation and operating conditions.
  (Static pressure mode, used air guide, Room target temperature setting, etc)
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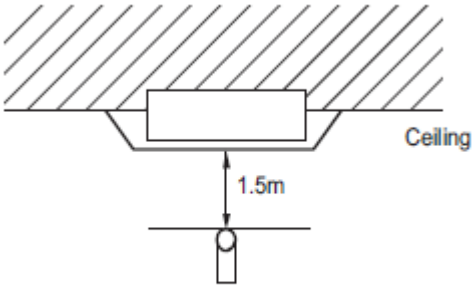
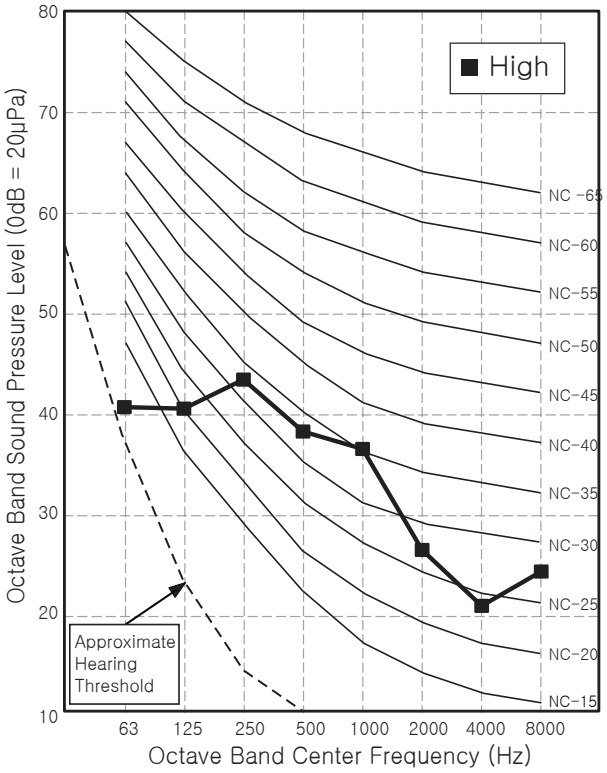
  Therefore, these values can be increased owing to ambient conditions during operation.




* Measuring place : Anechoic chamber

## 7. Sound Levels

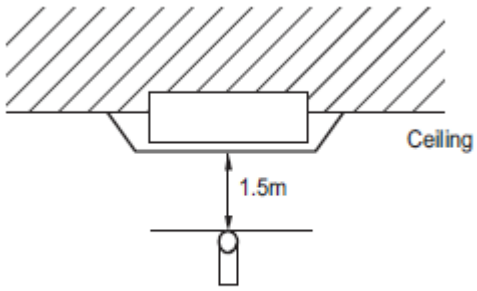
ATNW36GNLP1




| Sound level [ dB(A), @ Standard condition ] | |
|---|---|
| Cooling ((SH)/H/M/L) | - / 40.0 / 38.0 / 36.0 |
| Heating ((SH)/H/M/L) | - / 40.0 / 38.0 / 36.0 |

***Note***

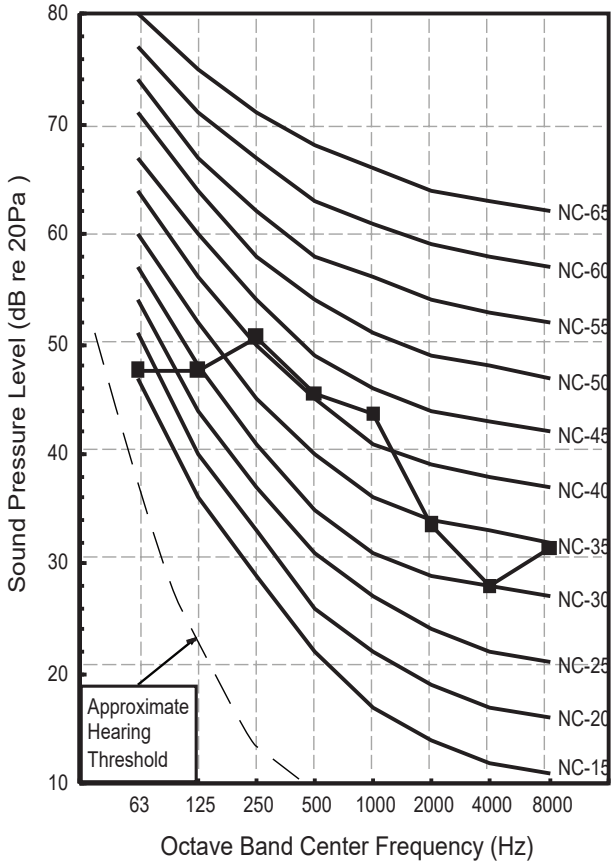
- Sound measured at some distance away from the center of the unit.
- Data is valid at free field condition.
- Reference accoustic pressure 0dB = 20μPa.
- Data is valid at nominal operation condition.
  Refer to the Model Specifications for nominal conditions(Power source and Ambient temperature, etc)
- Sound levels can be increased in accordance with installation and operating conditions.
  (Static pressure mode, used air guide, Room target temperature setting, etc)
- Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard.
  Therefore, these values can be increased owing to ambient conditions during operation.




* Measuring place : Anechoic chamber

## 7. Sound Levels

ATNW48GMLP1, ATNW60GMLP1




| Sound level [ dB(A), @ Standard condition ] | |
|---|---|
| Cooling ((SH)/H/M/L) | - / 47.0 / 45.0 / 42.0 |
| Heating ((SH)/H/M/L) | - / 47.0 / 45.0 / 42.0 |

***Note***

- Sound measured at some distance away from the center of the unit.
- Data is valid at free field condition.
- Reference accoustic pressure 0dB = 20μPa.
- Data is valid at nominal operation condition.
  Refer to the Model Specifications for nominal conditions(Power source and Ambient temperature, etc)
- Sound levels can be increased in accordance with installation and operating conditions.
  (Static pressure mode, used air guide, Room target temperature setting, etc)
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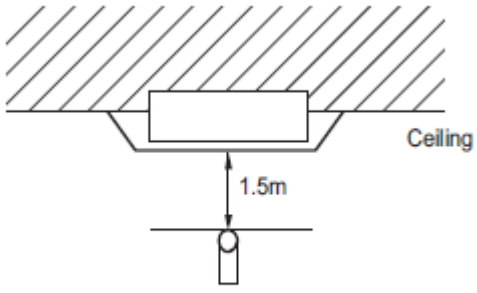


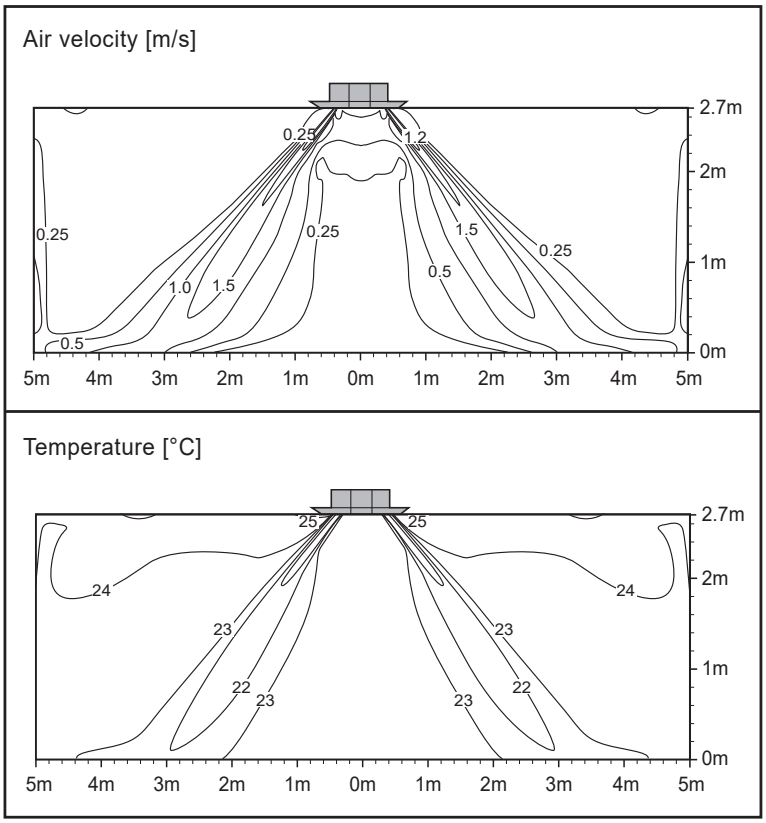

* Measuring place : Anechoic chamber

# 8. Air flow and temperature distributions

## 8.1 Cooling Operation

ATNW18GPLP1

Discharge angle: 40°



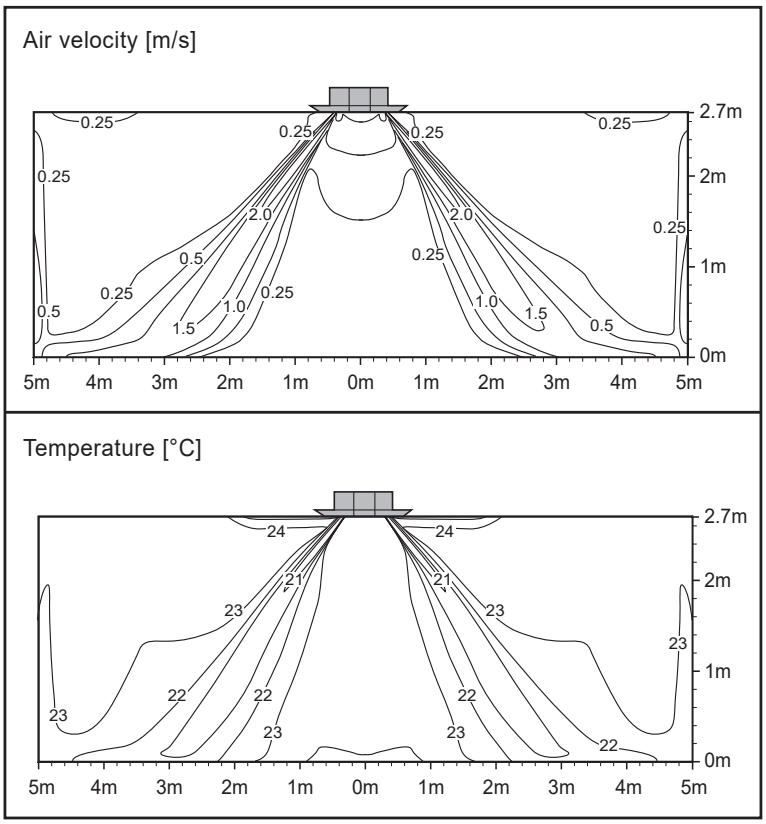

***Note***

- These figures are accordance with normal certain condition and environment.
  (Airflow step is '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.

## 8. Air flow and temperature distributions

ATNW24GPLP1

Discharge angle: 40°




***Note***

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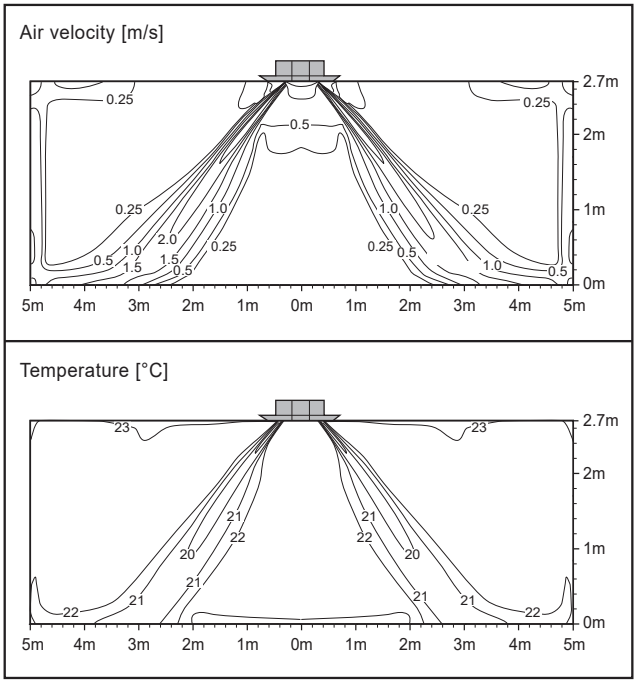
  (Airflow step is 'High', Air discharge angle is fixed as indicated angle.)
- Indoor airflow distribution under actual installation or operating conditions depends on ambient temperature, ceiling height, product installation direction / location, indoor / Heating load, and other obstacles, etc.

# 8. Air flow and temperature distributions

## ATNW36GNLP1

Discharge angle: 40°




***Note***

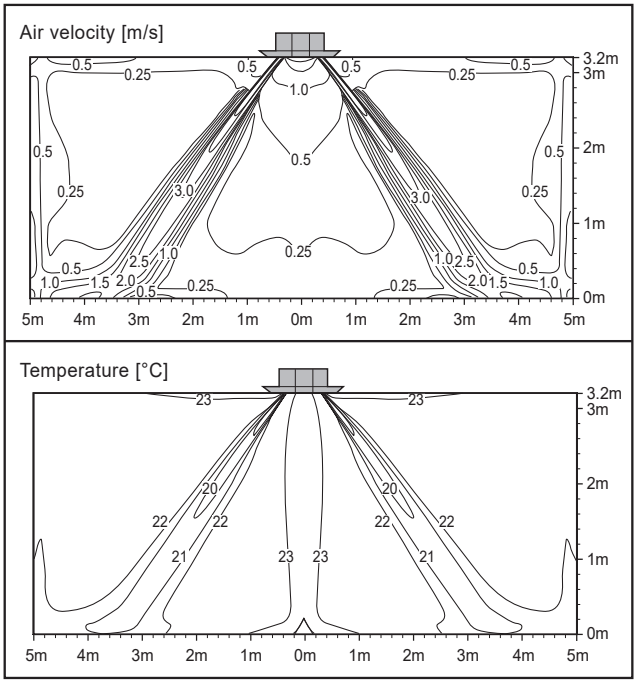
- These figures are accordance with normal certain condition and environment.
  (Airflow step is 'High', Air discharge angle is fixed as indicated angle.)
- Indoor airflow distribution under actual installation or operating conditions depends on ambient temperature, ceiling height, product installation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

# 8. Air flow and temperature distributions

ATNW48GMLP1, ATNW60GMLP1

**Cooling**

Discharge angle: 40°




***Note***

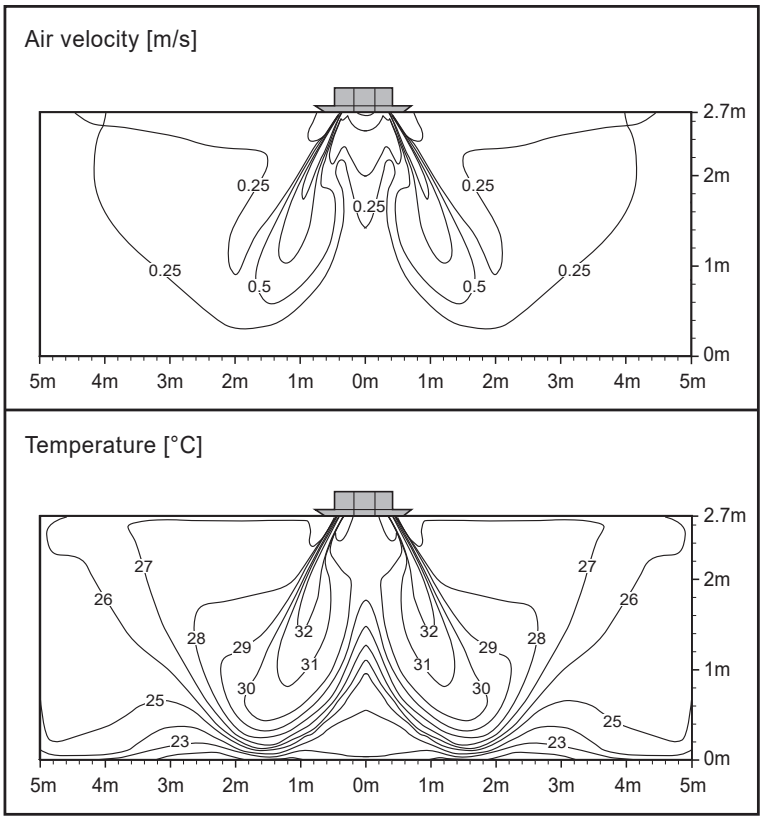
- These figures are accordance with normal certain condition and environment.
  (Airflow step is 'High', Air discharge angle is fixed as indicated angle.)
- Indoor airflow distribution under actual installation or operating conditions depends on ambient temperature, ceiling height, product installation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

# 8. Air flow and temperature distributions

## 8.2 Heating Operation

ATNW18GPLP1

Discharge angle: 50°



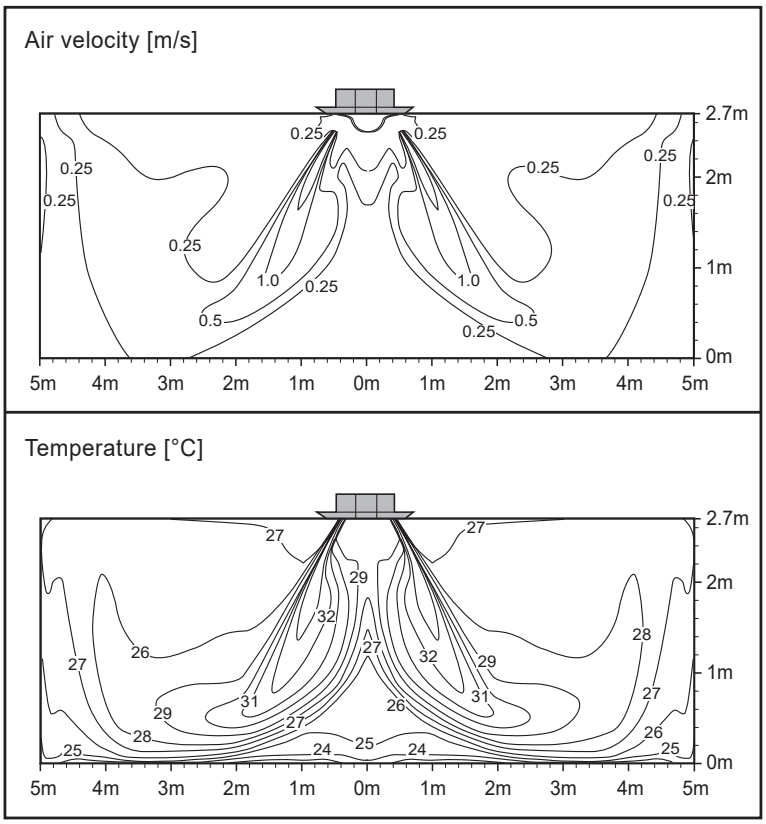

***Note***

- These figures are accordance with normal certain condition and environment.
  (Airflow step is '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.

