

**SAMSUNG**

# **VRF**

# **Technical**

# **Data Book**

**Wind-Free 4Way Cassette**  
**for North America**

**(R410A, HP)**



Model : AM\*\*\*RN4DCH/\*\*

# History

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| Version | Modification                                                  | Date       | Remark |
|---------|---------------------------------------------------------------|------------|--------|
| Ver.1.0 | Released VRF Wind-Free 4Way Cassette for north America (60Hz) | 19. 05. 14 |        |

# Features & Benefits

## Stay cool without direct wind

### Wind-Free™

- Wind-Free Cooling effectively maintains a comfortable level of coolness without the unpleasant feeling of cold wind. Cool air is gently dispersed through 15,672 micro air holes, so you won't feel too hot or cold.
  - PC4SUFMAN(4way 600\*600) : 8,976 micro hole
  - PC4NUFMAN(4way) : 15,672 micro hole



## Energy saving with Wind-Free™ Cooling

### Energy Saving

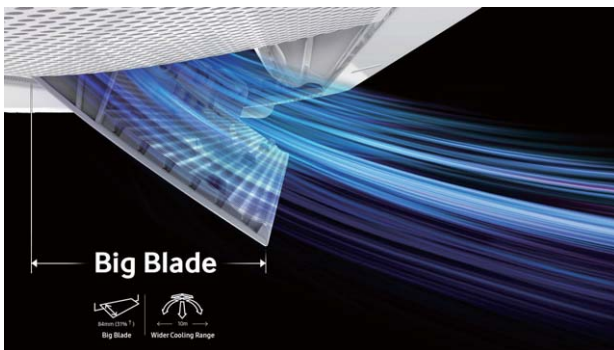
- Wind-Free Cooling allows efficient energy saving up to 55%.
  - Tested on Outdoor unit AC140MXADKH, Indoor unit AM140FN4DEH when running simultaneously. Individual result may vary depending on consumer usage.



## Wider cooling range

### Big Blade

- Big and optimized blades enable even wider cooling range.
  - Tested on Indoor unit AM140FN4DEH when running. Individual result may vary depending on consumer usage.



## Optimized operation by MDS

### Motion Detect Sensor

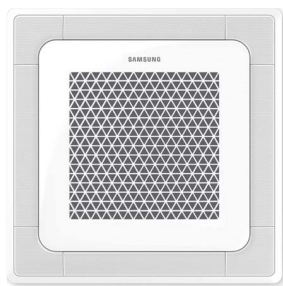
- Motion Detect Sensor enables customized air flow and energy efficient operation.



# Features & Benefits

## Stage a beautiful yet comfortable environment

With its newly improved design, Wind-Free 4Way Cassette supports a clean, aesthetically appealing atmosphere and adds a sense of sophistication to work and living spaces. Not only is this unit attractively designed, but it also uses advanced technologies to optimize comfort in any environment.



## Wind-Free 4Way Cassette – Stylishly clean design

### Aesthetic panel and display

Wind-Free 4Way Cassette offers two different pattern designs for the panel. The simple display design with rounded corners adds a chic sophistication to the interior.



The Samsung Wind-Free 4Way Cassette indoor air conditioning system delivers polish, comfort and efficiency with features such as:

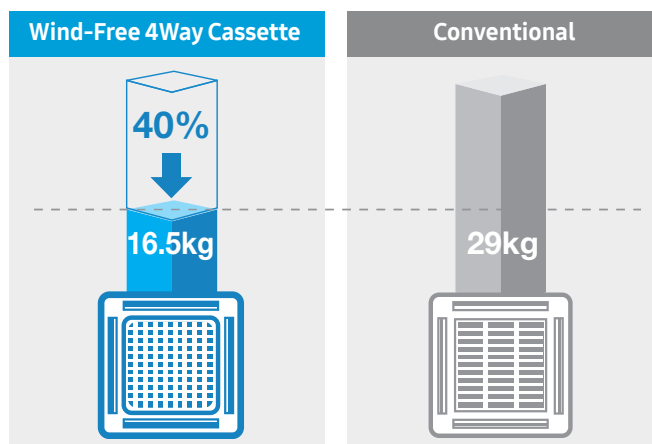
- **Stylishly clean design.** Add panache to interior spaces with a choice of clean, streamlined panel patterns in a lightweight build.
- **Robust operation.** Control the atmosphere perfectly with an advanced design for superior air flow and cooling/heating performance.
- **Low maintenance and simple installation.** Ease installation and minimize maintenance with a detachable, no-drip design.

### Neat and clean design

The indoor Wind-Free 4Way Cassette boasts a smart design that promotes a neat and clean look. The completely hermetic blade structure keeps the indoor unit clean by preventing dust or other foreign substances from entering it. The internal parts of the indoor unit are also out of sight when the blade is shut, thus improving the unit's appearance.

### Lightweight build

The Samsung Wind-Free 4Way Cassette indoor unit is now lighter in weight at 16.5kg is one of the lightest indoor units in the industry, about 40 percent lighter than conventional products.



\*Based on 11.2kW

# Nomenclature

## Indoor Unit

### Model Name

|     |     |     |     |     |     |     |     |   |       |
|-----|-----|-----|-----|-----|-----|-----|-----|---|-------|
| AM  | 015 | N   | N   | N   | D   | C   | H   | / | **    |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |   | Buyer |

#### (1) Classification

|    |     |
|----|-----|
| AM | DVM |
|----|-----|

#### (2) Capacity

|                    |
|--------------------|
| X kBtu/h (3digits) |
|--------------------|

#### (3) Version

|   |      |
|---|------|
| K | 2016 |
| M | 2017 |
| N | 2018 |
| R | 2019 |

#### (4) Product Type

|   |              |
|---|--------------|
| N | Indoor Unit  |
| X | Outdoor Unit |

#### (5) Product Notation

|   |                                    |
|---|------------------------------------|
| N | (Wind-Free) 4Way Cassette(600x600) |
| 4 | (Wind-Free) 4Way Cassette          |

#### (6) Feature

|   |         |
|---|---------|
| P | Premium |
| D | Deluxe  |

#### (7) Rating Voltage

|   |                    |
|---|--------------------|
| C | 1Φ, 208~230V, 60Hz |
|---|--------------------|

#### (8) Mode

|   |                   |
|---|-------------------|
| H | Heat Pump (R410A) |
|---|-------------------|

# Line-up

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## Indoor unit

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| Model                 | Capacity (kBtu/h)                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |
|-----------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|                       | 6                                                                                 | 9                                                                                 | 12                                                                                | 18                                                                                | 24                                                                                 | 30                                                                                  | 36                                                                                  | 48                                                                                  |
| Wind-Free<br>4Way CST |  |  |  |  |  |  |  |  |

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# 1. Specification

## Wind-Free 4Way Cassette

| Model Name         |                             |                       |              | AM006RN4DCH/AA             | AM009RN4DCH/AA             | AM012RN4DCH/AA             | AM018RN4DCH/AA              |
|--------------------|-----------------------------|-----------------------|--------------|----------------------------|----------------------------|----------------------------|-----------------------------|
| Power Supply       |                             |                       |              | Φ, #, V, Hz                | 1,2,208-230,60             | 1,2,208-230,60             | 1,2,208-230,60              |
| Mode               |                             |                       |              | -                          | HP/HR                      | HP/HR                      | HP/HR                       |
| Performance        | TON                         |                       | Ton          | 0.50                       | 0.75                       | 1.00                       | 1.50                        |
|                    | Capacity                    | Cooling               | kW           | 1.76                       | 2.64                       | 3.52                       | 5.28                        |
|                    |                             |                       | Btu/h        | 6,300                      | 9,000                      | 12,000                     | 18,000                      |
|                    |                             |                       | US RT        | 0.50                       | 0.75                       | 1.00                       | 1.50                        |
|                    |                             | Heating               | kW           | 2.08                       | 2.93                       | 3.96                       | 5.86                        |
|                    |                             |                       | Btu/h        | 7,100                      | 10,000                     | 13,500                     | 20,000                      |
|                    |                             |                       | US RT        | 0.59                       | 0.83                       | 1.13                       | 1.67                        |
| Power              | Power Input                 | Cooling               | W            | 32                         | 32                         | 32                         | 45                          |
|                    |                             | Heating               |              | 32                         | 32                         | 32                         | 45                          |
|                    | Current Input               | Cooling               | A            | 0.25                       | 0.25                       | 0.25                       | 0.35                        |
|                    |                             | Heating               |              | 0.25                       | 0.25                       | 0.25                       | 0.35                        |
|                    | Current                     | MCA                   | A            | 0.4                        | 0.4                        | 0.4                        | 0.5                         |
|                    |                             | MOP                   |              | 15                         | 15                         | 15                         | 15                          |
| Heat exchanger     | Type                        |                       | -            | Fin & tube                 | Fin & tube                 | Fin & tube                 | Fin & tube                  |
|                    | Material                    | Fin                   | -            | Al                         | Al                         | Al                         | Al                          |
|                    |                             | Tube                  | -            | Cu                         | Cu                         | Cu                         | Cu                          |
|                    | Fin Treatment               |                       | -            | Green Hydrophile           | Green Hydrophile           | Green Hydrophile           | Green Hydrophile            |
| Fan                | Type                        |                       | -            | Turbo Fan                  | Turbo Fan                  | Turbo Fan                  | Turbo Fan                   |
|                    | Quantity                    |                       | EA           | 1                          | 1                          | 1                          | 1                           |
|                    | Air Flow Rate               | H/M/L                 | m³/min       | 15.5/14.0/12.0             | 15.5/14.0/12.0             | 15.5/14.0/12.0             | 21.0/18.0/14.5              |
|                    |                             |                       | ft³/min      | 547 / 494 / 424            | 547 / 494 / 424            | 547 / 494 / 424            | 742 / 636 / 512             |
|                    |                             |                       | l/s          | 258/233/200                | 258/233/200                | 258/233/200                | 350 / 300 / 242             |
|                    | External Pressure           | Max.<br>(Min/Std/Max) | mmAq         | -                          | -                          | -                          | -                           |
|                    |                             |                       | Pa           | -                          | -                          | -                          | -                           |
|                    |                             |                       | In Wg        | -                          | -                          | -                          | -                           |
| Fan Motor          | Type                        |                       | -            | BLDC                       | BLDC                       | BLDC                       | BLDC                        |
|                    | Output x n                  |                       | W            | 65 x 1                     | 65 x 1                     | 65 x 1                     | 65 x 1                      |
| Piping Connections | Liquid Pipe                 |                       | Type         | Flare connection           | Flare connection           | Flare connection           | Flare connection            |
|                    |                             |                       | Φ, mm (inch) | 6.35 (1/4)                 | 6.35 (1/4)                 | 6.35 (1/4)                 | 6.35 (1/4)                  |
|                    | Gas Pipe                    |                       | Type         | Flare connection           | Flare connection           | Flare connection           | Flare connection            |
|                    |                             |                       | Φ, mm (inch) | 12.70 (1/2)                | 12.70 (1/2)                | 12.70 (1/2)                | 12.70 (1/2)                 |
|                    | Heat insulation             |                       | -            | Both liquid & gas pipes    | Both liquid & gas pipes    | Both liquid & gas pipes    | Both liquid & gas pipes     |
| Wiring connections | Communication               | Min.                  | mm²          | 2 X 16 AWG SHIELDED        | 2 X 16 AWG SHIELDED        | 2 X 16 AWG SHIELDED        | 2 X 16 AWG SHIELDED         |
|                    |                             | Remark                | -            | F1, F2                     | F1, F2                     | F1, F2                     | F1, F2                      |
|                    |                             |                       | -            |                            |                            |                            |                             |
| Refrigerant        | Type                        |                       | -            | R410A                      | R410A                      | R410A                      | R410A                       |
|                    | Electronic Expansion Valve  |                       | -            | EEV INCLUDED               | EEV INCLUDED               | EEV INCLUDED               | EEV INCLUDED                |
| Sound              | Sound Pressure Level        | H/M/L                 | dB(A)        | 32/30/28                   | 32/30/28                   | 32/30/28                   | 36/35/33                    |
|                    | Sound Power                 | Cooling               |              | 49                         | 49                         | 49                         | 53                          |
| External Dimension | Net Weight                  |                       | kg (lbs)     | 15.0 (33.1)                | 15.0 (33.1)                | 15.0 (33.1)                | 16.5 (36.4)                 |
|                    | Shipping Weight             |                       | kg (lbs)     | 18.5 (40.8)                | 18.5 (40.8)                | 18.5 (40.8)                | 20.0 (44.1)                 |
|                    | Net Dimensions (WxHxD)      |                       | mm           | 840 x 204 x 840            | 840 x 204 x 840            | 840 x 204 x 840            | 840 x 246 x 840             |
|                    |                             |                       | inch         | 33 1/16 x 8 1/16 x 33 1/16 | 33 1/16 x 8 1/16 x 33 1/16 | 33 1/16 x 8 1/16 x 33 1/16 | 33 1/16 x 9 11/16 x 33 1/16 |
|                    | Shipping Dimensions (WxHxD) |                       | mm           | 898 x 275 x 898            | 898 x 275 x 898            | 898 x 275 x 898            | 898 x 316 x 898             |
|                    |                             |                       | inch         | 35 3/8 x 10 13/16 x 35 3/8 | 35 3/8 x 10 13/16 x 35 3/8 | 35 3/8 x 10 13/16 x 35 3/8 | 35 3/8 x 12 7/16 x 35 3/8   |
|                    |                             |                       |              |                            |                            |                            |                             |

# 1. Specification

## Wind-Free 4Way Cassette

| Model Name             |                                    |                                    | AM006RN4DCH/AA          | AM009RN4DCH/AA          | AM012RN4DCH/AA          | AM018RN4DCH/AA          |
|------------------------|------------------------------------|------------------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| Casing                 | Material                           | -                                  | HIPS                    | HIPS                    | HIPS                    | HIPS                    |
| Panel                  | Model Name                         | -                                  | PC4NUFMUN               | PC4NUFMUN               | PC4NUFMUN               | PC4NUFMUN               |
|                        | Type                               | -                                  | Wind Free Type          | Wind Free Type          | Wind Free Type          | Wind Free Type          |
|                        | Material                           | -                                  | HIPS                    | HIPS                    | HIPS                    | HIPS                    |
|                        | Color                              | -                                  | White                   | White                   | White                   | White                   |
|                        | Net Weight                         | kg (lbs)                           | 6.3 (13.9)              | 6.3 (13.9)              | 6.3 (13.9)              | 6.3 (13.9)              |
|                        | Shipping Weight                    | kg (lbs)                           | 8.7 (19.2)              | 8.7 (19.2)              | 8.7 (19.2)              | 8.7 (19.2)              |
|                        | Net Dimensions (W×H×D)             | mm                                 | 950 x 64 x 950          | 950 x 64 x 950          | 950 x 64 x 950          | 950 x 64 x 950          |
|                        |                                    | inch                               | 37 3/8 x 2 1/2 x 37 3/8 | 37 3/8 x 2 1/2 x 37 3/8 | 37 3/8 x 2 1/2 x 37 3/8 | 37 3/8 x 2 1/2 x 37 3/8 |
|                        | Shipping Dimensions (W×H×D)        | mm                                 | 1,010 x 117 x 1,000     | 1,010 x 117 x 1,000     | 1,010 x 117 x 1,000     | 1,010 x 117 x 1,000     |
|                        |                                    | inch                               | 39 3/4 x 4 5/8 x 39 3/4 | 39 3/4 x 4 5/8 x 39 3/4 | 39 3/4 x 4 5/8 x 39 3/4 | 39 3/4 x 4 5/8 x 39 3/4 |
| Drain Pump             | Drain Pump                         | -                                  | included                | included                | included                | included                |
|                        | Max. lifting Height / Displacement | in / gal/h                         | 29-5/16 6.34gal/h       | 29-5/16 6.34gal/h       | 29-5/16 6.34gal/h       | 29-5/16 6.34gal/h       |
| Additional Accessories | Drain Pump                         | External Model                     | -                       | -                       | -                       | -                       |
|                        |                                    | Internal Model                     | -                       | -                       | -                       | -                       |
|                        |                                    | Max. lifting Height / Displacement | in / gal/h              | -                       | -                       | -                       |
|                        | Air Filter                         |                                    | -                       | Removable / Washable    | Removable / Washable    | Removable / Washable    |

### NOTE

- Specification may be subject to change without prior notice.
- 1) Mode : HP(Heat Pump), HR(Heat Recovery)
- 2) Performances are based on the following test conditions.
  - Cooling : Indoor temperature : 80°F(26.7°C) DB, 67°F(19.4°C) WB, Outdoor temperature : 95°F(35°C) DB, 75°F(23.9°C) WB
  - Heating : Indoor temperature : 70°F(21.1°C) DB, 60°F(15.6°C) WB, Outdoor temperature : 47°F(8.3°C) DB, 43°F(6.1°C) WB
  - Equivalent refrigerant pipe length 25ft(7.5m), Level differences 0ft(0m)
- 3) Sound pressure level is obtained in an anechoic room.
  - Sound pressure level is a relative value, depending on the distance and acoustic environment.
  - Sound pressure level may differ depending on operation condition.
  - dBA = A-weighted sound pressure level
  - Reference acoustic pressure 0 dB = 20uPa
- 4) Sound power level is an absolute value that a sound source generates.
  - dBA = A-weighted sound power level
  - Reference power : 1pW
  - Measured according to ISO 3741
- 5) These products contain R410A which is fluorinated greenhouse gas.
- 6) Select wire size based on the value of MCA

# 1. Specification

## Wind-Free 4Way Cassette

| Model Name         |                             |                       |              | AM024RN4DCH/AA              | AM030RN4DCH/AA             | AM036RN4DCH/AA             | AM048RN4DCH/AA             |
|--------------------|-----------------------------|-----------------------|--------------|-----------------------------|----------------------------|----------------------------|----------------------------|
| Power Supply       |                             |                       | Φ, #, V, Hz  | 1,2,208-230,60              | 1,2,208-230,60             | 1,2,208-230,60             | 1,2,208-230,60             |
| Mode               |                             |                       | -            | HP/HR                       | HP/HR                      | HP/HR                      | HP/HR                      |
| Performance        | TON                         |                       | Ton          | 2.00                        | 2.50                       | 3.00                       | 4.00                       |
|                    | Capacity                    | Cooling               | kW           | 703                         | 8.79                       | 10.55                      | 14.07                      |
|                    |                             |                       | Btu/h        | 24,000                      | 30,000                     | 36,000                     | 48,000                     |
|                    |                             |                       | US RT        | 2.00                        | 2.50                       | 3.00                       | 4.00                       |
|                    |                             | Heating               | kW           | 791                         | 9.96                       | 11.72                      | 15.83                      |
|                    |                             |                       | Btu/h        | 27,000                      | 34,000                     | 40,000                     | 54,000                     |
|                    |                             |                       | US RT        | 2.25                        | 2.83                       | 3.33                       | 4.50                       |
| Power              | Power Input                 | Cooling               | W            | 57                          | 65                         | 75                         | 95                         |
|                    |                             | Heating               |              | 57                          | 65                         | 75                         | 95                         |
|                    | Current Input               | Cooling               | A            | 0.45                        | 0.5                        | 0.56                       | 0.75                       |
|                    |                             | Heating               |              | 0.45                        | 0.5                        | 0.56                       | 0.75                       |
|                    | Current                     | MCA                   | A            | 0.6                         | 0.7                        | 0.8                        | 1.0                        |
|                    |                             | MOP                   |              | 15                          | 15                         | 15                         | 15                         |
| Heat exchanger     | Type                        |                       | -            | Fin & tube                  | Fin & tube                 | Fin & tube                 | Fin & tube                 |
|                    | Material                    | Fin                   | -            | Al                          | Al                         | Al                         | Al                         |
|                    |                             | Tube                  | -            | Cu                          | Cu                         | Cu                         | Cu                         |
|                    | Fin Treatment               |                       | -            | Green Hydrophile            | Green Hydrophile           | Green Hydrophile           | Green Hydrophile           |
| Fan                | Type                        |                       | -            | Turbo Fan                   | Turbo Fan                  | Turbo Fan                  | Turbo Fan                  |
|                    | Quantity                    |                       | EA           | 1                           | 1                          | 1                          | 1                          |
|                    | Air Flow Rate               | H/M/L                 | m³/min       | 24.5/20.0/16.5              | 27.0/22.5/19.0             | 28.5/24.5/21.0             | 32.0/28.5/26.0             |
|                    |                             |                       | ft³/min      | 865 / 706 / 583             | 954 / 795 / 671            | 1007 / 865 / 742           | 1130 / 1007 / 918          |
|                    |                             |                       | l/s          | 408 / 333 275               | 450 / 375 / 317            | 475 / 408 / 350            | 533 / 475 / 433            |
|                    | External Pressure           | Max.<br>(Min/Std/Max) | mmAq         | -                           | -                          | -                          | -                          |
|                    |                             |                       | Pa           | -                           | -                          | -                          | -                          |
|                    |                             |                       | In Wg        | -                           | -                          | -                          | -                          |
| Fan Motor          | Type                        |                       | -            | BLDC                        | BLDC                       | BLDC                       | BLDC                       |
|                    | Output x n                  |                       | W            | 65 x 1                      | 97 x 1                     | 97 x 1                     | 97 x 1                     |
| Piping Connections | Liquid Pipe                 |                       | Type         | Flare connection            | Flare connection           | Flare connection           | Flare connection           |
|                    |                             |                       | Φ, mm (inch) | 9.52 (3/8)                  | 9.52 (3/8)                 | 9.52 (3/8)                 | 9.52 (3/8)                 |
|                    | Gas Pipe                    |                       | Type         | Flare connection            | Flare connection           | Flare connection           | Flare connection           |
|                    |                             |                       | Φ, mm (inch) | 15.88 (5/8)                 | 15.88 (5/8)                | 15.88 (5/8)                | 15.88 (5/8)                |
|                    | Heat insulation             |                       | -            | Both liquid & gas pipes     | Both liquid & gas pipes    | Both liquid & gas pipes    | Both liquid & gas pipes    |
| Wiring connections | Communication               | Min.                  | mm²          | 2 X 16 AWG SHIELDED         | 2 X 16 AWG SHIELDED        | 2 X 16 AWG SHIELDED        | 2 X 16 AWG SHIELDED        |
|                    |                             | Remark                | -            | F1, F2                      | F1, F2                     | F1, F2                     | F1, F2                     |
|                    | Electronic Expansion Valve  |                       | -            | EEV INCLUDED                | EEV INCLUDED               | EEV INCLUDED               | EEV INCLUDED               |
| Refrigerant        | Type                        |                       | -            | R410A                       | R410A                      | R410A                      | R410A                      |
|                    | Electronic Expansion Valve  |                       | -            | EEV INCLUDED                | EEV INCLUDED               | EEV INCLUDED               | EEV INCLUDED               |
| Sound              | Sound Pressure Level        | H/M/L                 | dB(A)        | 38/36/34                    | 41/37/31                   | 42/39/36                   | 45/42/39                   |
|                    | Sound Power                 | Cooling               |              | 56                          | 57                         | 58                         | 60                         |
| External Dimension | Net Weight                  |                       | kg (lbs)     | 16.5 (36.4)                 | 20.5 (45.2)                | 20.5 (45.2)                | 20.5 (45.2)                |
|                    | Shipping Weight             |                       | kg (lbs)     | 20.0 (44.1)                 | 24.0 (52.9)                | 24.0 (52.9)                | 24.0 (52.9)                |
|                    | Net Dimensions (WxHxD)      |                       | mm           | 840 x 246 x 840             | 840 x 288 x 840            | 840 x 288 x 840            | 840 x 288 x 840            |
|                    |                             |                       | inch         | 33 1/16 x 9 11/16 x 33 1/16 | 33 1/16 x 8 1/16 x 33 1/16 | 33 1/16 x 8 1/16 x 33 1/16 | 33 1/16 x 8 1/16 x 33 1/16 |
|                    | Shipping Dimensions (WxHxD) |                       | mm           | 898 x 316 x 898             | 898 x 357 x 898            | 898 x 357 x 898            | 898 x 357 x 898            |
|                    |                             |                       | inch         | 35 3/8 x 12 7/16 x 35 3/8   | 35 3/8 x 10 13/16 x 35 3/8 | 35 3/8 x 10 13/16 x 35 3/8 | 35 3/8 x 10 13/16 x 35 3/8 |
| Casing             | Material                    |                       | -            | HIPS                        | HIPS                       | HIPS                       | HIPS                       |

