

AIR CONDITIONER

**Wall mounted type**

# DESIGN & TECHNICAL MANUAL

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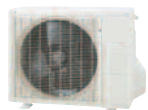
INDOOR



ASYG07LMCE  
ASYG09LMCE  
ASYG12LMCE  
ASYG14LMCE

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OUTDOOR



AOYG07LMCE  
AOYG09LMCE  
AOYG12LMCE



AOYG14LMCE

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**FUJITSU GENERAL LIMITED**

**Notices:**

- Product specifications and design are subject to change without notice for future improvement.
- For further details, please check with our authorized dealer.

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# **Part 1. INDOOR UNIT**

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**WALL MOUNTED TYPE:**

**ASYG07LMCE**

**ASYG09LMCE**

**ASYG12LMCE**

**ASYG14LMCE**

# 1. Specifications

| Type                         |              |   |                           | Wall mounted                           |              |                        |                   |           |  |  |  |  |
|------------------------------|--------------|---|---------------------------|--|--------------|------------------------|-------------------|-----------|--|--|--|--|
|                              |              |   |                           | Inverter heat pump                     |              |                        |                   |           |  |  |  |  |
| Model name                   |              |   |                           | ASYG07LMCE                             | ASYG09LMCE   | ASYG12LMCE             | ASYG14LMCE        |           |  |  |  |  |
| Power supply                 |              |   |                           | 230 V ~ 50 Hz                          |              |                        |                   |           |  |  |  |  |
| Available voltage range      |              |   |                           | 198—264 V                              |              |                        |                   |           |  |  |  |  |
| Capacity                     | Cooling      | Rated   | kW                        | 2.00                                   | 2.50         | 3.40                   | 4.00              |           |  |  |  |  |
|                              |              |   | Btu/h                     | 6,800                                  | 8,500        | 11,600                 | 13,600            |           |  |  |  |  |
|                              |              | Min.—Max.   | kW                        | 0.5—3.0                                | 0.5—3.2      | 0.9—3.9                | 0.9—4.4           |           |  |  |  |  |
|                              |              |   | Btu/h                     | 1,700—10,200                           | 1,700—10,900 | 3,100—13,300           | 3,100—15,000      |           |  |  |  |  |
|                              | Heating      | Rated   | kW                        | 3.00                                   | 3.20         | 4.00                   | 5.00              |           |  |  |  |  |
|                              |              |   | Btu/h                     | 10,200                                 | 10,900       | 13,600                 | 17,000            |           |  |  |  |  |
|                              |              | Min.—Max.   | kW                        | 0.5—3.4                                | 0.5—4.0      | 0.9—5.3                | 0.9—6.0           |           |  |  |  |  |
|                              |              |   | Btu/h                     | 1,700—11,600                           | 1,700—13,600 | 3,100—18,000           | 3,100—20,400      |           |  |  |  |  |
| Input power                  | Cooling      | Rated   | kW                        | 0.465                                  | 0.65         | 0.97                   | 1.135             |           |  |  |  |  |
|                              |              |   |                           | Min.—Max.                              | 0.25—1.29    | 0.25—1.29              | 0.25—1.40         | 0.25—1.98 |  |  |  |  |
|                              | Heating      | Rated   | kW                        | 0.685                                  | 0.730        | 1.02                   | 1.365             |           |  |  |  |  |
|                              |              |   |                           | Min.—Max.                              | 0.25—1.63    | 0.25—1.63              | 0.25—1.98         | 0.25—2.32 |  |  |  |  |
|                              | Fan          | HIGH  | MED                       | LOW                                    | QUIET        | W                      | 30                | 32        |  |  |  |  |
|                              |              |   |                           |  |              |                        | 20                | 23        |  |  |  |  |
|                              |              |   |                           |  |              |                        | 10                | 12        |  |  |  |  |
|                              |              |   |                           |  |              |                        | 4                 | 6         |  |  |  |  |
|                              | Current      | Cooling   | Rated                     | A                                      | 2.5          | 3.2                    | 4.6               | 5.3       |  |  |  |  |
|                              |              |   |                           |  | Heating      | 3.3                    | 3.5               | 4.8       | 6.3  |  |  |  |
| EER                          | Cooling      |   | kW/kW                     | 4.30                                   | 3.85         | 3.50                   | 3.52              |           |  |  |  |  |
| COP                          | Heating      |   |                           | 4.38                                   | 4.38         | 3.92                   | 3.66              |           |  |  |  |  |
| Sensible capacity            | Cooling      |   | kW                        | 1.2                                    | 1.6          | 2.2                    | 3.2               |           |  |  |  |  |
| Power factor                 | Cooling      |   | %                         | 81                                     | 88           | 91                     | 93                |           |  |  |  |  |
|                              | Heating      |   |                           | 90                                     | 90           | 92                     | 94                |           |  |  |  |  |
| Moisture removal             |              |   | L/h (pints/h)             | 1.0 (1.8)                              | 1.3 (2.3)    | 1.8 (3.2)              | 2.1 (3.7)         |           |  |  |  |  |
| Maximum operating current *1 | Cooling      |   | A                         | 6.0                                    | 6.0          | 6.5                    | 9.0               |           |  |  |  |  |
|                              | Heating      |   |                           | 7.5                                    | 7.5          | 9.0                    | 10.5              |           |  |  |  |  |
| Fan                          | Airflow rate | Cooling   | HIGH                      | MED                                    | LOW          | QUIET                  | m <sup>3</sup> /h | 750       | 770  |  |  |  |
|                              |              |   |                           |  |              |                        |                   | 640       | 680  |  |  |  |
|                              |              |   |                           |  |              |                        |                   | 480       | 530  |  |  |  |
|                              |              |   |                           |  |              |                        |                   | 310       | 360  |  |  |  |
|                              |              | Heating   | HIGH                      | MED                                    | LOW          | QUIET                  | 750               | 770       |  |  |  |  |
|                              |              |   |                           |  |              |                        | 640               | 680       |  |  |  |  |
|                              |              |   |                           |  |              |                        | 520               | 560       |  |  |  |  |
|                              |              |   |                           |  |              |                        | 330               | 380       |  |  |  |  |
|                              | Type × Q'ty  | Cross flow fan × 1  |                           |  |              |                        |                   |           |  |  |  |  |
|                              | Motor output |   |                           | W                                      | 30           |                        |                   |           |  |  |  |  |
| Sound pressure level *2      | Cooling      | HIGH  | MED                       | LOW                                    | QUIET        | dB (A)                 | 43                | 44        |  |  |  |  |
|                              |              |   |                           |  |              |                        | 40                | 40        |  |  |  |  |
|                              |              |   |                           |  |              |                        | 32                | 33        |  |  |  |  |
|                              |              |   |                           |  |              |                        | 21                | 25        |  |  |  |  |
|                              | Heating      | HIGH  | MED                       | LOW                                    | QUIET        | 43                     | 44                |           |  |  |  |  |
|                              |              |   |                           |  |              | 38                     | 40                |           |  |  |  |  |
|                              |              |   |                           |  |              | 33                     | 35                |           |  |  |  |  |
|                              |              |   |                           |  |              | 22                     | 27                |           |  |  |  |  |
|                              |              |   |                           |  |              | Dimensions (H × W × D) |                   | mm        | Main: 320 × 630 × 20<br>Sub: 84 × 630 × 13.3 |  |  |  |
|                              |              |   |                           |  |              | Fin pitch              |                   |           | Man: 1.1, Sub: 1.4                           |  |  |  |
| Rows × Stages                |              | Main: 2 × 20, Sub: 1 × 4  |                           |  |              |                        |                   |           |  |  |  |  |
| Pipe type                    |              | Copper tube   |                           |  |              |                        |                   |           |  |  |  |  |
| Fin type                     |              | Aluminum  |                           |  |              |                        |                   |           |  |  |  |  |
| Material                     |              | Polystyrene   |                           |  |              |                        |                   |           |  |  |  |  |
| Color                        |              | White + Pearl white (painted)<br>Approximate color of Munsell N 9.25/ |                           |  |              |                        |                   |           |  |  |  |  |
| Dimensions (H × W × D)       | Net          |   | mm                        | 270 × 870 × 204                        |              |                        |                   |           |  |  |  |  |
|                              | Gross        |   |                           | 270 × 925 × 336                        |              |                        |                   |           |  |  |  |  |
| Weight                       | Net          |   | kg                        | 8.5                                    |              |                        |                   |           |  |  |  |  |
|                              | Gross        |   |                           | 11                                     |              |                        |                   |           |  |  |  |  |
| Connection pipe              | Size         | Liquid  | mm (in)                   | Ø 6.35 (Ø 1/4)                         |              |                        |                   |           |  |  |  |  |
|                              |              | Gas   |                           | Ø 9.52 (Ø 3/8)                         |              | Ø 12.7 (Ø 1/2)         |                   |           |  |  |  |  |
|                              | Method       | Flare   |                           |  |              |                        |                   |           |  |  |  |  |
| Drain hose                   | Material     |   | PP+LLDPE                  |  |              |                        |                   |           |  |  |  |  |
|                              | Size         |   | mm                        | Ø 13.8 (I.D.), Ø 15.8 to Ø 16.7 (O.D.) |              |                        |                   |           |  |  |  |  |
| Operation range              | Cooling      |   | °C                        | 18 to 32                               |              |                        |                   |           |  |  |  |  |
|                              | Heating      |   | %RH                       | 80 or less                             |              |                        |                   |           |  |  |  |  |
| Remote controller type       | Cooling      |   | °C                        | 16 to 30                               |              |                        |                   |           |  |  |  |  |
|                              | Heating      |   | Wireless (Wired [option]) |  |              |                        |                   |           |  |  |  |  |