## 8. Air flow and temperature distributions

ATNW24GPLP1

Discharge angle: 50°



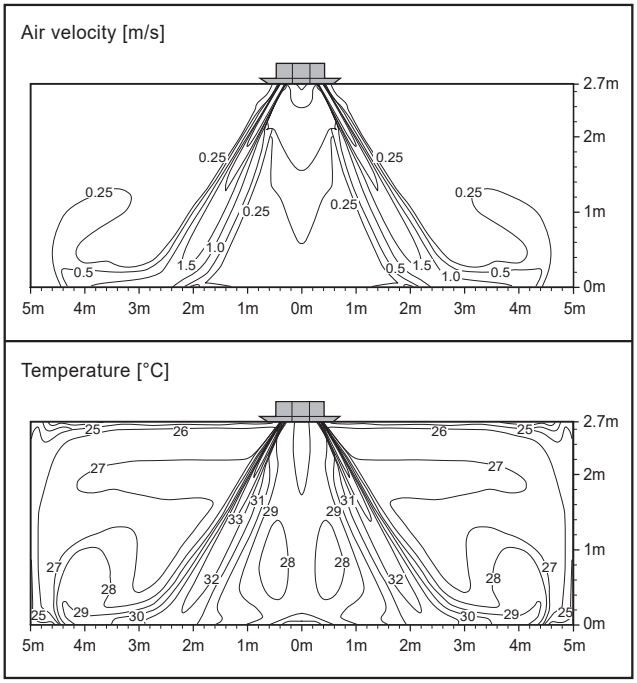

***Note***

- These figures are accordance with normal certain condition and environment.
  (Airflow step is '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.

# 8. Air flow and temperature distributions

## ATNW36GNLP1

Discharge angle: 50°



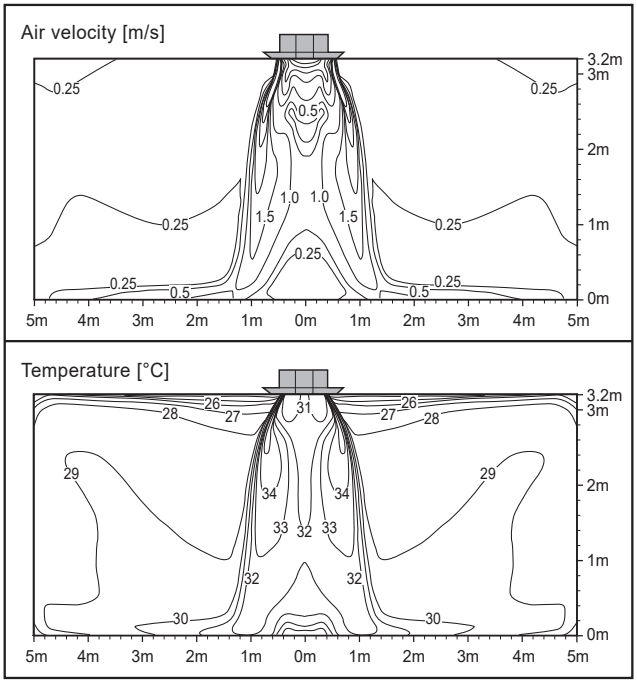

***Note***

- These figures are accordance with normal certain condition and environment.
  (Airflow step is '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.

## 8. Air flow and temperature distributions

ATNW48GMLP1, ATNW60GMLP1

Discharge angle: 50°




***Note***

- These figures are accordance with normal certain condition and environment. (Airflow step is '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.

# Ceiling Suspended

1. Specifications
2. List of Functions
3. Accessory Compatibility List
4. Dimensions
5. Piping Diagrams
6. Wiring Diagrams
7. Sound Levels
8. Air flow and temperature distributions

# 1. Specifications

## 1.1 Product

AVNW36GM1P1

| Category | | Unit | Specification |
|---|---|---|---|
| Major | Minor | | |
| Classification | Chassis | - | VM1 |
| Power Supply | Case 1 | - | 220, 1, 60 |
| | Case 2 | - | - |
| | Limit Range of Voltage(Case 1) | V | 198~242 |
| | Limit Range of Voltage(Case 2) | V | - |
| Cooling Capacity | Nominal | kW | 8.79 |
| | | Btu/h | 30,000 |
| Heating Capacity | Nominal | kW | 9.97 |
| | | Btu/h | 34,000 |
| Power Input(Indoor) | H/M/L | W | - |
| Running Current | H/M/L | A | - |
| Indoor Fan | Type | - | CFF |
| | Quantity | EA | 1 |
| | Air Flow Rate((SH)/H/M/L) | m³/min | - / 20.0 / 18.0 / 16.0 |
| | Air Flow Rate Range(Min~Max) | m³/min | 16.0~20.0 |
| | External Static Pressure_Factory Set | Pa | - |
| Indoor Fan Motor | Type | - | BLDC |
| | Drive | - | - |
| | Output | W | 85.9 |
| | | No. | 1 |
| Dehumidification Rate | - | ℓ/h | 3.80 |
| Heat Exchanger | Rows x Columns x FPI | - | 3 x 18 x 18 |
| | No. | - | 1 |
| | Fin Type | - | Louver |
| | Face Area | m² | 0.31 |
| Dimensions | Net(W x H x D) | mm | 1,200 x 235 x 690 |
| | Shipping(W x H x D) | mm | 1,315 x 317 x 768 |
| Weight | Net | kg | 28.4 |
| | Shipping | kg | 34.3 |
| Exterior | Color | - | Morning Fog |
| | RAL (Classic) | - | RAL 9001 |
| Air Filter | Type | - | Long Life |
| Protection Device | Fuse | - | O |
| | Overload Protector for Fan Motor | - | Thermal Protector for Fan Motor |
| Refrigerant | Type | - | R410A |
| | Control Type | - | - |
| Drain Pipe(Natural Drainage) | O.D / I.D | mm(inch) | 21.5 / 16.0 |
| Drain Pipe(using Drain Pump) | O.D / I.D | mm(inch) | - |
| Pipe Connecting Socket | Liquid | mm(inch) | Φ9.52 (3/8) |
| | Gas | mm(inch) | Φ15.88 (5/8) |
| | Connection Type(Liquid) | - | Flare |
| | Connection Type(Gas) | - | Flare |
| Sound Pressure Level(Indoor Unit) | Cooling ((SH)/H/M/L) | dB(A) | - / 47.0 / 45.0 / 42.0 |
| | Heating ((SH)/H/M/L) | dB(A) | - / 47.0 / 45.0 / 42.0 |
| Measurement Standard (Pressure Level) | - | - | ISO 3745 |
| Sound Power Level(Indoor Unit) | Cooling ((SH)/H/M/L) | dB(A) | - |
| | Heating ((SH)/H/M/L) | dB(A) | - |
| Measurement Standard (Power Level) | - | - | - |

# 1. Specifications

| Category | | Unit | Specification |
|---|---|---|---|
| Major | Minor | | |
| Connecting Cable | Power and Communication cable(H07RN-F) | mm² × cores | 0.75 x 4 |
| Power Supply Type to Indoor | - | - | - |
| Electrical Characteristic | Maximum Fuse Amperes (MFA) | A | 25 |
| | Indoor Fan Motor_Full Load Amperes (FLA / Max) | A | 0.5 |

***Note***

■ Due to our policy of innovation some specifications may be changed without notification.
■ Wiring cable size must comply with the applicable local and national code.
And “Electric characteristics” should be considered for electrical work and design.
■ Especially the power cable and circuit breaker should be selected in accordance with that.
■ 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.

# 1. Specifications

AVNW48GM2P1

| Category | | Unit | Specification |
|---|---|---|---|
| Major | Minor | | |
| Classification | Chassis | - | VM2 |
| Power Supply | Case 1 | - | 220-230-240, 1, 50 |
| | Case 2 | - | - |
| | Limit Range of Voltage(Case 1) | V | 198~242 |
| | Limit Range of Voltage(Case 2) | V | - |
| Cooling Capacity | Nominal | kW | 13.78 |
| | | Btu/h | 47,000 |
| Heating Capacity | Nominal | kW | 15.53 |
| | | Btu/h | 53,000 |
| Power Input(Indoor) | H/M/L | W | - |
| Running Current | H/M/L | A | - |
| Indoor Fan | Type | - | CFF |
| | Quantity | EA | 2 |
| | Air Flow Rate((SH)/H/M/L) | m³/min | - / 30.0 / 25.0 / 20.0 |
| | Air Flow Rate Range(Min~Max) | m³/min | 20.0~30.0 |
| | External Static Pressure_Factory Set | Pa | - |
| Indoor Fan Motor | Type | - | BLDC |
| | Drive | - | - |
| | Output | W | 125 |
| | | No. | 1 |
| Dehumidification Rate | - | ℓ/h | 6.50 |
| Heat Exchanger | Rows x Columns x FPI | - | 3 x 18 x 18 |
| | No. | - | 1 |
| | Fin Type | - | Louver |
| | Face Area | m² | 0.46 |
| Dimensions | Net(W x H x D) | mm | 1,600 x 235 x 690 |
| | Shipping(W x H x D) | mm | 1,715 x 317 x 768 |
| Weight | Net | kg | 36.9 |
| | Shipping | kg | 45.5 |
| Exterior | Color | - | Morning Fog |
| | RAL (Classic) | - | RAL 9001 |
| Air Filter | Type | - | Long Life |
| Protection Device | Fuse | - | O |
| | Overload Protector for Fan Motor | - | Thermal Protector for Fan Motor |
| Refrigerant | Type | - | R410A |
| | Control Type | - | - |
| Drain Pipe(Natural Drainage) | O.D / I.D | mm(inch) | 21.5 / 16.0 |
| Drain Pipe(using Drain Pump) | O.D / I.D | mm(inch) | - |
| Pipe Connecting Socket | Liquid | mm(inch) | Φ9.52 (3/8) |
| | Gas | mm(inch) | Φ19.05 (3/4) |
| | Connection Type(Liquid) | - | Flare |
| | Connection Type(Gas) | - | Flare |
| Sound Pressure Level(Indoor Unit) | Cooling ((SH)/H/M/L) | dB(A) | - / 50.0 / 46.0 / 42.0 |
| | Heating ((SH)/H/M/L) | dB(A) | - / 50.0 / 46.0 / 42.0 |
| Measurement Standard (Pressure Level) | - | - | ISO 3745 |
| Sound Power Level(Indoor Unit) | Cooling ((SH)/H/M/L) | dB(A) | - |
| | Heating ((SH)/H/M/L) | dB(A) | - |
| Measurement Standard (Power Level) | - | - | - |
| Connecting Cable | Power and Communication cable(H07RN-F) | mm² × cores | 0.75 x 4 |
| Power Supply Type to Indoor | - | - | - |

# 1. Specifications

| Category | | Unit | Specification |
|---|---|---|---|
| Major | Minor | | |
| Electrical Characteristic | Indoor Fan Motor_Full Load Amperes (FLA) | A | 0.6 |

***Note***

- Due to our policy of innovation some specifications may be changed without notification.
- Wiring cable size must comply with the applicable local and national code.
  And “Electric characteristics” should be considered for electrical work and design.
- Especially the power cable and circuit breaker should be selected in accordance with that.
- 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.

# 1. Specifications

AVNW60GM2P1

| Category | | Unit | Specification |
|---|---|---|---|
| Major | Minor | | |
| Classification | Chassis | - | VM2 |
| Power Supply | Case 1 | - | 220, 1, 60 |
| | Case 2 | - | - |
| | Limit Range of Voltage(Case 1) | V | 198~242 |
| | Limit Range of Voltage(Case 2) | V | - |
| Cooling Capacity | Nominal | kW | 15.24 |
| | | Btu/h | 52,000 |
| Heating Capacity | Nominal | kW | 17.00 |
| | | Btu/h | 58,000 |
| Power Input(Indoor) | H/M/L | W | - |
| Running Current | H/M/L | A | - |
| Indoor Fan | Type | - | CFF |
| | Quantity | EA | 2 |
| | Air Flow Rate((SH)/H/M/L) | m³/min | - / 30.0 / 25.0 / 20.0 |
| | Air Flow Rate Range(Min~Max) | m³/min | 20.0~30.0 |
| | External Static Pressure_Factory Set | Pa | - |
| Indoor Fan Motor | Type | - | BLDC |
| | Drive | - | - |
| | Output | W | 125 |
| | | No. | 1 |
| Dehumidification Rate | - | ℓ/h | 6.50 |
| Heat Exchanger | Rows x Columns x FPI | - | 3 x 18 x 18 |
| | No. | - | 1 |
| | Fin Type | - | Louver |
| | Face Area | m² | 0.46 |
| Dimensions | Net(W x H x D) | mm | 1,600 x 235 x 690 |
| | Shipping(W x H x D) | mm | 1,715 x 317 x 768 |
| Weight | Net | kg | 36.9 |
| | Shipping | kg | 45.5 |
| Exterior | Color | - | Morning Fog |
| | RAL (Classic) | - | RAL 9001 |
| Air Filter | Type | - | Long Life |
| Protection Device | Fuse | - | O |
| | Overload Protector for Fan Motor | - | Thermal Protector for Fan Motor |
| Refrigerant | Type | - | R410A |
| | Control Type | - | - |
| Drain Pipe(Natural Drainage) | O.D / I.D | mm(inch) | 21.5 / 16.0 |
| Drain Pipe(using Drain Pump) | O.D / I.D | mm(inch) | - |
| Pipe Connecting Socket | Liquid | mm(inch) | Φ9.52 (3/8) |
| | Gas | mm(inch) | Φ19.05 (3/4) |
| | Connection Type(Liquid) | - | Flare |
| | Connection Type(Gas) | - | Flare |
| Sound Pressure Level(Indoor Unit) | Cooling ((SH)/H/M/L) | dB(A) | - / 50.0 / 46.0 / 42.0 |
| | Heating ((SH)/H/M/L) | dB(A) | - / 50.0 / 46.0 / 42.0 |
| Measurement Standard (Pressure Level) | - | - | ISO 3745 |
| Sound Power Level(Indoor Unit) | Cooling ((SH)/H/M/L) | dB(A) | - |
| | Heating ((SH)/H/M/L) | dB(A) | - |
| Measurement Standard (Power Level) | - | - | - |
| Connecting Cable | Power and Communication cable(H07RN-F) | mm² × cores | 0.75 x 4 |
| Power Supply Type to Indoor | - | - | - |

# 1. Specifications

| Category | | Unit | Specification |
|---|---|---|---|
| Major | Minor | | |
| Electrical Characteristic | Indoor Fan Motor_Full Load Amperes (FLA) | A | 0.6 |

***Note***

- Due to our policy of innovation some specifications may be changed without notification.
- Wiring cable size must comply with the applicable local and national code.
  And “Electric characteristics” should be considered for electrical work and design.
- Especially the power cable and circuit breaker should be selected in accordance with that.
- 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.

## 2. List of Functions

AVNW36GM1P1, AVNW48GM2P1, AVNW60GM2P1

| Category | Functions | Availability |
|---|---|---|
| Air Flow | Air Supply Outlet | 1 |
| | Airflow Direction Control (left & right) | X |
| | Airflow Direction Control (up & down) | Auto |
| | Auto Swing (left & right) | X |
| | Auto Swing (up & down) | O |
| | Airflow Steps (fan/cool/heat) | 4 / 5 / 5 |
| | Fan Speed Auto* | O |
| | 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 | Pre-Filter | O |
| | Air Purify | X |
| | Ionizer | X |
| | UVnano | X |
| Reliability | Hot Start | O |
| | Self Diagnosis | O |
| Convenience | Auto Mode | O |
| | Auto Dry Operation** | O |
| | Auto Restart | O |
| | Child Lock* | O |
| | Forced Operation | X |
| | Group Control* | O |
| | Sleep Timer** | O |
| | Turn On/Off Reservation** | O |
| | Schedule** | O |
| | Two Thermistor Control* | O |
| | Time Limit Control (Energy saving)*** | O |
| | Temperature Setback Timer (Energy saving)*** | - |
| | External On/Off | O |
| Installation | Drain Pump | X |
| | High Ceiling Operation* | X |
| | Duty Rotation / Back up Operation*** | - |
| Special Functions | Wi-Fi Control | Accessory |
| | Comfort Cooling (Humidity Control)*** | O |
| | Auto Elevation Grille | X |
| | Human Detection Function*** | X |
| | Floor Detection Function*** | X |

***Note***

■ 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.

■ Some functions can be limited by remote controller.

■ In case of cassette type indoor units, Plasma kit and Auto Elevation Grille functions are not applicable at the same time.

■ '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)

## 2. List of Functions

■ * : These functions need to connect the wired remote controller.
■ ** : This functions need to connect to the Standard II / III wired remote controller.
■ *** : This functions need to connect to the Standard III wired remote controller.

# 3. Accessory Compatibility List

AVNW36GM1P1, AVNW48GM2P1, AVNW60GM2P1

| Category | Accessory Name | Model Name | Description | Compatibility |
|---|---|---|---|---|
| Remote Controller | Wired - Premium | PREMTA000 | - | O |
| | | PREMTA000A | - | O |
| | | PREMTA000B | - | O |
| | Wired - RS3 (Standard III) | PREMTB100/PREMTB101 | White | X |
| | | PREMTBB10/PREMTBB11 | Black | X |
| | Wired - RS2 (Standard II) | PREMTB001 | White | X |
| | | PREMTBB01 | Black | X |
| | Wired - Simple | PQRCVCL0QW | White | X |
| | | PQRCVCL0Q | Black | X |
| | Wired - Simple for hotel | PQRCHCA0QW | White | X |
| | | PQRCHCA0Q | Black | X |
| | Wireless | PQWRCQ0FDB | For Cooling only | O |
| | | PQWRHQ0FDB | For Heat pump | O |
| | | PWLSSB21C | For Cooling only | O |
| | | PWLSSB21H | For Heat pump | O |
| Dry Contact | Simple | PDRYCB000 | 1 input port, AC 220 - 240V | O |
| | | PDRYCB100 | 1 input port, AC 24V | O |
| | Communication | PDRYCB400 | 2 input port(For Setback) | O |
| | | PDRYCB300 | 8 input port, For 3rd party Themostat | O |
| | | PDRYCB320 | 8 input port, For 3rd Party Thermostat (Analog Input) | O |
| | | PDRYCB500 | For 3rd Party Controller(Modbus RTU) | O |
| Integration Device | Remote Temperature sensor | PQRSTA0 | Room temperature sensor, NTC 10kΩ, include casing | O |
| | Group Control wire | PZCWRCG3 | Cable Assembly for group control (Y-type cable : 0.25m, cable : 9.6m) | O |
| ETC | Extension wire | PZCWRC1 | Extension wire for IDU-wired remote controller (9.6m) | O |
| | 2-Remo Control wire | PZCWRC2 | Y-type cable to connect additional Remote Controller as slave | X |
| | Wi-Fi Modem | PWFMDD200 | Device to use ThinQ app include connection cable | O |
| | Wi-Fi Extension cable | PWYREW000 | USB Extension cable : 10 m | O |
| | Independent Power Module | PRIP0 | For Multi V Indoor Unit | X |
| | Multi-tenant Power module | PINPMB001 | For Multi V Indoor Unit | X |
| | Refrigerant Leakage Detector | PRLDNVS0 | For Multi V Indoor Unit (R410A) | X |
| | Human Detection Sensor | PTVSMA0 | For Cassette 4-way | X |
| | | PTVSAA0 | For Cassette Dual Vane 4-way | X |
| | Floor Detection Sensor | PTFSMA0 | For Cassette Dual Vane 4-way | X |
| | Auto Elevation Grille | PTEGM0 | For Cassette 4-way | X |
| | Air Purification Kit | PTAHTP0 | For Cassette 1-way | X |
| | | PTAHMP0 | For Cassette 4-way | X |
| | | PTAHYP0 | For Cassette Round | X |
| | EEV Kit | PRGK024A0 | For Multi V Indoor Unit | X |
| | Auxiliary Heater Relay Kit | PRARS1 | For Wall Mounted / Art Cool Indoor Units | O |
| | | PRARH1 | For Cassette / Duct Indoor Units | O |
| | Ventilation Kit | PTVK430 | For TR/TQ/TP/TN/TM Chassis | X |
| | | PTVK410 / PTVK420 | For TP/TN/TM Chassis | X |
| | Cassette Cover | PTDCQ | For TR/TQ Chassis | X |
| | | PTDCM | For TP/TN/TM Chassis | X |
| | | PTDCA | For TM-A/TP-B Chassis | X |

***Note***

■ O: Possible, X: Impossible, - : Unconfirmed or irrelevant.
■ * : Some advanced functions controlled by individual controller cannot be operated.
■ Air Purification Kit and Auto Elevation Grille are not appliable at the same time.
■ If there is a difference in development time between the product and the remote controller, some functions cannot be operated.