# 1. Specification

## Wind-Free 4Way Cassette

| Model Name             |                                    |                                    | AM024RN4DCH/AA          | AM030RN4DCH/AA          | AM036RN4DCH/AA          | AM048RN4DCH/AA          |
|------------------------|------------------------------------|------------------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| Panel                  | Model Name                         | -                                  | PC4NUFMUN               | PC4NUFMUN               | PC4NUFMUN               | PC4NUFMUN               |
|                        | Type                               | -                                  | Wind Free Type          | Wind Free Type          | Wind Free Type          | Wind Free Type          |
|                        | Material                           | -                                  | HIPS                    | HIPS                    | HIPS                    | HIPS                    |
|                        | Color                              | -                                  | White                   | White                   | White                   | White                   |
|                        | Net Weight                         | kg (lbs)                           | 6.3 (13.9)              | 6.3 (13.9)              | 6.3 (13.9)              | 6.3 (13.9)              |
|                        | Shipping Weight                    | kg (lbs)                           | 8.7 (19.2)              | 8.7 (19.2)              | 8.7 (19.2)              | 8.7 (19.2)              |
|                        | Net Dimensions (W×H×D)             | mm                                 | 950 x 64 x 950          | 950 x 64 x 950          | 950 x 64 x 950          | 950 x 64 x 950          |
|                        |                                    | inch                               | 37 3/8 x 2 1/2 x 37 3/8 | 37 3/8 x 2 1/2 x 37 3/8 | 37 3/8 x 2 1/2 x 37 3/8 | 37 3/8 x 2 1/2 x 37 3/8 |
|                        | Shipping Dimensions (W×H×D)        | mm                                 | 1,010 x 117 x 1,000     | 1,010 x 117 x 1,000     | 1,010 x 117 x 1,000     | 1,010 x 117 x 1,000     |
|                        |                                    | inch                               | 39 3/4 x 4 5/8 x 39 3/4 | 39 3/4 x 4 5/8 x 39 3/4 | 39 3/4 x 4 5/8 x 39 3/4 | 39 3/4 x 4 5/8 x 39 3/4 |
| Drain Pump             | Drain Pump                         | -                                  | included                | included                | included                | included                |
|                        | Max. lifting Height / Displacement | in / gal/h                         | 29-5/16 6.34gal/h       | 29-5/16 6.34gal/h       | 29-5/16 6.34gal/h       | 29-5/16 6.34gal/h       |
| Additional Accessories | Drain Pump                         | External Model                     | -                       | -                       | -                       | -                       |
|                        |                                    | Internal Model                     | -                       | -                       | -                       | -                       |
|                        |                                    | Max. lifting Height / Displacement | in / gal/h              | -                       | -                       | -                       |
|                        | Air Filter                         |                                    | -                       | Removable / Washable    | Removable / Washable    | Removable / Washable    |

### NOTE

- Specification may be subject to change without prior notice.
- 1) Mode : HP(Heat Pump), HR(Heat Recovery)
- 2) Performances are based on the following test conditions.
  - Cooling : Indoor temperature : 80°F(26.7°C) DB, 67°F(19.4°C) WB, Outdoor temperature : 95°F(35°C) DB, 75°F(23.9°C) WB
  - Heating : Indoor temperature : 70°F(21.1°C) DB, 60°F(15.6°C) WB, Outdoor temperature : 47°F(8.3°C) DB, 43°F(6.1°C) WB
  - Equivalent refrigerant pipe length 25ft(7.5m), Level differences 0ft(0m)
- 3) Sound pressure level is obtained in an anechoic room.
  - Sound pressure level is a relative value, depending on the distance and acoustic environment.
  - Sound pressure level may differ depending on operation condition.
  - dBA = A-weighted sound pressure level
  - Reference acoustic pressure 0 dB = 20uPa
- 4) Sound power level is an absolute value that a sound source generates.
  - dBA = A-weighted sound power level
  - Reference power : 1pW
  - Measured according to ISO 3741
- 5) These products contain R410A which is fluorinated greenhouse gas.
- 6) Select wire size based on the value of MCA

## 2. Summary Table

### Wind-Free 4Way Cassette

#### Performance Characteristics

| Model Code     | Net Weight (lbs) | Fan Speed | Capacity        |                  |                 | Airflow (CFM) | Sound Pressure (dBA) | Sound Power (dBA) |
|----------------|------------------|-----------|-----------------|------------------|-----------------|---------------|----------------------|-------------------|
|                |                  |           | Cooling (Btu/h) | Sensible (Btu/h) | Heating (Btu/h) |               |                      |                   |
| AM006RN4DCH/AA | 33.1             | High      | 6,300           | 5,670            | 7,100           | 547           | 34                   | 49                |
|                |                  | Mid       | 4,800           | 4,500            | 6,700           | 494           | 33                   |                   |
|                |                  | Low       | 3,900           | 3,700            | 6,300           | 424           | 31                   |                   |
| AM009RN4DCH/AA | 33.1             | High      | 9,000           | 6,600            | 10,000          | 547           | 34                   | 49                |
|                |                  | Mid       | 6,000           | 5,000            | 9,500           | 494           | 33                   |                   |
|                |                  | Low       | 4,400           | 3,800            | 8,800           | 424           | 31                   |                   |
| AM012RN4DCH/AA | 33.1             | High      | 12,000          | 9,000            | 13,500          | 547           | 34                   | 49                |
|                |                  | Mid       | 8,000           | 6,600            | 12,800          | 494           | 33                   |                   |
|                |                  | Low       | 5,800           | 5,100            | 11,900          | 424           | 31                   |                   |
| AM018RN4DCH/AA | 36.4             | High      | 18,000          | 13,700           | 20,000          | 742           | 36                   | 53                |
|                |                  | Mid       | 11,900          | 9,800            | 18,500          | 636           | 35                   |                   |
|                |                  | Low       | 8,600           | 7,600            | 16,600          | 512           | 33                   |                   |
| AM024RN4DCH/AA | 36.4             | High      | 24,000          | 19,000           | 27,000          | 865           | 38                   | 56                |
|                |                  | Mid       | 15,400          | 13,100           | 24,400          | 706           | 36                   |                   |
|                |                  | Low       | 11,200          | 10,200           | 22,200          | 583           | 34                   |                   |
| AM030RN4DCH/AA | 45.2             | High      | 30,000          | 23,000           | 34,000          | 954           | 39                   | 57                |
|                |                  | Mid       | 19,400          | 16,100           | 31,000          | 795           | 36                   |                   |
|                |                  | Low       | 14,200          | 12,600           | 28,500          | 671           | 33                   |                   |
| AM036RN4DCH/AA | 45.2             | High      | 36,000          | 28,000           | 40,000          | 1,007         | 40                   | 58                |
|                |                  | Mid       | 23,600          | 19,800           | 37,100          | 865           | 38                   |                   |
|                |                  | Low       | 17,400          | 15,600           | 34,300          | 742           | 36                   |                   |
| AM048RN4DCH/AA | 45.2             | High      | 48,000          | 37,000           | 54,000          | 1,130         | 44                   | 60                |
|                |                  | Mid       | 32,000          | 26,600           | 51,000          | 1,007         | 42                   |                   |
|                |                  | Low       | 24,200          | 21,600           | 48,700          | 918           | 39                   |                   |

#### NOTE

- Sound data is based on cooling operation.

#### Electric Characteristics

| Indoor Unit    | Power Supply (Ø, #, V, Hz) | Power Input (W) | Current Input (A) | MCA (A) | MOP (A) | FLA (A) |
|----------------|----------------------------|-----------------|-------------------|---------|---------|---------|
| AM006RN4DCH/AA | 1,2,208-230,60             | 32              | 0.25              | 0.40    | 15      | 0.28    |
| AM009RN4DCH/AA |                            | 32              | 0.25              | 0.40    | 15      | 0.28    |
| AM012RN4DCH/AA |                            | 32              | 0.25              | 0.40    | 15      | 0.28    |
| AM018RN4DCH/AA |                            | 45              | 0.35              | 0.50    | 15      | 0.39    |
| AM024RN4DCH/AA |                            | 57              | 0.45              | 0.60    | 15      | 0.50    |
| AM030RN4DCH/AA |                            | 65              | 0.50              | 0.70    | 15      | 0.55    |
| AM036RN4DCH/AA |                            | 75              | 0.56              | 0.80    | 15      | 0.62    |
| AM048RN4DCH/AA |                            | 95              | 0.75              | 1.00    | 15      | 0.83    |

#### NOTE

- MCA : Minimum circuit amperes
- MFA : Maximum fuse amperes
- FLA : Full load amperes
- Select wire size based on the value of MCA

# 3. Capacity Table

## Wind-Free 4Way Cassette

### Cooling

TC : Total Capacity, SHC : Sensible Heat Capacity

| Capacity Index (MBH) | Outdoor Air Temp. (°F, WB) | Indoor temperature (°F, WB) |       |       |       |       |       |       |       |       |       |        |       |        |       |
|----------------------|----------------------------|-----------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|-------|--------|-------|
|                      |                            | 57                          |       | 61    |       | 64    |       | 67    |       | 70    |       | 72     |       | 75     |       |
|                      |                            | TC                          | SHC   | TC    | SHC   | TC    | SHC   | TC    | SHC   | TC    | SHC   | TC     | SHC   | TC     | SHC   |
|                      |                            | Btu/h                       | Btu/h | Btu/h | Btu/h | Btu/h | Btu/h | Btu/h | Btu/h | Btu/h | Btu/h | Btu/h  | Btu/h | Btu/h  | Btu/h |
| 006                  | 50                         | 4,358                       | 4,118 | 5,145 | 4,862 | 5,933 | 5,435 | 6,300 | 5,670 | 6,563 | 5,670 | 7,088  | 5,771 | 7,534  | 5,435 |
|                      | 54                         | 4,358                       | 4,118 | 5,145 | 4,862 | 5,933 | 5,435 | 6,300 | 5,670 | 6,563 | 5,670 | 7,009  | 5,670 | 7,534  | 5,435 |
|                      | 58                         | 4,358                       | 4,118 | 5,145 | 4,862 | 5,933 | 5,435 | 6,300 | 5,670 | 6,563 | 5,670 | 7,009  | 5,670 | 7,534  | 5,435 |
|                      | 60                         | 4,358                       | 4,118 | 5,145 | 4,862 | 5,933 | 5,435 | 6,300 | 5,670 | 6,563 | 5,670 | 7,009  | 5,670 | 7,455  | 5,435 |
|                      | 64                         | 4,358                       | 4,118 | 5,145 | 4,862 | 5,933 | 5,435 | 6,300 | 5,670 | 6,563 | 5,670 | 7,009  | 5,670 | 7,455  | 5,435 |
|                      | 67                         | 4,358                       | 4,118 | 5,145 | 4,862 | 5,933 | 5,435 | 6,300 | 5,670 | 6,563 | 5,670 | 7,009  | 5,670 | 7,455  | 5,435 |
|                      | 70                         | 4,358                       | 4,118 | 5,145 | 4,862 | 5,933 | 5,435 | 6,300 | 5,670 | 6,563 | 5,670 | 7,009  | 5,670 | 7,455  | 5,435 |
|                      | 73                         | 4,358                       | 4,118 | 5,145 | 4,862 | 5,933 | 5,435 | 6,300 | 5,670 | 6,563 | 5,670 | 7,009  | 5,670 | 7,455  | 5,435 |
|                      | 77                         | 4,358                       | 4,118 | 5,145 | 4,862 | 5,933 | 5,435 | 6,300 | 5,670 | 6,563 | 5,670 | 7,009  | 5,670 | 7,455  | 5,435 |
|                      | 80                         | 4,358                       | 4,118 | 5,145 | 4,862 | 5,933 | 5,435 | 6,300 | 5,670 | 6,563 | 5,670 | 7,009  | 5,670 | 7,455  | 5,435 |
|                      | 84                         | 4,358                       | 4,118 | 5,145 | 4,862 | 5,933 | 5,435 | 6,300 | 5,670 | 6,563 | 5,670 | 7,009  | 5,670 | 7,455  | 5,435 |
|                      | 88                         | 4,358                       | 4,118 | 5,145 | 4,862 | 5,933 | 5,435 | 6,300 | 5,670 | 6,563 | 5,670 | 7,009  | 5,670 | 7,455  | 5,435 |
|                      | 92                         | 4,358                       | 4,118 | 5,145 | 4,862 | 5,933 | 5,435 | 6,300 | 5,670 | 6,563 | 5,670 | 7,009  | 5,670 | 7,455  | 5,435 |
|                      | 95                         | 4,358                       | 4,118 | 5,145 | 4,862 | 5,933 | 5,435 | 6,300 | 5,670 | 6,563 | 5,670 | 7,009  | 5,670 | 7,455  | 5,435 |
|                      | 99                         | 4,358                       | 4,118 | 5,145 | 4,862 | 5,933 | 5,435 | 6,300 | 5,670 | 6,484 | 5,569 | 6,930  | 5,569 | 7,271  | 5,334 |
|                      | 103                        | 4,358                       | 4,118 | 5,145 | 4,862 | 5,933 | 5,435 | 6,300 | 5,670 | 6,484 | 5,569 | 6,825  | 5,435 | 7,193  | 5,200 |
|                      | 107                        | 4,358                       | 4,118 | 5,145 | 4,862 | 5,933 | 5,435 | 6,116 | 5,435 | 6,221 | 5,334 | 6,484  | 5,200 | 6,746  | 4,999 |
|                      | 111                        | 4,358                       | 4,118 | 5,145 | 4,862 | 5,591 | 5,200 | 5,933 | 5,100 | 6,038 | 5,200 | 6,221  | 5,100 | 6,300  | 4,764 |
|                      | 115                        | 4,358                       | 4,118 | 5,145 | 4,862 | 5,591 | 5,200 | 5,933 | 5,100 | 6,038 | 5,200 | 6,221  | 5,100 | 6,300  | 4,764 |
|                      | 118                        | 4,358                       | 4,118 | 5,145 | 4,862 | 5,591 | 5,200 | 5,933 | 5,100 | 6,038 | 5,200 | 6,221  | 5,100 | 6,300  | 4,764 |
| 009                  | 50                         | 6,300                       | 5,300 | 7,400 | 5,900 | 8,500 | 6,500 | 9,000 | 6,500 | 9,300 | 6,500 | 10,200 | 6,500 | 10,800 | 6,200 |
|                      | 54                         | 6,300                       | 5,300 | 7,400 | 5,900 | 8,500 | 6,500 | 9,000 | 6,500 | 9,300 | 6,500 | 10,200 | 6,500 | 10,800 | 6,200 |
|                      | 58                         | 6,300                       | 5,300 | 7,400 | 5,900 | 8,500 | 6,500 | 9,000 | 6,500 | 9,300 | 6,500 | 10,000 | 6,300 | 10,800 | 6,200 |
|                      | 60                         | 6,300                       | 5,300 | 7,400 | 5,900 | 8,500 | 6,500 | 9,000 | 6,500 | 9,300 | 6,500 | 10,000 | 6,300 | 10,600 | 6,000 |
|                      | 64                         | 6,300                       | 5,300 | 7,400 | 5,900 | 8,500 | 6,500 | 9,000 | 6,500 | 9,300 | 6,500 | 10,000 | 6,300 | 10,600 | 6,000 |
|                      | 67                         | 6,300                       | 5,300 | 7,400 | 5,900 | 8,500 | 6,500 | 9,000 | 6,500 | 9,300 | 6,500 | 10,000 | 6,300 | 10,600 | 6,000 |
|                      | 70                         | 6,300                       | 5,300 | 7,400 | 5,900 | 8,500 | 6,500 | 9,000 | 6,500 | 9,300 | 6,500 | 10,000 | 6,300 | 10,600 | 6,000 |
|                      | 73                         | 6,300                       | 5,300 | 7,400 | 5,900 | 8,500 | 6,500 | 9,000 | 6,500 | 9,300 | 6,500 | 10,000 | 6,300 | 10,600 | 6,000 |
|                      | 77                         | 6,300                       | 5,300 | 7,400 | 5,900 | 8,500 | 6,500 | 9,000 | 6,500 | 9,300 | 6,500 | 10,000 | 6,300 | 10,600 | 6,000 |
|                      | 80                         | 6,300                       | 5,300 | 7,400 | 5,900 | 8,500 | 6,500 | 9,000 | 6,500 | 9,300 | 6,500 | 10,000 | 6,300 | 10,600 | 6,000 |
|                      | 84                         | 6,300                       | 5,300 | 7,400 | 5,900 | 8,500 | 6,500 | 9,000 | 6,500 | 9,300 | 6,500 | 10,000 | 6,300 | 10,600 | 6,000 |
|                      | 88                         | 6,300                       | 5,300 | 7,400 | 5,900 | 8,500 | 6,500 | 9,000 | 6,500 | 9,300 | 6,500 | 10,000 | 6,300 | 10,600 | 6,000 |
|                      | 92                         | 6,300                       | 5,300 | 7,400 | 5,900 | 8,500 | 6,500 | 9,000 | 6,500 | 9,300 | 6,500 | 10,000 | 6,300 | 10,600 | 6,000 |
|                      | 95                         | 6,300                       | 5,300 | 7,400 | 5,900 | 8,500 | 6,500 | 9,000 | 6,500 | 9,300 | 6,500 | 10,000 | 6,300 | 10,600 | 6,000 |
|                      | 99                         | 6,300                       | 5,300 | 7,400 | 5,900 | 8,500 | 6,500 | 9,000 | 6,500 | 9,300 | 6,500 | 10,000 | 6,300 | 10,600 | 5,900 |
|                      | 103                        | 6,300                       | 5,300 | 7,400 | 5,900 | 8,500 | 6,500 | 9,000 | 6,500 | 9,300 | 6,500 | 10,000 | 6,300 | 10,600 | 5,700 |
|                      | 107                        | 6,300                       | 5,300 | 7,400 | 5,900 | 8,500 | 6,500 | 8,700 | 6,300 | 9,000 | 6,300 | 9,300  | 6,000 | 9,700  | 5,300 |
|                      | 111                        | 6,300                       | 5,300 | 7,400 | 5,900 | 8,100 | 6,300 | 8,500 | 6,200 | 8,700 | 6,200 | 8,900  | 5,900 | 9,000  | 5,000 |
|                      | 115                        | 6,300                       | 5,300 | 7,400 | 5,900 | 8,100 | 6,300 | 8,500 | 6,200 | 8,700 | 6,200 | 8,900  | 5,900 | 9,000  | 5,000 |
|                      | 118                        | 6,300                       | 5,300 | 7,400 | 5,900 | 8,100 | 6,300 | 8,500 | 6,200 | 8,700 | 6,200 | 8,900  | 5,900 | 9,000  | 5,000 |