**NOTES:**

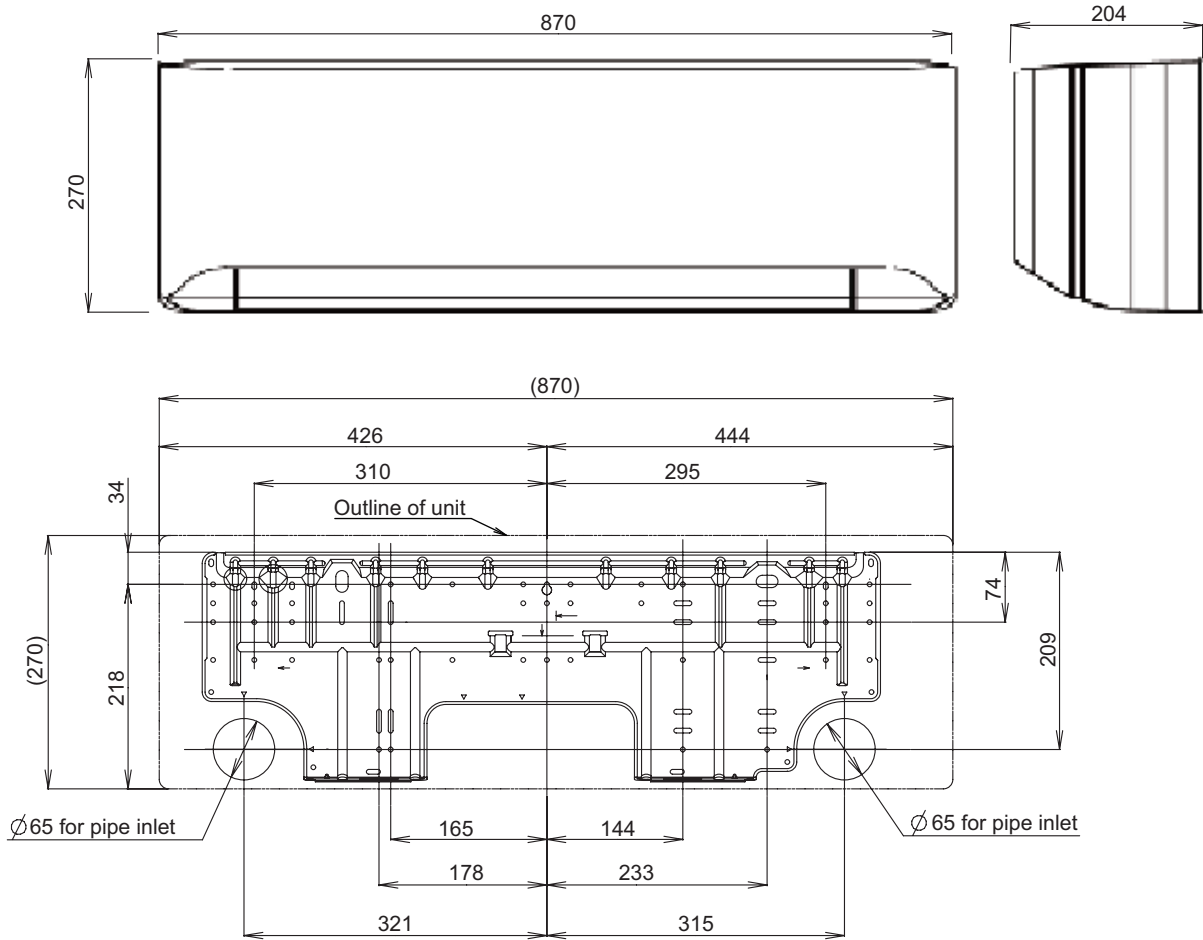
- Specifications are based on the following conditions:
  - Cooling: Indoor temperature of 27 °CDB/19 °CWB, and outdoor temperature of 35 °CDB/24 °CWB.
  - Heating: Indoor temperature of 20 °CDB/15 °CWB, and outdoor temperature of 7 °CDB/6 °CWB.
  - Pipe length: 5 m, Height difference: 0 m. (Between outdoor unit and indoor unit.)
- Protective function might work when using it outside the operation range.
- \*1: Maximum current is maximum value when operated within the operation range.
- \*2: Sound pressure level:
  - Measured values in manufacturer's anechoic chamber.
  - Because of the surrounding sound environment, the sound levels measured in actual installation conditions might be higher than the specified values here.

| Model name                |                   |         | ASYG07LMCE      | ASYG09LMCE      | ASYG12LMCE      | ASYG14LMCE      |
|---------------------------|-------------------|---------|-----------------|-----------------|-----------------|-----------------|
| Energy efficiency class   | Cooling           |         | A <sup>++</sup> | A <sup>++</sup> | A <sup>++</sup> | A <sup>++</sup> |
|                           | Heating (Average) |         | A <sup>+</sup>  | A <sup>+</sup>  | A <sup>+</sup>  | A <sup>+</sup>  |
| Pdesign                   | Cooling           | kW      | 2.0 (35 °C)     | 2.5 (35 °C)     | 3.4 (35 °C)     | 4.0 (35 °C)     |
|                           | Heating (Average) |         | 2.3 (-10 °C)    | 2.4 (-10 °C)    | 3.5 (-10 °C)    | 3.9 (-10 °C)    |
| SEER                      | Cooling           | kWh/kWh | 6.80            | 7.00            | 7.00            | 6.90            |
| SCOP                      | Heating (Average) |         | 4.10            | 4.10            | 4.00            | 4.00            |
| Annual energy consumption | QCE               |         | 103             | 125             | 170             | 203             |
|                           | QHE (Average)     |         | 786             | 820             | 1,225           | 1,365           |
| Sound power level         | Cooling           | HIGH    | dB (A)          | 59              | 59              | 59              |
|                           | Heating           |         |                 | 59              | 59              | 59              |