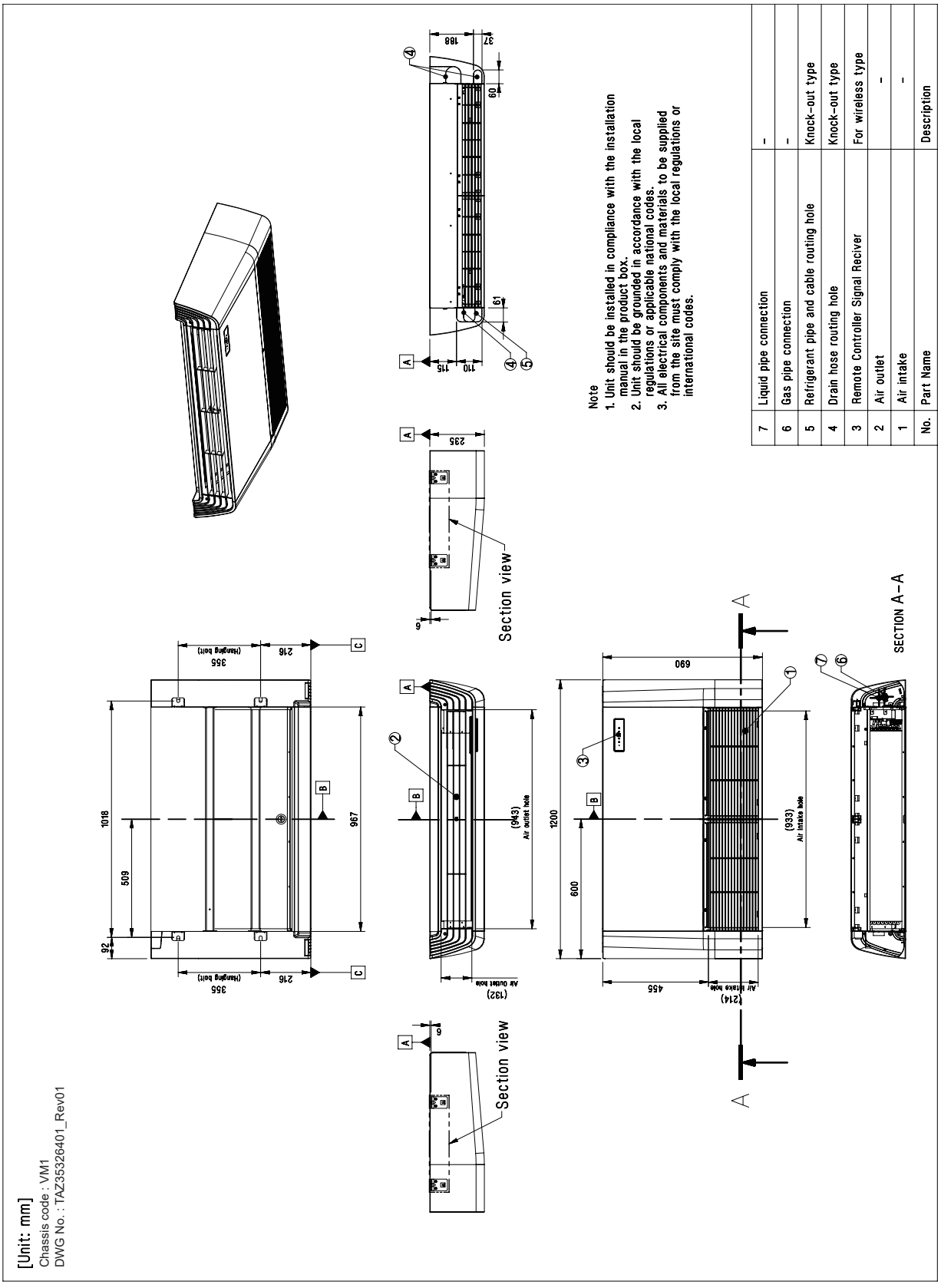
# 3. Accessory Compatibility List

■ If you need more detail, please refer to the Control(BECON) PDB or the manual of product.
(http://partner.lge.com > Select Your Region : Home> Doc.Library> Product > Control(BECON)).

# 4. Dimensions

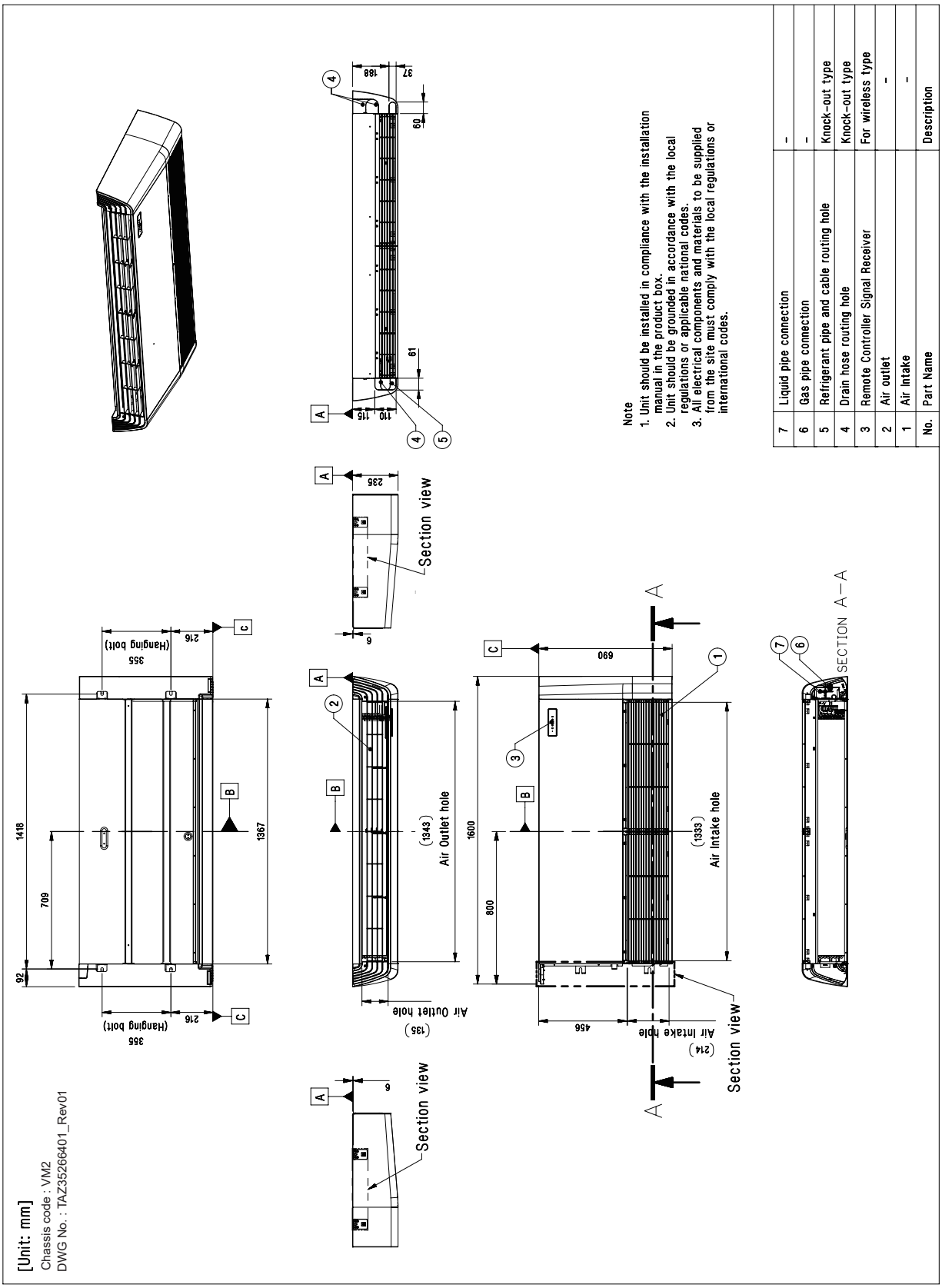
## 4.1 Dimensional Drawing

AVNW36GM1P1



## 4. Dimensions

AVNW48GM2P1, AVNW60GM2P1

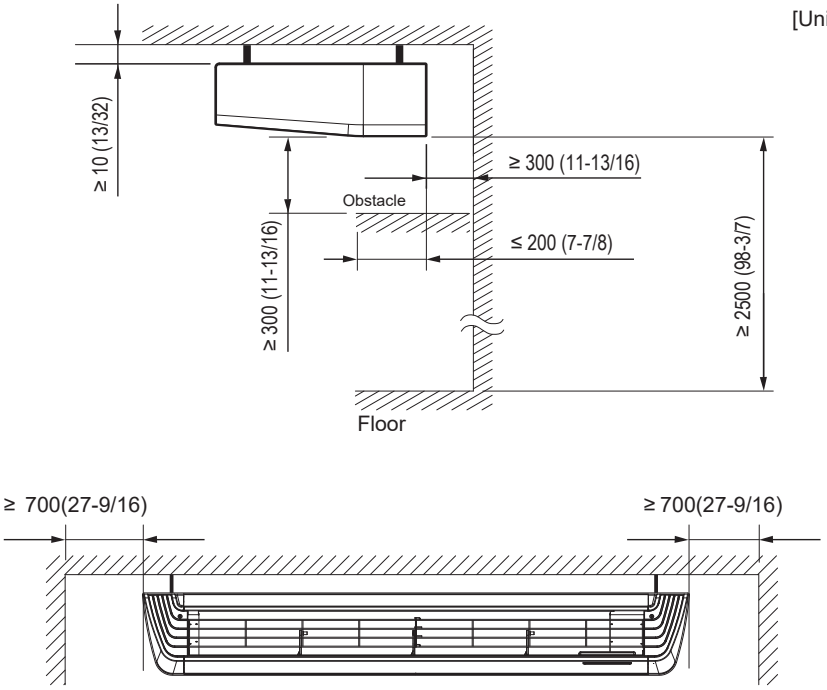


# 4. Dimensions

## 4.2 Installation Space

AVNW36GM1P1, AVNW48GM2P1, AVNW60GM2P1

[Unit: mm(inch)]







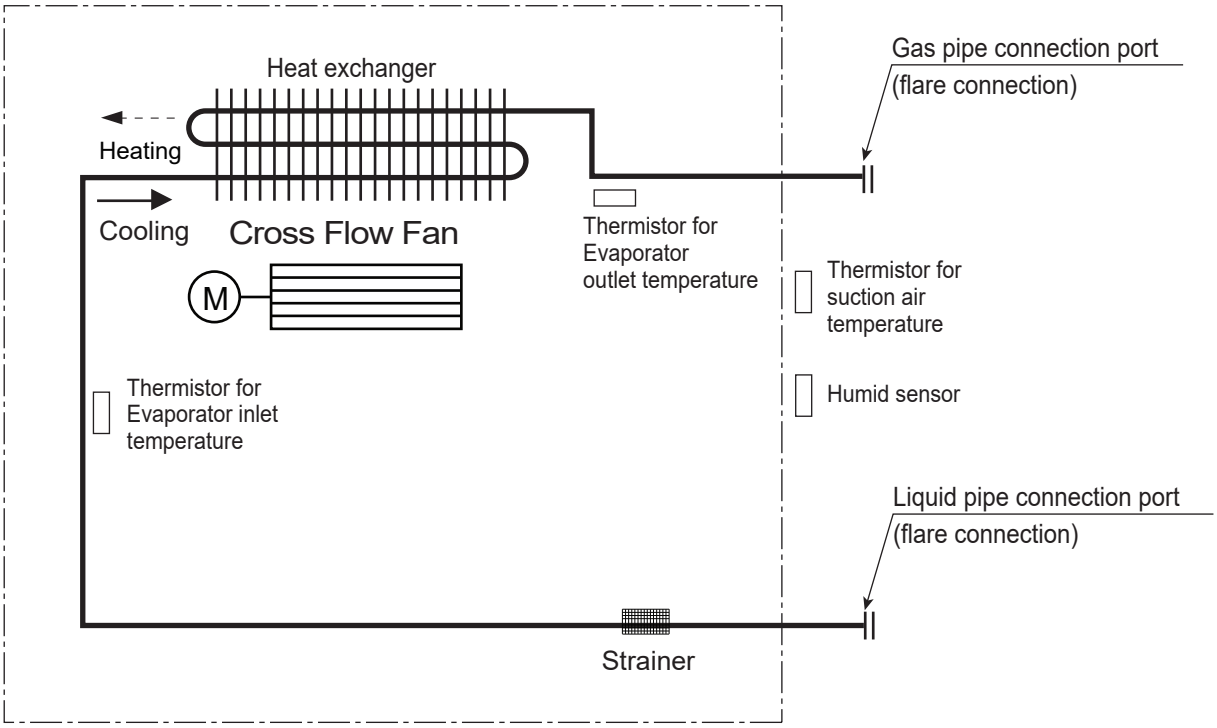
***Note***

- Places where products are installed should not be any obstacles to the air circulation or installation. Ensure the spaces from the wall, ceiling, or other obstacles.
- According to type of indoor unit, external appearance or installed structure could be different.
- According to product type, model line up, sales region..etc, applicability of each chassis could be different.