### 3. Capacity Table

#### Wind-Free 4Way Cassette

| Capacity Index (MBH) | Outdoor Air Temp. (°F, WB) | Indoor temperature (°F, WB) |        |        |        |        |        |        |        |        |        |        |        |        |         |
|----------------------|----------------------------|-----------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|
|                      |                            | 57                          |        | 61     |        | 64     |        | 67     |        | 70     |        | 72     |        | 75     |         |
|                      |                            | TC                          | SHC    | TC     | SHC    | TC     | SHC    | TC     | SHC    | TC     | SHC    | TC     | SHC    | TC     | SHC     |
|                      |                            | Btu/h                       | Btu/h  | Btu/h  | Btu/h  | Btu/h  | Btu/h  | Btu/h  | Btu/h  | Btu/h  | Btu/h  | Btu/h  | Btu/h  | Btu/h  | Btu/h   |
| 012                  | 50                         | 8,300                       | 7,300  | 9,700  | 8,300  | 11,300 | 9,000  | 12,000 | 9,300  | 12,300 | 9,300  | 13,300 | 9,300  | 14,300 | 9,000   |
|                      | 54                         | 8,300                       | 7,300  | 9,700  | 8,300  | 11,300 | 9,000  | 12,000 | 9,300  | 12,300 | 9,300  | 13,300 | 9,300  | 14,300 | 9,000   |
|                      | 58                         | 8,300                       | 7,300  | 9,700  | 8,300  | 11,300 | 9,000  | 12,000 | 9,300  | 12,300 | 9,300  | 13,300 | 9,300  | 14,300 | 9,000   |
|                      | 60                         | 8,300                       | 7,300  | 9,700  | 8,300  | 11,300 | 9,000  | 12,000 | 9,300  | 12,300 | 9,300  | 13,300 | 9,300  | 14,300 | 9,000   |
|                      | 64                         | 8,300                       | 7,300  | 9,700  | 8,300  | 11,300 | 9,000  | 12,000 | 9,300  | 12,300 | 9,300  | 13,300 | 9,300  | 14,300 | 9,000   |
|                      | 67                         | 8,300                       | 7,300  | 9,700  | 8,300  | 11,300 | 9,000  | 12,000 | 9,300  | 12,300 | 9,300  | 13,300 | 9,300  | 14,000 | 8,700   |
|                      | 70                         | 8,300                       | 7,300  | 9,700  | 8,300  | 11,300 | 9,000  | 12,000 | 9,300  | 12,300 | 9,300  | 13,300 | 9,300  | 14,000 | 8,700   |
|                      | 73                         | 8,300                       | 7,300  | 9,700  | 8,300  | 11,300 | 9,000  | 12,000 | 9,300  | 12,300 | 9,300  | 13,300 | 9,300  | 14,000 | 8,700   |
|                      | 77                         | 8,300                       | 7,300  | 9,700  | 8,300  | 11,300 | 9,000  | 12,000 | 9,300  | 12,300 | 9,300  | 13,300 | 9,300  | 14,000 | 8,700   |
|                      | 80                         | 8,300                       | 7,300  | 9,700  | 8,300  | 11,300 | 9,000  | 12,000 | 9,300  | 12,300 | 9,300  | 13,300 | 9,300  | 14,000 | 8,700   |
|                      | 84                         | 8,300                       | 7,300  | 9,700  | 8,300  | 11,300 | 9,000  | 12,000 | 9,300  | 12,300 | 9,300  | 13,300 | 9,300  | 14,000 | 8,700   |
|                      | 88                         | 8,300                       | 7,300  | 9,700  | 8,300  | 11,300 | 9,000  | 12,000 | 9,300  | 12,300 | 9,300  | 13,300 | 9,300  | 14,000 | 8,700   |
|                      | 92                         | 8,300                       | 7,300  | 9,700  | 8,300  | 11,300 | 9,000  | 12,000 | 9,300  | 12,300 | 9,300  | 13,300 | 9,300  | 14,000 | 8,700   |
|                      | 95                         | 8,300                       | 7,300  | 9,700  | 8,300  | 11,300 | 9,000  | 12,000 | 9,300  | 12,300 | 9,300  | 13,300 | 9,300  | 14,000 | 8,700   |
|                      | 99                         | 8,300                       | 7,300  | 9,700  | 8,300  | 11,300 | 9,000  | 12,000 | 9,300  | 12,300 | 9,300  | 13,200 | 9,000  | 14,000 | 8,700   |
|                      | 103                        | 8,300                       | 7,300  | 9,700  | 8,300  | 11,300 | 9,000  | 12,000 | 9,300  | 12,300 | 9,300  | 12,900 | 9,000  | 13,700 | 8,562.5 |
|                      | 107                        | 8,300                       | 7,300  | 9,700  | 8,300  | 11,300 | 9,000  | 11,800 | 9,204  | 12,000 | 9,120  | 12,400 | 8,700  | 13,000 | 8,255   |
|                      | 111                        | 8,300                       | 7,300  | 9,700  | 8,300  | 11,000 | 8,800  | 11,500 | 8,970  | 11,700 | 9,009  | 12,000 | 8,520  | 12,400 | 7,998   |
|                      | 115                        | 8,300                       | 7,300  | 9,700  | 8,300  | 10,800 | 8,700  | 11,300 | 8,927  | 11,500 | 8,855  | 11,700 | 8,424  | 12,000 | 7,860   |
|                      | 118                        | 8,300                       | 7,300  | 9,700  | 8,300  | 10,700 | 8,667  | 11,100 | 8,880  | 11,300 | 8,814  | 11,400 | 8,322  | 11,800 | 7,788   |
| 018                  | 50                         | 12,500                      | 10,300 | 14,800 | 11,300 | 17,000 | 12,500 | 18,000 | 12,500 | 18,600 | 12,500 | 20,300 | 12,500 | 21,500 | 11,900  |
|                      | 54                         | 12,500                      | 10,300 | 14,800 | 11,300 | 17,000 | 12,500 | 18,000 | 12,500 | 18,600 | 12,500 | 20,300 | 12,500 | 21,500 | 11,900  |
|                      | 58                         | 12,500                      | 10,300 | 14,800 | 11,300 | 17,000 | 12,500 | 18,000 | 12,500 | 18,600 | 12,500 | 19,900 | 12,200 | 21,500 | 11,900  |
|                      | 60                         | 12,500                      | 10,300 | 14,800 | 11,300 | 17,000 | 12,500 | 18,000 | 12,500 | 18,600 | 12,500 | 19,900 | 12,200 | 21,200 | 11,600  |
|                      | 64                         | 12,500                      | 10,300 | 14,800 | 11,300 | 17,000 | 12,500 | 18,000 | 12,500 | 18,600 | 12,500 | 19,900 | 12,200 | 21,200 | 11,600  |
|                      | 67                         | 12,500                      | 10,300 | 14,800 | 11,300 | 17,000 | 12,500 | 18,000 | 12,500 | 18,600 | 12,500 | 19,900 | 12,200 | 21,200 | 11,600  |
|                      | 70                         | 12,500                      | 10,300 | 14,800 | 11,300 | 17,000 | 12,500 | 18,000 | 12,500 | 18,600 | 12,500 | 19,900 | 12,200 | 21,200 | 11,600  |
|                      | 73                         | 12,500                      | 10,300 | 14,800 | 11,300 | 17,000 | 12,500 | 18,000 | 12,500 | 18,600 | 12,500 | 19,900 | 12,200 | 21,200 | 11,600  |
|                      | 77                         | 12,500                      | 10,300 | 14,800 | 11,300 | 17,000 | 12,500 | 18,000 | 12,500 | 18,600 | 12,500 | 19,900 | 12,200 | 21,200 | 11,600  |
|                      | 80                         | 12,500                      | 10,300 | 14,800 | 11,300 | 17,000 | 12,500 | 18,000 | 12,500 | 18,600 | 12,500 | 19,900 | 12,200 | 21,200 | 11,600  |
|                      | 84                         | 12,500                      | 10,300 | 14,800 | 11,300 | 17,000 | 12,500 | 18,000 | 12,500 | 18,600 | 12,500 | 19,900 | 12,200 | 21,200 | 11,600  |
|                      | 88                         | 12,500                      | 10,300 | 14,800 | 11,300 | 17,000 | 12,500 | 18,000 | 12,500 | 18,600 | 12,500 | 19,900 | 12,200 | 21,200 | 11,600  |
|                      | 92                         | 12,500                      | 10,300 | 14,800 | 11,300 | 17,000 | 12,500 | 18,000 | 12,500 | 18,600 | 12,500 | 19,900 | 12,200 | 21,200 | 11,600  |
|                      | 95                         | 12,500                      | 10,300 | 14,800 | 11,300 | 17,000 | 12,500 | 18,000 | 12,500 | 18,600 | 12,500 | 19,900 | 12,200 | 21,200 | 11,600  |
|                      | 99                         | 12,500                      | 10,300 | 14,800 | 11,300 | 17,000 | 12,500 | 18,000 | 12,500 | 18,600 | 12,500 | 19,900 | 12,200 | 21,200 | 11,300  |
|                      | 103                        | 12,500                      | 10,300 | 14,800 | 11,300 | 17,000 | 12,500 | 18,000 | 12,500 | 18,600 | 12,500 | 19,900 | 12,200 | 21,200 | 10,900  |
|                      | 107                        | 12,500                      | 10,300 | 14,800 | 11,300 | 17,000 | 12,500 | 17,400 | 12,200 | 18,000 | 12,200 | 18,600 | 11,600 | 19,300 | 10,300  |
|                      | 111                        | 12,500                      | 10,300 | 14,800 | 11,300 | 16,100 | 12,200 | 17,000 | 11,900 | 17,400 | 11,900 | 17,700 | 11,300 | 18,000 | 9,600   |
|                      | 115                        | 12,500                      | 10,300 | 14,800 | 11,300 | 16,100 | 12,200 | 17,000 | 11,900 | 17,400 | 11,900 | 17,700 | 11,300 | 18,000 | 9,600   |
|                      | 118                        | 12,500                      | 10,300 | 14,800 | 11,300 | 16,100 | 12,200 | 17,000 | 11,900 | 17,400 | 11,900 | 17,700 | 11,300 | 18,000 | 9,600   |

### 3. Capacity Table

#### Wind-Free 4Way Cassette

| Capacity Index (MBH) | Outdoor Air Temp. (°F, WB) | Indoor temperature (°F, WB) |        |        |        |        |        |        |        |        |        |        |        |        |        |
|----------------------|----------------------------|-----------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|                      |                            | 57                          |        | 61     |        | 64     |        | 67     |        | 70     |        | 72     |        | 75     |        |
|                      |                            | TC                          | SHC    | TC     | SHC    | TC     | SHC    | TC     | SHC    | TC     | SHC    | TC     | SHC    | TC     | SHC    |
|                      |                            | Btu/h                       | Btu/h  | Btu/h  | Btu/h  | Btu/h  | Btu/h  | Btu/h  | Btu/h  | Btu/h  | Btu/h  | Btu/h  | Btu/h  | Btu/h  | Btu/h  |
| 024                  | 50                         | 16,600                      | 13,500 | 19,600 | 15,200 | 22,600 | 16,200 | 24,000 | 16,900 | 25,000 | 16,900 | 27,000 | 17,200 | 28,700 | 16,200 |
|                      | 54                         | 16,600                      | 13,500 | 19,600 | 15,200 | 22,600 | 16,200 | 24,000 | 16,900 | 25,000 | 16,900 | 26,700 | 16,900 | 28,700 | 16,200 |
|                      | 58                         | 16,600                      | 13,500 | 19,600 | 15,200 | 22,600 | 16,200 | 24,000 | 16,900 | 25,000 | 16,900 | 26,700 | 16,900 | 28,700 | 16,200 |
|                      | 60                         | 16,600                      | 13,500 | 19,600 | 15,200 | 22,600 | 16,200 | 24,000 | 16,900 | 25,000 | 16,900 | 26,700 | 16,900 | 28,400 | 16,200 |
|                      | 64                         | 16,600                      | 13,500 | 19,600 | 15,200 | 22,600 | 16,200 | 24,000 | 16,900 | 25,000 | 16,900 | 26,700 | 16,900 | 28,400 | 16,200 |
|                      | 67                         | 16,600                      | 13,500 | 19,600 | 15,200 | 22,600 | 16,200 | 24,000 | 16,900 | 25,000 | 16,900 | 26,700 | 16,900 | 28,400 | 16,200 |
|                      | 70                         | 16,600                      | 13,500 | 19,600 | 15,200 | 22,600 | 16,200 | 24,000 | 16,900 | 25,000 | 16,900 | 26,700 | 16,900 | 28,400 | 16,200 |
|                      | 73                         | 16,600                      | 13,500 | 19,600 | 15,200 | 22,600 | 16,200 | 24,000 | 16,900 | 25,000 | 16,900 | 26,700 | 16,900 | 28,400 | 16,200 |
|                      | 77                         | 16,600                      | 13,500 | 19,600 | 15,200 | 22,600 | 16,200 | 24,000 | 16,900 | 25,000 | 16,900 | 26,700 | 16,900 | 28,400 | 16,200 |
|                      | 80                         | 16,600                      | 13,500 | 19,600 | 15,200 | 22,600 | 16,200 | 24,000 | 16,900 | 25,000 | 16,900 | 26,700 | 16,900 | 28,400 | 16,200 |
|                      | 84                         | 16,600                      | 13,500 | 19,600 | 15,200 | 22,600 | 16,200 | 24,000 | 16,900 | 25,000 | 16,900 | 26,700 | 16,900 | 28,400 | 16,200 |
|                      | 88                         | 16,600                      | 13,500 | 19,600 | 15,200 | 22,600 | 16,200 | 24,000 | 16,900 | 25,000 | 16,900 | 26,700 | 16,900 | 28,400 | 16,200 |
|                      | 92                         | 16,600                      | 13,500 | 19,600 | 15,200 | 22,600 | 16,200 | 24,000 | 16,900 | 25,000 | 16,900 | 26,700 | 16,900 | 28,400 | 16,200 |
|                      | 95                         | 16,600                      | 13,500 | 19,600 | 15,200 | 22,600 | 16,200 | 24,000 | 16,900 | 25,000 | 16,900 | 26,700 | 16,900 | 28,400 | 16,200 |
|                      | 99                         | 16,600                      | 13,500 | 19,600 | 15,200 | 22,600 | 16,200 | 24,000 | 16,900 | 24,700 | 16,600 | 26,400 | 16,600 | 27,700 | 15,900 |
|                      | 103                        | 16,600                      | 13,500 | 19,600 | 15,200 | 22,600 | 16,200 | 24,000 | 16,900 | 24,700 | 16,600 | 26,000 | 16,200 | 27,400 | 15,500 |
|                      | 107                        | 16,600                      | 13,500 | 19,600 | 15,200 | 22,600 | 16,200 | 23,300 | 16,200 | 23,700 | 15,900 | 24,700 | 15,500 | 25,700 | 14,900 |
|                      | 111                        | 16,600                      | 13,500 | 19,600 | 15,200 | 21,300 | 15,500 | 22,600 | 15,200 | 23,000 | 15,500 | 23,700 | 15,200 | 24,000 | 14,200 |
|                      | 115                        | 16,600                      | 13,500 | 19,600 | 15,200 | 21,300 | 15,500 | 22,600 | 15,200 | 23,000 | 15,500 | 23,700 | 15,200 | 24,000 | 14,200 |
|                      | 118                        | 16,600                      | 13,500 | 19,600 | 15,200 | 21,300 | 15,500 | 22,600 | 15,200 | 23,000 | 15,500 | 23,700 | 15,200 | 24,000 | 14,200 |
| 030                  | 50                         | 20,700                      | 17,300 | 24,300 | 19,000 | 28,000 | 21,000 | 30,000 | 21,000 | 31,300 | 21,000 | 33,700 | 21,000 | 36,000 | 21,000 |
|                      | 54                         | 20,700                      | 17,300 | 24,300 | 19,000 | 28,000 | 21,000 | 30,000 | 21,000 | 31,300 | 21,000 | 33,700 | 21,000 | 36,000 | 21,000 |
|                      | 58                         | 20,700                      | 17,300 | 24,300 | 19,000 | 28,000 | 21,000 | 30,000 | 21,000 | 31,000 | 21,000 | 33,300 | 20,700 | 35,700 | 20,700 |
|                      | 60                         | 20,700                      | 17,300 | 24,300 | 19,000 | 28,000 | 21,000 | 30,000 | 21,000 | 31,000 | 21,000 | 33,300 | 20,700 | 35,700 | 20,700 |
|                      | 64                         | 20,700                      | 17,300 | 24,300 | 19,000 | 28,000 | 21,000 | 30,000 | 21,000 | 31,000 | 21,000 | 33,300 | 20,700 | 35,300 | 20,300 |
|                      | 67                         | 20,700                      | 17,300 | 24,300 | 19,000 | 28,000 | 21,000 | 30,000 | 21,000 | 31,000 | 21,000 | 33,300 | 20,700 | 35,300 | 20,300 |
|                      | 70                         | 20,700                      | 17,300 | 24,300 | 19,000 | 28,000 | 21,000 | 30,000 | 21,000 | 31,000 | 21,000 | 33,300 | 20,700 | 35,300 | 20,300 |
|                      | 73                         | 20,700                      | 17,300 | 24,300 | 19,000 | 28,000 | 21,000 | 30,000 | 21,000 | 31,000 | 21,000 | 33,300 | 20,700 | 35,300 | 20,300 |
|                      | 77                         | 20,700                      | 17,300 | 24,300 | 19,000 | 28,000 | 21,000 | 30,000 | 21,000 | 31,000 | 21,000 | 33,300 | 20,700 | 35,300 | 20,300 |
|                      | 80                         | 20,700                      | 17,300 | 24,300 | 19,000 | 28,000 | 21,000 | 30,000 | 21,000 | 31,000 | 21,000 | 33,300 | 20,700 | 35,300 | 20,300 |
|                      | 84                         | 20,700                      | 17,300 | 24,300 | 19,000 | 28,000 | 21,000 | 30,000 | 21,000 | 31,000 | 21,000 | 33,300 | 20,700 | 35,300 | 20,300 |
|                      | 88                         | 20,700                      | 17,300 | 24,300 | 19,000 | 28,000 | 21,000 | 30,000 | 21,000 | 31,000 | 21,000 | 33,300 | 20,700 | 35,300 | 20,300 |
|                      | 92                         | 20,700                      | 17,300 | 24,300 | 19,000 | 28,000 | 21,000 | 30,000 | 21,000 | 31,000 | 21,000 | 33,300 | 20,700 | 35,300 | 20,300 |
|                      | 95                         | 20,700                      | 17,300 | 24,300 | 19,000 | 28,000 | 21,000 | 30,000 | 21,000 | 31,000 | 21,000 | 33,300 | 20,700 | 35,300 | 20,300 |
|                      | 99                         | 20,700                      | 17,300 | 24,300 | 19,000 | 28,000 | 21,000 | 30,000 | 21,000 | 31,000 | 21,000 | 33,000 | 20,300 | 34,700 | 20,000 |
|                      | 103                        | 20,700                      | 17,300 | 24,300 | 19,000 | 28,000 | 21,000 | 30,000 | 21,300 | 30,700 | 20,700 | 32,300 | 20,000 | 34,000 | 19,700 |
|                      | 107                        | 20,700                      | 17,300 | 24,300 | 19,000 | 28,000 | 21,000 | 29,000 | 20,700 | 29,700 | 20,700 | 31,000 | 19,300 | 32,000 | 19,300 |
|                      | 111                        | 20,700                      | 17,300 | 24,300 | 19,000 | 26,700 | 20,300 | 28,700 | 20,300 | 28,700 | 20,300 | 29,300 | 18,700 | 30,000 | 18,300 |
|                      | 115                        | 20,700                      | 17,300 | 24,300 | 19,000 | 26,700 | 20,300 | 28,700 | 20,300 | 28,700 | 20,300 | 29,300 | 18,700 | 30,000 | 18,300 |
|                      | 118                        | 20,700                      | 17,300 | 24,300 | 19,000 | 26,700 | 20,300 | 28,700 | 20,300 | 28,700 | 20,300 | 29,300 | 18,700 | 30,000 | 18,300 |