## 2. Dimensions

### 2-1. Models: ASYG07LMCE, ASYG09LMCE, ASYG12LMCE, and ASYG14LMCE

Unit: mm

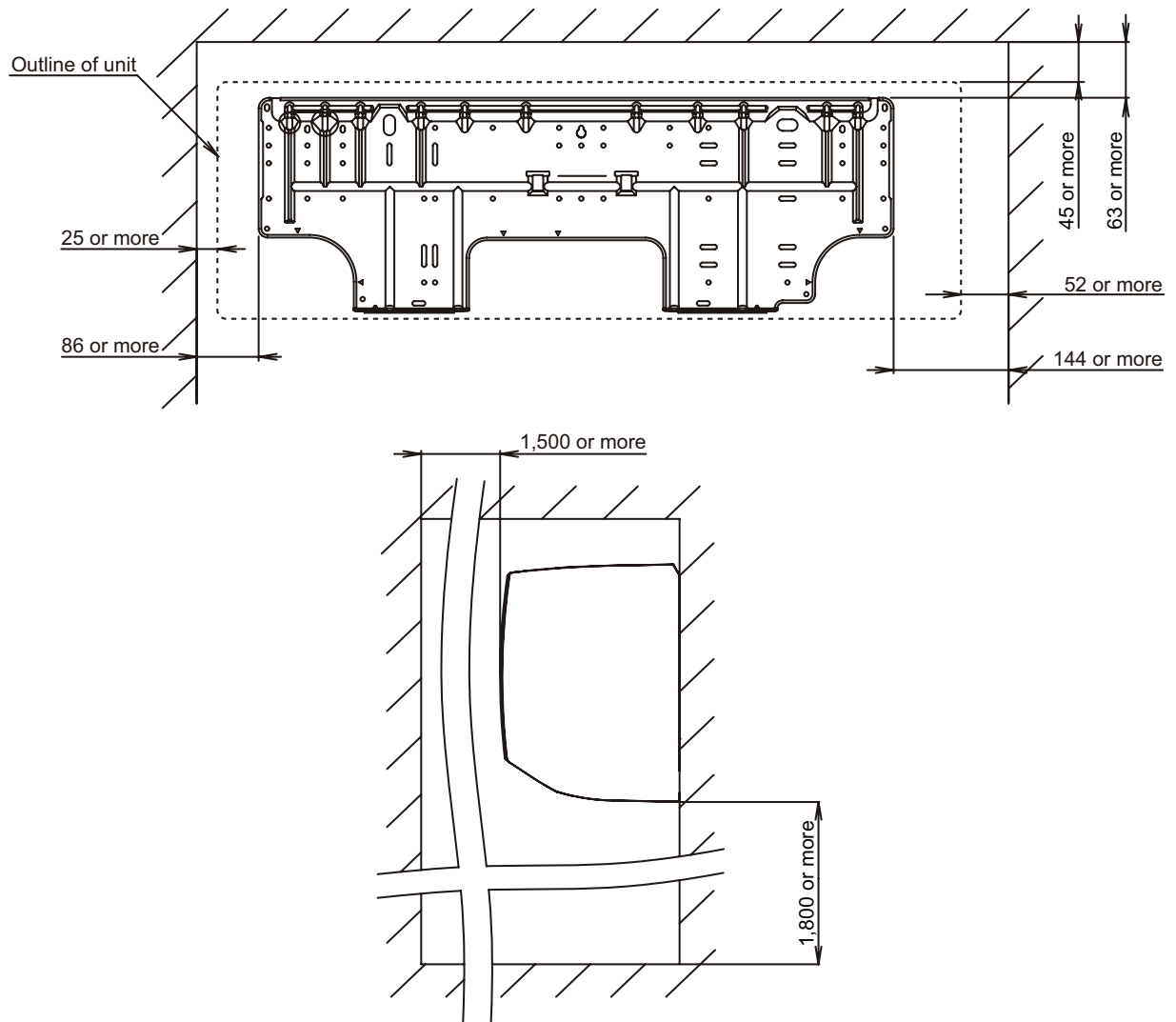




## ■ Installation space requirement

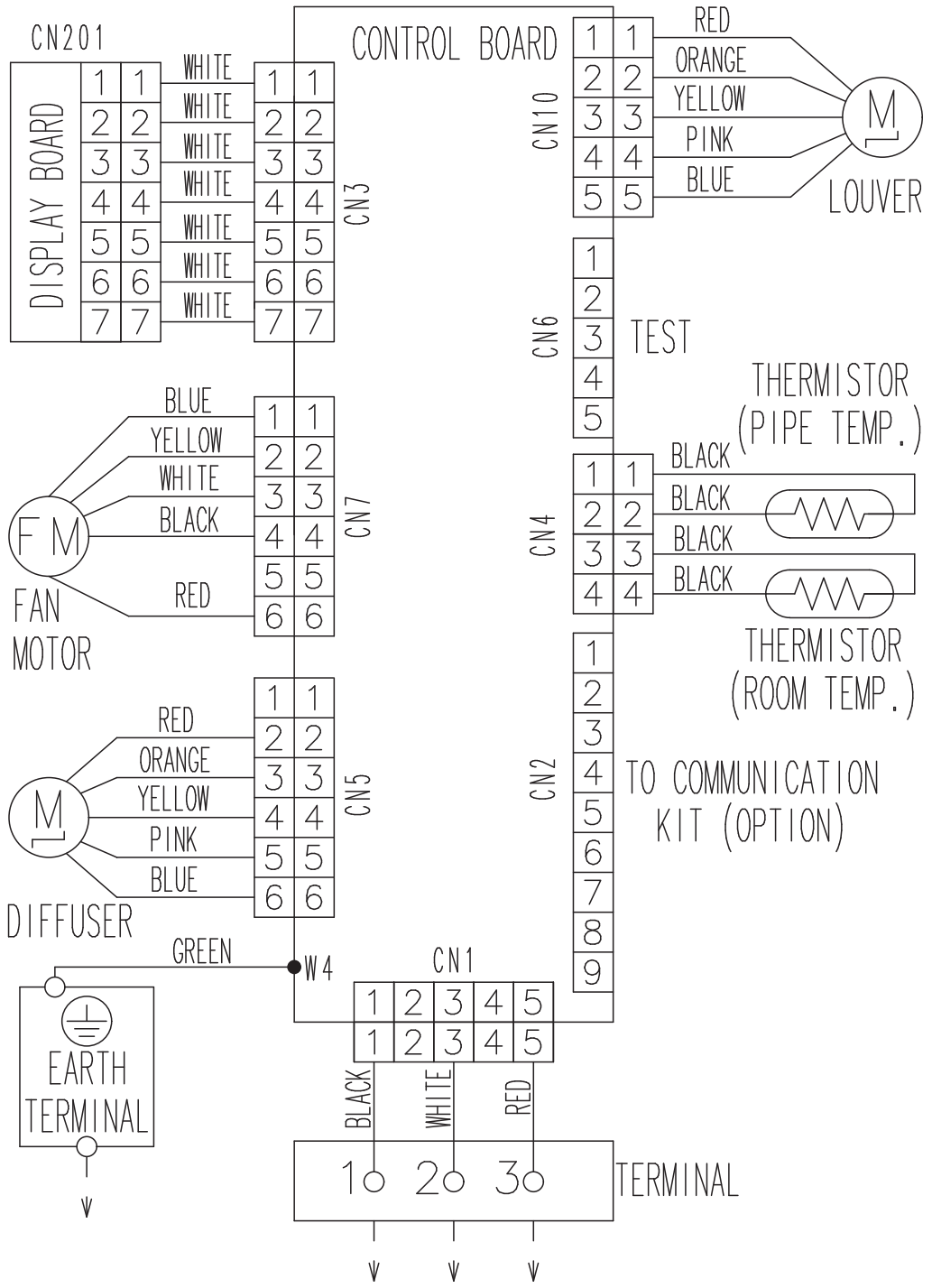
Provide sufficient installation space for product safety.