# 5. Piping Diagrams

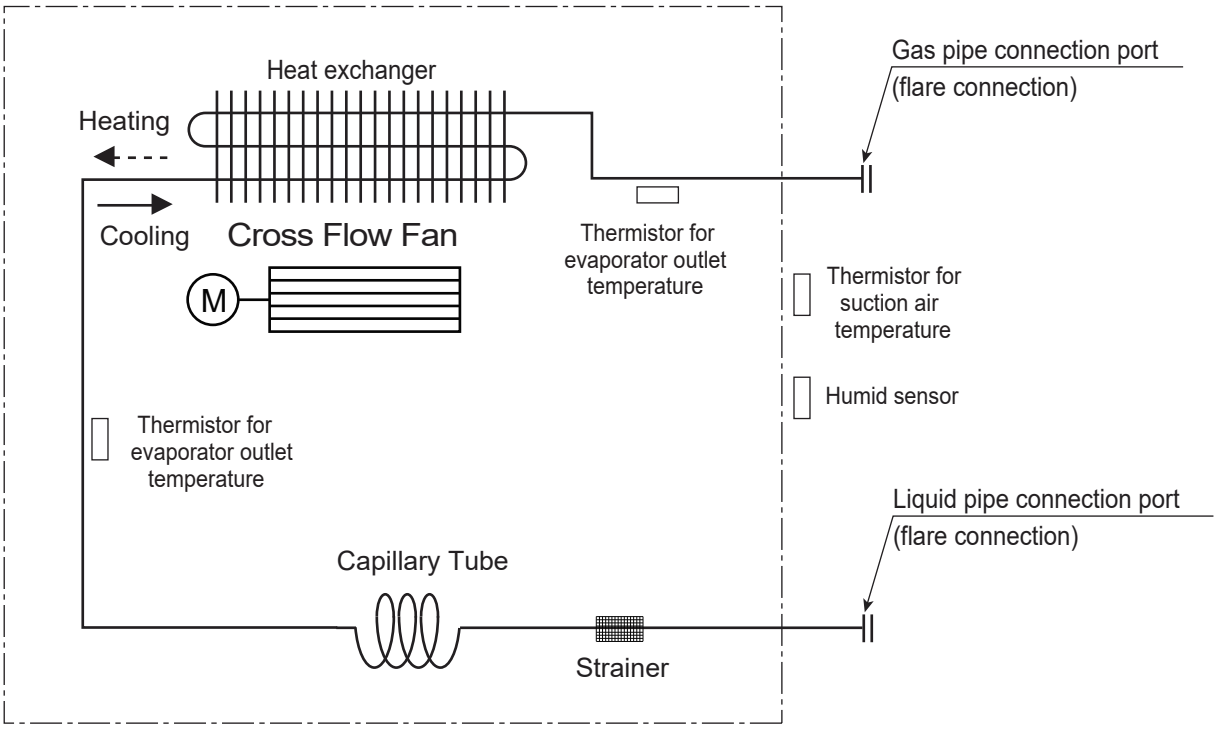
## 5.1 Normal

AVNW36GM1P1



## 5. Piping Diagrams

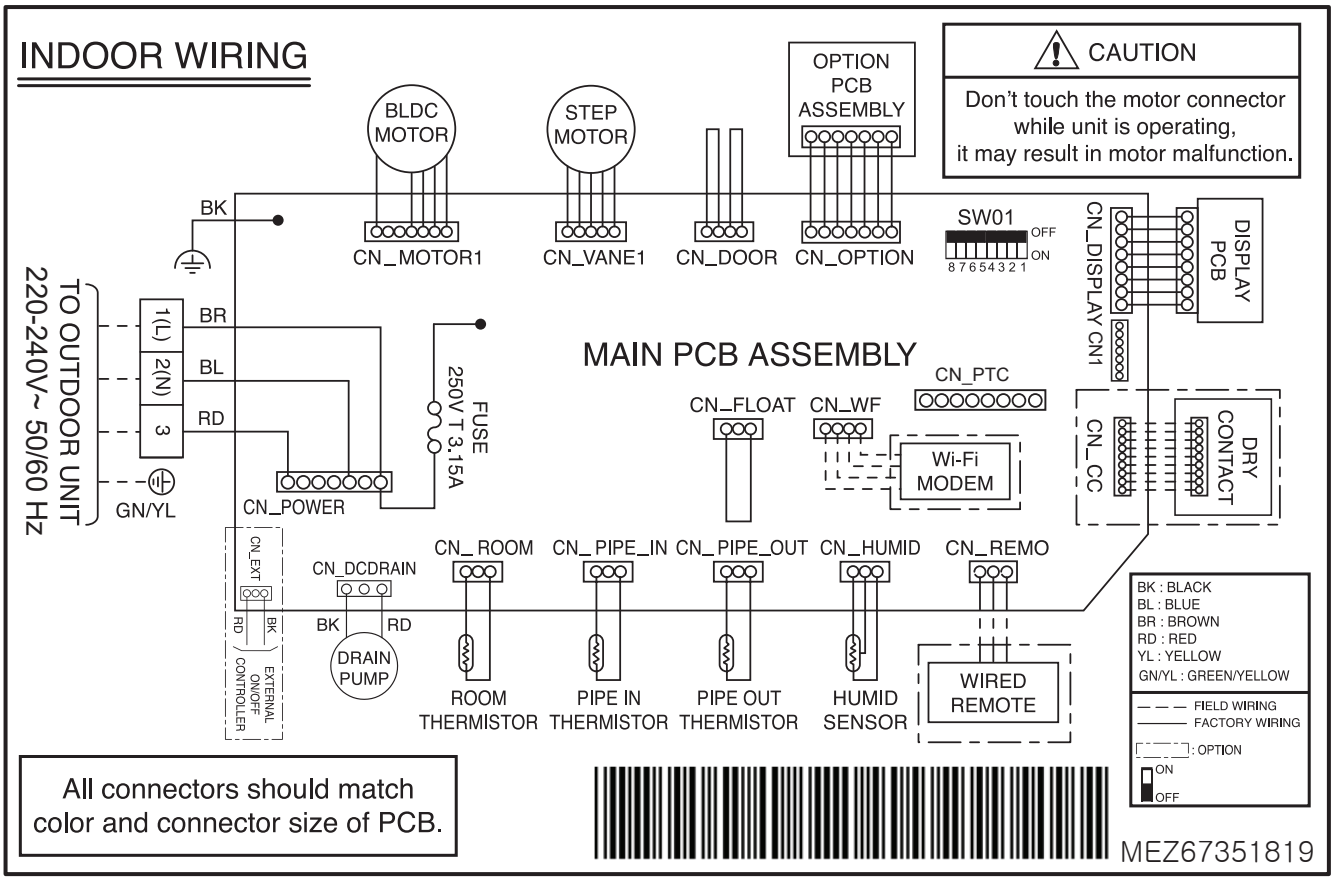
AVNW48GM2P1, AVNW60GM2P1



# 6. Wiring Diagrams

## 6.1 Product

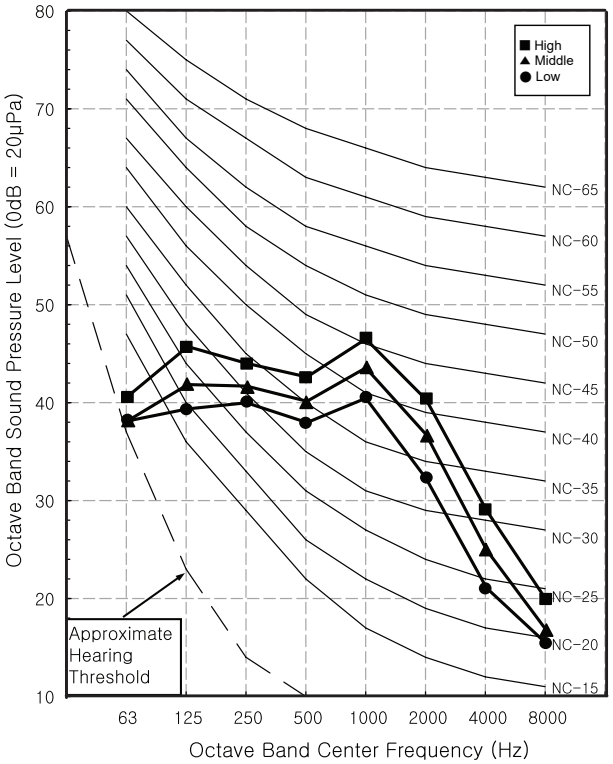
AVNW36GM1P1, AVNW48GM2P1, AVNW60GM2P1



# 7. Sound Levels

## 7.1 Pressure Levels

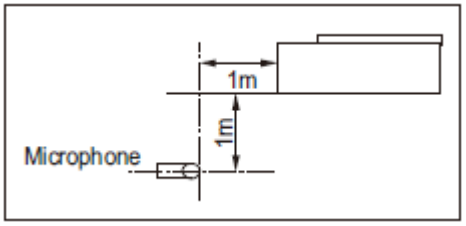
AVNW36GM1P1




| Sound level [ dB(A), @ Standard condition ] | |
|---|---|
| Cooling ((SH)/H/M/L) | - / 47.0 / 45.0 / 42.0 |
| Heating ((SH)/H/M/L) | - / 47.0 / 45.0 / 42.0 |

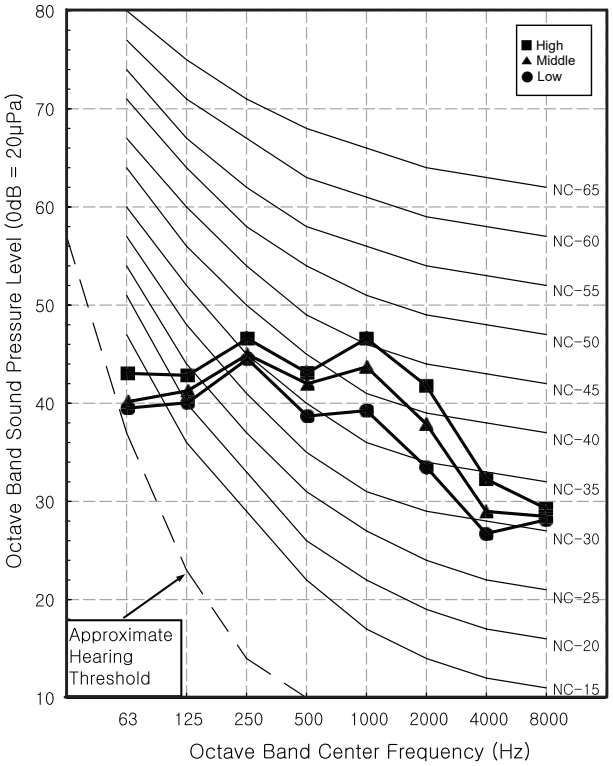
***Note***

- Sound measured at some distance away from the center of the unit.
- Data is valid at free field condition.
- Reference accoustic pressure 0dB = 20μPa.
- Data is valid at nominal operation condition.
  Refer to the Model Specifications for nominal conditions(Power source and Ambient temperature, etc)
- Sound levels can be increased in accordance with installation and operating conditions.
  (Static pressure mode, used air guide, Room target temperature setting, etc)
- Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard.
  Therefore, these values can be increased owing to ambient conditions during operation.



## 7. Sound Levels

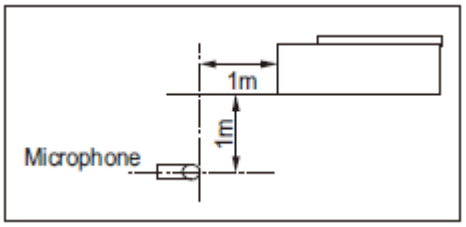
AVNW48GM2P1, AVNW60GM2P1




| Sound level [ dB(A), @ Standard condition ] | |
|---|---|
| Cooling ((SH)/H/M/L) | - / 50.0 / 46.0 / 42.0 |
| Heating ((SH)/H/M/L) | - / 50.0 / 46.0 / 42.0 |

***Note***

- Sound measured at some distance away from the center of the unit.
- Data is valid at free field condition.
- Reference accoustic pressure 0dB = 20μPa.
- Data is valid at nominal operation condition.
  Refer to the Model Specifications for nominal conditions(Power source and Ambient temperature, etc)
- Sound levels can be increased in accordance with installation and operating conditions.
  (Static pressure mode, used air guide, Room target temperature setting, etc)
- Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard.
  Therefore, these values can be increased owing to ambient conditions during operation.

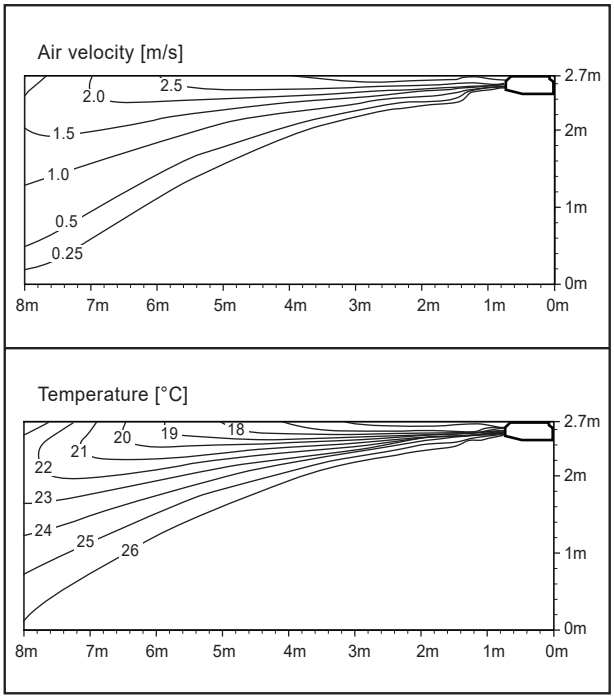


# 8. Air flow and temperature distributions

## 8.1 Cooling Operation

AVNW36GM1P1

Discharge angle: 0°




***Note***

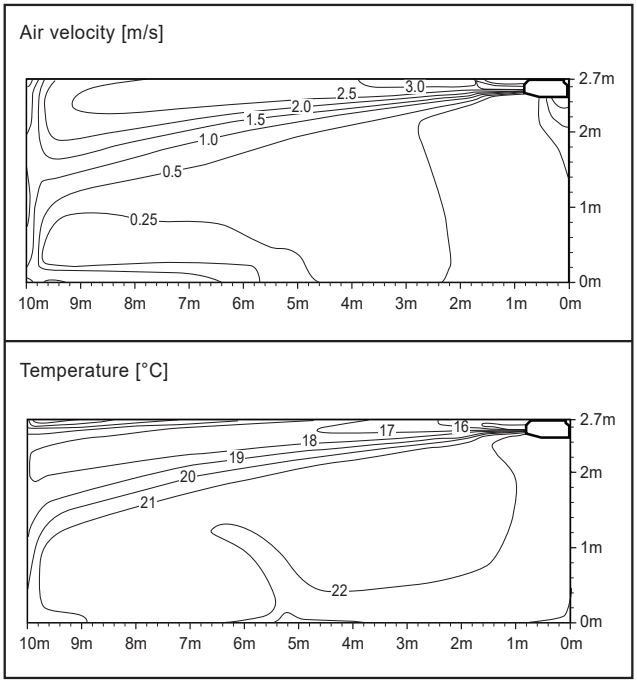
- These figures are accordance with normal certain condition and environment.
  (Airflow step is 'High', Air discharge angle is fixed as indicated angle.)
- Indoor airflow distribution under actual installation or operating conditions depends on ambient temperature, ceiling height, product installation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

# 8. Air flow and temperature distributions

AVNW48GM2P1

## Cooling

Discharge angle: 0°




***Note***

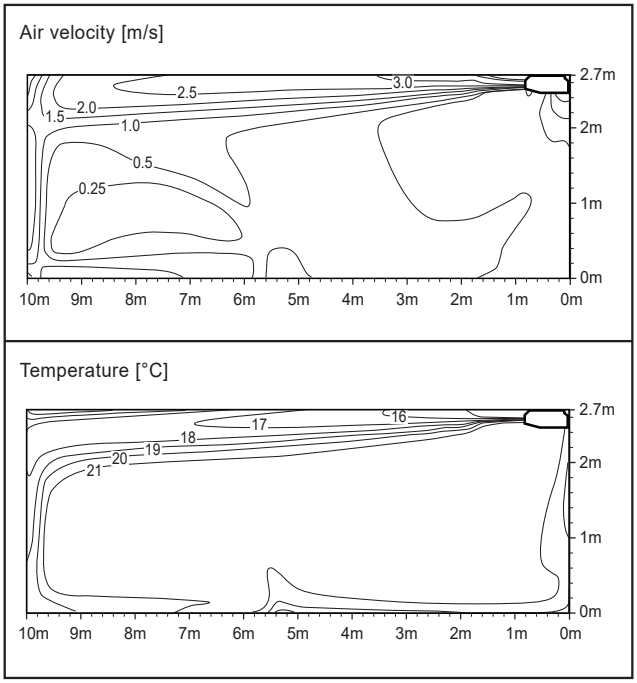
- These figures are accordance with normal certain condition and environment.
  (Airflow step is 'High', Air discharge angle is fixed as indicated angle.)
- Indoor airflow distribution under actual installation or operating conditions depends on ambient temperature, ceiling height, product installation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

# 8. Air flow and temperature distributions

AVNW60GM2P1

## Cooling

Discharge angle: 0°




***Note***

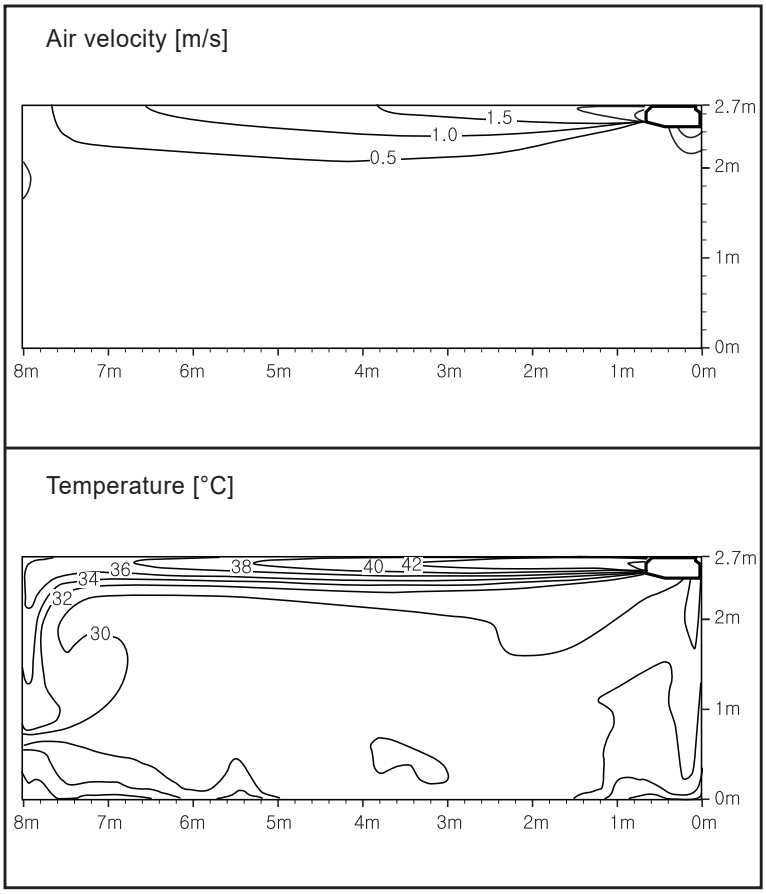
- These figures are accordance with normal certain condition and environment.
  (Airflow step is 'High', Air discharge angle is fixed as indicated angle.)
- Indoor airflow distribution under actual installation or operating conditions depends on ambient temperature, ceiling height, product installation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

# 8. Air flow and temperature distributions

## 8.2 Heating Operation

AVNW36GM1P1

Discharge angle: 0°



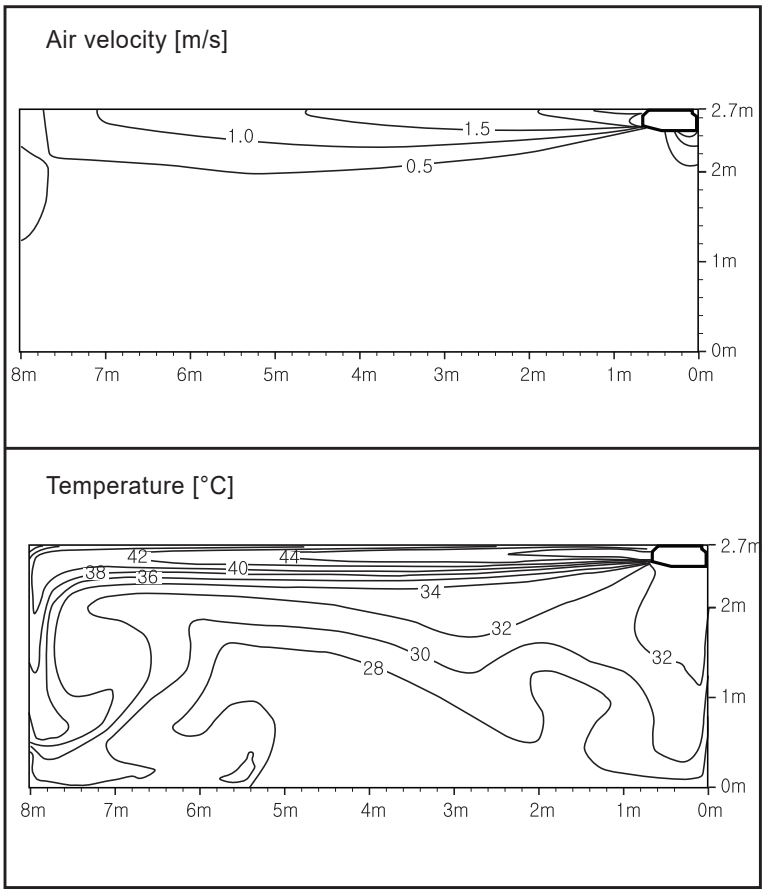

***Note***

- These figures are accordance with normal certain condition and environment.
  (Airflow step is '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.

## 8. Air flow and temperature distributions

AVNW48GM2P1, AVNW60GM2P1

Discharge angle: 0°




***Note***

- These figures are accordance with normal certain condition and environment.
  (Airflow step is '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.

# Ceiling Cassette Round

1. Specifications
2. List of Functions
3. Accessory Compatibility List
4. Dimensions
5. Piping Diagrams
6. Wiring Diagrams
7. Sound Levels
8. Air flow and temperature distributions

# 1. Specifications

## 1.1 Product

ATNW36GYLP1

| Category | | Unit | Specification |
|---|---|---|---|
| Major | Minor | | |
| Classification | Chassis | - | TY |
| Power Supply | Case 1 | V, Phase, Hz | 220, 1, 60 |
| | Case 2 | V, Phase, Hz | - |
| | Limit Range of Voltage(Case 1) | V | 198 ~ 242 |
| | Limit Range of Voltage(Case 2) | V | - |
| Cooling Capacity | Nominal | kW | 9.97 |
| | | Btu/h | 34,000 |
| Heating Capacity | Nominal | kW | 10.84 |
| | | Btu/h | 37,000 |
| Power Input(Indoor) | H/M/L | W | 40 / 37 / 34 |
| Running Current | H/M/L | A | - / 0.67 / - |
| Indoor Fan | Type | - | 3D Turbo Fan |
| | Quantity | EA | - |
| | Air Flow Rate((SH)/H/M/L) | m³/min | - / 25.0 / 23.0 / 21.0 |
| | Air Flow Rate Range(Min~Max) | m³/min | - |
| | External Static Pressure(Factory Set) | Pa | - |
| | External Static Pressure(Min~Max) | Pa | - |
| Indoor Fan Motor | Type | - | BLDC |
| | Drive | - | - |
| | Output | W | 136 |
| | | No. | 1 |
| Dehumidification Rate | - | ℓ/h | 4.90 |
| Heat Exchanger | Rows x Columns x FPI | - | 2 x 12 x 21 1EA, 1 x 12 x 21 1EA |
| | No. | - | 2 |
| | Fin Type | - | Slit(Half) |
| | Face Area | m² | 0.47 |
| Dimensions | Net(W x H x D) | mm | 1,050 x 330 x 1,050 |
| | Shipping(W x H x D) | mm | 1,120 x 388 x 1,120 |
| Weight | Net | kg | 31.0 |
| | Shipping | kg | 39.0 |
| Exterior | Color | - | White |
| | RAL (Classic) | - | RAL 9003 |
| Air Filter | Type | - | Longlife (Pleated Type) |
| Protection Device | Fuse | - | Fuse |
| | Overload Protector for Fan Motor | - | - |
| Refrigerant | Type | - | R410A |
| | Control Type | - | Electronic Expansion Valve |
| Drain Pipe(Natural Drainage) | O.D / I.D | mm(inch) | - |
| Drain Pipe(using Drain Pump) | O.D / I.D | mm(inch) | 32.0(1-1/4) / 25.0(31/32) |
| Pipe Connecting Socket | Liquid | mm(inch) | Φ9.52 (3/8) |
| | Gas | mm(inch) | Φ15.88 (5/8) |
| | Connection Type(Liquid) | - | - |
| | Connection Type(Gas) | - | - |
| Sound Pressure Level(Indoor Unit) | Cooling ((SH)/H/M/L) | dB(A) | - / 39.0 / 37.0 / 34.0 |
| | Heating ((SH)/H/M/L) | dB(A) | - / 39.0 / 37.0 / 34.0 |
| Measurement Standard (Pressure Level) | - | - | ISO 3745 |
| Sound Power Level(Indoor Unit) | Cooling ((SH)/H/M/L) | dB(A) | - |
| | Heating ((SH)/H/M/L) | dB(A) | - |

# 1. Specifications

| Category | | Unit | Specification |
|---|---|---|---|
| Major | Minor | | |
| Measurement Standard (Power Level) | - | - | - |
| Connecting Cable | Power and Communication cable(H07RN-F, included earth) | mm² × cores | 1.0 x 4C |
| Power Supply Type to Indoor | - | - | Supplied from ODU |
| Electrical Characteristic | Indoor Fan Motor_Full Load Amperes (FLA) | A | 1.47 |

***Note***

■ Due to our policy of innovation some specifications may be changed without notification.
■ Wiring cable size must comply with the applicable local and national code.
And “Electric characteristics” should be considered for electrical work and design.
■ Especially the power cable and circuit breaker should be selected in accordance with that.
■ 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.