### 3. Capacity Table

#### Wind-Free 4Way Cassette

| Capacity Index (MBH) | Outdoor Air Temp. (°F, WB) | Indoor temperature (°F, WB) |        |        |        |        |        |        |        |        |        |        |        |        |        |
|----------------------|----------------------------|-----------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|                      |                            | 57                          |        | 61     |        | 64     |        | 67     |        | 70     |        | 72     |        | 75     |        |
|                      |                            | TC                          | SHC    | TC     | SHC    | TC     | SHC    | TC     | SHC    | TC     | SHC    | TC     | SHC    | TC     | SHC    |
|                      |                            | Btu/h                       | Btu/h  | Btu/h  | Btu/h  | Btu/h  | Btu/h  | Btu/h  | Btu/h  | Btu/h  | Btu/h  | Btu/h  | Btu/h  | Btu/h  | Btu/h  |
| 036                  | 50                         | 24,800                      | 20,600 | 29,300 | 22,800 | 33,800 | 25,100 | 36,000 | 25,400 | 37,300 | 25,400 | 40,200 | 25,400 | 43,100 | 25,400 |
|                      | 54                         | 24,800                      | 20,600 | 29,300 | 22,800 | 33,800 | 25,100 | 36,000 | 25,400 | 37,300 | 25,400 | 40,200 | 25,400 | 43,100 | 25,400 |
|                      | 58                         | 24,800                      | 20,600 | 29,300 | 22,800 | 33,800 | 25,100 | 36,000 | 25,400 | 37,300 | 25,400 | 40,200 | 25,400 | 42,800 | 25,100 |
|                      | 60                         | 24,800                      | 20,600 | 29,300 | 22,800 | 33,800 | 25,100 | 36,000 | 25,400 | 37,300 | 25,400 | 40,200 | 25,400 | 42,800 | 25,100 |
|                      | 64                         | 24,800                      | 20,600 | 29,300 | 22,800 | 33,800 | 25,100 | 36,000 | 25,400 | 37,300 | 25,400 | 39,900 | 25,400 | 42,400 | 24,800 |
|                      | 67                         | 24,800                      | 20,600 | 29,300 | 22,800 | 33,800 | 25,100 | 36,000 | 25,400 | 37,300 | 25,400 | 39,900 | 25,400 | 42,400 | 24,800 |
|                      | 70                         | 24,800                      | 20,600 | 29,300 | 22,800 | 33,800 | 25,100 | 36,000 | 25,400 | 37,300 | 25,400 | 39,900 | 25,400 | 42,400 | 24,800 |
|                      | 73                         | 24,800                      | 20,600 | 29,300 | 22,800 | 33,800 | 25,100 | 36,000 | 25,400 | 37,300 | 25,400 | 39,900 | 25,400 | 42,400 | 24,800 |
|                      | 77                         | 24,800                      | 20,600 | 29,300 | 22,800 | 33,800 | 25,100 | 36,000 | 25,400 | 37,300 | 25,400 | 39,900 | 25,400 | 42,400 | 24,800 |
|                      | 80                         | 24,800                      | 20,600 | 29,300 | 22,800 | 33,800 | 25,100 | 36,000 | 25,400 | 37,300 | 25,400 | 39,900 | 25,400 | 42,400 | 24,800 |
|                      | 84                         | 24,800                      | 20,600 | 29,300 | 22,800 | 33,800 | 25,100 | 36,000 | 25,400 | 37,300 | 25,400 | 39,900 | 25,400 | 42,400 | 24,800 |
|                      | 88                         | 24,800                      | 20,600 | 29,300 | 22,800 | 33,800 | 25,100 | 36,000 | 25,400 | 37,300 | 25,400 | 39,900 | 25,400 | 42,400 | 24,800 |
|                      | 92                         | 24,800                      | 20,300 | 29,300 | 22,500 | 33,800 | 25,100 | 36,000 | 25,400 | 37,300 | 25,400 | 39,900 | 25,400 | 42,400 | 24,800 |
|                      | 95                         | 24,800                      | 20,300 | 29,300 | 22,500 | 33,800 | 25,100 | 36,000 | 25,400 | 37,300 | 25,400 | 39,900 | 25,400 | 42,400 | 24,800 |
|                      | 99                         | 24,800                      | 20,300 | 29,300 | 22,500 | 33,800 | 25,100 | 36,000 | 25,400 | 37,300 | 25,400 | 39,500 | 25,100 | 41,800 | 24,400 |
|                      | 103                        | 24,800                      | 20,300 | 29,300 | 22,500 | 33,800 | 25,100 | 36,000 | 25,700 | 37,000 | 25,100 | 38,900 | 24,800 | 40,800 | 24,100 |
|                      | 107                        | 24,800                      | 20,300 | 29,300 | 22,500 | 33,800 | 25,100 | 35,000 | 24,800 | 35,700 | 24,400 | 37,300 | 24,100 | 38,600 | 23,800 |
|                      | 111                        | 24,800                      | 20,300 | 29,300 | 22,500 | 32,100 | 23,800 | 34,100 | 24,400 | 34,700 | 24,100 | 35,400 | 23,100 | 36,000 | 22,500 |
|                      | 115                        | 24,800                      | 20,300 | 29,300 | 22,500 | 32,100 | 23,800 | 34,100 | 24,400 | 34,700 | 24,100 | 35,400 | 23,100 | 36,000 | 22,500 |
|                      | 118                        | 24,800                      | 20,300 | 29,300 | 22,500 | 32,100 | 23,800 | 34,100 | 24,400 | 34,700 | 24,100 | 35,400 | 23,100 | 36,000 | 22,500 |
| 048                  | 50                         | 33,300                      | 26,400 | 39,100 | 29,100 | 44,900 | 32,200 | 48,000 | 32,900 | 50,100 | 32,900 | 53,800 | 32,600 | 57,600 | 33,300 |
|                      | 54                         | 33,300                      | 26,400 | 39,100 | 29,100 | 44,900 | 32,200 | 48,000 | 32,900 | 49,700 | 32,900 | 53,500 | 32,900 | 57,300 | 32,900 |
|                      | 58                         | 33,300                      | 26,400 | 39,100 | 29,100 | 44,900 | 32,200 | 48,000 | 32,900 | 49,700 | 32,900 | 53,500 | 32,900 | 57,300 | 32,900 |
|                      | 60                         | 33,300                      | 26,400 | 39,100 | 29,100 | 44,900 | 32,200 | 48,000 | 32,900 | 49,700 | 32,900 | 53,500 | 32,900 | 56,900 | 32,600 |
|                      | 64                         | 33,300                      | 26,400 | 39,100 | 29,100 | 44,900 | 32,200 | 48,000 | 32,900 | 49,700 | 32,900 | 53,100 | 32,600 | 56,900 | 32,600 |
|                      | 67                         | 33,300                      | 26,400 | 39,100 | 29,100 | 44,900 | 32,200 | 48,000 | 32,900 | 49,700 | 32,900 | 53,100 | 32,600 | 56,600 | 32,200 |
|                      | 70                         | 33,300                      | 26,400 | 39,100 | 29,100 | 44,900 | 32,200 | 48,000 | 32,900 | 49,700 | 32,900 | 53,100 | 32,600 | 56,600 | 32,200 |
|                      | 73                         | 33,300                      | 26,400 | 39,100 | 29,100 | 44,900 | 32,200 | 48,000 | 32,900 | 49,700 | 32,900 | 53,100 | 32,600 | 56,600 | 32,200 |
|                      | 77                         | 33,300                      | 26,400 | 39,100 | 29,100 | 44,900 | 32,200 | 48,000 | 32,900 | 49,700 | 32,900 | 53,100 | 32,600 | 56,600 | 32,200 |
|                      | 80                         | 33,300                      | 26,400 | 39,100 | 29,100 | 44,900 | 32,200 | 48,000 | 32,900 | 49,700 | 32,900 | 53,100 | 32,600 | 56,600 | 32,200 |
|                      | 84                         | 33,300                      | 26,400 | 39,100 | 29,100 | 44,900 | 32,200 | 48,000 | 32,900 | 49,700 | 32,900 | 53,100 | 32,600 | 56,600 | 32,200 |
|                      | 88                         | 33,300                      | 26,400 | 39,100 | 29,100 | 44,900 | 32,200 | 48,000 | 32,900 | 49,700 | 32,900 | 53,100 | 32,600 | 56,600 | 32,200 |
|                      | 92                         | 33,300                      | 26,400 | 39,100 | 29,100 | 44,900 | 32,200 | 48,000 | 32,900 | 49,700 | 32,900 | 53,100 | 32,600 | 56,600 | 32,200 |
|                      | 95                         | 33,300                      | 26,400 | 39,100 | 29,100 | 44,900 | 32,200 | 48,000 | 32,900 | 49,700 | 32,900 | 53,100 | 32,600 | 56,600 | 32,200 |
|                      | 99                         | 33,300                      | 26,400 | 39,100 | 29,100 | 44,900 | 32,200 | 48,000 | 32,900 | 49,700 | 32,900 | 52,800 | 32,200 | 55,900 | 31,500 |
|                      | 103                        | 33,300                      | 26,400 | 39,100 | 29,100 | 44,900 | 32,200 | 48,000 | 32,900 | 49,400 | 32,200 | 51,800 | 31,900 | 54,500 | 30,900 |
|                      | 107                        | 33,300                      | 26,400 | 39,100 | 29,100 | 44,900 | 32,200 | 46,600 | 31,900 | 47,700 | 31,500 | 49,400 | 30,500 | 51,400 | 29,100 |
|                      | 111                        | 33,300                      | 26,400 | 39,100 | 29,100 | 42,900 | 31,200 | 45,600 | 31,500 | 45,900 | 30,200 | 47,000 | 28,800 | 48,000 | 27,800 |
|                      | 115                        | 33,300                      | 26,400 | 39,100 | 29,100 | 42,900 | 31,200 | 45,600 | 31,500 | 45,900 | 30,200 | 47,000 | 28,800 | 48,000 | 27,800 |
|                      | 118                        | 33,300                      | 26,400 | 39,100 | 29,100 | 42,900 | 31,200 | 45,600 | 31,500 | 45,900 | 30,200 | 47,000 | 28,800 | 48,000 | 27,800 |

#### NOTE

- The performance table shows the average value of each conditions.

# 3. Capacity Table

## Wind-Free 4Way Cassette

### Heating

TC : Total Capacity (kW)

| Capacity Index | Outdoor Air Temp. (°F) |    | Indoor temperature (°F, WB) |        |        |        |        |
|----------------|------------------------|----|-----------------------------|--------|--------|--------|--------|
|                |                        |    | 61                          | 65     | 70     | 72     | 75     |
|                | DB                     | WB | TC                          | TC     | TC     | TC     | TC     |
|                |                        |    | Btu/h                       | Btu/h  | Btu/h  | Btu/h  | Btu/h  |
| 006            | -3.6                   | -4 | 4,523                       | 4,523  | 4,391  | 4,339  | 4,339  |
|                | -1.8                   | -2 | 4,602                       | 4,576  | 4,418  | 4,391  | 4,391  |
|                | 2                      | 1  | 4,707                       | 4,602  | 4,470  | 4,418  | 4,418  |
|                | 6                      | 5  | 4,891                       | 4,786  | 4,602  | 4,523  | 4,418  |
|                | 10                     | 9  | 5,154                       | 5,075  | 4,944  | 4,891  | 4,786  |
|                | 13                     | 12 | 5,443                       | 5,338  | 5,207  | 5,154  | 5,154  |
|                | 17                     | 15 | 5,575                       | 5,496  | 5,338  | 5,312  | 5,259  |
|                | 19                     | 18 | 5,706                       | 5,627  | 5,496  | 5,443  | 5,338  |
|                | 23                     | 21 | 5,996                       | 5,996  | 5,811  | 5,706  | 5,522  |
|                | 26                     | 24 | 6,364                       | 6,259  | 6,048  | 5,890  | 5,706  |
|                | 30                     | 28 | 6,495                       | 6,416  | 6,180  | 6,048  | 5,811  |
|                | 35                     | 32 | 6,627                       | 6,548  | 6,311  | 6,180  | 5,890  |
|                | 39                     | 36 | 6,995                       | 6,916  | 6,627  | 6,548  | 6,259  |
|                | 44                     | 40 | 7,284                       | 7,205  | 6,863  | 6,627  | 6,259  |
|                | 47                     | 43 | 7,573                       | 7,468  | 7,100  | 6,811  | 6,259  |
|                | 51                     | 47 | 7,836                       | 7,573  | 7,100  | 6,811  | 6,259  |
| 009            | 54                     | 50 | 8,020                       | 7,757  | 7,100  | 6,811  | 6,259  |
|                | 57                     | 53 | 8,310                       | 7,836  | 7,100  | 6,811  | 6,259  |
|                | 60                     | 56 | 8,494                       | 7,941  | 7,100  | 6,811  | 6,259  |
|                | -3.6                   | -4 | 6,450                       | 6,300  | 6,200  | 6,100  | 6,100  |
|                | -1.8                   | -2 | 6,550                       | 6,450  | 6,300  | 6,200  | 6,200  |
|                | 2                      | 1  | 6,600                       | 6,600  | 6,350  | 6,300  | 6,300  |
|                | 6                      | 5  | 6,950                       | 6,800  | 6,550  | 6,450  | 6,300  |
|                | 10                     | 9  | 7,250                       | 7,100  | 6,950  | 6,950  | 6,800  |
|                | 13                     | 12 | 7,600                       | 7,600  | 7,350  | 7,250  | 7,250  |
|                | 17                     | 15 | 7,850                       | 7,750  | 7,600  | 7,500  | 7,350  |
|                | 19                     | 18 | 8,100                       | 7,950  | 7,850  | 7,750  | 7,450  |
|                | 23                     | 21 | 8,600                       | 8,450  | 8,200  | 8,100  | 7,750  |
|                | 26                     | 24 | 8,950                       | 8,750  | 8,600  | 8,450  | 8,100  |
|                | 30                     | 28 | 9,150                       | 9,000  | 8,750  | 8,600  | 8,200  |
|                | 35                     | 32 | 9,400                       | 9,250  | 8,950  | 8,750  | 8,250  |
|                | 39                     | 36 | 9,750                       | 9,750  | 9,400  | 9,250  | 8,750  |
| 012            | 44                     | 40 | 10,250                      | 10,100 | 9,650  | 9,400  | 8,750  |
|                | 47                     | 43 | 10,750                      | 10,600 | 10,000 | 9,600  | 8,750  |
|                | 51                     | 47 | 11,050                      | 10,750 | 10,000 | 9,600  | 8,750  |
|                | 54                     | 50 | 11,400                      | 10,900 | 10,000 | 9,600  | 8,750  |
|                | 57                     | 53 | 11,750                      | 11,050 | 10,000 | 9,600  | 8,750  |
|                | 60                     | 56 | 12,050                      | 11,250 | 10,000 | 9,600  | 8,750  |
|                | -3.6                   | -4 | 8,400                       | 8,300  | 8,100  | 8,100  | 8,100  |
|                | -1.8                   | -2 | 8,800                       | 8,500  | 8,200  | 8,200  | 8,100  |
|                | 2                      | 1  | 9,100                       | 8,800  | 8,400  | 8,400  | 8,100  |
|                | 6                      | 5  | 9,500                       | 9,100  | 8,800  | 8,800  | 8,400  |
|                | 10                     | 9  | 9,800                       | 9,500  | 9,300  | 9,100  | 9,000  |
|                | 13                     | 12 | 10,200                      | 10,100 | 10,000 | 9,800  | 9,600  |
|                | 17                     | 15 | 10,500                      | 10,400 | 10,300 | 10,200 | 10,000 |
|                | 19                     | 18 | 10,900                      | 10,700 | 10,500 | 10,500 | 10,200 |
|                | 23                     | 21 | 11,600                      | 11,200 | 11,000 | 10,900 | 10,500 |
|                | 26                     | 24 | 11,900                      | 11,700 | 11,400 | 11,200 | 10,900 |
|                | 30                     | 28 | 12,300                      | 12,100 | 11,700 | 11,600 | 11,000 |
|                | 35                     | 32 | 12,600                      | 12,500 | 12,100 | 11,900 | 11,400 |
|                | 39                     | 36 | 13,300                      | 13,000 | 12,600 | 12,300 | 11,900 |
|                | 44                     | 40 | 13,800                      | 13,600 | 13,000 | 12,600 | 11,900 |
|                | 47                     | 43 | 14,400                      | 14,100 | 13,500 | 13,000 | 11,900 |
|                | 51                     | 47 | 14,800                      | 14,400 | 13,500 | 13,000 | 11,900 |
|                | 54                     | 50 | 15,400                      | 14,700 | 13,500 | 13,000 | 11,900 |
|                | 57                     | 53 | 15,800                      | 14,900 | 13,500 | 13,000 | 11,900 |
|                | 60                     | 56 | 16,100                      | 15,000 | 13,500 | 13,000 | 11,900 |

### 3. Capacity Table

#### Wind-Free 4Way Cassette

| Capacity Index | Outdoor Air Temp. (°F) |    | Indoor temperature (°F, WB) |        |        |        |        |
|----------------|------------------------|----|-----------------------------|--------|--------|--------|--------|
|                |                        |    | 61                          | 65     | 70     | 72     | 75     |
|                | DB                     | WB | TC                          | TC     | TC     | TC     | TC     |
| 018            | -3.6                   | -4 | 12,900                      | 12,600 | 12,400 | 12,200 | 12,200 |
|                | -1.8                   | -2 | 13,100                      | 12,900 | 12,600 | 12,400 | 12,400 |
|                | 2                      | 1  | 13,200                      | 13,200 | 12,700 | 12,600 | 12,600 |
|                | 6                      | 5  | 13,900                      | 13,600 | 13,100 | 12,900 | 12,600 |
|                | 10                     | 9  | 14,500                      | 14,200 | 13,900 | 13,900 | 13,600 |
|                | 13                     | 12 | 15,200                      | 15,200 | 14,700 | 14,500 | 14,500 |
|                | 17                     | 15 | 15,700                      | 15,500 | 15,200 | 15,000 | 14,700 |
|                | 19                     | 18 | 16,200                      | 15,900 | 15,700 | 15,500 | 14,900 |
|                | 23                     | 21 | 17,200                      | 16,900 | 16,400 | 16,200 | 15,500 |
|                | 26                     | 24 | 17,900                      | 17,500 | 17,200 | 16,900 | 16,200 |
|                | 30                     | 28 | 18,300                      | 18,000 | 17,500 | 17,200 | 16,400 |
|                | 35                     | 32 | 18,800                      | 18,500 | 17,900 | 17,500 | 16,500 |
|                | 39                     | 36 | 19,500                      | 19,500 | 18,800 | 18,500 | 17,500 |
|                | 44                     | 40 | 20,500                      | 20,200 | 19,300 | 18,800 | 17,500 |
|                | 47                     | 43 | 21,500                      | 21,200 | 20,000 | 19,200 | 17,500 |
|                | 51                     | 47 | 22,100                      | 21,500 | 20,000 | 19,200 | 17,500 |
| 024            | -3.6                   | -4 | 17,200                      | 17,200 | 16,700 | 16,500 | 16,500 |
|                | -1.8                   | -2 | 17,500                      | 17,400 | 16,800 | 16,700 | 16,700 |
|                | 2                      | 1  | 17,900                      | 17,500 | 17,000 | 16,800 | 16,800 |
|                | 6                      | 5  | 18,600                      | 18,200 | 17,500 | 17,200 | 16,800 |
|                | 10                     | 9  | 19,600                      | 19,300 | 18,800 | 18,600 | 18,200 |
|                | 13                     | 12 | 20,700                      | 20,300 | 19,800 | 19,600 | 19,600 |
|                | 17                     | 15 | 21,200                      | 20,900 | 20,300 | 20,200 | 20,000 |
|                | 19                     | 18 | 21,700                      | 21,400 | 20,900 | 20,700 | 20,300 |
|                | 23                     | 21 | 22,800                      | 22,800 | 22,100 | 21,700 | 21,000 |
|                | 26                     | 24 | 24,200                      | 23,800 | 23,000 | 22,400 | 21,700 |
|                | 30                     | 28 | 24,700                      | 24,400 | 23,500 | 23,000 | 22,100 |
|                | 35                     | 32 | 25,200                      | 24,900 | 24,000 | 23,500 | 22,400 |
|                | 39                     | 36 | 26,600                      | 26,300 | 25,200 | 24,900 | 23,800 |
|                | 44                     | 40 | 27,700                      | 27,400 | 26,100 | 25,200 | 23,800 |
|                | 47                     | 43 | 28,800                      | 28,400 | 27,000 | 25,900 | 23,800 |
|                | 51                     | 47 | 29,800                      | 28,800 | 27,000 | 25,900 | 23,800 |
| 030            | -3.6                   | -4 | 21,300                      | 21,300 | 20,700 | 20,500 | 20,500 |
|                | -1.8                   | -2 | 21,800                      | 21,800 | 21,100 | 20,900 | 20,700 |
|                | 2                      | 1  | 22,300                      | 22,300 | 21,400 | 21,300 | 20,900 |
|                | 6                      | 5  | 23,700                      | 23,000 | 22,000 | 21,600 | 21,300 |
|                | 10                     | 9  | 24,800                      | 24,400 | 23,600 | 23,400 | 23,000 |
|                | 13                     | 12 | 25,900                      | 25,500 | 25,000 | 24,800 | 24,800 |
|                | 17                     | 15 | 26,700                      | 26,400 | 25,800 | 25,500 | 25,100 |
|                | 19                     | 18 | 27,600                      | 27,300 | 26,600 | 26,200 | 25,500 |
|                | 23                     | 21 | 29,000                      | 28,700 | 27,800 | 27,300 | 26,600 |
|                | 26                     | 24 | 30,500                      | 30,100 | 29,200 | 28,700 | 27,300 |
|                | 30                     | 28 | 31,200                      | 30,800 | 29,800 | 29,200 | 27,800 |
|                | 35                     | 32 | 31,900                      | 31,500 | 30,500 | 29,800 | 28,300 |
|                | 39                     | 36 | 33,300                      | 32,900 | 31,900 | 31,200 | 29,800 |
|                | 44                     | 40 | 35,100                      | 34,400 | 32,900 | 31,900 | 29,800 |
|                | 47                     | 43 | 36,500                      | 35,800 | 34,000 | 32,600 | 29,800 |
|                | 51                     | 47 | 37,500                      | 36,500 | 34,000 | 32,600 | 29,800 |
|                | 54                     | 50 | 38,600                      | 37,200 | 34,000 | 32,600 | 29,800 |
|                | 57                     | 53 | 39,700                      | 37,500 | 34,000 | 32,600 | 29,800 |
|                | 60                     | 56 | 41,100                      | 38,300 | 34,000 | 32,600 | 29,800 |

### 3. Capacity Table

#### Wind-Free 4Way Cassette

| Capacity Index | Outdoor Air Temp. (°F) |    | Indoor temperature (°F, WB) |        |        |        |        |
|----------------|------------------------|----|-----------------------------|--------|--------|--------|--------|
|                |                        |    | 61                          | 65     | 70     | 72     | 75     |
|                | DB                     | WB | TC                          | TC     | TC     | TC     | TC     |
| 036            | -3.6                   | -4 | 24,700                      | 24,700 | 24,300 | 24,300 | 24,300 |
|                | -1.8                   | -2 | 25,700                      | 25,300 | 24,800 | 24,700 | 24,500 |
|                | 2                      | 1  | 26,700                      | 26,000 | 25,200 | 25,000 | 24,700 |
|                | 6                      | 5  | 28,000                      | 27,000 | 26,000 | 25,700 | 25,000 |
|                | 10                     | 9  | 29,300                      | 28,700 | 27,700 | 27,300 | 27,000 |
|                | 13                     | 12 | 30,700                      | 30,000 | 29,500 | 29,300 | 29,000 |
|                | 17                     | 15 | 31,500                      | 31,000 | 30,300 | 30,000 | 29,500 |
|                | 19                     | 18 | 32,300                      | 32,000 | 31,000 | 30,700 | 30,000 |
|                | 23                     | 21 | 34,000                      | 33,700 | 32,500 | 32,000 | 31,000 |
|                | 26                     | 24 | 35,700                      | 35,300 | 34,300 | 33,700 | 32,300 |
|                | 30                     | 28 | 36,700                      | 36,200 | 35,200 | 34,300 | 32,800 |
|                | 35                     | 32 | 37,700                      | 37,000 | 36,000 | 35,000 | 33,300 |
|                | 39                     | 36 | 39,300                      | 38,700 | 37,500 | 36,700 | 35,300 |
|                | 44                     | 40 | 41,000                      | 40,700 | 38,800 | 37,700 | 35,300 |
|                | 47                     | 43 | 43,000                      | 42,300 | 40,000 | 38,300 | 35,300 |
|                | 51                     | 47 | 44,300                      | 43,000 | 40,000 | 38,300 | 35,300 |
| 048            | 54                     | 50 | 45,700                      | 43,700 | 40,000 | 38,300 | 35,300 |
|                | 57                     | 53 | 46,700                      | 44,300 | 40,000 | 38,300 | 35,300 |
|                | 60                     | 56 | 48,000                      | 45,000 | 40,000 | 38,300 | 35,300 |
|                | -3.6                   | -4 | 33,300                      | 33,300 | 33,000 | 33,000 | 32,600 |
|                | -1.8                   | -2 | 34,400                      | 34,000 | 33,300 | 33,300 | 32,800 |
|                | 2                      | 1  | 35,400                      | 34,700 | 33,700 | 33,700 | 33,000 |
|                | 6                      | 5  | 37,500                      | 36,500 | 34,900 | 34,400 | 33,300 |
|                | 10                     | 9  | 39,300                      | 38,600 | 37,500 | 37,200 | 36,100 |
|                | 13                     | 12 | 41,000                      | 40,700 | 39,800 | 39,600 | 38,900 |
|                | 17                     | 15 | 42,300                      | 41,700 | 40,900 | 40,500 | 39,600 |
|                | 19                     | 18 | 43,500                      | 42,800 | 41,900 | 41,400 | 40,300 |
|                | 23                     | 21 | 45,900                      | 45,200 | 43,800 | 43,100 | 42,100 |
|                | 26                     | 24 | 48,400                      | 47,700 | 46,100 | 45,200 | 43,500 |
|                | 30                     | 28 | 49,400                      | 48,700 | 47,100 | 46,100 | 44,200 |
|                | 35                     | 32 | 50,500                      | 49,800 | 48,000 | 47,000 | 44,900 |
|                | 39                     | 36 | 52,900                      | 52,200 | 50,500 | 49,400 | 47,300 |
|                | 44                     | 40 | 55,400                      | 54,700 | 52,100 | 50,500 | 47,300 |
|                | 47                     | 43 | 57,900                      | 56,800 | 54,000 | 51,900 | 47,300 |
|                | 51                     | 47 | 59,600                      | 57,900 | 54,000 | 51,900 | 47,300 |
|                | 54                     | 50 | 61,400                      | 58,600 | 54,000 | 51,900 | 47,300 |
|                | 57                     | 53 | 63,100                      | 59,600 | 54,000 | 51,900 | 47,300 |
|                | 60                     | 56 | 64,900                      | 60,300 | 54,000 | 51,900 | 47,300 |