Unit: mm



### 3. Wiring diagrams

#### 3-1. Models: ASYG07LMCE, ASYG09LMCE, ASYG12LMCE, and ASYG14LMCE



## 4. Capacity table

Capacity tables show each of following values calculated based on the outdoor temperature and the indoor temperature, under given Airflow Rate (AFR):

**For cooling capacity:** Total Capacity (TC), Sensible Heat Capacity (SHC), and Input Power (IP)

**For heating capacity:** Total Capacity (TC) and Input Power (IP)

### 4-1. Cooling capacity

#### ■ Model:ASYG07LMCE

| AFR                 |      | m <sup>3</sup> /h |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 750  |      |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |  |  |  |  |  |
|---------------------|------|-------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----|----|-----|----|----|-----|----|----|-----|----|----|-----|----|----|-----|----|----|--|--|--|--|--|
| Outdoor temperature | °CDB | 18                |      |      |      |      |      | 21   |      |      |      |      |      | 23   |      |      |      |      |      | 25   |      |    |    |     |    | 27 |     |    |    |     |    | 29 |     |    |    |     |    | 32 |  |  |  |  |  |
|                     | °CWB | 12                |      |      |      |      |      | 15   |      |      |      |      |      | 16   |      |      |      |      |      | 18   |      |    |    |     |    | 19 |     |    |    |     |    | 21 |     |    |    |     |    | 23 |  |  |  |  |  |
|                     | °CDB | TC                | SHC  | IP   | TC   | SHC  | IP   | TC   | SHC  | IP   | TC   | SHC  | IP   | TC   | SHC  | IP   | TC   | SHC  | IP   | TC   | SHC  | IP | TC | SHC | IP | TC | SHC | IP | TC | SHC | IP | TC | SHC | IP | TC | SHC | IP |    |  |  |  |  |  |
|                     | °CDB | kW                |      |      | kW   |      |      | kW   |      |      | kW   |      |      | kW   |      |      | kW   |      |      | kW   |      |    | kW |     |    | kW |     |    | kW |     |    | kW |     |    | kW |     |    |    |  |  |  |  |  |
|                     | °CDB | TC                | SHC  | IP   | TC   | SHC  | IP   | TC   | SHC  | IP   | TC   | SHC  | IP   | TC   | SHC  | IP   | TC   | SHC  | IP   | TC   | SHC  | IP | TC | SHC | IP | TC | SHC | IP | TC | SHC | IP | TC | SHC | IP | TC | SHC | IP |    |  |  |  |  |  |
| 20                  | 1.87 | 1.32              | 0.33 | 2.09 | 1.33 | 0.33 | 2.16 | 1.45 | 0.33 | 2.30 | 1.45 | 0.34 | 2.37 | 1.57 | 0.34 | 2.51 | 1.56 | 0.34 | 2.65 | 1.66 | 0.35 |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |  |  |  |  |  |
| 25                  | 1.78 | 1.26              | 0.37 | 1.98 | 1.26 | 0.37 | 2.05 | 1.37 | 0.37 | 2.18 | 1.38 | 0.38 | 2.25 | 1.49 | 0.38 | 2.39 | 1.48 | 0.38 | 2.52 | 1.58 | 0.39 |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |  |  |  |  |  |
| 30                  | 1.68 | 1.19              | 0.41 | 1.87 | 1.19 | 0.41 | 1.94 | 1.30 | 0.42 | 2.06 | 1.30 | 0.42 | 2.13 | 1.41 | 0.42 | 2.25 | 1.40 | 0.43 | 2.38 | 1.49 | 0.43 |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |  |  |  |  |  |
| 35                  | 1.58 | 1.12              | 0.45 | 1.76 | 1.12 | 0.46 | 1.82 | 1.22 | 0.46 | 1.94 | 1.23 | 0.46 | 2.00 | 1.32 | 0.47 | 2.12 | 1.32 | 0.47 | 2.24 | 1.40 | 0.47 |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |  |  |  |  |  |
| 40                  | 1.41 | 1.00              | 0.45 | 1.57 | 1.00 | 0.46 | 1.62 | 1.09 | 0.46 | 1.73 | 1.09 | 0.46 | 1.78 | 1.18 | 0.46 | 1.89 | 1.17 | 0.47 | 2.00 | 1.25 | 0.47 |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |  |  |  |  |  |
| 43                  | 1.31 | 0.92              | 0.45 | 1.45 | 0.93 | 0.45 | 1.50 | 1.01 | 0.46 | 1.60 | 1.01 | 0.46 | 1.65 | 1.09 | 0.46 | 1.75 | 1.09 | 0.47 | 1.85 | 1.16 | 0.47 |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |  |  |  |  |  |

#### ■ Model:ASYG09LMCE

| AFR                 |      | m <sup>3</sup> /h |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 750  |      |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |  |  |  |  |  |
|---------------------|------|-------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----|----|-----|----|----|-----|----|----|-----|----|----|-----|----|----|-----|----|----|--|--|--|--|--|
| Outdoor temperature | °CDB | 18                |      |      |      |      |      | 21   |      |      |      |      |      | 23   |      |      |      |      |      | 25   |      |    |    |     |    | 27 |     |    |    |     |    | 29 |     |    |    |     |    | 32 |  |  |  |  |  |
|                     | °CWB | 12                |      |      |      |      |      | 15   |      |      |      |      |      | 16   |      |      |      |      |      | 18   |      |    |    |     |    | 19 |     |    |    |     |    | 21 |     |    |    |     |    | 23 |  |  |  |  |  |
|                     | °CDB | TC                | SHC  | IP   | TC   | SHC  | IP   | TC   | SHC  | IP   | TC   | SHC  | IP   | TC   | SHC  | IP   | TC   | SHC  | IP   | TC   | SHC  | IP | TC | SHC | IP | TC | SHC | IP | TC | SHC | IP | TC | SHC | IP | TC | SHC | IP |    |  |  |  |  |  |
|                     | °CDB | kW                |      |      | kW   |      |      | kW   |      |      | kW   |      |      | kW   |      |      | kW   |      |      | kW   |      |    | kW |     |    | kW |     |    | kW |     |    | kW |     |    | kW |     |    |    |  |  |  |  |  |
|                     | °CDB | TC                | SHC  | IP   | TC   | SHC  | IP   | TC   | SHC  | IP   | TC   | SHC  | IP   | TC   | SHC  | IP   | TC   | SHC  | IP   | TC   | SHC  | IP | TC | SHC | IP | TC | SHC | IP | TC | SHC | IP | TC | SHC | IP | TC | SHC | IP |    |  |  |  |  |  |
| 20                  | 2.34 | 1.62              | 0.46 | 2.61 | 1.63 | 0.46 | 2.70 | 1.77 | 0.47 | 2.87 | 1.78 | 0.47 | 2.96 | 1.92 | 0.47 | 3.14 | 1.91 | 0.48 | 3.32 | 2.04 | 0.48 |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |  |  |  |  |  |
| 25                  | 2.22 | 1.54              | 0.51 | 2.48 | 1.55 | 0.52 | 2.56 | 1.68 | 0.52 | 2.73 | 1.69 | 0.53 | 2.81 | 1.82 | 0.53 | 2.98 | 1.82 | 0.54 | 3.15 | 1.93 | 0.54 |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |  |  |  |  |  |
| 30                  | 2.10 | 1.45              | 0.57 | 2.34 | 1.46 | 0.58 | 2.42 | 1.59 | 0.58 | 2.58 | 1.60 | 0.59 | 2.66 | 1.72 | 0.59 | 2.82 | 1.72 | 0.60 | 2.98 | 1.83 | 0.60 |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |  |  |  |  |  |
| 35                  | 1.98 | 1.37              | 0.63 | 2.20 | 1.38 | 0.64 | 2.28 | 1.50 | 0.64 | 2.43 | 1.50 | 0.65 | 2.50 | 1.62 | 0.65 | 2.65 | 1.61 | 0.66 | 2.80 | 1.72 | 0.66 |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |  |  |  |  |  |
| 40                  | 1.76 | 1.22              | 0.63 | 1.96 | 1.23 | 0.64 | 2.03 | 1.33 | 0.64 | 2.16 | 1.34 | 0.65 | 2.23 | 1.44 | 0.65 | 2.36 | 1.44 | 0.66 | 2.50 | 1.53 | 0.66 |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |  |  |  |  |  |
| 43                  | 1.63 | 1.13              | 0.62 | 1.82 | 1.14 | 0.63 | 1.88 | 1.24 | 0.64 | 2.00 | 1.24 | 0.64 | 2.07 | 1.34 | 0.65 | 2.19 | 1.33 | 0.65 | 2.31 | 1.42 | 0.66 |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |  |  |  |  |  |