# 1. Specifications

ATNW60GYLP1

| Category | | Unit | Specification |
|---|---|---|---|
| Major | Minor | | |
| Classification | Chassis | - | TY |
| Power Supply | Case 1 | V, Phase, Hz | 220, 1, 60 |
| | Case 2 | V, Phase, Hz | - |
| | Limit Range of Voltage(Case 1) | V | 198 ~ 242 |
| | Limit Range of Voltage(Case 2) | V | - |
| Cooling Capacity | Nominal | kW | 14.07 |
| | | Btu/h | 48,000 |
| Heating Capacity | Nominal | kW | 16.70 |
| | | Btu/h | 57,000 |
| Power Input(Indoor) | H/M/L | W | 90 / 63 / 40 |
| Running Current | H/M/L | A | - / 0.67 / - |
| Indoor Fan | Type | - | 3D Turbo Fan |
| | Quantity | EA | - |
| | Air Flow Rate((SH)/H/M/L) | m³/min | - / 32.0 / 28.0 / 23.0 |
| | Air Flow Rate Range(Min~Max) | m³/min | - |
| | External Static Pressure(Factory Set) | Pa | - |
| | External Static Pressure(Min~Max) | Pa | - |
| Indoor Fan Motor | Type | - | BLDC |
| | Drive | - | - |
| | Output | W | 136 |
| | | No. | 1 |
| Dehumidification Rate | - | ℓ/h | 4.90 |
| Heat Exchanger | Rows x Columns x FPI | - | 2 x 12 x 21 1EA / 1 x 12 x 21 1EA |
| | No. | - | 2 |
| | Fin Type | - | Slit(Half) |
| | Face Area | m² | 0.47 |
| Dimensions | Net(W x H x D) | mm | 1,050 x 330 x 1,050 |
| | Shipping(W x H x D) | mm | 1,120 x 388 x 1,120 |
| Weight | Net | kg | 31.0 |
| | Shipping | kg | 39.0 |
| Exterior | Color | - | White |
| | RAL (Classic) | - | RAL 9003 |
| Air Filter | Type | - | Longlife (Pleated Type) |
| Protection Device | Fuse | - | Fuse |
| | Overload Protector for Fan Motor | - | - |
| Refrigerant | Type | - | R410A |
| | Control Type | - | Electronic Expansion Valve |
| Drain Pipe(Natural Drainage) | O.D / I.D | mm(inch) | - |
| Drain Pipe(using Drain Pump) | O.D / I.D | mm(inch) | 32.0(1-1/4) / 25.0(31/32) |
| Pipe Connecting Socket | Liquid | mm(inch) | Φ9.52 (3/8) |
| | Gas | mm(inch) | Φ19.05 (3/4) |
| | Connection Type(Liquid) | - | - |
| | Connection Type(Gas) | - | - |
| Sound Pressure Level(Indoor Unit) | Cooling ((SH)/H/M/L) | dB(A) | - / 47.0 / 44.0 / 39.0 |
| | Heating ((SH)/H/M/L) | dB(A) | - / 47.0 / 44.0 / 39.0 |
| Measurement Standard (Pressure Level) | - | - | ISO 3745 |
| Sound Power Level(Indoor Unit) | Cooling ((SH)/H/M/L) | dB(A) | - |
| | Heating ((SH)/H/M/L) | dB(A) | - |
| Measurement Standard (Power Level) | - | - | - |
| Connecting Cable | Power and Communication cable(H07RN-F, included earth) | mm² × cores | 1.0X4C |

# 1. Specifications

| Category | | Unit | Specification |
|---|---|---|---|
| Major | Minor | | |
| Power Supply Type to Indoor | - | - | Supplied from ODU |
| Electrical Characteristic | Indoor Fan Motor_Full Load Amperes (FLA) | A | 1.47 |

***Note***

■ Due to our policy of innovation some specifications may be changed without notification.
■ Wiring cable size must comply with the applicable local and national code.
And “Electric characteristics” should be considered for electrical work and design.
■ Especially the power cable and circuit breaker should be selected in accordance with that.
■ 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.

## 2. List of Functions

ATNW36GYLP1, ATNW60GYLP1

| Category | Functions | Availability |
|---|---|---|
| Air Flow | Air Supply Outlet | Round |
| | Airflow Direction Control (left & right) | X |
| | Airflow Direction Control (up & down) | O |
| | Auto Swing (left & right) | X |
| | Auto Swing (up & down) | O |
| | Airflow Steps (fan/cool/heat) | 4 / 5 / 4 |
| | Fan Speed Auto* | Advanced |
| | Power Cool/Heat | O / X |
| | Swirl Wind* | O |
| | Refresh Mode** | X |
| | Smart Mode** | X |
| | Indirect Wind* | O |
| | Direct Wind* | O |
| | Dry Operation | O |
| Air Purification | Pre-Filter | O |
| | Air Purify | Accessory |
| | Ionizer | X |
| | UVnano | X |
| Reliability | Hot Start | O |
| | Self Diagnosis | O |
| Convenience | Auto Mode | X |
| | Auto Dry Operation** | O |
| | Auto Restart | O |
| | Child Lock* | O |
| | Forced Operation | O |
| | Group Control* | O |
| | Sleep Timer** | O |
| | Turn On/Off Reservation** | O |
| | Schedule** | O |
| | Two Thermistor Control* | O |
| | Time Limit Control (Energy saving)*** | O |
| | Temperature Setback Timer (Energy saving)*** | - |
| | External On/Off | O |
| Installation | Drain Pump | O |
| | High Ceiling Operation* | O |
| | Duty Rotation / Back up Operation*** | - |
| Special Functions | Wi-Fi Control | O (Embedded) |
| | Comfort Cooling (Humidity Control)*** | O |
| | Auto Elevation Grille | X |
| | Human Detection Function*** | X |
| | Floor Detection Function*** | X |

***Note***

■ 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.

■ Some functions can be limited by remote controller.
■ In case of cassette type indoor units, Plasma kit and Auto Elevation Grille functions are not applicable at the same time.
■ '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)

## 2. List of Functions

- * : These functions need to connect the wired remote controller.
- ** : This functions need to connect to the Standard II / III wired remote controller.
- *** : This functions need to connect to the Standard III wired remote controller.

# 3. Accessory Compatibility List

ATNW36GYLP1, ATNW60GYLP1

| Category | Accessory Name | Model Name | Description | Compatibility |
|---|---|---|---|---|
| Remote Controller | Wired - Premium | PREMTA000 | - | O |
| | | PREMTA000A | - | O |
| | | PREMTA000B | - | O |
| | Wired - RS3 (Standard III) | PREMTB100/PREMTB101 | White | O |
| | | PREMTBB10/PREMTBB11 | Black | O |
| | Wired - RS2 (Standard II) | PREMTB001 | White | O |
| | | PREMTBB01 | Black | O |
| | Wired - Simple | PQRCVCL0QW | White | O |
| | | PQRCVCL0Q | Black | O |
| | Wired - Simple for hotel | PQRCHCA0QW | White | O |
| | | PQRCHCA0Q | Black | O |
| | Wireless | PQWRCQ0FDB | For Cooling only | X |
| | | PQWRHQ0FDB | For Heat pump | O |
| | | PWLSSB21C | For Cooling only | X |
| | | PWLSSB21H | For Heat pump | O |
| Dry Contact | Simple | PDRYCB000 | 1 input port, AC 220 - 240V | O |
| | | PDRYCB100 | 1 input port, AC 24V | O |
| | Communication | PDRYCB400 | 2 input port(For Setback) | O |
| | | PDRYCB300 | 8 input port, For 3rd party Themostat | O |
| | | PDRYCB320 | 8 input port, For 3rd Party Thermostat (Analog Input) | O |
| | | PDRYCB500 | For 3rd Party Controller(Modbus RTU) | O |
| Integration Device | Remote Temperature sensor | PQRSTA0 | Room temperature sensor, NTC 10kΩ, include casing | O |
| | Group Control wire | PZCWRCG3 | Cable Assembly for group control (Y-type cable : 0.25m, cable : 9.6m) | O |
| ETC | Extension wire | PZCWRC1 | Extension wire for IDU-wired remote controller (9.6m) | X |
| | 2-Remo Control wire | PZCWRC2 | Y-type cable to connect additional Remote Controller as slave | X |
| | Wi-Fi Modem | PWFMDD200 | Device to use ThinQ app include connection cable | O |
| | Wi-Fi Extension cable | PWYREW000 | USB Extension cable : 10 m | X |
| | Independent Power Module | PRIP0 | For Multi V Indoor Unit | X |
| | Multi-tenant Power module | PINPMB001 | For Multi V Indoor Unit | X |
| | Refrigerant Leakage Detector | PRLDNVS0 | For Multi V Indoor Unit (R410A) | X |
| | Human Detection Sensor | PTVSMA0 | For Cassette 4-way | X |
| | | PTVSAA0 | For Cassette Dual Vane 4-way | X |
| | Floor Detection Sensor | PTFSMA0 | For Cassette Dual Vane 4-way | - |
| | Auto Elevation Grille | PTEGM0 | For Cassette 4-way | X |
| | Air Purification Kit | PTAHTP0 | For Cassette 1-way | X |
| | | PTAHMP0 | For Cassette 4-way | X |
| | | PTAHYP0 | For Cassette Round | O |
| | EEV Kit | PRGK024A0 | For Multi V Indoor Unit | X |
| | Auxiliary Heater Relay Kit | PRARS1 | For Wall Mounted / Art Cool Indoor Units | X |
| | | PRARH1 | For Cassette / Duct Indoor Units | X |
| | Ventilation Kit | PTVK430 | For TR/TQ/TP/TN/TM Chassis | X |
| | | PTVK410 / PTVK420 | For TP/TN/TM Chassis | X |
| | Cassette Cover | PTDCQ | For TR/TQ Chassis | X |
| | | PTDCM | For TP/TN/TM Chassis | X |
| | | PTDCA | For TM-A/TP-B Chassis | X |

***Note***

■ O: Possible, X: Impossible, - : Unconfirmed or irrelevant.
■ * : Some advanced functions controlled by individual controller cannot be operated.
■ Air Purification Kit and Auto Elevation Grille are not appliable at the same time.
■ If there is a difference in development time between the product and the remote controller, some functions cannot be operated.

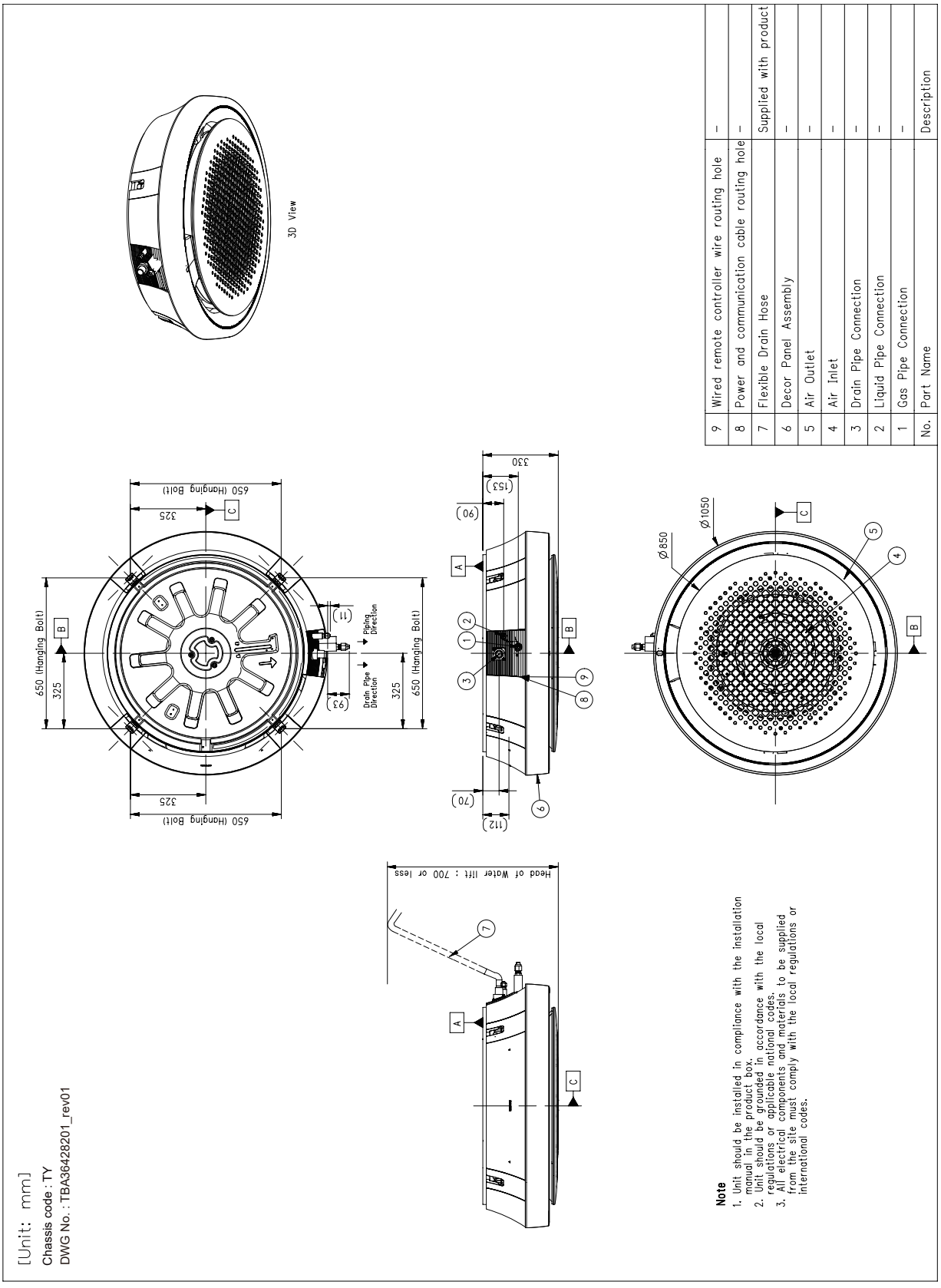
# 3. Accessory Compatibility List

■ If you need more detail, please refer to the Control(BECON) PDB or the manual of product.
(http://partner.lge.com > Select Your Region : Home> Doc.Library> Product > Control(BECON)).

# 4. Dimensions

## 4.1 Dimensional Drawing

ATNW36GYLP1, ATNW60GYLP1




| No. | Part Name | Description |
|---|---|---|
| 9 | Wired remote controller wire routing hole | – |
| 8 | Power and communication cable routing hole | – |
| 7 | Flexible Drain Hose | Supplied with product |
| 6 | Decor Panel Assembly | – |
| 5 | Air Outlet | – |
| 4 | Air Inlet | – |
| 3 | Drain Pipe Connection | – |
| 2 | Liquid Pipe Connection | – |
| 1 | Gas Pipe Connection | – |

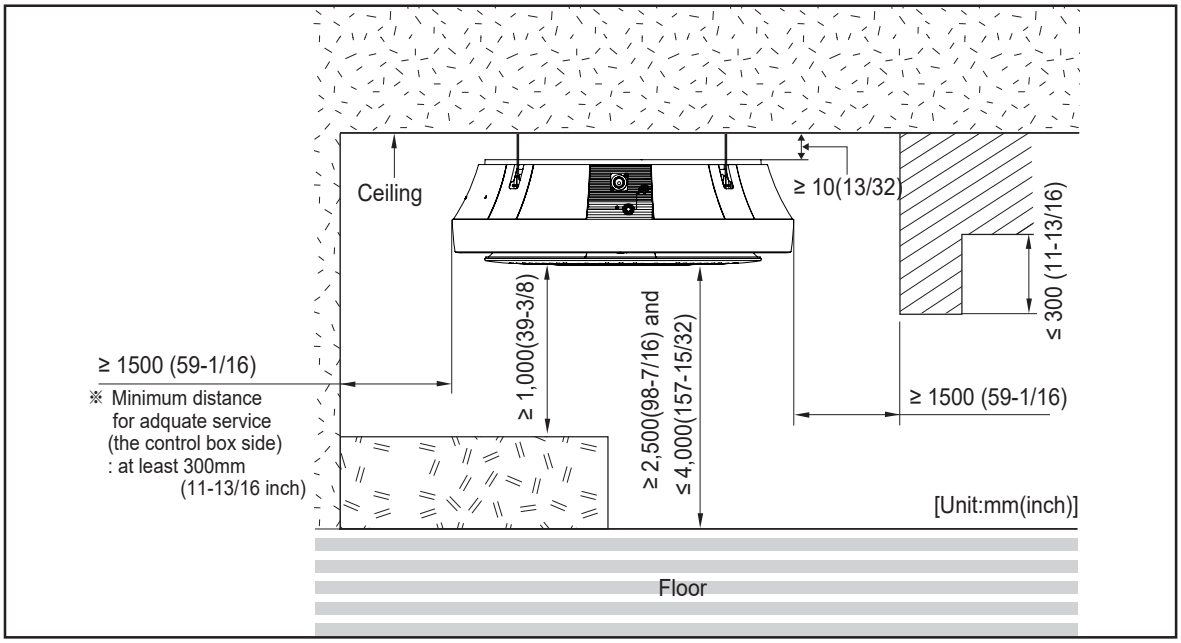
**Note**

1. Unit should be installed in compliance with the installation manual in the product box.
2. Unit should be grounded in accordance with the local regulations or applicable national codes.
3. All electrical components and materials to be supplied from the site must comply with the local regulations or international codes.