#### NOTE

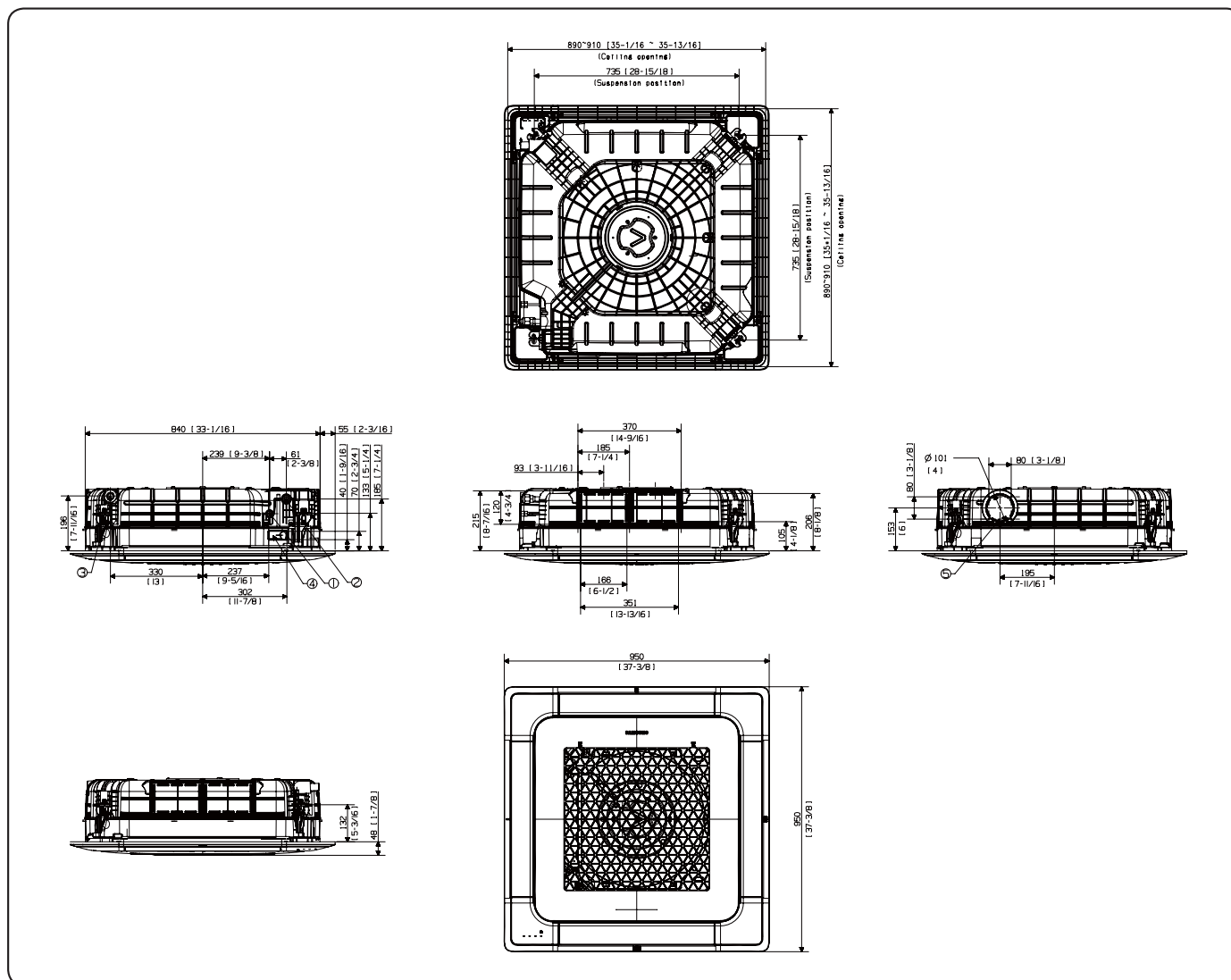
- The performance table shows the average value of each conditions.

## 4. Dimensional Drawing

### Wind-Free 4Way Cassette

AM006/009/012RN4DCH/AA

Units : mm [inches]



| No. | Name                                        | Description           |
|-----|---------------------------------------------|-----------------------|
| 1   | Liquid pipe connection                      | Φ6.35(1/4)            |
| 2   | Gas pipe connection                         | Φ12.7(1/2)            |
| 3   | Drain pipe connection                       | VP-25(OD32, ID25)     |
| 4   | Power supply & Communication wiring conduit | -                     |
| 5   | Fresh air intake knockout hole              | Φ10[4] , Use M4 Screw |

#### NOTE

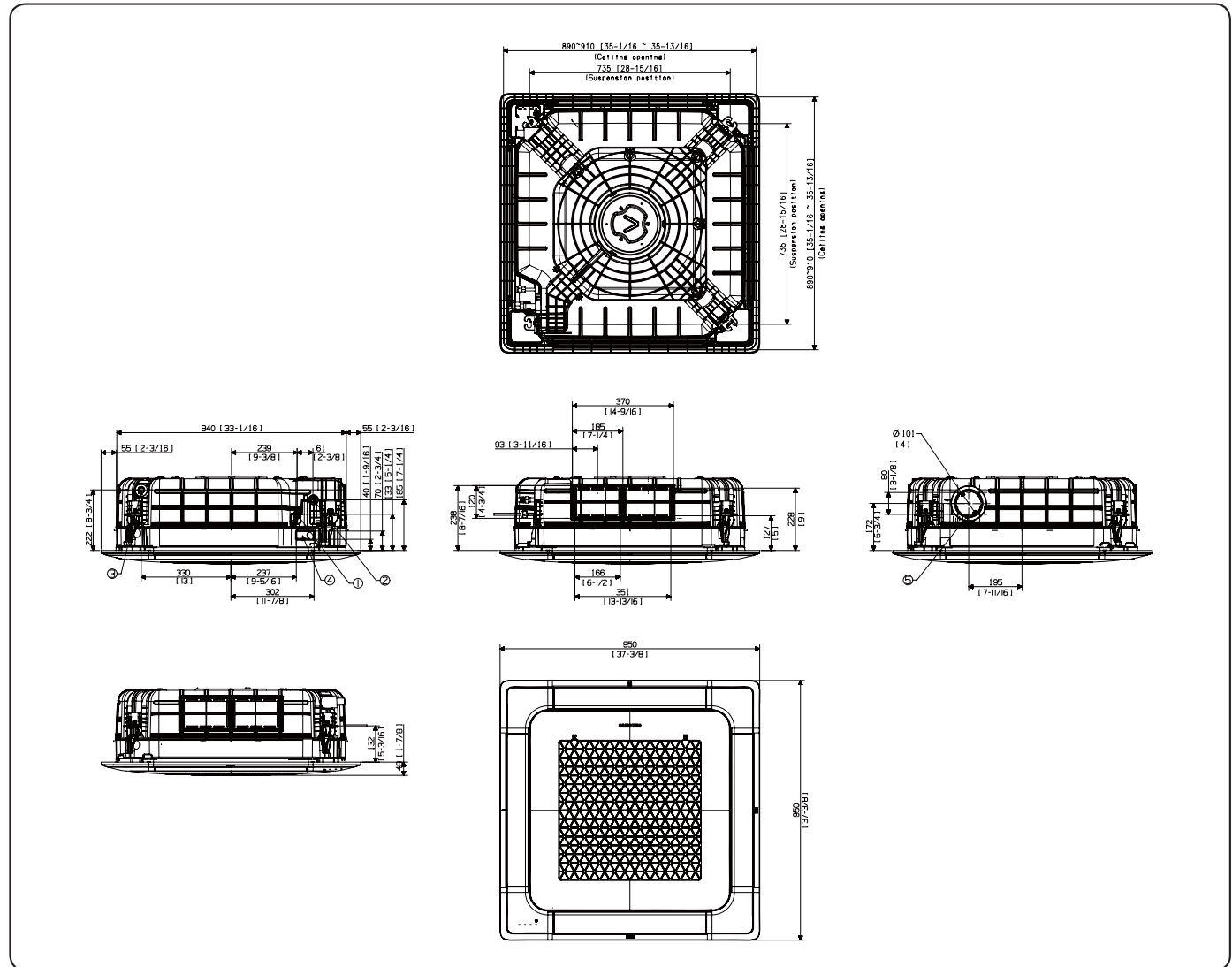
- As for suspension bolt, please use M8 ~ M10.  
(Procured at local site)

# 4. Dimensional Drawing

## Wind-Free 4Way Cassette

AM018/024RN4DCH/AA

Units : mm [inches]



| No. | Name                                        | Description           |                |
|-----|---------------------------------------------|-----------------------|----------------|
|     |                                             | AM018RN4DCH/AA        | AM024RN4DCH/AA |
| 1   | Liquid pipe connection                      | Φ6.35(1/4)            | Φ9.52(3/8)     |
| 2   | Gas pipe connection                         | Φ12.7(1/2)            | Φ15.88(5/8)    |
| 3   | Drain pipe connection                       | VP-25(OD32, ID25)     |                |
| 4   | Power supply & Communication wiring conduit | -                     |                |
| 5   | Fresh air intake knockout hole              | Φ10[4] , Use M4 Screw |                |

### NOTE

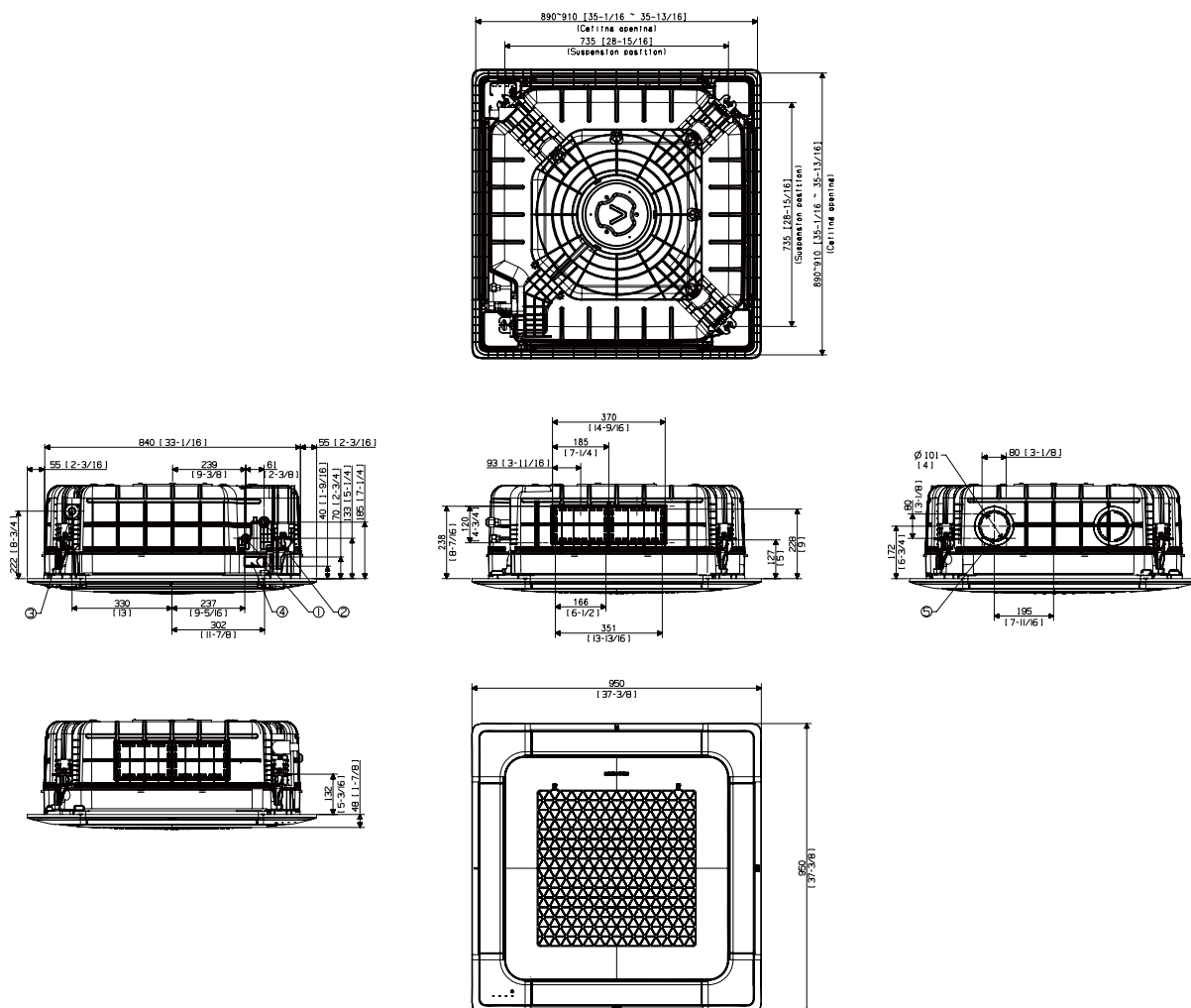
- As for suspension bolt, please use M8 ~ M10.  
(Procured at local site)

## 4. Dimensional Drawing

### Wind-Free 4Way Cassette

AM030/036/048RN4DCH/AA

Units : mm [inches]



| No. | Name                                        | Description           |
|-----|---------------------------------------------|-----------------------|
| 1   | Liquid pipe connection                      | Φ9.52(3/8)            |
| 2   | Gas pipe connection                         | Φ15.88(5/8)           |
| 3   | Drain pipe connection                       | VP-25(OD32, ID25)     |
| 4   | Power supply & Communication wiring conduit | -                     |
| 5   | Fresh air intake knockout hole              | Φ10[4] , Use M4 Screw |

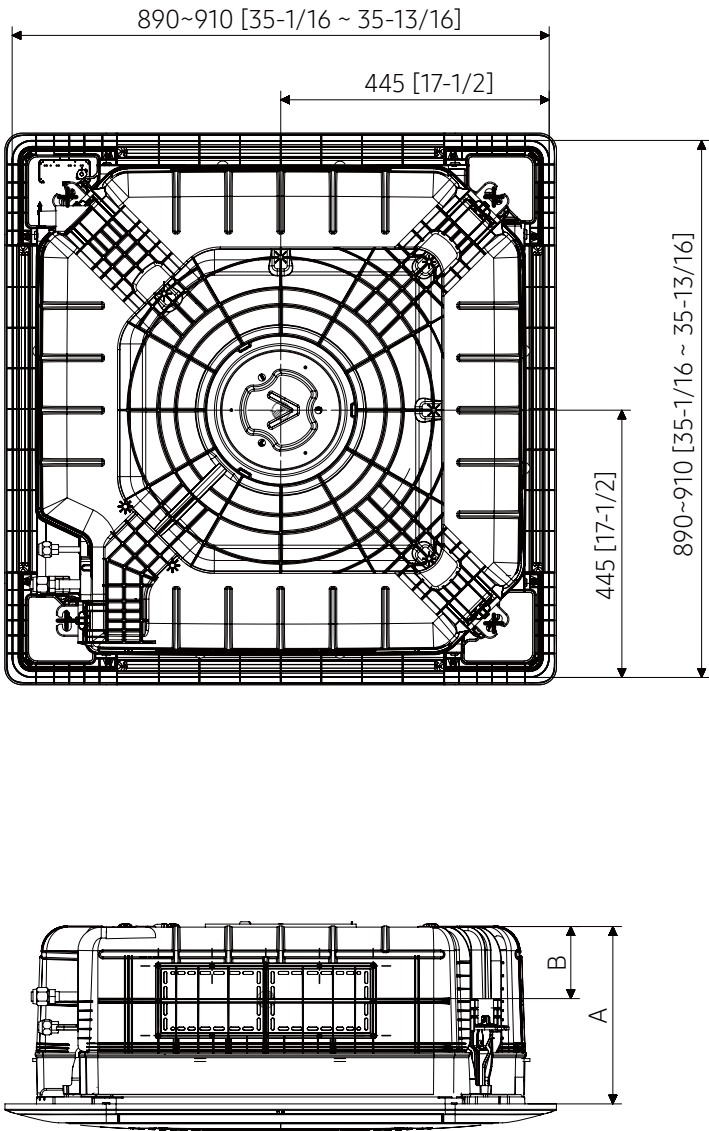
#### NOTE

- As for suspension bolt, please use M8 ~ M10.  
(Procured at local site)

# 5. Center of Gravity

## Wind-Free 4Way Cassette

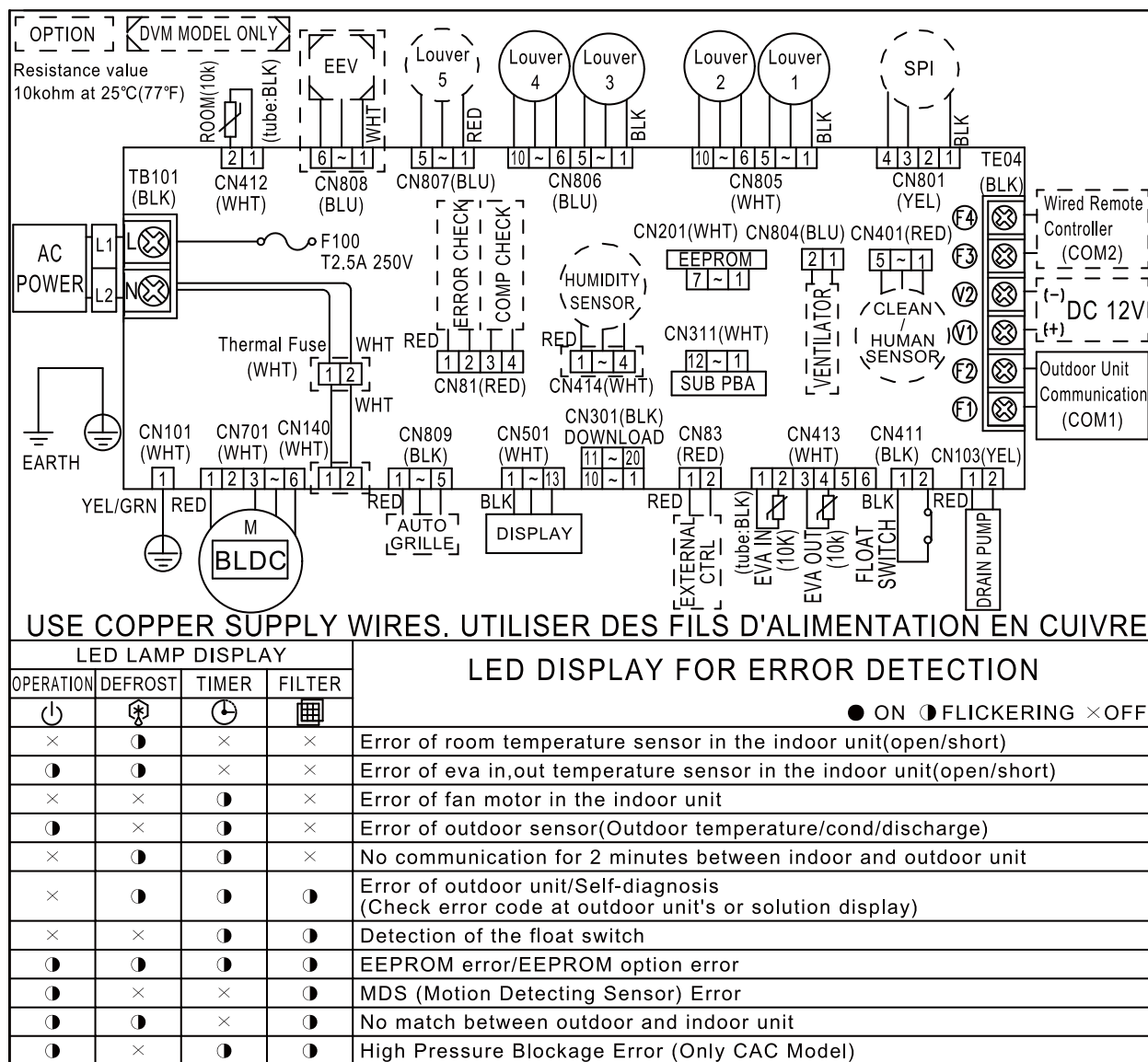
Units : mm [inches]



|                        | A             | B           |
|------------------------|---------------|-------------|
| AM006/009/012RN4DCH/AA | 221 [8-11/16] | 70 [2-3/4]  |
| AM018/024RN4DCH/AA     | 263 [10-7/20] | 100[4]      |
| AM030/036/048RN4DCH/AA | 305 [12]      | 130 [5-1/8] |

## 6. Electrical Wiring Diagram

### Wind-Free 4Way Cassette



|        |            |             |                            |              |                          |
|--------|------------|-------------|----------------------------|--------------|--------------------------|
| F100   | FUSE       | SPI         | S-Plasma ion               | ROOM(10K)    | Thermistor ROOM OUT(10K) |
| M-BLDC | BLDC Motor | EEV         | Electronic Expansion Valve | EVA-IN(10K)  | Thermistor EVA IN(10K)   |
|        |            | EXT_CONTROL | EXTERNAL_CONTROL           | EVA-OUT(10K) | Thermistor EVA OUT(10K)  |

#### NOTE

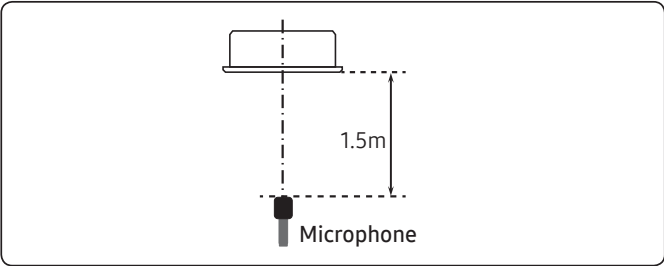
- This wiring diagram applies only to the Indoor unit.
- Symbols show as follow :  
blk: black, red: red, blu: blue, wht: white, yel: yellow, brn: brown, sky: skyblue: grn: green
- For connection wiring indoor-outdoor transmission F1-F2, indoor-wired remote controller transmission F3-F4.
- ⏏ Protective earth(screw), □□□□ : connector,  $\frac{N}{\text{wire}}$  : The wire quantity