#### ■ Model:ASYG12LMCE

| AFR                 |      | m <sup>3</sup> /h |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 750  |      |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |  |  |  |  |  |
|---------------------|------|-------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----|----|-----|----|----|-----|----|----|-----|----|----|-----|----|----|-----|----|----|--|--|--|--|--|
| Outdoor temperature | °CDB | 18                |      |      |      |      |      | 21   |      |      |      |      |      | 23   |      |      |      |      |      | 25   |      |    |    |     |    | 27 |     |    |    |     |    | 29 |     |    |    |     |    | 32 |  |  |  |  |  |
|                     | °CWB | 12                |      |      |      |      |      | 15   |      |      |      |      |      | 16   |      |      |      |      |      | 18   |      |    |    |     |    | 19 |     |    |    |     |    | 21 |     |    |    |     |    | 23 |  |  |  |  |  |
|                     | °CDB | TC                | SHC  | IP   | TC   | SHC  | IP   | TC   | SHC  | IP   | TC   | SHC  | IP   | TC   | SHC  | IP   | TC   | SHC  | IP   | TC   | SHC  | IP | TC | SHC | IP | TC | SHC | IP | TC | SHC | IP | TC | SHC | IP | TC | SHC | IP |    |  |  |  |  |  |
|                     | °CDB | kW                |      |      | kW   |      |      | kW   |      |      | kW   |      |      | kW   |      |      | kW   |      |      | kW   |      |    | kW |     |    | kW |     |    | kW |     |    | kW |     |    | kW |     |    |    |  |  |  |  |  |
|                     | °CDB | TC                | SHC  | IP   | TC   | SHC  | IP   | TC   | SHC  | IP   | TC   | SHC  | IP   | TC   | SHC  | IP   | TC   | SHC  | IP   | TC   | SHC  | IP | TC | SHC | IP | TC | SHC | IP | TC | SHC | IP | TC | SHC | IP | TC | SHC | IP |    |  |  |  |  |  |
| 20                  | 3.18 | 2.18              | 0.66 | 3.55 | 2.19 | 0.67 | 3.67 | 2.39 | 0.68 | 3.91 | 2.39 | 0.68 | 4.03 | 2.59 | 0.69 | 4.27 | 2.57 | 0.70 | 4.51 | 2.74 | 0.70 |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |  |  |  |  |  |
| 25                  | 3.03 | 2.07              | 0.75 | 3.37 | 2.08 | 0.77 | 3.49 | 2.27 | 0.77 | 3.72 | 2.27 | 0.78 | 3.83 | 2.45 | 0.78 | 4.06 | 2.44 | 0.79 | 4.29 | 2.60 | 0.80 |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |  |  |  |  |  |
| 30                  | 2.86 | 1.96              | 0.84 | 3.19 | 1.97 | 0.86 | 3.30 | 2.14 | 0.86 | 3.52 | 2.15 | 0.87 | 3.63 | 2.32 | 0.87 | 3.84 | 2.31 | 0.88 | 4.06 | 2.46 | 0.89 |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |  |  |  |  |  |
| 35                  | 2.69 | 1.84              | 0.94 | 2.99 | 1.85 | 0.95 | 3.09 | 2.01 | 0.96 | 3.30 | 2.02 | 0.97 | 3.40 | 2.18 | 0.97 | 3.60 | 2.17 | 0.98 | 3.81 | 2.31 | 0.99 |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |  |  |  |  |  |
| 40                  | 2.27 | 1.64              | 0.87 | 2.53 | 1.65 | 0.88 | 2.62 | 1.79 | 0.89 | 2.79 | 1.80 | 0.90 | 2.87 | 1.94 | 0.90 | 3.05 | 1.94 | 0.91 | 3.22 | 2.06 | 0.92 |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |  |  |  |  |  |
| 43                  | 2.09 | 1.52              | 0.87 | 2.33 | 1.53 | 0.89 | 2.41 | 1.66 | 0.89 | 2.57 | 1.67 | 0.90 | 2.65 | 1.80 | 0.90 | 2.81 | 1.80 | 0.91 | 2.96 | 1.91 | 0.92 |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |  |  |  |  |  |

#### ■ Model:ASYG14LMCE

| AFR                 |      | m <sup>3</sup> /h |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 770  |      |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |  |  |  |  |  |
|---------------------|------|-------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----|----|-----|----|----|-----|----|----|-----|----|----|-----|----|----|-----|----|----|--|--|--|--|--|
| Outdoor temperature | °CDB | 18                |      |      |      |      |      | 21   |      |      |      |      |      | 23   |      |      |      |      |      | 25   |      |    |    |     |    | 27 |     |    |    |     |    | 29 |     |    |    |     |    | 32 |  |  |  |  |  |
|                     | °CWB | 12                |      |      |      |      |      | 15   |      |      |      |      |      | 16   |      |      |      |      |      | 18   |      |    |    |     |    | 19 |     |    |    |     |    | 21 |     |    |    |     |    | 23 |  |  |  |  |  |
|                     | °CDB | TC                | SHC  | IP   | TC   | SHC  | IP   | TC   | SHC  | IP   | TC   | SHC  | IP   | TC   | SHC  | IP   | TC   | SHC  | IP   | TC   | SHC  | IP | TC | SHC | IP | TC | SHC | IP | TC | SHC | IP | TC | SHC | IP | TC | SHC | IP |    |  |  |  |  |  |
|                     | °CDB | kW                |      |      | kW   |      |      | kW   |      |      | kW   |      |      | kW   |      |      | kW   |      |      | kW   |      |    | kW |     |    | kW |     |    | kW |     |    | kW |     |    | kW |     |    |    |  |  |  |  |  |
|                     | °CDB | TC                | SHC  | IP   | TC   | SHC  | IP   | TC   | SHC  | IP   | TC   | SHC  | IP   | TC   | SHC  | IP   | TC   | SHC  | IP   | TC   | SHC  | IP | TC | SHC | IP | TC | SHC | IP | TC | SHC | IP | TC | SHC | IP | TC | SHC | IP |    |  |  |  |  |  |
| 20                  | 3.72 | 2.44              | 0.77 | 4.15 | 2.46 | 0.78 | 4.29 | 2.67 | 0.79 | 4.57 | 2.68 | 0.80 | 4.71 | 2.90 | 0.80 | 4.99 | 2.89 | 0.81 | 5.28 | 3.07 | 0.82 |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |  |  |  |  |  |
| 25                  | 3.54 | 2.34              | 0.88 | 3.94 | 2.36 | 0.89 | 4.08 | 2.56 | 0.90 | 4.34 | 2.57 | 0.91 | 4.48 | 2.78 | 0.91 | 4.75 | 2.77 | 0.92 | 5.02 | 2.95 | 0.93 |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |  |  |  |  |  |
| 30                  | 3.36 | 2.31              | 0.99 | 3.74 | 2.32 | 1.00 | 3.87 | 2.52 | 1.01 | 4.12 | 2.53 | 1.02 | 4.25 | 2.73 | 1.02 | 4.50 | 2.72 | 1.03 | 4.76 | 2.90 | 1.04 |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |  |  |  |  |  |
| 35                  | 3.16 | 2.19              | 1.10 | 3.52 | 2.21 | 1.11 | 3.64 | 2.40 | 1.12 | 3.88 | 2.41 | 1.13 | 4.00 | 2.60 | 1.14 | 4.24 | 2.59 | 1.15 | 4.48 | 2.76 | 1.16 |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |  |  |  |  |  |
| 40                  | 2.30 | 1.87              | 0.75 | 2.56 | 1.88 | 0.76 | 2.65 | 2.04 | 0.77 | 2.83 | 2.05 | 0.78 | 2.91 | 2.21 | 0.78 | 3.09 | 2.20 | 0.79 | 3.26 | 2.35 | 0.80 |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |  |  |  |  |  |
| 43                  | 2.20 | 1.84              | 0.80 | 2.45 | 1.85 | 0.81 | 2.53 | 2.01 | 0.81 | 2.70 | 2.02 | 0.82 | 2.78 | 2.18 | 0.83 | 2.95 | 2.17 | 0.83 | 3.12 | 2.31 | 0.84 |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |  |  |  |  |  |