# 4. Dimensions

## 4.2 Installation Space

ATNW36GYLP1, ATNW60GYLP1



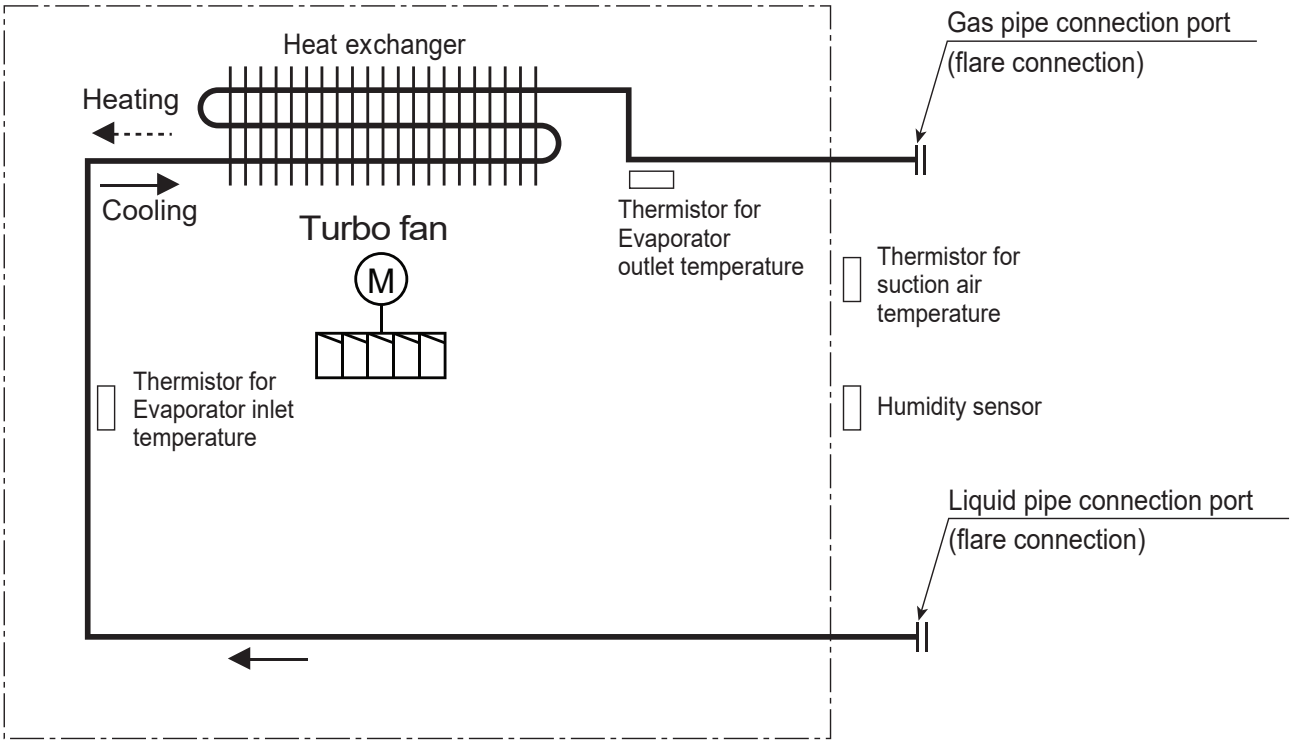

***Note***

- Places where products are installed should not be any obstacles to the air circulation or installation. Ensure the spaces from the wall, ceiling, or other obstacles.
- According to type of indoor unit, external appearance or installed structure could be different.
- According to product type, model line up, sales region..etc, applicability of each chassis could be different.
- This product is based on exposure installation. Do not install it in a landfill site such as ceiling tax.

# 5. Piping Diagrams

## 5.1 Normal

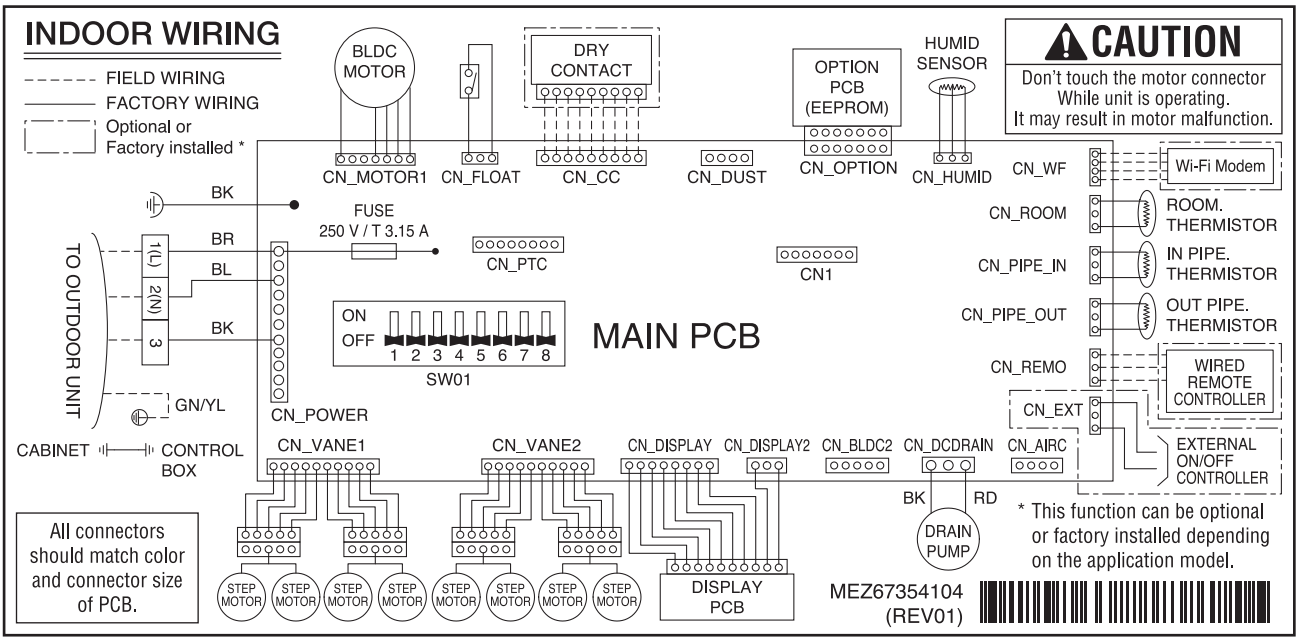
ATNW36GYLP1, ATNW60GYLP1



# 6. Wiring Diagrams

## 6.1 Product

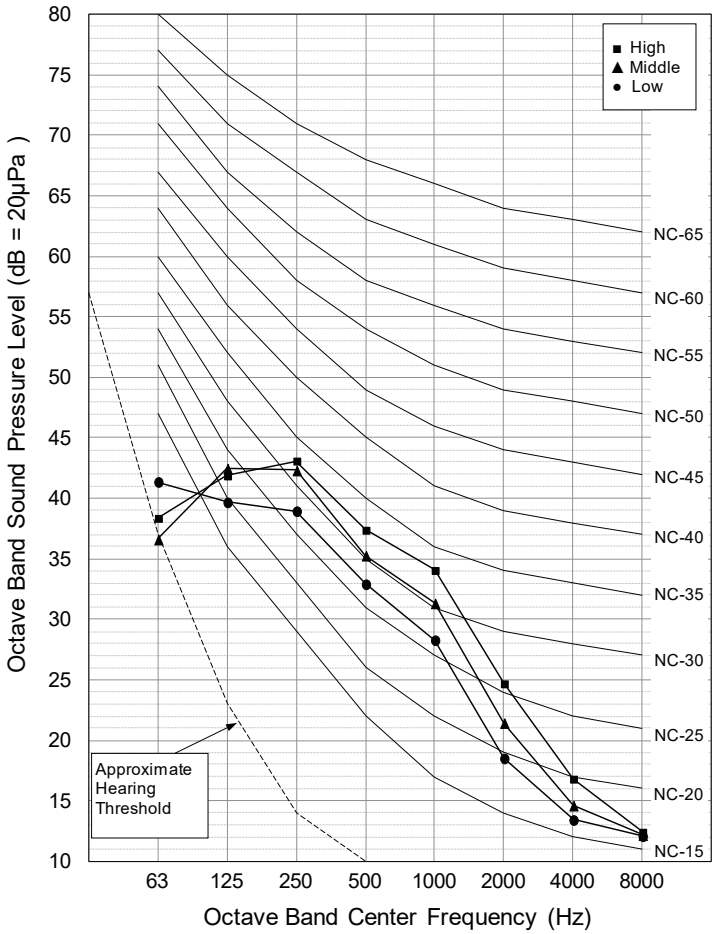
ATNW36GYLP1, ATNW60GYLP1



# 7. Sound Levels

## 7.1 Pressure Levels

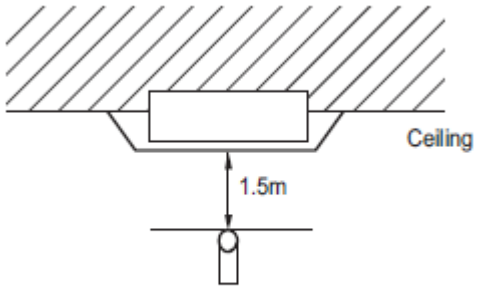
ATNW36GYLP1




| Sound level [ dB(A), @ Standard condition ] | |
|---|---|
| Cooling ((SH)/H/M/L) | - / 39.0 / 37.0 / 34.0 |
| Heating ((SH)/H/M/L) | - / 39.0 / 37.0 / 34.0 |

***Note***

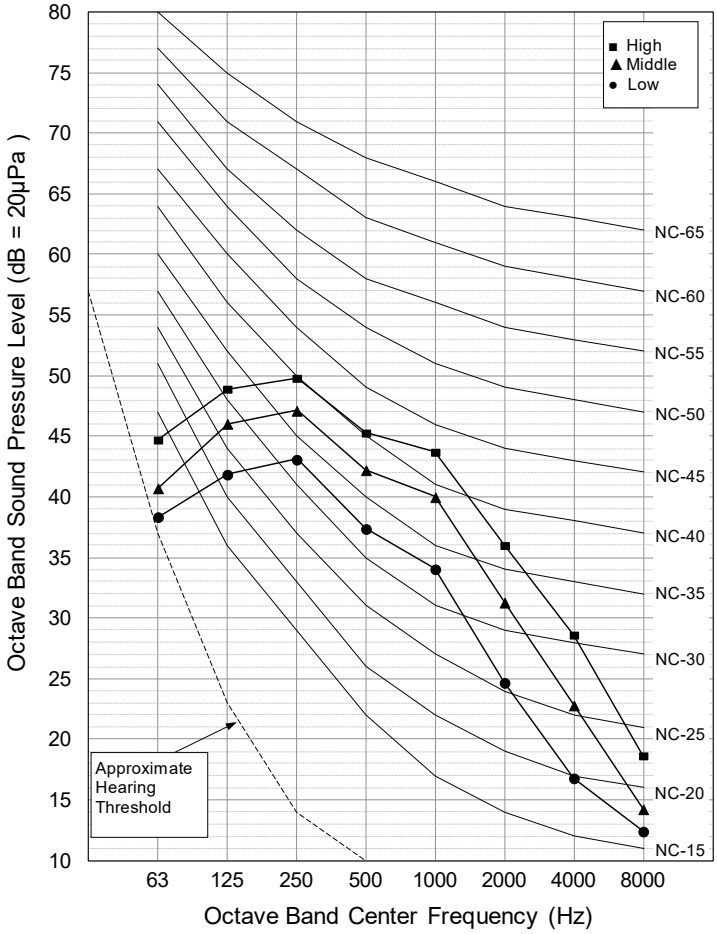
■ Sound measured at some distance away from the center of the unit.
■ Data is valid at free field condition.
■ Reference accoustic pressure 0dB = 20μPa.
■ Data is valid at nominal operation condition.
Refer to the Model Specifications for nominal conditions(Power source and Ambient temperature, etc)
■ Sound levels can be increased in accordance with installation and operating conditions.
(Static pressure mode, used air guide, Room target temperature setting, etc)
■ Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard.
Therefore, these values can be increased owing to ambient conditions during operation.




* Measuring place : Anechoic chamber

## 7. Sound Levels

ATNW60GYLP1




| Sound level [ dB(A), @ Standard condition ] | |
|---|---|
| Cooling ((SH)/H/M/L) | - / 47.0 / 44.0 / 39.0 |
| Heating ((SH)/H/M/L) | - / 47.0 / 44.0 / 39.0 |

***Note***

- ■ Sound measured at some distance away from the center of the unit.
- ■ Data is valid at free field condition.
- ■ Reference accoustic pressure 0dB = 20μPa.
- ■ Data is valid at nominal operation condition.
  Refer to the Model Specifications for nominal conditions(Power source and Ambient temperature, etc)
- ■ Sound levels can be increased in accordance with installation and operating conditions.
  (Static pressure mode, used air guide, Room target temperature setting, etc)
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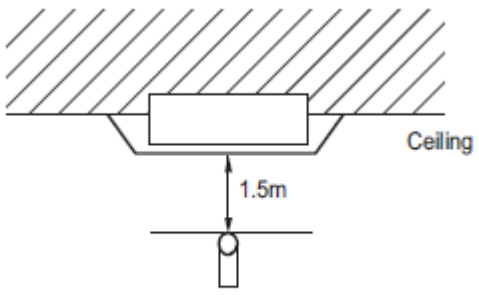
  Therefore, these values can be increased owing to ambient conditions during operation.



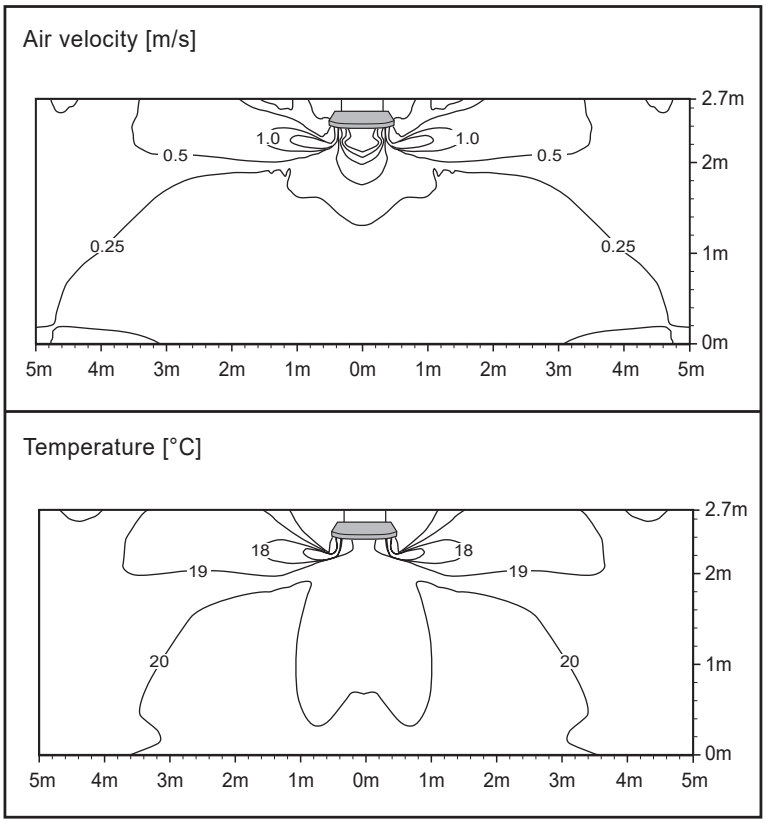

* Measuring place : Anechoic chamber

# 8. Air flow and temperature distributions

## 8.1 Cooling Operation

ATNW36GYLP1

Vane : 1 step



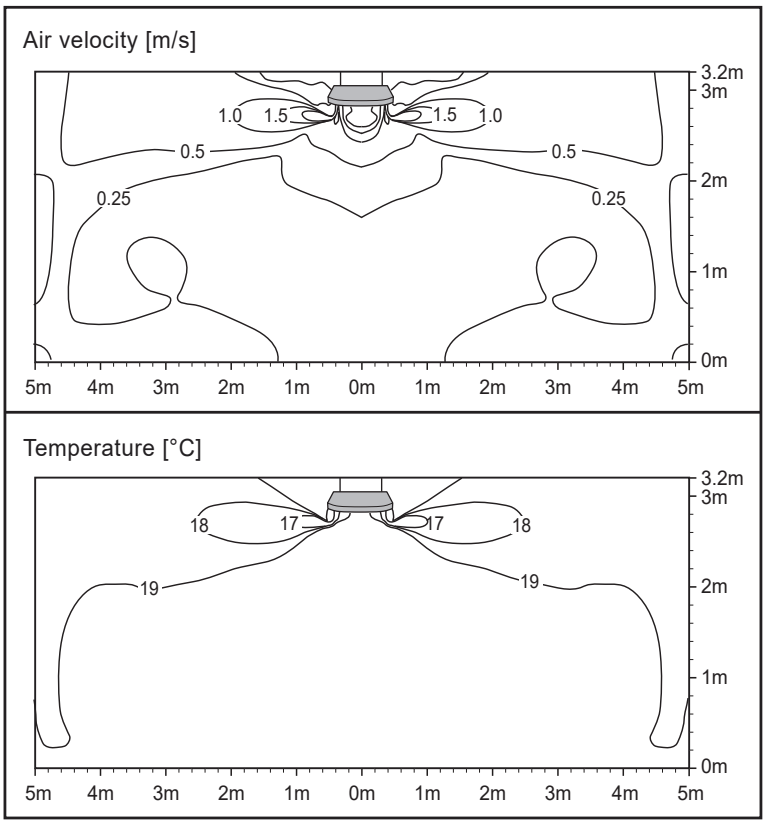

***Note***

- These figures are accordance with normal certain condition and environment.
  (Airflow step is '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.

## 8. Air flow and temperature distributions

ATNW60GYLP1

Vane : 1 step




***Note***

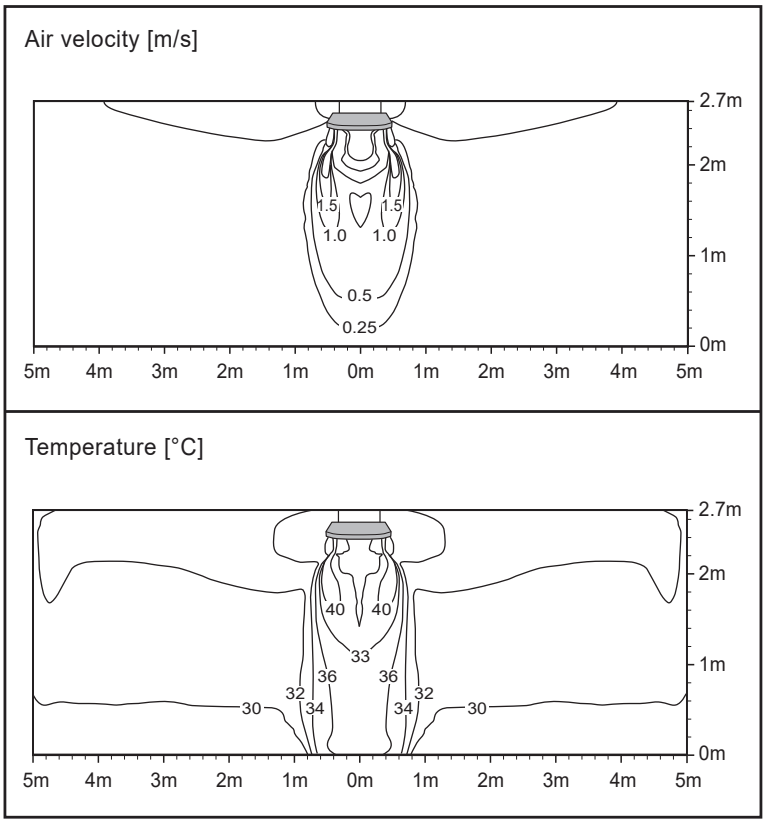
- These figures are accordance with normal certain condition and environment.
  (Airflow step is 'High', Air discharge angle is fixed as indicated angle.)
- Indoor airflow distribution under actual installation or operating conditions depends on ambient temperature, ceiling height, product installation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

# 8. Air flow and temperature distributions

## 8.2 Heating Operation

ATNW36GYLP1

Vane : 6 step




***Note***

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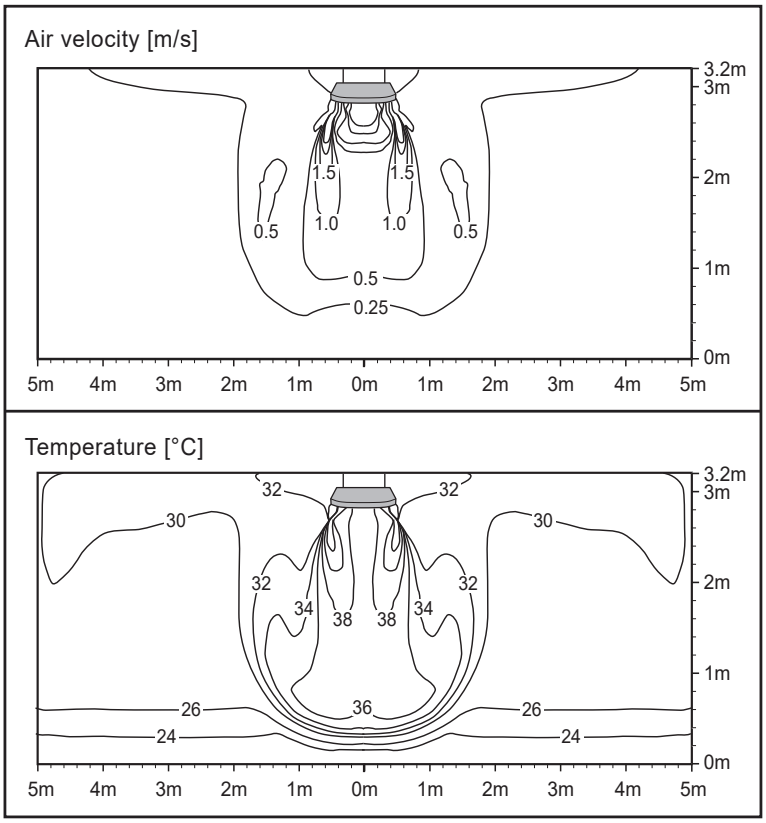
  (Airflow step is 'High', Air discharge angle is fixed as indicated angle.)
- Indoor airflow distribution under actual installation or operating conditions depends on ambient temperature, ceiling height, product installation direction / location, indoor / Heating load, and other obstacles, etc.