# 7. Sound Data

## Wind-Free 4Way Cassette

### Sound Pressure level

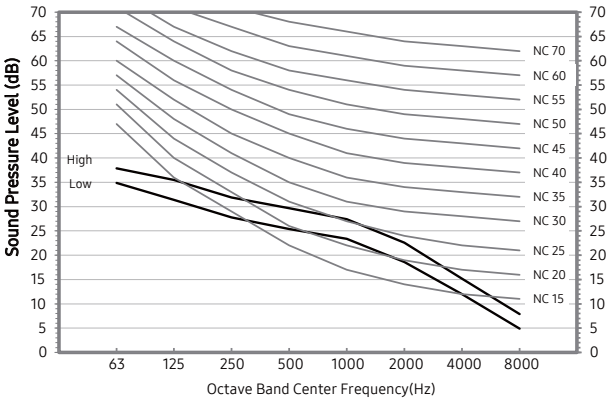
Unit: dB(A)



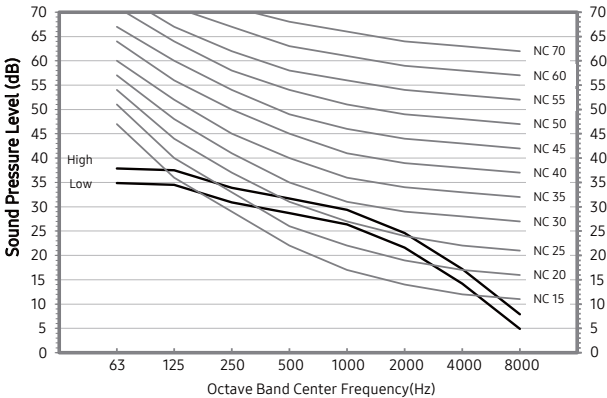
| Model          | High | MID | LOW |
|----------------|------|-----|-----|
| AM006RN4DCH/AA | 32   | 30  | 28  |
| AM009RN4DCH/AA | 32   | 30  | 28  |
| AM012RN4DCH/AA | 32   | 30  | 28  |
| AM018RN4DCH/AA | 36   | 35  | 33  |

- NC Curve

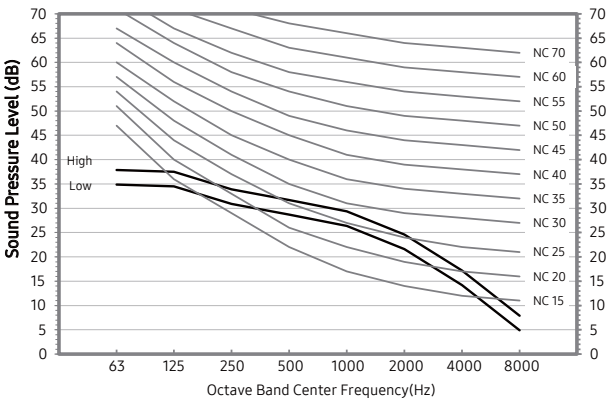
1) AM006RN4DCH/AA



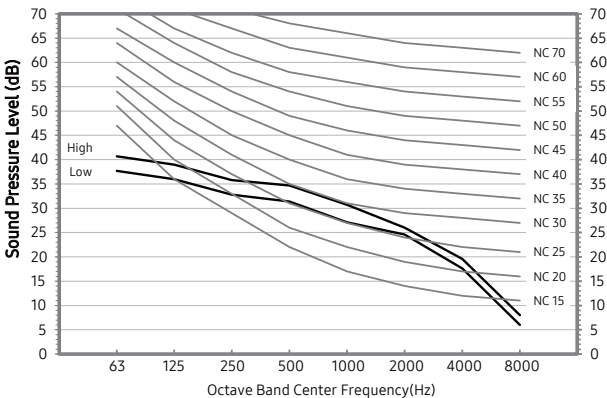
2) AM009RN4DCH/AA



3) AM012RN4DCH/AA



4) AM018RN4DCH/AA



### NOTE

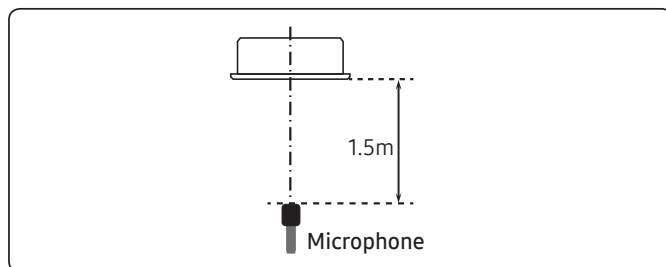
- Specifications may be subject to change without prior notice.
- Sound pressure level is obtained in an anechoic room.
- Sound pressure level is a relative value, depending on the distance and acoustic environment.
- Sound pressure level may differ depending on operation condition.
- dB(A) = A weighted sound pressure level
- Reference acoustic pressure 0 dB = 20μPa

## 7. Sound Data

### Wind-Free 4Way Cassette

#### Sound Pressure level

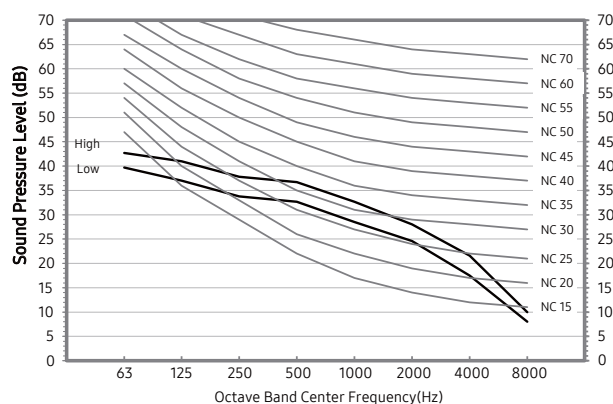
Unit: dB(A)



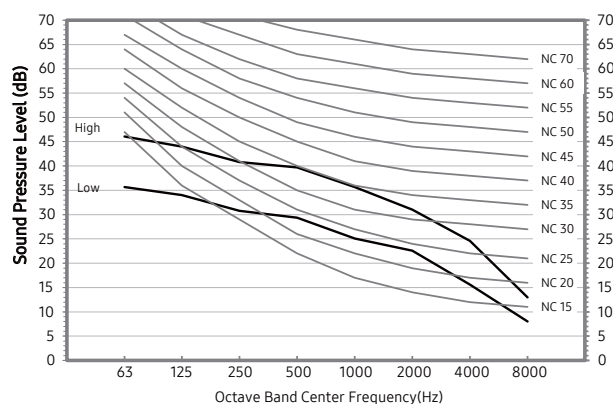
| Model          | High | MID | LOW |
|----------------|------|-----|-----|
| AM024RN4DCH/AA | 38   | 36  | 34  |
| AM030RN4DCH/AA | 41   | 37  | 31  |
| AM036RN4DCH/AA | 42   | 39  | 36  |
| AM048RN4DCH/AA | 45   | 42  | 39  |

#### • NC Curve

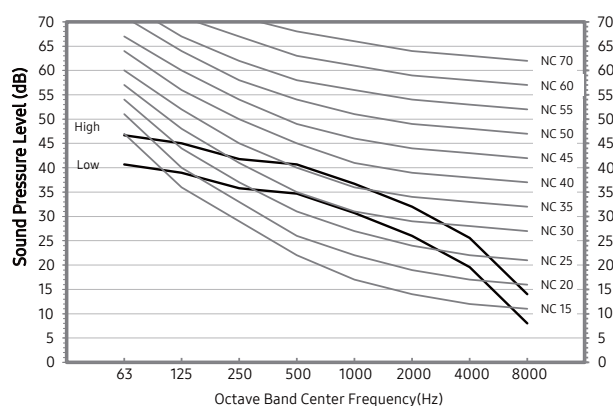
##### 5) AM024RN4DCH/AA



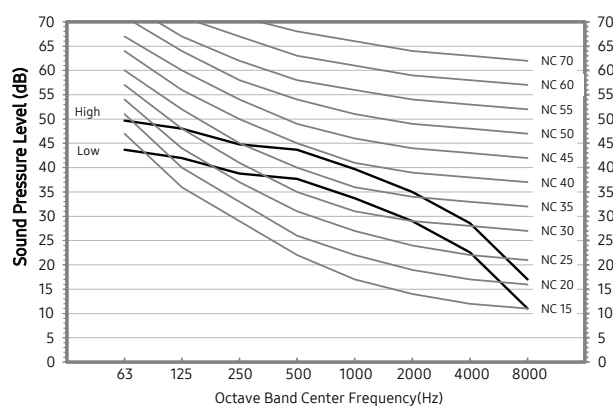
##### 6) AM030RN4DCH/AA



##### 7) AM036RN4DCH/AA



##### 8) AM048RN4DCH/AA



#### NOTE

- Specifications may be subject to change without prior notice.
  - Sound pressure level is obtained in an anechoic room.
  - Sound pressure level is a relative value, depending on the distance and acoustic environment.
  - Sound pressure level may differ depending on operation condition.
  - dBA = A weighted sound pressure level
  - Reference acoustic pressure 0 dB = 20μPa

# 7. Sound Data

## Wind-Free 4Way Cassette

### Sound Power level

**NOTE**

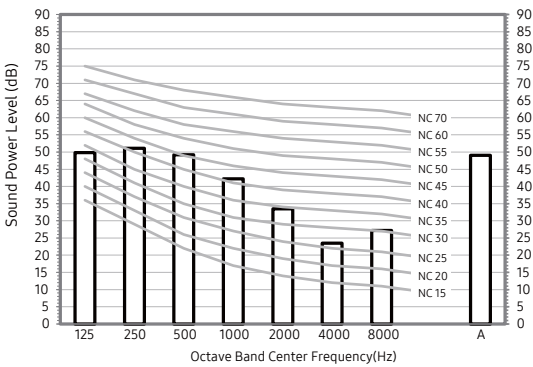
- Specifications may be subject to change without prior notice
  - Sound power level is an absolute value that a sound source generates.
  - dBA = A-weighted sound power level.
  - Reference power : 1pW.
  - Measured according to ISO 3741.

Unit: dB(A)

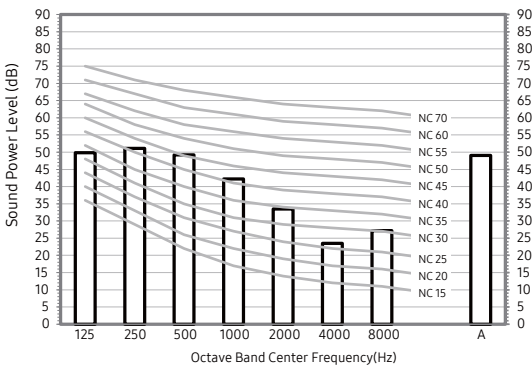
| Model          | Power |
|----------------|-------|
| AM006RN4DCH/AA | 49    |
| AM009RN4DCH/AA | 49    |
| AM012RN4DCH/AA | 49    |
| AM018RN4DCH/AA | 53    |

• NC Curve

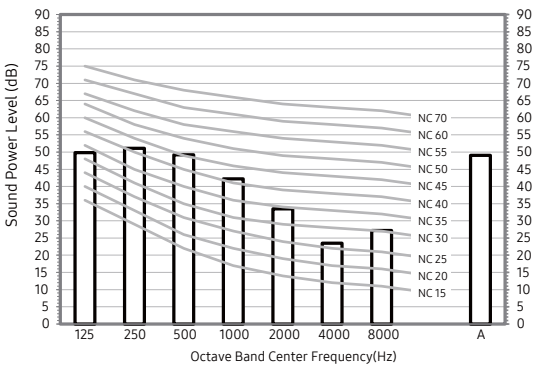
1) AM006RN4DCH/AA



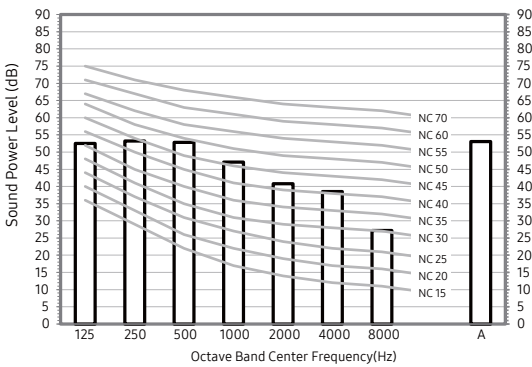
2) AM009RN4DCH/AA



3) AM012RN4DCH/AA



4) AM018RN4DCH/AA



# 7. Sound Data

## Wind-Free 4Way Cassette

### Sound Power level

#### NOTE

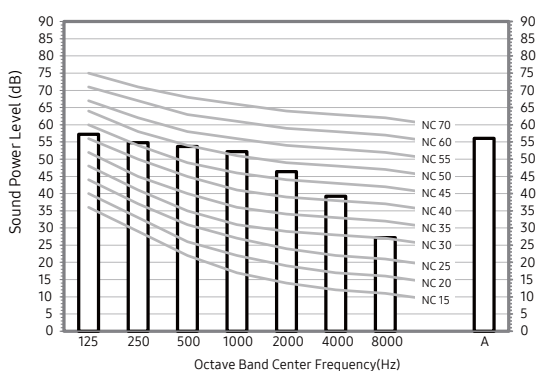
- Specifications may be subject to change without prior notice
  - Sound power level is an absolute value that a sound source generates.
  - dBA = A-weighted sound power level.
  - Reference power : 1pW.
  - Measured according to ISO 3741.

Unit: dB(A)

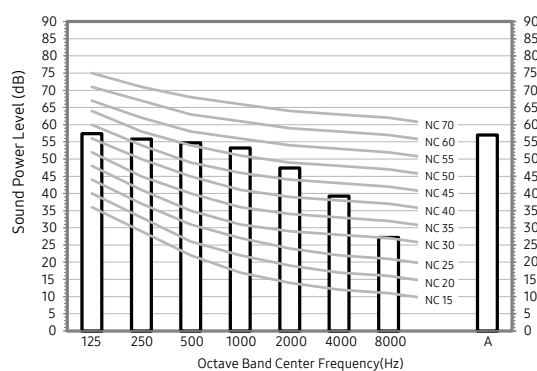
| Model          | Power |
|----------------|-------|
| AM024RN4DCH/AA | 56    |
| AM030RN4DCH/AA | 57    |
| AM036RN4DCH/AA | 58    |
| AM048RN4DCH/AA | 60    |

#### NC Curve

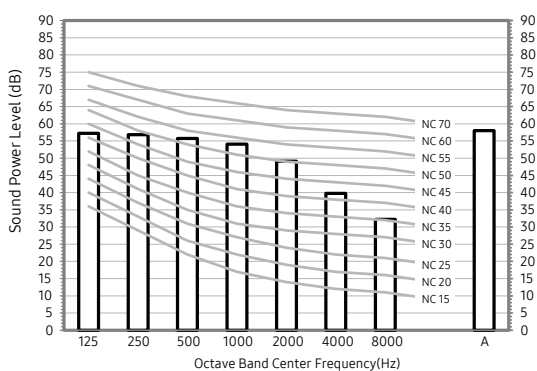
##### 5) AM024RN4DCH/AA



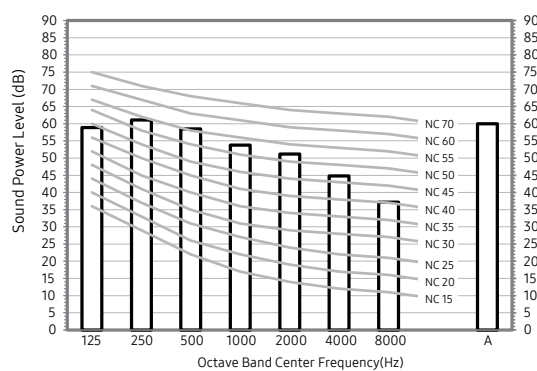
##### 6) AM030RN4DCH/AA



##### 7) AM036RN4DCH/AA



##### 8) AM048RN4DCH/AA

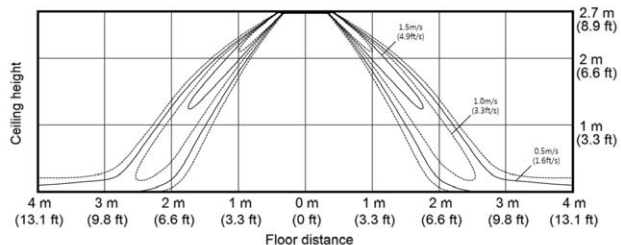


# 8. Temperature and air flow distribution

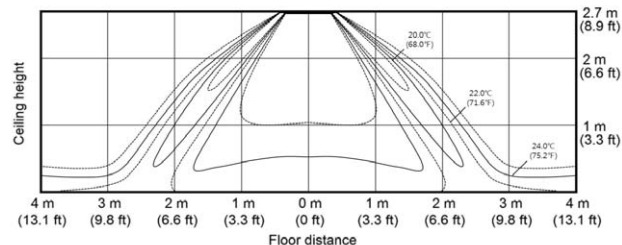
## Wind-Free 4Way Cassette

### AM006RN4DCH/AA

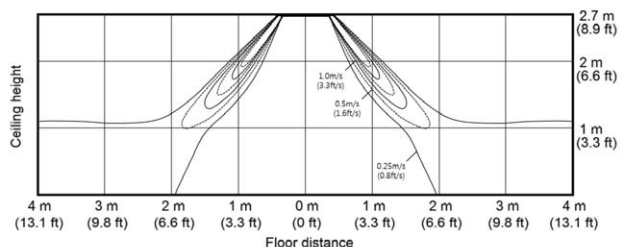
- Cooling Air Velocity distribution  
Discharge angle : 45°



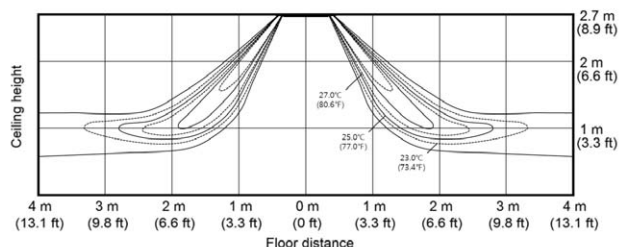
- Cooling Temperature distribution  
Discharge angle : 45°



- Heating Air Velocity distribution  
Discharge angle : 52°

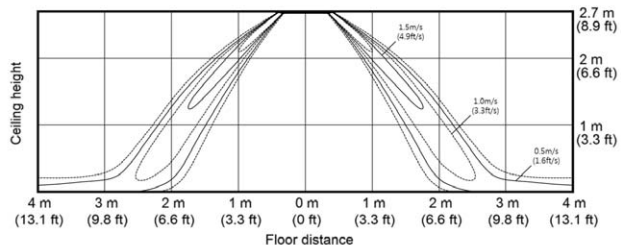


- Heating Temperature distribution  
Discharge angle : 52°

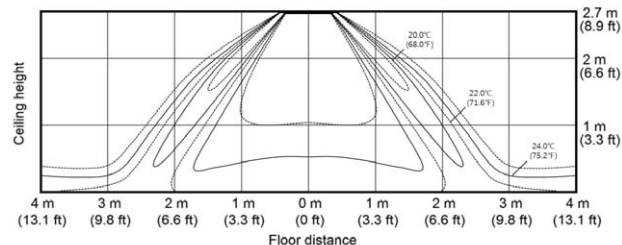


### AM009RN4DCH/AA

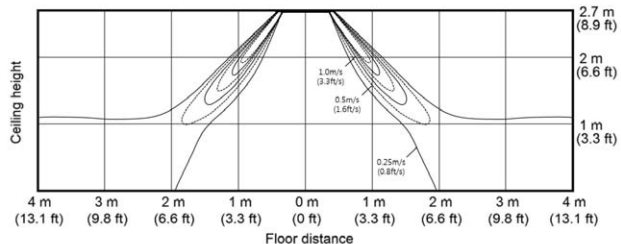
- Cooling Air Velocity distribution  
Discharge angle : 45°



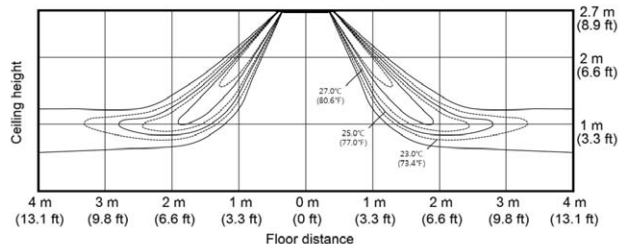
- Cooling Temperature distribution  
Discharge angle : 45°



- Heating Air Velocity distribution  
Discharge angle : 52°



- Heating Temperature distribution  
Discharge angle : 52°

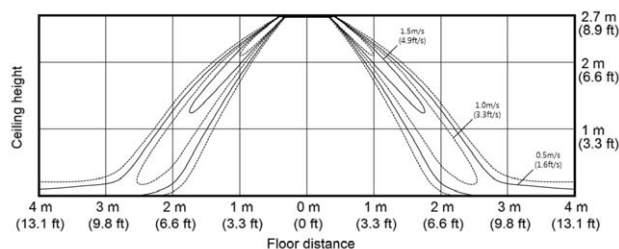


# 8. Temperature and air flow distribution

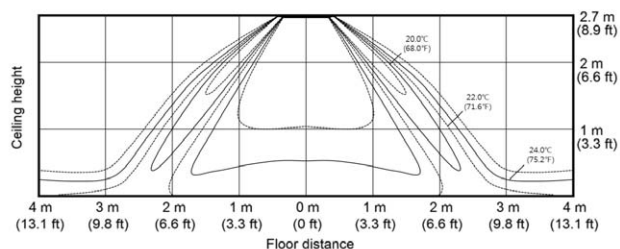
## Wind-Free 4Way Cassette

### AM012RN4DCH/AA

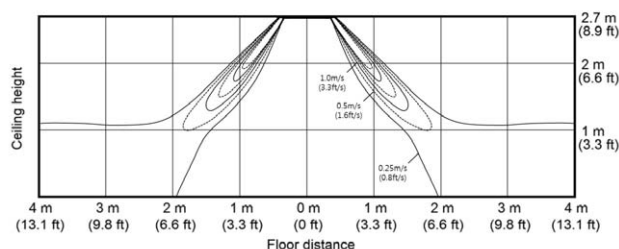
- Cooling Air Velocity distribution  
Discharge angle : 45°