## 4-2. Heating capacity

NOTE: Values mentioned in the table are calculated based on the maximum capacity.

### ■ Model:ASYG07LMCE

|                     |      |                    |      |      |      |      |      |      |      |      |      |      |
|---------------------|------|--------------------|------|------|------|------|------|------|------|------|------|------|
| AFR                 |      | m <sup>3</sup> /h  |      |      |      | 750  |      |      |      |      |      |      |
|                     |      | Indoor temperature |      |      |      |      |      |      |      |      |      |      |
|                     |      | 16                 |      | 18   |      | 20   |      | 22   |      | 24   |      |      |
| Outdoor temperature | °CDB | °CWB               | TC   | IP   | TC   | IP   | TC   | IP   | TC   | IP   | TC   | IP   |
|                     |      |                    | kW   |      | kW   |      | kW   |      | kW   |      | kW   |      |
|                     | -15  | -16                | 1.72 | 0.71 | 1.68 | 0.73 | 1.64 | 0.74 | 1.60 | 0.75 | 1.56 | 0.77 |
|                     | -10  | -11                | 2.38 | 0.86 | 2.33 | 0.88 | 2.27 | 0.90 | 2.21 | 0.92 | 2.16 | 0.94 |
|                     | -5   | -7                 | 2.90 | 0.97 | 2.83 | 0.99 | 2.76 | 1.01 | 2.69 | 1.03 | 2.62 | 1.05 |
|                     | 0    | -2                 | 3.18 | 1.02 | 3.10 | 1.04 | 3.03 | 1.06 | 2.95 | 1.08 | 2.87 | 1.10 |
|                     | 5    | 3                  | 3.46 | 1.06 | 3.38 | 1.09 | 3.29 | 1.11 | 3.21 | 1.13 | 3.13 | 1.15 |
|                     | 7    | 6                  | 3.57 | 1.08 | 3.49 | 1.10 | 3.40 | 1.13 | 3.32 | 1.15 | 3.23 | 1.17 |
|                     | 10   | 8                  | 3.98 | 1.19 | 3.88 | 1.21 | 3.79 | 1.24 | 3.69 | 1.26 | 3.60 | 1.29 |
| 15                  | 10   | 3.72               | 1.09 | 3.63 | 1.12 | 3.54 | 1.14 | 3.45 | 1.16 | 3.36 | 1.18 |      |

### ■ Model:ASYG09LMCE

|                     |      |                    |      |      |      |      |      |      |      |      |      |      |
|---------------------|------|--------------------|------|------|------|------|------|------|------|------|------|------|
| AFR                 |      | m <sup>3</sup> /h  |      |      |      | 750  |      |      |      |      |      |      |
|                     |      | Indoor temperature |      |      |      |      |      |      |      |      |      |      |
|                     |      | 16                 |      | 18   |      | 20   |      | 22   |      | 24   |      |      |
| Outdoor temperature | °CDB | °CWB               | TC   | IP   | TC   | IP   | TC   | IP   | TC   | IP   | TC   | IP   |
|                     |      |                    | kW   |      | kW   |      | kW   |      | kW   |      | kW   |      |
|                     | -15  | -16                | 1.72 | 0.71 | 1.68 | 0.73 | 1.64 | 0.74 | 1.60 | 0.75 | 1.56 | 0.77 |
|                     | -10  | -11                | 2.38 | 0.86 | 2.33 | 0.88 | 2.27 | 0.90 | 2.21 | 0.92 | 2.16 | 0.94 |
|                     | -5   | -7                 | 2.99 | 0.97 | 2.91 | 0.99 | 2.84 | 1.01 | 2.77 | 1.03 | 2.70 | 1.05 |
|                     | 0    | -2                 | 3.49 | 1.02 | 3.41 | 1.04 | 3.33 | 1.06 | 3.24 | 1.08 | 3.16 | 1.10 |
|                     | 5    | 3                  | 4.00 | 1.06 | 3.90 | 1.09 | 3.81 | 1.11 | 3.71 | 1.13 | 3.62 | 1.15 |
|                     | 7    | 6                  | 4.20 | 1.08 | 4.10 | 1.10 | 4.00 | 1.13 | 3.90 | 1.15 | 3.80 | 1.17 |
|                     | 10   | 8                  | 4.76 | 1.19 | 4.65 | 1.21 | 4.53 | 1.24 | 4.42 | 1.26 | 4.31 | 1.29 |
| 15                  | 10   | 4.53               | 1.09 | 4.42 | 1.12 | 4.31 | 1.14 | 4.20 | 1.16 | 4.10 | 1.18 |      |

### ■ Model:ASYG12LMCE

|                     |      |                    |      |      |      |      |      |      |      |      |      |      |
|---------------------|------|--------------------|------|------|------|------|------|------|------|------|------|------|
| AFR                 |      | m <sup>3</sup> /h  |      |      |      | 750  |      |      |      |      |      |      |
|                     |      | Indoor temperature |      |      |      |      |      |      |      |      |      |      |
|                     |      | 16                 |      | 18   |      | 20   |      | 22   |      | 24   |      |      |
| Outdoor temperature | °CDB | °CWB               | TC   | IP   | TC   | IP   | TC   | IP   | TC   | IP   | TC   | IP   |
|                     |      |                    | kW   |      | kW   |      | kW   |      | kW   |      | kW   |      |
|                     | -15  | -16                | 2.94 | 1.54 | 2.87 | 1.57 | 2.80 | 1.60 | 2.73 | 1.63 | 2.66 | 1.66 |
|                     | -10  | -11                | 3.73 | 1.60 | 3.64 | 1.63 | 3.55 | 1.67 | 3.46 | 1.70 | 3.37 | 1.73 |
|                     | -5   | -7                 | 4.40 | 1.62 | 4.29 | 1.65 | 4.19 | 1.69 | 4.08 | 1.72 | 3.98 | 1.75 |
|                     | 0    | -2                 | 4.88 | 1.57 | 4.77 | 1.60 | 4.65 | 1.64 | 4.53 | 1.67 | 4.42 | 1.70 |
|                     | 5    | 3                  | 5.37 | 1.52 | 5.24 | 1.56 | 5.11 | 1.59 | 4.99 | 1.62 | 4.86 | 1.65 |
|                     | 7    | 6                  | 5.57 | 1.51 | 5.43 | 1.54 | 5.30 | 1.57 | 5.17 | 1.60 | 5.04 | 1.63 |
|                     | 10   | 8                  | 5.85 | 1.51 | 5.71 | 1.54 | 5.57 | 1.57 | 5.43 | 1.60 | 5.29 | 1.63 |
| 15                  | 10   | 5.66               | 1.39 | 5.52 | 1.42 | 5.39 | 1.45 | 5.25 | 1.48 | 5.12 | 1.51 |      |