## 8. Air flow and temperature distributions

ATNW60GYLP1

Vane : 6 step




***Note***

- These figures are accordance with normal certain condition and environment.
  (Airflow step is '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.

# Accessory

## Front Panel

## Air Purification Kit

# Front Panel

## 1. Specifications

# 1. Specifications

## 1.1 Product

PT-AAGW0

| Category | | Unit | Specification |
|---|---|---|---|
| Major | Minor | | |
| Model Name | Factory model | - | PT-AAGW0 |
| | Buyer model | - | PT-AAGW0 |
| Panel Type | - | - | Standard |
| Panel Exterior | Glossy / Matt | - | - |
| | Color | - | White |
| | RAL (Classic) | - | RAL 9003 |
| | Grille Type (Grille / Grid) | - | Grid |
| Panel Dimension | Net (W x H x D) | mm | 950 x 35 x 950 |
| | Shipping (W x H x D) | mm | 1,006 x 102 x 1,006 |
| Panel Weight | Net | kg | 7.1 |
| | Shipping | kg | 9.3 |
| Panel Function | PM1.0 Sensor | - | X |
| Panel Accessory | Air Purification Kit | - | X |
| | Floor Detection Sensor | - | PTFSMA0 |
| | Human Detection Sensor | - | PTVSAA0 |

***Note***

■ Some functions need to connect to the Standard III wired remote controller.

■ Accessory : Ordered and purchased separately the accessory package referring to the model name provided and install at field

# 1. Specifications

PT-AFGW0

| Category | | Unit | Specification |
|---|---|---|---|
| **Major** | **Minor** | | |
| Model Name | Factory model | - | PT-AFGW0 |
| | Buyer model | - | PT-AFGW0 |
| Panel Type | - | - | Premium |
| Panel Exterior | Glossy / Matt | - | - |
| | Color | - | White |
| | RAL (Classic) | - | RAL 9003 |
| | Grille Type (Grille / Grid) | - | Grid |
| Panel Dimension | Net (W x H x D) | mm | 950x35x950 |
| | Shipping (W x H x D) | mm | 1,006x117x1,006 |
| Panel Weight | Net | kg | 7.50 |
| | Shipping | kg | 9.40 |
| Panel Function | PM1.0 Sensor | - | O |
| Panel Accessory | Air Purification Kit | - | PTAHMP0 |
| | Floor Detection Sensor | - | PTFSMA0 |
| | Human Detection Sensor | - | PTVSAA0 |

***Note***

■ Some functions need to connect to the Standard III wired remote controller.

■ Accessory : Ordered and purchased separately the accessory package referring to the model name provided and install at field

# Air Purification Kit

## 1. Specifications

# 1. Specifications

## 1.1 Product

PTAHMP0

| Category | | Unit | Specification |
|---|---|---|---|
| Major | Minor | | |
| Air Purification Kit | Applied Chassis | - | TP/TN/TM/TP-B/TM-A |
| | Applied Panel | - | PT-MPGW0 (U-style) / PT-AFGW0 (Dual Vane) |
| PM 1.0 Sensor | Size(W x H x D) | mm | 59 x 45 x 22 |
| | Supply Voltage | V | 5 |
| | Measure | - | PM1.0 / PM2.5 / PM10 |
| HVPS | Size(W x H x D) | mm | 99 X 50 X 30 |
| | Input | - | DC 12V |
| | Output(Electrification / Dust Collection) | - | -7.7kV / -5.2kV |
| PM 1.0 Filter | Size(W x H x D) | mm | 500 x 38 x 395 |
| | Weight | g | 2,090 |
| Deodorization Filter | Material | - | Pulp + Carbon (Corrugate) |
| | Size(W x H x D) | mm | 478 x 14 x 138 |
| | Weight | g | 180 |
| Ionizer | Size(W x H x D) | mm | 71 x 19 x 30 |
| | Input | - | DC 12V |
| | Output | - | -3.2kV |
| | Amount of Ion Emission | EA / cc | 3,000,000 |

# 1. Specifications

PTAHTP0

| Category | | Unit | Specification |
|---|---|---|---|
| **Major** | **Minor** | | |
| Air Purification Kit | Applied Chassis | - | TU / TT |
| | Applied Panel | - | PT-UPHG0 / PT-TPHG0 |
| PM 1.0 Sensor | Size(W x H x D) | mm | 59 x 45 x 22 |
| | Supply Voltage | V | 5 |
| | Measure | - | PM1.0 / PM2.5 / PM10 |
| HVPS | Size(W x H x D) | mm | 99 X 50 X 30 |
| | Input | - | DC 12V |
| | Output(Electrification / Dust Collection) | - | -7.7kV / -5.2kV |
| PM 1.0 Filter | Size(W x H x D) | mm | 524 x 18 x 141 |
| | Weight | g | 430 |
| Deodorization Filter | Material | - | Pulp + Carbon (Corrugate) |
| | Size(W x H x D) | mm | 301 x 11 x 100 |
| | Weight | g | 40 |
| Ionizer | Size(W x H x D) | mm | 71 x 19 x 30 |
| | Input | - | DC 12V |
| | Output | - | -3.2kV |
| | Amount of Ion Emission | EA / cc | 3,000,000 |

# 1. Specifications

PTAHYP0

| Category | | Unit | Specification |
|---|---|---|---|
| Major | Minor | | |
| Air Purification Kit | Applied Chassis | - | TY |
| | Applied Panel | - | - |
| PM 1.0 Sensor | Size(W x H x D) | mm | 59 x 45 x 16.6 |
| | Supply Voltage | V | 5 |
| | Measure | - | PM1.0 / PM2.5 / PM10 |
| HVPS | Size(W x H x D) | mm | 99 x 50 x 30 |
| | Input | - | DC 12V |
| | Output(Electrification / Dust Collection) | - | -7.7kV / -5.7kV |
| PM 1.0 Filter | Size(W x H x D) | mm | 500 x 38 x 395 |
| | Weight | g | 2,090 |
| Deodorization Filter | Material | - | Pulp + Carbon(corrugate) |
| | Size(W x H x D) | mm | 478 x 14 x 138 |
| | Weight | g | 180 |
| Ionizer | Size(W x H x D) | mm | - |
| | Input | - | - |
| | Output | - | - |
| | Amount of Ion Emission | EA / cc | - |

# Installation

## Installation of Indoor Unit

# 1. Information for Refrigerant

## 1.1 R410A as an Alternative Refrigerant

*The type of refrigerant applied depends on the outdoor unit cycle configuration. Ensure the refrigerant type in the specification of the indoor unit and outdoor unit to be installed.*

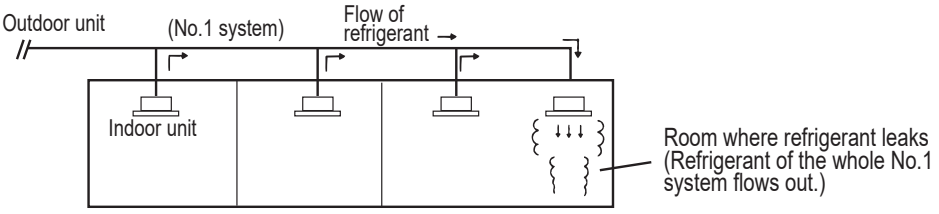
### ■ Alternative Refrigerant _ R410A

- The refrigerant R410A has the property of higher operating pressure in comparison with R22. Therefore, all materials have the characteristics of higher resisting pressure than ones of R22 and this characteristic should also be considered during the installation.
- The wall thickness of the piping should comply with the relevant local and national regulations for the designed pressure. (R410A 3.8MPa)
- For high-pressure refrigerant, any unapproved pipe must not be used.
- Do not heat pipes more than necessary to prevent them from softening.
- Do not place the refrigerant container under the direct rays of the sun to prevent it from exploding.
- R410A is an azeotrope of R32 and R125 mixed at 50:50, so the ozone depletion potential(ODP) of R410A is 0.
- Since R410A is a mixed refrigerant, the required additional refrigerant must be charged in its liquid state. If the refrigerant is charged in its gaseous state, its composition changes and the system will not work properly.
- Be careful not to install wrongly to minimize economic loss because it is expensive in comparison with R22.

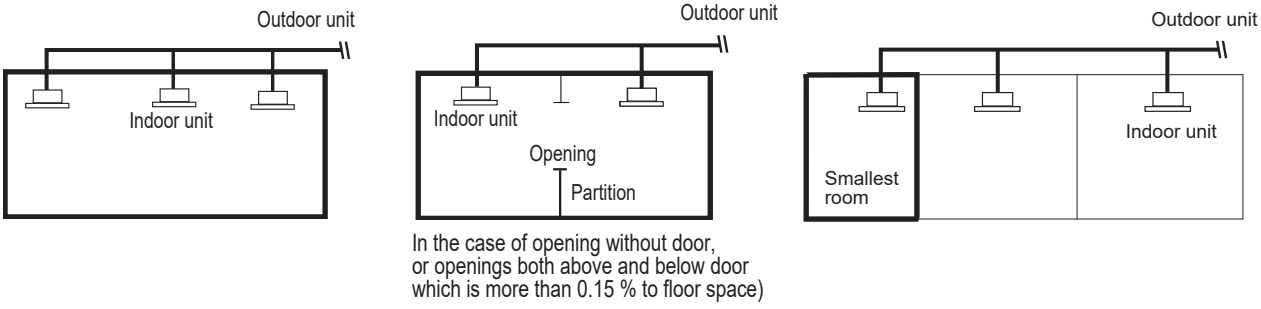
# 1. Information for Refrigerant

## 1.2 Cautions for Refrigerant Leaks of R410A

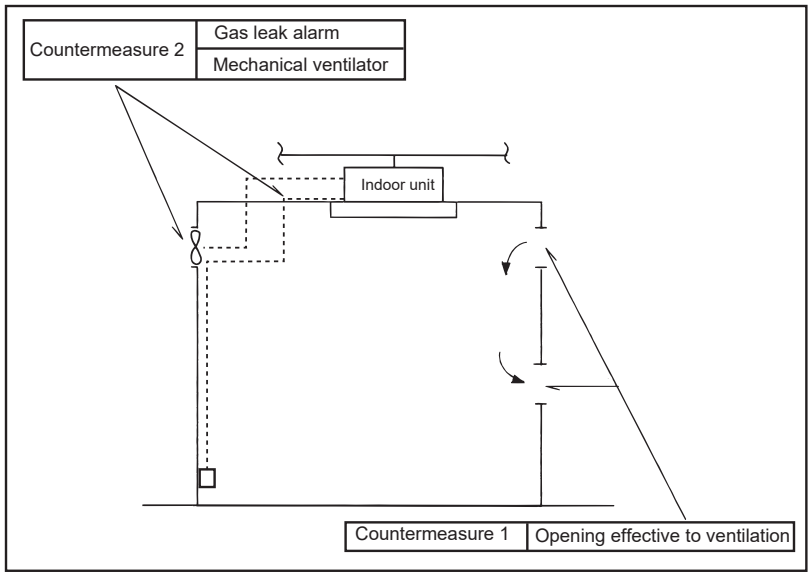
### *< Needs to Calculation of Refrigeran concentration >*




### *< Calculation of Room Space >*




### *< Countermeasure when concentration is exceed >*




The installer and system specialist shall secure safety against leakage according to local regulations or standards.
The following standards may be applicable if local regulations are not available.

## ■ Concentration limit : 0.44 kg/m³ (for R410A)

Concentration limit (Freon gas weight per unit air volume, kg/m³) is the limit of Freon gas concentration where immediate measures can be taken without hurting human body when refrigerant leaks in the air.

## ■ Calculate refrigerant concentration

Check concentration limit along following steps and take appropriate measure depending on the situation.

**(1) Calculate total amount of refrigerant per each system (A, kg)**

*Total amount of refrigerant in the system (A, kg)*

*= Amount of pre-charged refrigerant per single system(B, kg) + Amount of additional replenished refrigerant(C, kg)*

(B : Amount of replenished refrigerant at factory shipment)

(C : Amount of additionally replenished refrigerant depending on piping length or piping diameter by customer)

# 1. Information for Refrigerant

※ In case one refrigerant facility is divided into 2 or more refrigerant systems and each system is independent, amount of replenished refrigerant of each system shall be adopted.

**(2) Calculate the volume of the room where indoor unit is installed as single room or the smallest room. (D, m³)**

In case of room with partition and without opening which serve as passage of air to adjoining room, calculate the room space only.

- In case of room with partition but opened which serve passage of air to adjoining room, calculate the room space include space of adjoining room. (In the case of opening without door, or openings both above and below door which is more than space 0.15 % to floor space)

**(3) Calculate refrigerant concentration.**

*Refrigerant concentration*

*= Total amount of refrigerant system (A, kg) ÷ Volume of smallest room where indoor unit is installed (D, m³)*

*[ Refrigerant concentration ≤ Maximum concentration (kg/m³, R410A is 0.44) ]*

In case the result of calculation exceeds the concentration limit, perform the same calculations by shifting to the second smallest, and the third smallest rooms until at last the result is below the concentration limit.

## ■ In case the concentration exceeds the limit

When the concentration exceeds the limit, change original plan or take one of the counter measure shown below:

- Counter measure 1
  Provide opening 0.15% or more size of opening to floor space both above and below door for ventilation, or provide opening without door.
- Counter measure 2
  Provide gas leak alarm linked with mechanical ventilator.
- Counter measure 3
  Reducing the system's refrigerant quantity by deviding into smaller separate system.

### *< ! > CAUTIONS*

Pay a special attention to the place, such as a basement, etc. where refrigerant can stay, since refrigerant is heavier than air.

# 1. Information for Refrigerant

## 1.3 R32 as an Alternative Refrigerant

*The type of refrigerant applied depends on the outdoor unit cycle configuration. Ensure the refrigerant type in the specification of the indoor unit and outdoor unit to be installed.*

### ■ Alternative Refrigerant _ R32

- The refrigerant R32 has a lower GWP (Global Warming Potential) value, and higher efficiency than R410A. The Ozone Depletion Potential (ODP) of R32 is 0, and Global Warming Potential(GWP) is 675.
- Refrigerant piping consists of copper/steel pipes, joints, and other fittings.All components must be selected and installed in conformity with the standards pertaining to the Refrigeration Safety Regulation.
- Same piping as for R410A can be used.

### *< ! > WARNING*

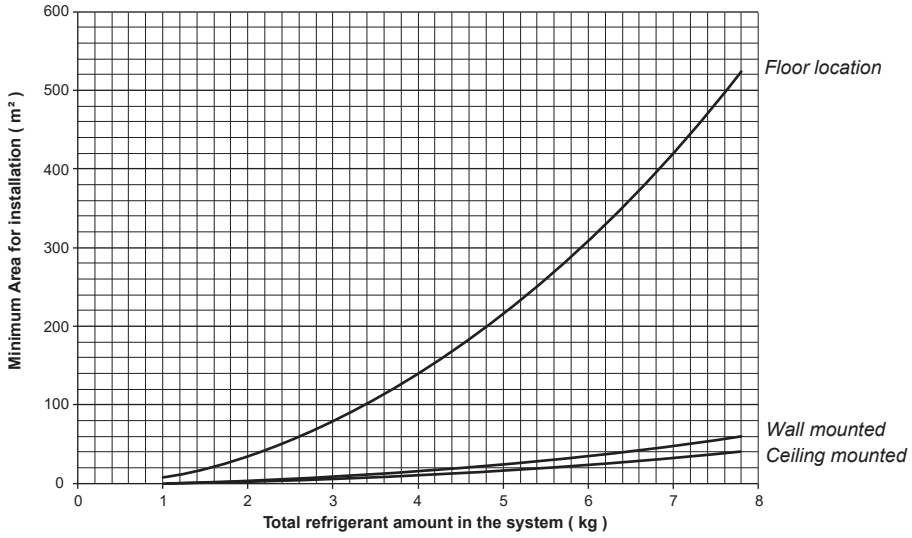
- This product contains fluorinated greenhouse gases (Refrigerant type : R32). DO NOT LEAK refrigerant gases into the atmosphere.
- The refrigerant R32 is a Slightly Flammable gas. It does not leak normally. If the refrigerant leaks in the installed place and is in contact with a flaming source, it may cause fire, or a harmful gas.
- If there is some leak, turn off any combustion devices, ventilate the installation location, and contact the dealer from which you purchased the unit. Do not use the unit until the refrigerant leaked is repaired.
- Only use R32 as refrigerant. Other substances may cause explosions and accidents.

### *< ! > CAUTIONS*

- The wall thickness of the piping should comply with the relevant local and national regulations for the designed pressure.
- For high-pressure refrigerant, any unapproved pipe must not be used.
- Do not heat pipes more than necessary to prevent them from softening.