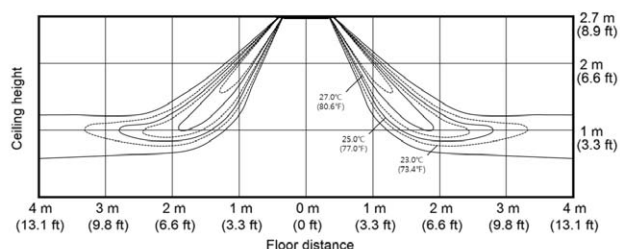
- Cooling Temperature distribution  
Discharge angle : 45°



- Heating Air Velocity distribution  
Discharge angle : 52°

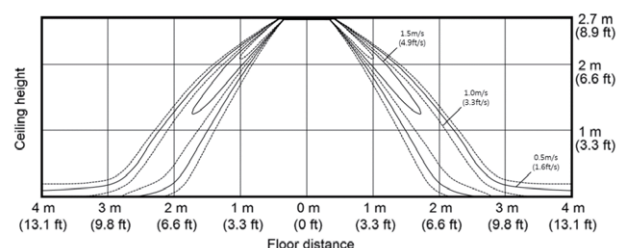


- Heating Temperature distribution  
Discharge angle : 52°

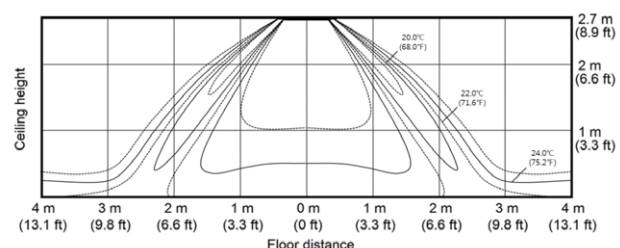


### AM018RN4DCH/AA

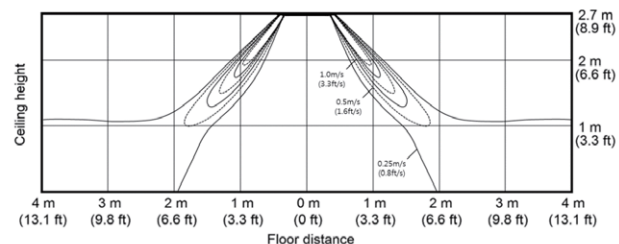
- Cooling Air Velocity distribution  
Discharge angle : 45°



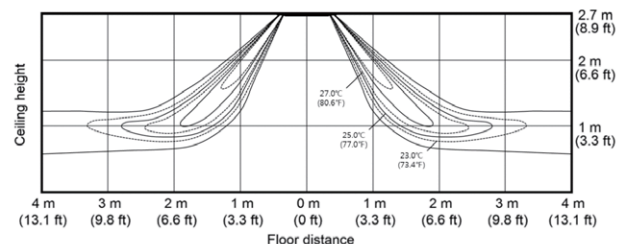
- Cooling Temperature distribution  
Discharge angle : 45°



- Heating Air Velocity distribution  
Discharge angle : 52°



- Heating Temperature distribution  
Discharge angle : 52°

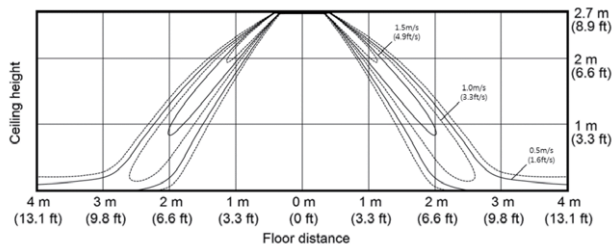


# 8. Temperature and air flow distribution

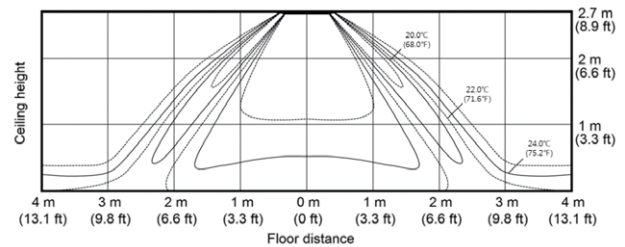
## Wind-Free 4Way Cassette

### AM024RN4DCH/AA

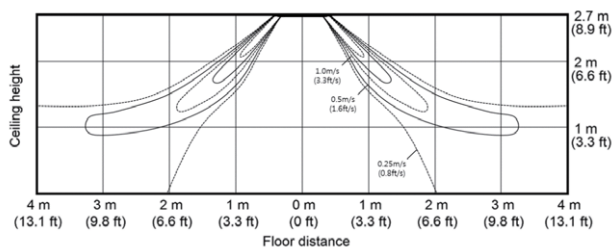
- Cooling Air Velocity distribution  
Discharge angle : 45°



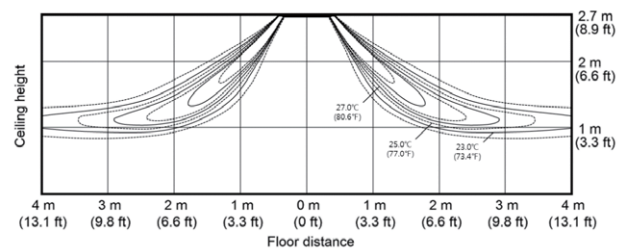
- Cooling Temperature distribution  
Discharge angle : 45°



- Heating Air Velocity distribution  
Discharge angle : 52°

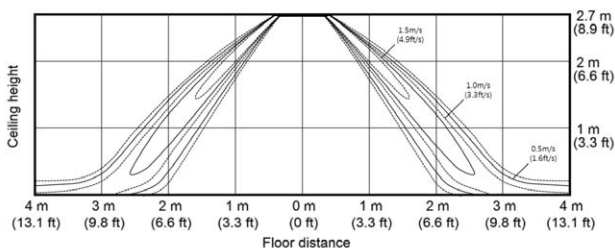


- Heating Temperature distribution  
Discharge angle : 52°

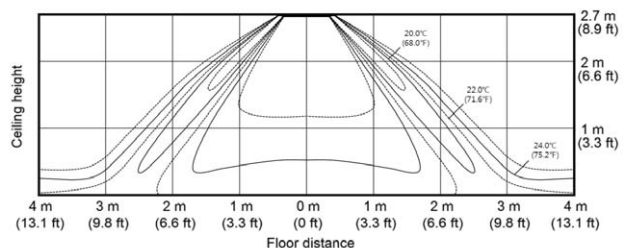


### AM030RN4DCH/AA

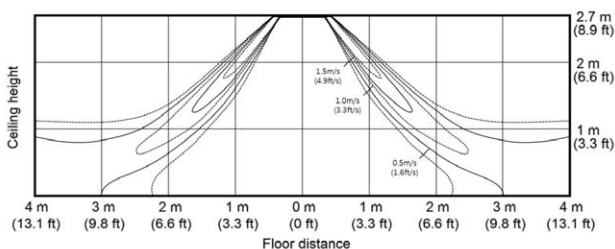
- Cooling Air Velocity distribution  
Discharge angle : 45°



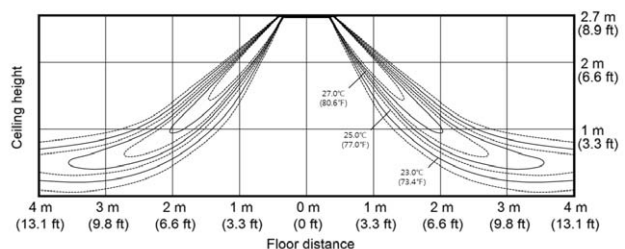
- Cooling Temperature distribution  
Discharge angle : 45°



- Heating Air Velocity distribution  
Discharge angle : 52°



- Heating Temperature distribution  
Discharge angle : 52°

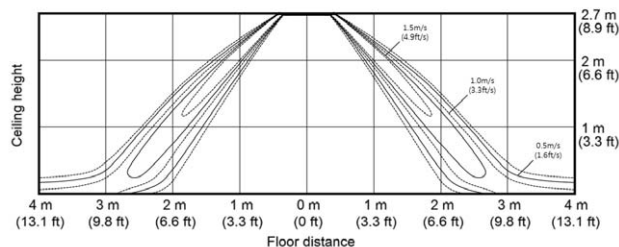


# 8. Temperature and air flow distribution

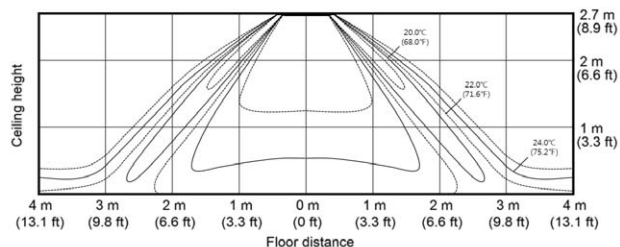
## Wind-Free 4Way Cassette

### AM036RN4DCH/AA

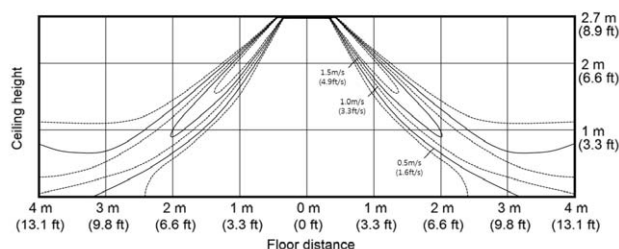
- Cooling Air Velocity distribution  
Discharge angle : 45°



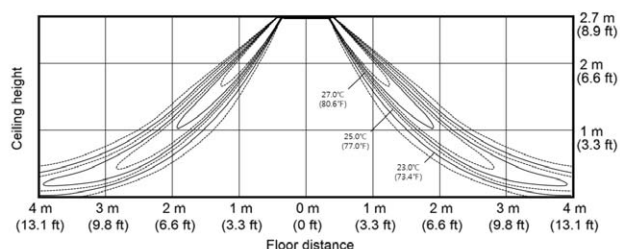
- Cooling Temperature distribution  
Discharge angle : 45°



- Heating Air Velocity distribution  
Discharge angle : 52°

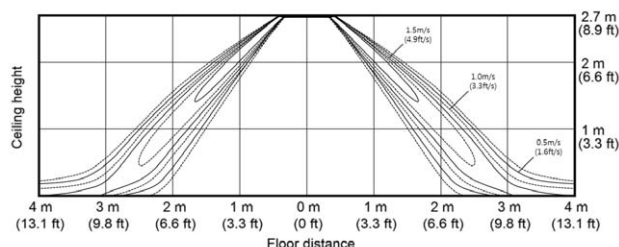


- Heating Temperature distribution  
Discharge angle : 52°

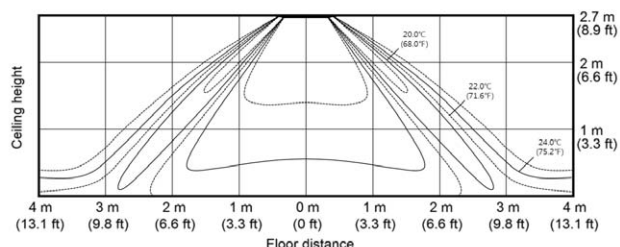


### AM048RN4DCH/AA

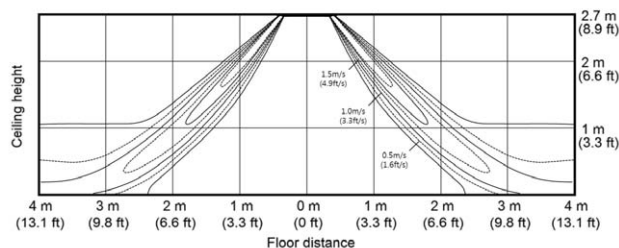
- Cooling Air Velocity distribution  
Discharge angle : 45°



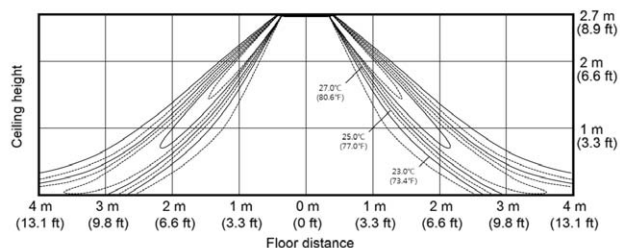
- Cooling Temperature distribution  
Discharge angle : 45°



- Heating Air Velocity distribution  
Discharge angle : 52°

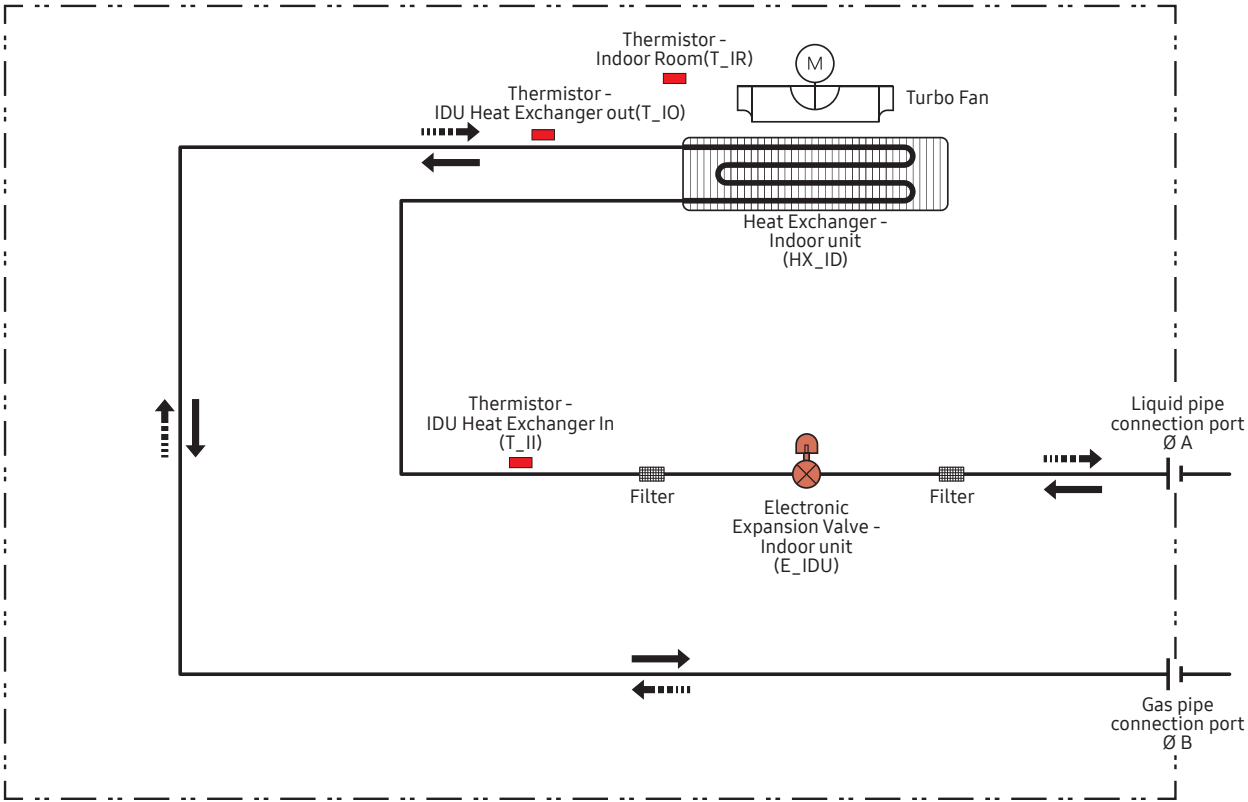


- Heating Temperature distribution  
Discharge angle : 52°



# 9. Piping Diagram

## Wind-Free 4Way Cassette



| Refrigerant flow |         |
|------------------|---------|
| Cooling          | Heating |
|                  |         |

Unit : inches

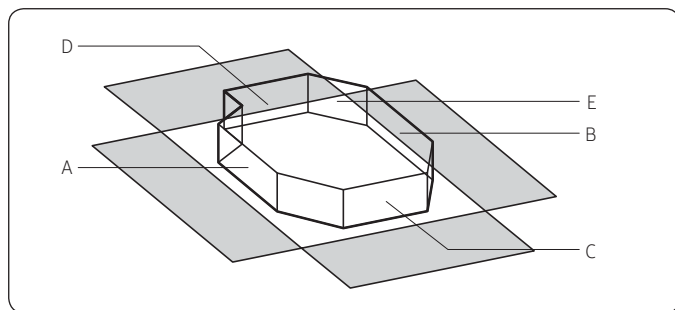
| Model          | A    | B    |
|----------------|------|------|
| AM006RN4DCH/AA | 1/4" | 1/2" |
| AM009RN4DCH/AA |      |      |
| AM012RN4DCH/AA |      |      |
| AM018RN4DCH/AA |      |      |
| AM024RN4DCH/AA | 3/8" | 5/8" |
| AM030RN4DCH/AA |      |      |
| AM036RN4DCH/AA |      |      |
| AM048RN4DCH/AA |      |      |

# 10. Installation

## Step 1 Optional: Insulating the body of the indoor unit

If you install a cassette type indoor unit on the ceiling when temperature is over 27°C and humidity is over 80%, you must apply an extra 10 mm thick polyethylene insulation or a similar type of insulation to the body of the indoor unit.

Cut away the part where pipes are pulled out for the insulating work.

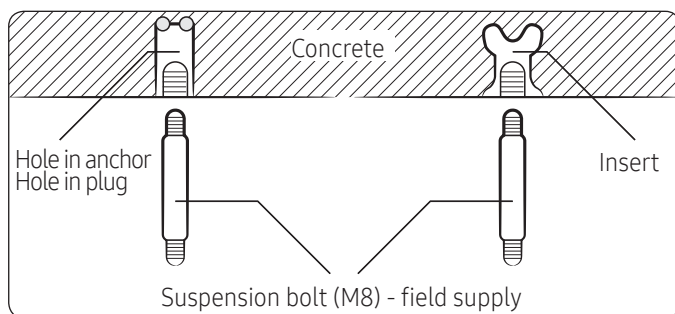


Insulate the end of the pipe and some curved area by using separate insulator.

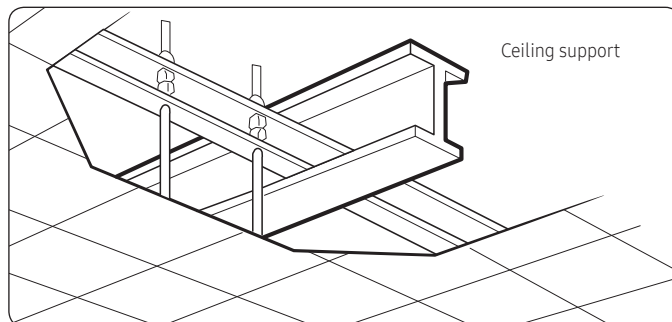
## Step 2 Installing the indoor unit

Since the diagram is made of paper, it may shrink or stretch slightly due to temperature or humidity. For this reason, before drilling the holes, be sure to maintain the correct dimensions between the markings.

- 1 Insert bolt anchors, use existing ceiling supports or construct a suitable support as shown in figure.



- 2 Install the suspension bolts, depending on the ceiling type.



### ⚠ CAUTION

- Make sure that the ceiling is strong enough to support the weight of the indoor unit. Before hanging the unit, test the strength of each attached suspension bolt.
  - If the length of the suspension bolt is more than 1.5 m, you are required to prevent vibration.
- 3 Screw eight pairs of nuts and washers to the suspension bolts, making space for hanging the indoor unit.

### ⚠ CAUTION

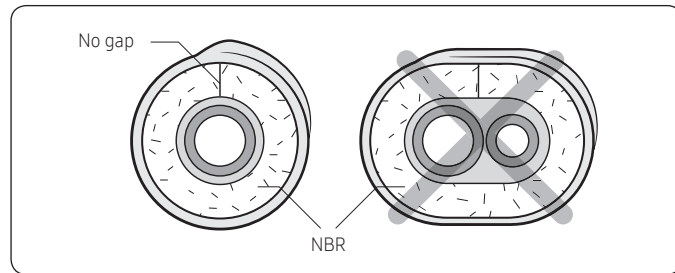
- You must install all of the suspension rods.
- It is important to leave sufficient space in the false ceiling to allow access for maintenance or repairs to the drainage pipe connection, the refrigerant pipe connection, or to remove the unit if necessary.

# 10. Installation

## Step 3 Insulating the refrigerant pipes

Once you have checked that there are no leaks in the system, you can insulate the piping and hose.

- 1 To avoid condensation problems, place Acrylonitrile Butadien Rubber separately around each refrigerant pipe.

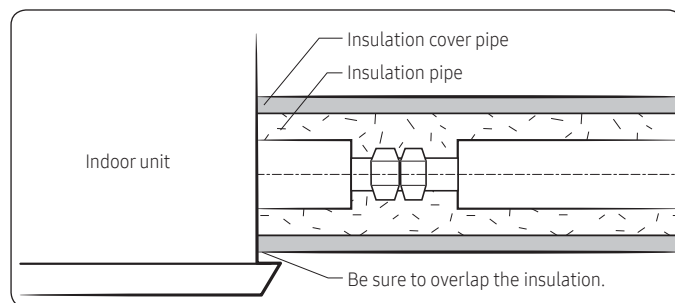


### NOTE

- Always make the seam of pipes face upwards.

### CAUTION

- The insulation has to be produced in full compliance with European regulation EEC / EU 2037 / 2000 requiring the use of sheaths insulation without using CFC and HCFC gases for health and the environment.
- 2 Wind insulating tape around the pipes and drain hose avoiding compressing the insulation too much.

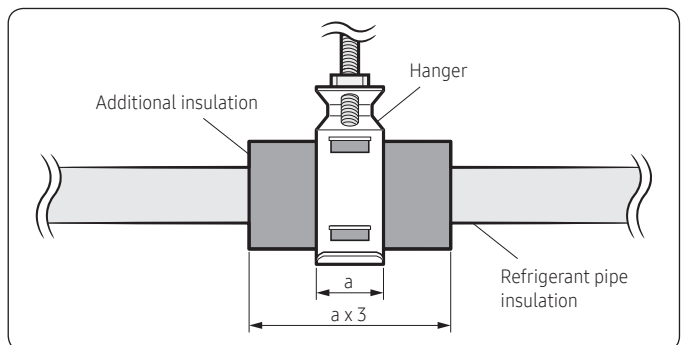


### CAUTION

- Be sure to wrap insulation tightly without any gaps.
- 3 Finish wrapping insulating tape around the rest of the pipes leading to the outdoor unit.
  - 4 The pipes and electrical cables connecting the indoor unit with the outdoor unit must be fixed to the wall with suitable ducts.