### ■ Model:ASYG14LMCE

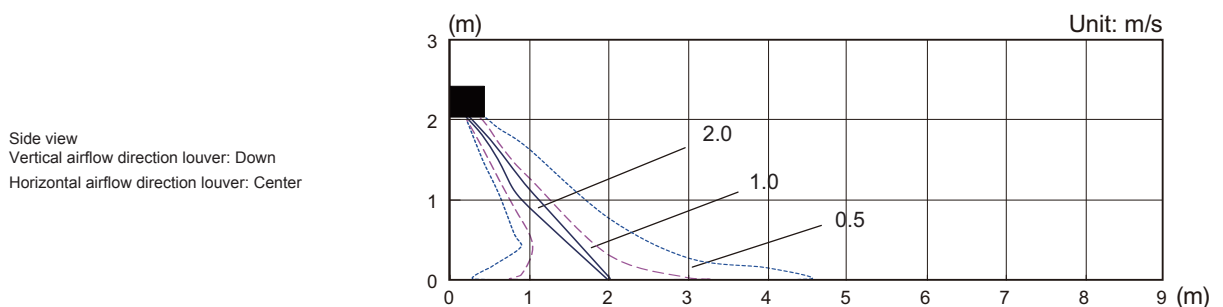
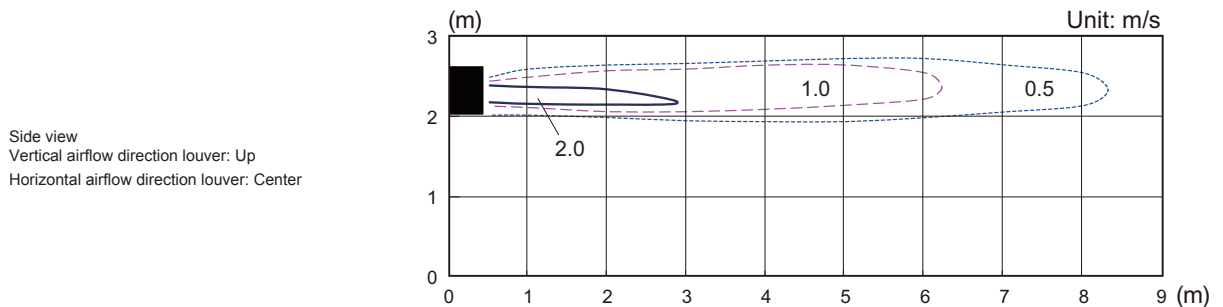
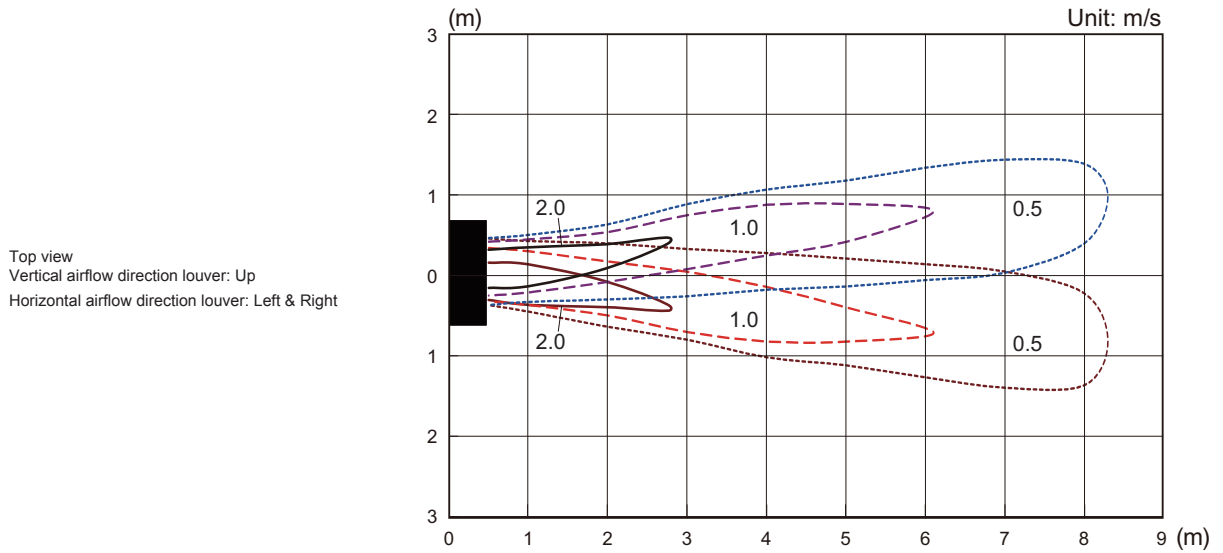
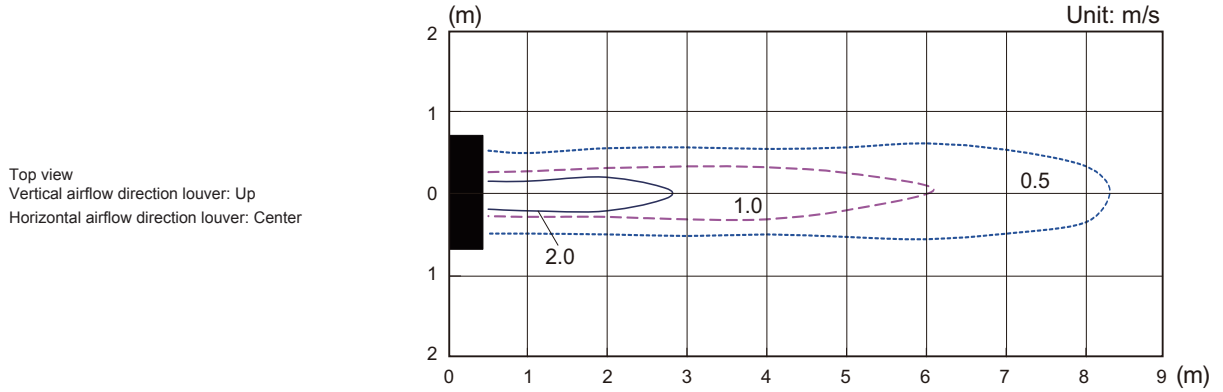
|                     |      |                    |      |      |      |      |      |      |      |      |      |      |
|---------------------|------|--------------------|------|------|------|------|------|------|------|------|------|------|
| AFR                 |      | m <sup>3</sup> /h  |      |      |      | 770  |      |      |      |      |      |      |
|                     |      | Indoor temperature |      |      |      |      |      |      |      |      |      |      |
|                     |      | 16                 |      | 18   |      | 20   |      | 22   |      | 24   |      |      |
| Outdoor temperature | °CDB | °CWB               | TC   | IP   | TC   | IP   | TC   | IP   | TC   | IP   | TC   | IP   |
|                     |      |                    | kW   |      | kW   |      | kW   |      | kW   |      | kW   |      |
|                     | -15  | -16                | 3.65 | 1.43 | 3.57 | 1.46 | 3.48 | 1.49 | 3.39 | 1.52 | 3.31 | 1.55 |
|                     | -10  | -11                | 4.29 | 1.51 | 4.19 | 1.54 | 4.09 | 1.57 | 3.99 | 1.60 | 3.89 | 1.63 |
|                     | -5   | -7                 | 4.68 | 1.58 | 4.57 | 1.61 | 4.46 | 1.64 | 4.34 | 1.68 | 4.23 | 1.71 |
|                     | 0    | -2                 | 5.31 | 1.69 | 5.19 | 1.72 | 5.06 | 1.76 | 4.93 | 1.79 | 4.81 | 1.83 |
|                     | 5    | 3                  | 5.73 | 1.79 | 5.59 | 1.83 | 5.46 | 1.86 | 5.32 | 1.90 | 5.18 | 1.94 |
|                     | 7    | 6                  | 6.30 | 1.86 | 6.15 | 1.89 | 6.00 | 1.93 | 5.85 | 1.97 | 5.70 | 2.01 |
|                     | 10   | 8                  | 6.64 | 1.90 | 6.49 | 1.94 | 6.33 | 1.98 | 6.17 | 2.02 | 6.01 | 2.06 |
| 15                  | 10   | 6.44               | 1.65 | 6.28 | 1.69 | 6.13 | 1.72 | 5.98 | 1.76 | 5.82 | 1.79 |      |