# 1. Information for Refrigerant

## 1.4 Minimum Floor Area for Installation fo R32 model : accordance with IEC05




### *<!> CAUTIONS*

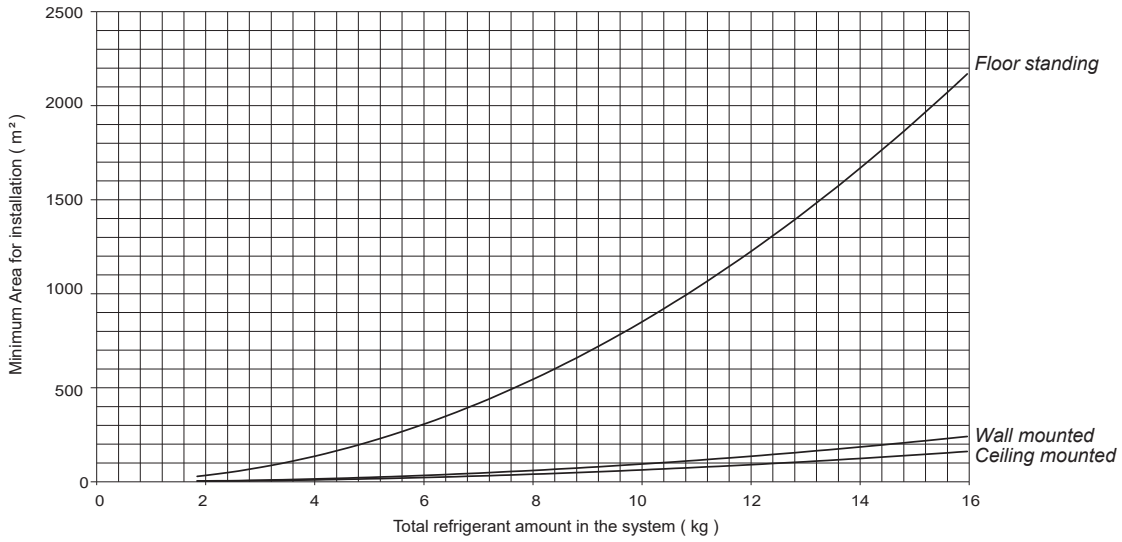
- "Minimum Area for installation" might be different by revision of IEC regulation. "Minimum Area for installation" should be selected in accordance with that revision based on the local and national environment.

- The following information is according to ***'IEC 60335-2-40:2013+A1:2016 Edition 5.1'***.
- Pipe-work shall be protected from physical damage and shall not be installed in an unventilated space, if that space is smaller than minimum area for installation.
- The unit should be installed, operated and stored in a room with a floor area larger than the minimum area. Use the upper graph or the below table to determine the minimum area.
  - $m_c$ : Total refrigerant amount in the system = factory refrigerant charge + additional refrigerant amount (kg)
  - $A_{min}$ : Minimum Area for installation of unit

| $m_c$(kg) | $A_{min}$ | | |
|---|---|---|---|
| | Floor Location | Wall Mounted | Ceiling Mounted |
| 1.0 | 8.58 | 0.95 | 0.64 |
| 1.224 | 12.90 | 1.43 | 0.958 |
| 1.4 | 16.82 | 1.87 | 1.25 |
| 1.6 | 21.97 | 2.44 | 1.63 |
| 1.8 | 27.80 | 3.09 | 2.07 |
| 2.0 | 34.32 | 3.81 | 2.55 |
| 2.2 | 41.53 | 4.61 | 3.09 |
| 2.4 | 49.42 | 5.49 | 3.68 |
| 2.6 | 58.00 | 6.44 | 4.31 |
| 2.8 | 67.27 | 7.47 | 5.00 |
| 3.0 | 77.22 | 8.58 | 5.74 |
| 3.2 | 87.86 | 9.76 | 6.54 |
| 3.4 | 99.19 | 11.02 | 7.38 |
| 3.6 | 111.20 | 12.36 | 8.27 |
| 3.8 | 123.90 | 13.77 | 9.22 |
| 4.0 | 137.29 | 15.25 | 10.21 |
| 4.2 | 151.36 | 16.82 | 11.26 |
| 4.4 | 166.12 | 18.46 | 12.36 |
| 4.6 | 181.56 | 20.17 | 13.50 |
| 4.8 | 197.70 | 21.97 | 14.70 |
| 5.0 | 214.51 | 23.83 | 15.96 |
| 5.2 | 232.02 | 25.78 | 17.26 |
| 5.4 | 250.21 | 27.80 | 18.61 |
| 5.6 | 269.09 | 29.90 | 20.01 |
| 5.8 | 288.65 | 32.07 | 21.47 |
| 6.0 | 308.90 | 34.32 | 22.98 |
| 6.2 | 329.84 | 36.65 | 24.53 |
| 6.4 | 351.46 | 39.05 | 26.14 |
| 6.6 | 373.77 | 41.53 | 27.80 |
| 6.8 | 396.76 | 44.08 | 29.51 |
| 7.0 | 420.45 | 46.72 | 31.27 |
| 7.2 | 444.81 | 49.42 | 33.09 |
| 7.4 | 469.87 | 52.21 | 34.95 |
| 7.6 | 495.61 | 55.07 | 36.86 |
| 7.8 | 522.04 | 58.00 | 38.83 |

# 1. Information for Refrigerant

## 1.5 Minimum Floor Area for Installation fo R32 model : accordance with IEC06




### *<!> CAUTIONS*

- "Minimum Area for installation" might be different by revision of IEC regulation. "Minimum Area for installation" should be selected in accordance with that revision based on the local and national environment.

- The following information is according to ***'IEC 60335-2-40:2018 Edition 6.0'***.
- Pipe-work shall be protected from physical damage and shall not be installed in an unventilated space, if that space is smaller than minimum area for installation.
- The unit should be installed, operated and stored in a room with a floor area larger than the minimum area.
  Use the below calcuation formula to determine the minimum area.
  - $m_c$ : Total refrigerant amount in the system = factory refrigerant charge + additional refrigerant amount (kg)
  - $A_{min}$ : Minimum Area for installation of unit
  - LFL : Lower flammability limit (kg/m$^3$). In case of R32, LFL is 0.307 kg/m$^3$
  - $h_0$ : Height of unit installation

  Choose the higher of the two values.

  $A_{min} = [m_c / (2.5 \times LFL^{5/4} \times h_0)]^2$ or $A_{min} = m_c / (0.75 \times LFL \times h_0)$

* The table below is a reference value, and the exact value is calculated and applied.

| $m_c$(kg) | $A_{min}$ | | $m_c$(kg) | $A_{min}$ | | $m_c$(kg) | $A_{min}$ |
|---|---|---|---|---|---|---|---|
| < 1.842 | No Limit | | 6.6 | 27.6 | | 11.6 | 85.2 |
| 1.842 | 3.6 | | 6.8 | 29.3 | | 11.8 | 88.1 |
| 2.0 | 3.9 | | 7.0 | 31.0 | | 12.0 | 91.2 |
| 2.2 | 4.3 | | 7.2 | 32.8 | | 12.2 | 94.2 |
| 2.4 | 4.7 | | 7.41 | 34.7 | | 12.4 | 97.3 |
| 2.6 | 5.1 | | 7.6 | 36.6 | | 12.6 | 100.5 |
| 2.8 | 5.5 | | 7.8 | 38.5 | | 12.8 | 103.7 |
| 3.0 | 5.9 | | 8.0 | 40.5 | | 13.0 | 107.0 |
| 3.2 | 6.5 | | 8.2 | 42.6 | | 13.2 | 110.3 |
| 3.4 | 7.3 | | 8.4 | 44.7 | | 13.4 | 113.7 |
| 3.6 | 8.2 | | 8.6 | 46.8 | | 13.6 | 117.1 |
| 3.8 | 9.1 | | 8.8 | 49.0 | | 13.8 | 120.6 |
| 4.0 | 10.1 | | 9.0 | 51.3 | | 14.0 | 124.1 |
| 4.2 | 11.2 | | 9.2 | 53.6 | | 14.2 | 127.6 |
| 4.4 | 12.3 | | 9.4 | 55.9 | | 14.4 | 131.3 |
| 4.6 | 13.4 | | 9.6 | 58.3 | | 14.6 | 134.9 |
| 4.8 | 14.6 | | 9.8 | 60.8 | | 14.8 | 138.7 |
| 5.0 | 15.8 | | 10.0 | 63.3 | | 15.0 | 142.4 |
| 5.2 | 17.1 | | 10.2 | 65.9 | | 15.2 | 146.3 |
| 5.4 | 18.5 | | 10.4 | 68.5 | | 15.4 | 150.1 |
| 5.6 | 19.9 | | 10.6 | 71.1 | | 15.6 | 154.1 |
| 5.8 | 21.3 | | 10.8 | 73.8 | | 15.8 | 158.0 |
| 6.0 | 22.8 | | 11.0 | 76.6 | | 15.964 | 161.3 |
| 6.2 | 24.3 | | 11.2 | 79.4 | | | |
| 6.4 | 25.9 | | 11.4 | 82.3 | | | |

## 2. Selection of the best Location

When selecting a location the product is installed, it is recommended to consider the following:

- 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 unit is leveled.
- The place shall allow easy water drainage.
- The place where bear a load exceeding four times of weight of the unit.
- 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.
- The servicing inspection hole of the ceiling should be larger than the indoor unit, and that location should be approved by the customer.
- There should not be any heat source or steam near the unit. Avoid the following installation location.
  1) Such places as restaurants and kitchen where considerable amount of oil steam and flour is generated.
     These may cause heat exchange efficiency reduction, or water drops, drain pump mal-function.
     In these cases, take the following actions;
     - Make sure that ventilation fan is enough to cover all noxious gases from this place.
     - Ensure enough distance from the cooking room to install the unit in such a place where it may not suck oily steam.
  2) Avoid installing the unit in such places where cooking oil or iron powder is generated.
  3) Avoid places where inflammable gas is generated.
  4) Avoid places where noxious gas is generated.
  5) Avoid places near high frequency generators.

### *< ! > CAUTIONS*

- If the temperature rise above 30℃ or the humidity rise above RH 80%, additional insulation working is needed to the unit body for protection of dew formation.
  – Use the glass wool material or polyethylene foam and it make sure to be thick of 10mm at least.

## 3. Precautions regarding cassette indoor unit installation

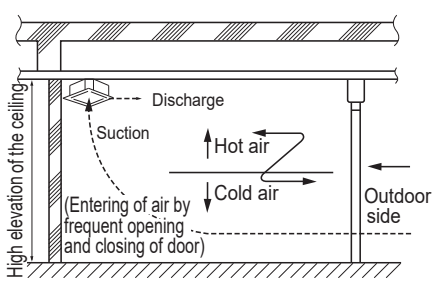



*Fig1. High Ceiling Space*

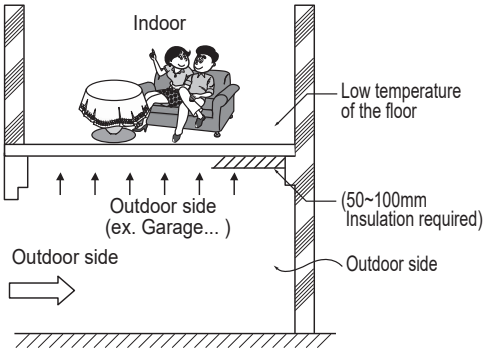



*Fig2. Surface adjacent with outdoor air*

*Fig3. High temperature or humidity*

Fig.3-1 Additional insulation required

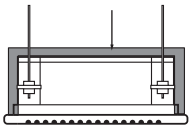
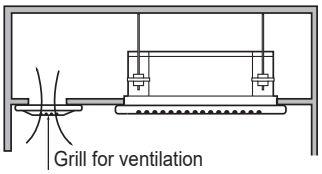


Fig.3-2 Ceiling near the tight seal places




### ■ In case of High Ceiling space installation *[Fig.1]*

In general commercial places and offices though the height of the ceiling is 2.7m, and the ceiling height could be over 3 m. In such cases because of the temperature difference with the floor the heating effect can fall down.

**• Countermeasure method**

- Air conditioner should be able to operate in high ceiling operation mode.
- Plan to install the circulator.
- The air discharge port should be made to give more airflow to the down floor directions.
- The gate or exit of the building is protected by dual door system to minimize inflow of outdoor air.

### ■ In case the floor or surfaces is contact with the outdoor air directly *[Fig.2]*

If the floor of air conditioned room contact with the outside air, like the store room or garage, the floor temperature will be decreased and users can have a cold feeling in the feet.

In such places where the feet comes in direct contact with floors will give a cold feeling to the foot.

**• Countermeasure method**

- Use the carpet on the floor.
  (compared to the tiles the carpet over it will have a 3 degree rise in temperature)
- Insulating the floor.
- Floor heating.

***<!> CAUTIONS***

In case there is a cold air intake, the duct surface may have some dew drops.
So a insulation on the duct is a must.(Insulation material: a glass wool of thickness 25 mm will be appropriate.)

### ■ In case of installation where high temperature or humidity *[Fig.3]*

- In case of places having the temperature and humidity of the surrounding water sources(sea, river etc.)
- In case the steam is generated between the false ceiling and the ceiling slab due to some nearby by steam source.
- In case of temperature of 30 degree and humidity above 80%, the units body as well as the piping insulation should be strengthened. Refer to the psychrometric chart.

**• Countermeasure method**

- Indoor unit: Insulate the unit body with some insulation like glass wool at least 10 mm in thickness.
- Refrigerant piping: Increase the piping insulation thickness with thickness above 20 mm.
- Others: Inside the ceiling near the air tight seal places. (To escape of the humidity inside false ceiling)

## 4. Connecting pipes

### ■ Refrigerant piping work

To detail information for connecting the refrigerant pipes, please refer to the installation manual included with product.

***< ! > CAUTIONS***

- When mechanical connectors are reused, indoors' sealing parts shall be renewed.
- When flared joints are reused, indoors' the flare part shall be re-fabricated.

### ■ Piping insulation work

- Perform heat insulation work completely on both gas and the liquid pipe.
  Because improper insulation will result condensate formation over pipe.
- Use the heat insulation material for the refrigerant piping which has an excellent heat resistance (over 120°C (248°F)).
- Precautions in high humidity circumstance
  - This air conditioner has been tested according to the "KS Conditions" and confirmed.
  - If it is operated for a long time in high humid atmosphere (dew point temperature: more than 23°C(73°F)), water drops are liable to fall. In this case, add heat insulation material according to the following procedure.
    : Heat insulation material : Adiabatic glass wool with thickness of 10~20mm(13/32 ~13/16 inch).
    : Stick glass wool on all air conditioners that are located in ceiling atmosphere.

***< ! > CAUTIONS***

- Make sure to insulate any field piping all the way to the piping connection inside the unit.
  Any exposed piping may cause condensation or burns if touched.

# 5. Electrical Wiring

## 5.1 General Instruction

For wiring work, it is recommended to consider the following:

- 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.

***< ! > CAUTIONS***

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

- Never fail to have separate power specially for this unit.
- 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.
  - All of the indoor units and outdoor units shoul be grounded. If grounding is not properly done, there is a risk of electric shock. Grounding must be done by a qualified technician.

### ■ Wiring Connections

- 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 indoor unit are mismatched, the system may cause a malfunction.

***< ! > CAUTIONS***

- 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.

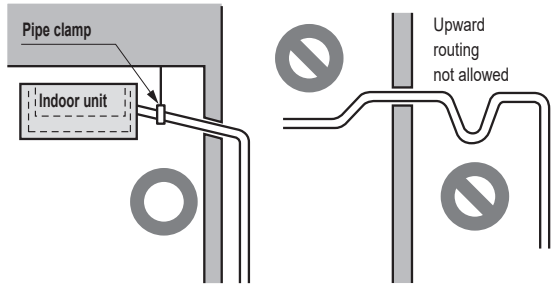
# 5. Electrical Wiring

## 5.2 Installation of Wired remote controller(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 1.5m (5ft) 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 (4~5ft) from floor level.)

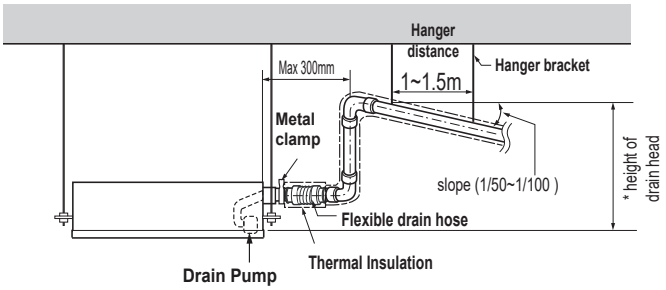
## 6. Drain pipe connection

*Fig.1*



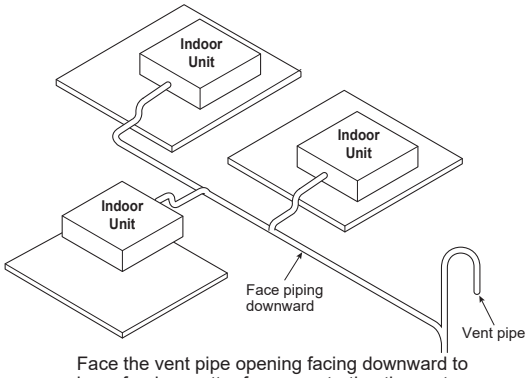

※ According to type of indoor unit, external appearance could be different.

*Fig.2*




※ * : drain head height should be considered by dimensional drawings of each models.
※ According to type of indoor unit, external appearance could be different.

*Fig.4*




Face the vent pipe opening facing downward to keep foreign matter from penetrating the system

*Fig.3*

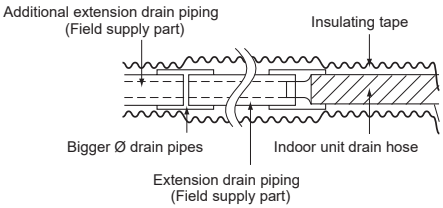
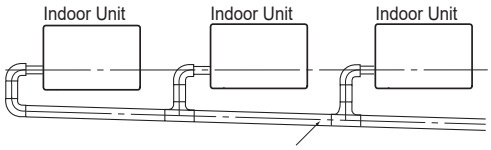



*Fig.5*




(Slope of at least 1/100)

- The drain pipe should be at least equal in size to drain conduit of the indoor unit.
- The drain pipe is thermally insulated to prevent the formation of condensation inside the pipe.
- The drain up mechanism should be fitted before the indoor unit is installed and when the electricity has been connected a little of water should be added to the drain pan and the drain pump to check and see if it is functioning correctly.
- All connections should be secure. (Special care is needed with PVC pipe)

### ■ Dimension of drain pipe connection *[Fig.1, Fig.2]*

- Drain piping must have down-slope (1/50 to 1/100). Be sure not to provide up-and-down slope to prevent reversal flow.
- During drain piping connection, be careful not to exert force on the drain port on the indoor unit.
- The outside diameter of the drain connection on the indoor unit and drain piping fittings should be referenced from 'Specifications' of each models.
  - Piping material: Use the Polyvinyl chloride pipe. VP 20 or VP 25 pipe fittings.
- Be sure to install heat insulation on the drain piping.
  - Heat insulation material: Polyethylene foam with thickness more than 8 mm (5/16 inch).
- Possible drain head height is specified to range of 700 ~ 800 mm(27-6/19 ~ 31-1/2 inch). So the drain head should be installed below that (Refer to Dimensional Drawings of each).

### ■ Connection of an auxiliary(flexible) drain hose *[Fig.3]*

- To connect drain pipe to the drain socket on the indoor unit, an auxiliary flexible drain hose should be used. Auxiliary flexible drain hose allows that the drain pipe can be connected to the socket without breaking by excessive strain.

***< ! > CAUTIONS***

- The supplied flexible drain hose should not be curved, neither screwed. The curved or screwed hose may cause a leakage of water.
- It is need to insulate the auxiliary drain hose with thermal insulation material.
  - When extending the drain hose, use a commercially available drain extension hose, and be sure to insulate the extended section of the drain hose which is indoors.
  - Make sure the diameter of the extension drain piping is the same as the indoor unit drain hose size or bigger.

### ■ Ground drain piping *[Fig.4, Fig.5]*

- Select diameter of drain piping which adapts to the capacity of the unit connected. The pipe down from the combination should be as large as possible.
- The pipe work should be kept as short as possible and the number of indoor units per group kept to a minimum.
- Face the vent pipe opening facing downward to keep foreign matter from penetrating the system.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The air conditioners manufactured by LG have received ISO9001 certificate for quality assurance and ISO14001 certificate for environmental management system.
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