### CAUTION

- Must fit tightly against body without any gap.
- Make sure that all refrigerant connection must be accessible for easy maintenance and detachment.
- Install the insulation not to get wider and use the adhesives on the connection part of it to prevent moisture from entering.
- Wind the refrigerant pipe with insulation tape if it is exposed to outside sunlight.
- Install the refrigerant pipe respecting that the insulation does not get thinner on the bent part or hanger of pipe.
- Add the additional insulation if the insulation plate gets thinner.



- 5 Select the insulation of the refrigerant pipe.

- Insulate the gas side and liquid side pipe, noting the insulation thickness that must differ according to the pipe size.
- Standard: Less than an indoor temperature of 30°C, with humidity at 85%. If installing in a high humidity environment, use one grade thicker insulator by referring to the table below. If installing in an unfavourable environment, use thicker one.
- The heat-resistance temperature of the insulator must be more than 120°C.

# 10. Installation

| Pipe           | Pipe size<br>inch(mm)                     | Insulation Type (Heating/Cooling)   |                                               | Remarks                                                         |
|----------------|-------------------------------------------|-------------------------------------|-----------------------------------------------|-----------------------------------------------------------------|
|                |                                           | Standard<br>[86 °F (30 °C),<br>85%] | High humidity<br>[86 °F (30 °C),<br>over 85%] |                                                                 |
|                |                                           | EPDM, NBR                           |                                               |                                                                 |
| Liquid<br>pipe | Ø1/4<br>(6.35)<br>to Ø 3/8<br>(9.52)      | 9t                                  | ←                                             | Internal<br>temperature<br>is higher<br>than 248 °F<br>(120 °C) |
|                | Ø 1/2<br>(12.7) to Ø<br>2 (50.80)         | 13t                                 | ←                                             |                                                                 |
| Gas<br>pipe    | Ø1/4<br>(6.35)                            | 13t                                 | 19t                                           |                                                                 |
|                | Ø 3/8<br>(9.52)<br>to Ø1<br>(25.40)       | 19t                                 | 25t                                           |                                                                 |
|                | Ø1-1/8<br>(28.58) to<br>Ø1-3/4<br>(44.45) |                                     | 32t                                           |                                                                 |
|                | Ø 2<br>(50.80)                            | 25t                                 | 38t                                           |                                                                 |

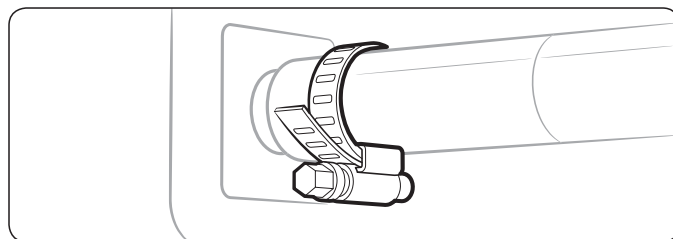
- When installing insulation in the places and conditions below, use the same insulation that is used for high humidity conditions.

| <Geological condition>                                                                                                                                                                      |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| High humidity locations such as shorelines, hot springs, lake or riversides, and ridges (when part of the building is covered by earth and sand)                                            |
| <Operation purpose condition>                                                                                                                                                               |
| Restaurant ceiling, sauna, swimming pool etc.                                                                                                                                               |
| <Building construction condition>                                                                                                                                                           |
| Ceilings frequently exposed to moisture and cooling are not covered. For example, pipes installed at a corridor of a dormitory and studio or near an exit that opens and closes frequently. |
| Places (where the pipes are installed) that are highly humid due to a lack of ventilation.                                                                                                  |

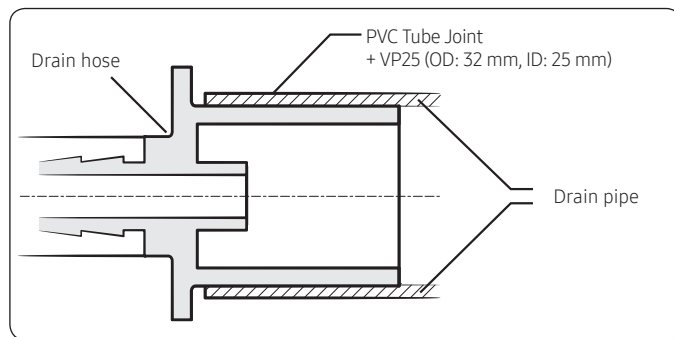
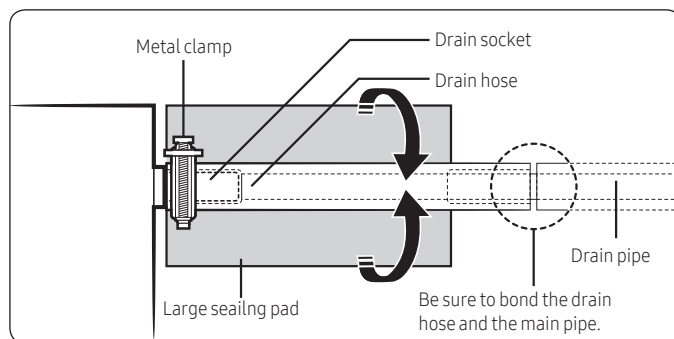
- Refrigerant pipe before EEV kit and MCU or without EEV kit and MCU
  - You can contact the gas side and liquid side pipes but the pipes should not be pressed.
  - When contacting the gas side and liquid side pipe, use 1 grade thicker insulator.
- Refrigerant pipe after EEV kit and MCU
  - Install the gas side and liquid side pipes, leave 10mm of space.
  - When contacting the gas side and liquid side pipe, use 1 grade thicker insulator.

## Step 4 Installing the drain hose and drain pipe

- Push the supplied drain hose as far as possible over the drain socket.
- Tighten the metal clamp as shown in the picture.



- Wrap the supplied large sealing pad over the metal clamp and drain hose to insulate and fix it with clamps.
- Insulate the complete drain piping inside the building (field supply). If the drain hose cannot be sufficiently set on a slope, fit the hose with drain raising piping (field supply).
- Push the drain hose up to insulation when connecting the drain hose to drain socket.

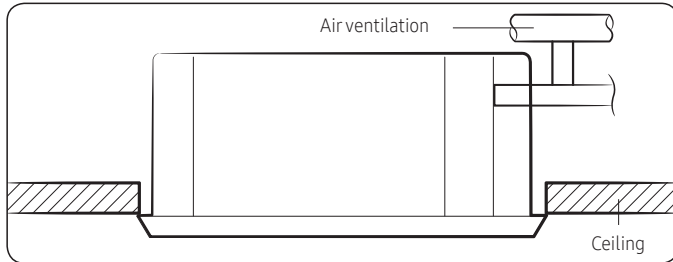


## ⚠ CAUTION

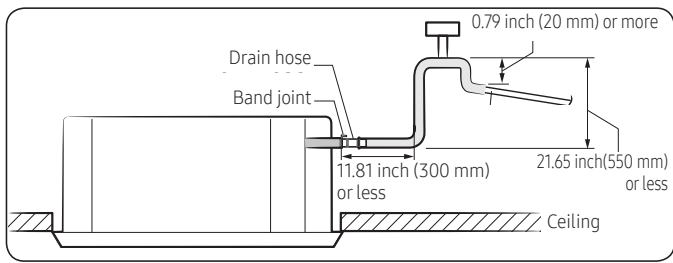
Check that the indoor unit is level with the ceiling by using the leveller.

# 10. Installation

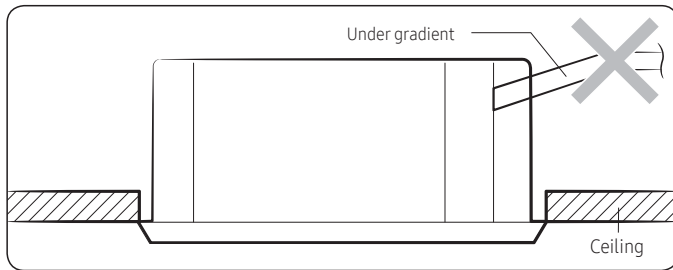
- Install air ventilation to drain condensation smoothly.



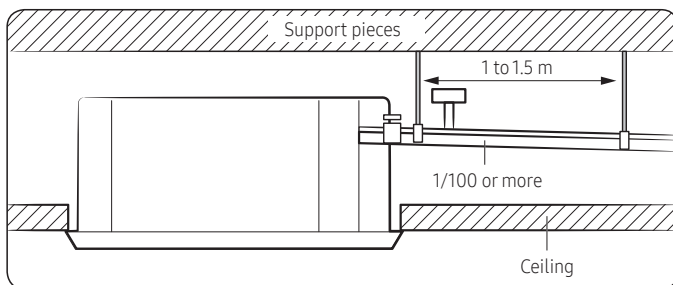
- If it is necessary to increase the height of the drain pipe, install the drain pipe straight within 11.81 inch (300 mm) from the drain hose port. If it is raised higher than 21.65 inch (550 mm), there may be water leaks.



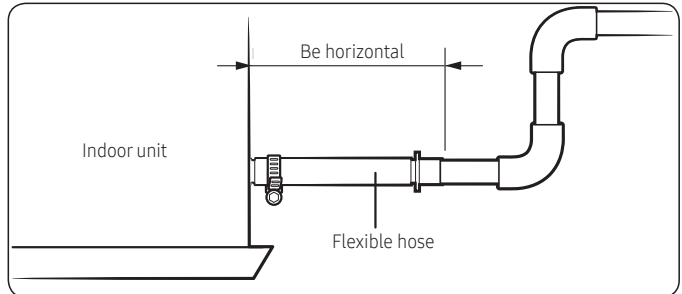
- Do not give the hose an upward gradient beyond the connection port. This will cause water to flow backwards when the unit is stopped, resulting in water leaks.



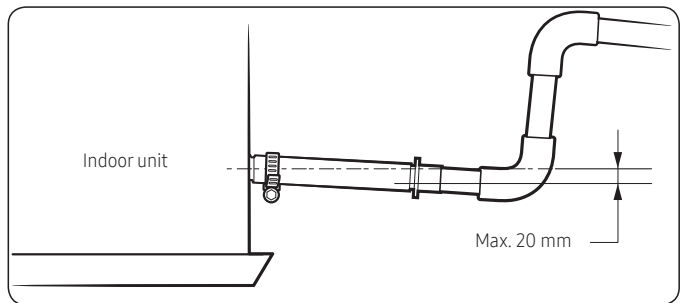
- Do not apply force to the piping on the unit side when connecting the drain hose. The hose should not be allowed to hang loose from its connection to the unit. Fasten the hose to a wall, frame or other support as close to the unit as possible.



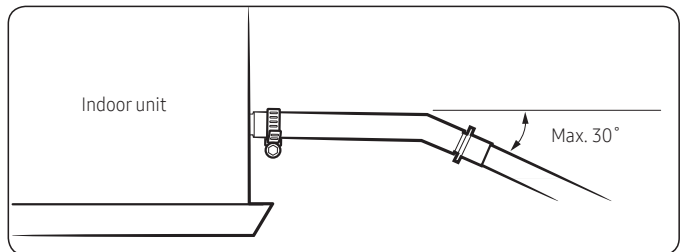
- Install horizontally.



- Max. allowable axis gap.



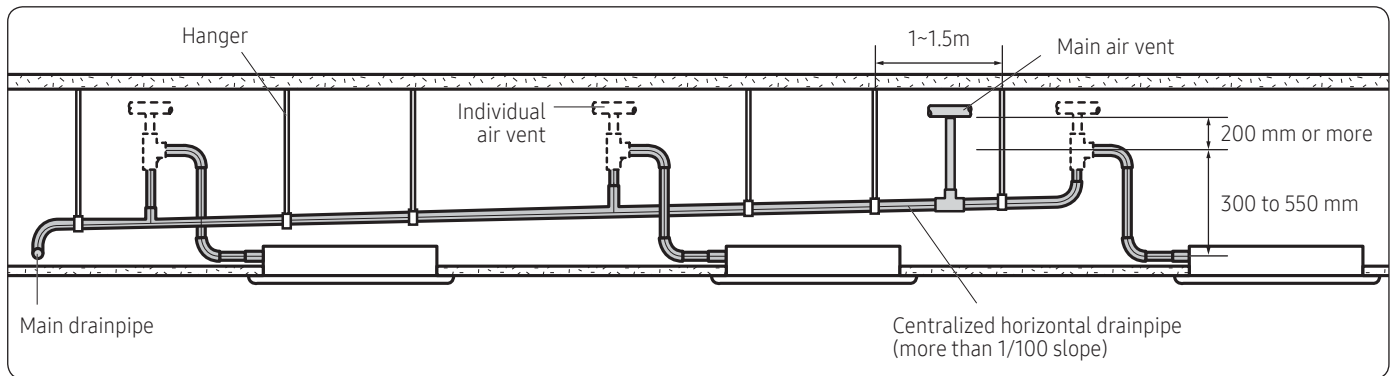
- Max. allowable bending angle.



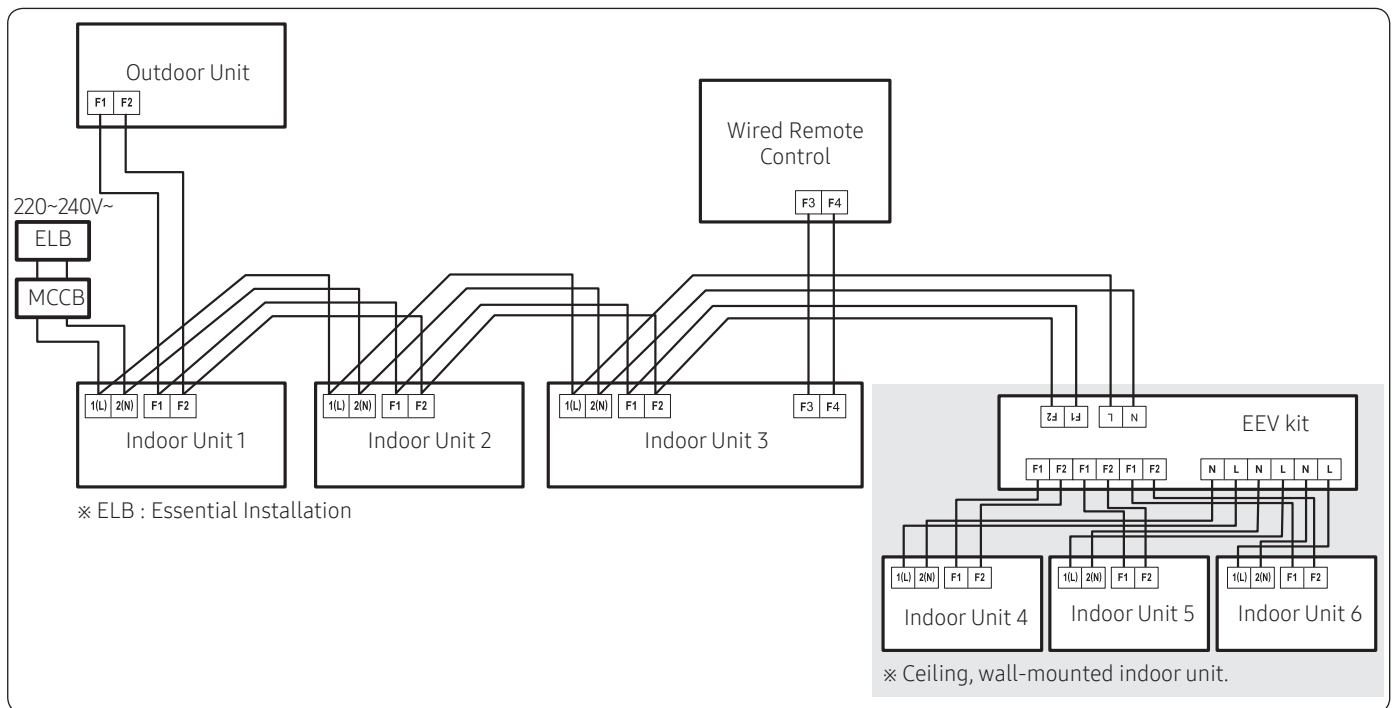
## NOTE

- If a concentrated drain pipe is installed, refer to the figure below.

## 10. Installation

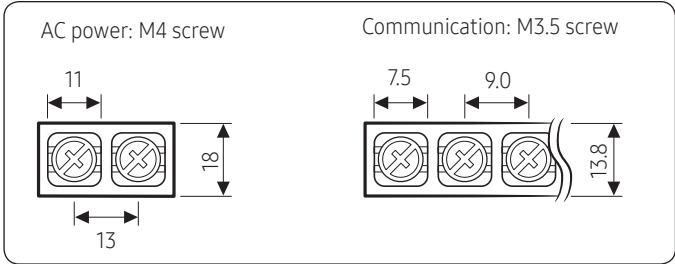


- If 3 or more units are installed, install the main air vent at the front of the farthest indoor unit from the main drain pipe.
- To prevent water from flowing back to indoor units, install an individual air vent at the top of each indoor unit.
  - The air vents should be T or 7 shaped to prevent dust or foreign substances from entering.
  - You may not need to install air vent if the horizontal drain pipe is in proper slope.



# 10. Installation

## Specifications of the terminal blocks



| Power supply (single phase)                             | MCCB                                            | ELB                                                                  |
|---------------------------------------------------------|-------------------------------------------------|----------------------------------------------------------------------|
| Min : 187V<br>Max : 253V                                | XA                                              | XA, 30 mA<br>0.1 s                                                   |
| Power cable                                             | Earth cable                                     | Communication cable                                                  |
| 0.0039 inch <sup>2</sup> (2.5 mm <sup>2</sup> ) or more | 0.0039 inch <sup>2</sup> (2.5 mm <sup>2</sup> ) | 0.0012 to 0.0023 inch <sup>2</sup><br>(0.75 to 1.5 mm <sup>2</sup> ) |

Decide the power cable specification and maximum length by formula 2.

1 Decide the capacity of ELB and MCCB by below formula.

The capacity of ELB, MCCB  $X[A] = 1.25 \times 1.1 \times \sum A_i$

### NOTE

- $X$  : The capacity of ELB, MCCB
- $\sum A_i$  : Sum of rating currents of each indoor unit.

## Rated currents

| Model          | Rating current(A) |
|----------------|-------------------|
| AM006RN4DCH/AA | 0.25              |
| AM009RN4DCH/AA | 0.25              |
| AM012RN4DCH/AA | 0.25              |
| AM018RN4DCH/AA | 0.35              |
| AM024RN4DCH/AA | 0.45              |
| AM030RN4DCH/AA | 0.5               |
| AM036RN4DCH/AA | 0.56              |
| AM048RN4DCH/AA | 0.75              |

2 Decide the power cable specification and maximum length within 10% voltage drop among indoor units.

$$\sum_{k=1}^n \left( \frac{\text{Coef} \times 35.6 \times L_k}{1000 \times A_k} \times i_k \right) < 10\% \text{ of input voltage}[V]$$

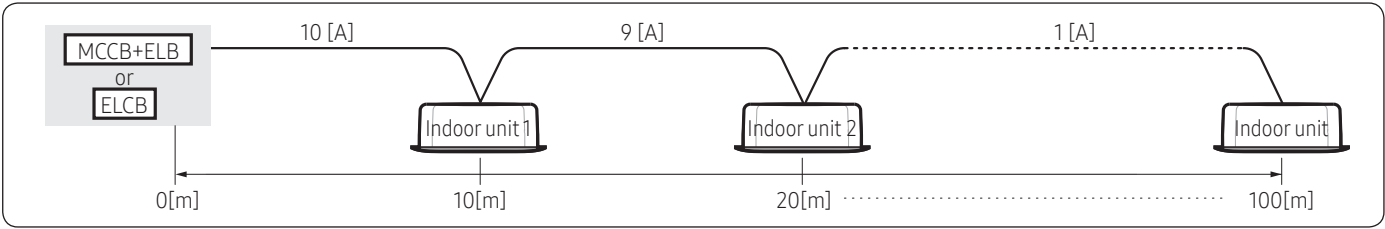
### NOTE

- Coef: 1.55
- $L_k$ : Distance among each indoor unit[m],  $A_k$ : Power cable specification[mm2]
- $i_k$ : Running current of each unit[A]

# 10. Installation

### Example of Installation

Total power cable length L = 100(m), Initial pull-in current = 10[A], Running current of each units = 1[A], Total 10 indoor units were installed



- Apply following equation.

$$\sum \left( \frac{{}^n\text{Coef} \times 35.6 \times L_k \times j_k}{k=1000 \times A_k} \right) < 10\% \text{ of input voltage[V]}$$

- Calculation
  - Installing with 1 sort wire.

$$\begin{array}{ccccccc} 0.0039 \text{ [inch}^2\text{]} & 0.0039 \text{ [inch}^2\text{]} & & 0.0039 \text{ [inch}^2\text{]} & & & \text{Within 187V to 253V} \\ (2.5 \text{ [mm}^2\text{]}) & (2.5 \text{ [mm}^2\text{]}) & \cdots & (2.5 \text{ [mm}^2\text{]}) & \cdots & & \\ -2.2 \text{ [V]} & -2.0 \text{ [V]} & & & & & \end{array}$$

220 [V] 208.8 [V]: Applicable

$$-(2.2+2.0+1.8+1.5+1.3+1.1+0.9+0.7+0.4+0.2)=-11.2 \text{ [V]}$$

- Installing with 2 different sort wire.

$$\begin{array}{ccccccc} 0.0062 \text{ [inch}^2\text{]} & 0.0062 \text{ [inch}^2\text{]} & & 0.0039 \text{ [inch}^2\text{]} & & & \text{Within 187V to 253V} \\ (4.0 \text{ [mm}^2\text{]}) & (4.0 \text{ [mm}^2\text{]}) & \cdots & (2.5 \text{ [mm}^2\text{]}) & \cdots & & \\ -1.4 \text{ [V]} & -1.2 \text{ [V]} & & & & & \end{array}$$

220 [V] 209.5 [V]: Applicable

$$-(1.4+1.2+1.8+1.5+1.3+1.1+0.9+0.7+0.4+0.2)=-10.5 \text{ [V]}$$

### ⚠ CAUTION

- Select the power cable in accordance with relevant local and national.
- Wire size must comply with local and national code.
- You should connect the power cable into the power cable terminal and fasten it with a clamp.
- The unbalanced power must be maintained within 10% of supply rating among whole indoor units.
- If the power is unbalanced greatly, it may shorten the life of the condenser. If the unbalanced power is exceeded over 10% of supply rating, the indoor unit is protected, stopped and the error mode indicates
- Connect the power cable to the auxiliary circuit breaker. An all pole disconnection from the power supply must be incorporated in the fixed wiring (≥3mm).



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