# 5. Fan performance

## 5-1. Air velocity distributions

### ■ Models: ASYG07LMCE, ASYG09LMCE, and ASYG12LMCE

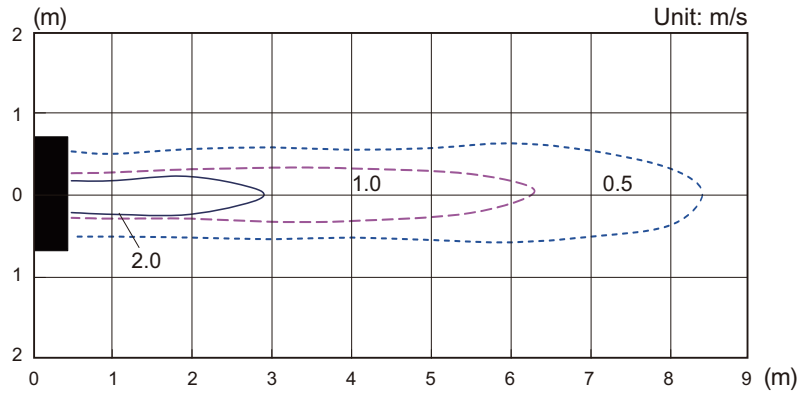
|                      |           |                |
|----------------------|-----------|----------------|
| Measuring conditions | Fan speed | Operation mode |
|                      | HIGH      | FAN            |



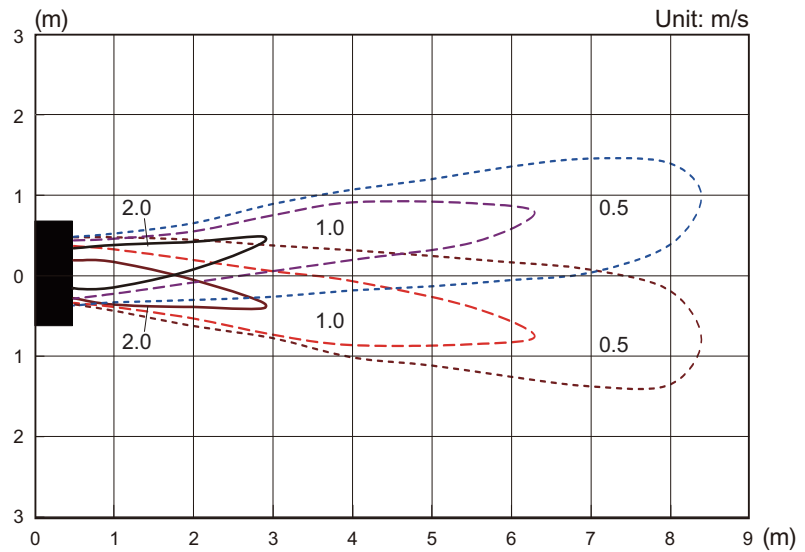
# Model:ASYG14LMCE

|                      |           |                |
|----------------------|-----------|----------------|
| Measuring conditions | Fan speed | Operation mode |
|                      | HIGH      | FAN            |

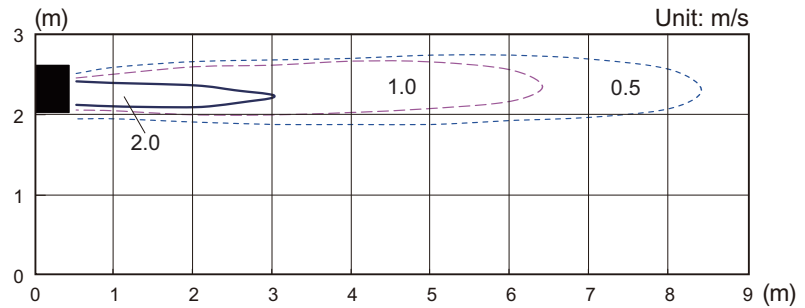
Top view  
Vertical airflow direction louver: Up  
Horizontal airflow direction louver: Center



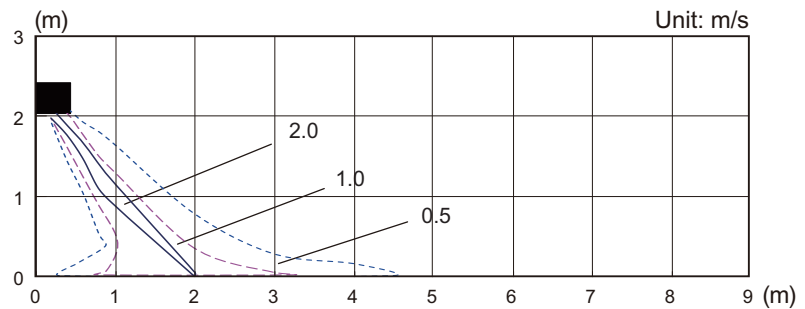
Top view  
Vertical airflow direction louver: Up  
Horizontal airflow direction louver: Left & Right



Side view  
Vertical airflow direction louver: Up  
Horizontal airflow direction louver: Center



Side view  
Vertical airflow direction louver: Down  
Horizontal airflow direction louver: Center



## 5-2. Airflow

### ■ Models: ASYG07LMCE, ASYG09LMCE, and ASYG12LMCE

#### ● Cooling

| Fan speed | Airflow           |     |
|-----------|-------------------|-----|
| HIGH      | m <sup>3</sup> /h | 750 |
|           | l/s               | 208 |
|           | CFM               | 441 |
| MED       | m <sup>3</sup> /h | 640 |
|           | l/s               | 178 |
|           | CFM               | 377 |
| LOW       | m <sup>3</sup> /h | 480 |
|           | l/s               | 133 |
|           | CFM               | 283 |
| QUIET     | m <sup>3</sup> /h | 310 |
|           | l/s               | 86  |
|           | CFM               | 182 |

#### ● Heating

| Fan speed | Airflow           |     |
|-----------|-------------------|-----|
| HIGH      | m <sup>3</sup> /h | 750 |
|           | l/s               | 208 |
|           | CFM               | 441 |
| MED       | m <sup>3</sup> /h | 640 |
|           | l/s               | 178 |
|           | CFM               | 377 |
| LOW       | m <sup>3</sup> /h | 520 |
|           | l/s               | 144 |
|           | CFM               | 306 |
| QUIET     | m <sup>3</sup> /h | 330 |
|           | l/s               | 92  |
|           | CFM               | 194 |

## ■ Model:ASYG14LMCE

### ● Cooling

| Fan speed | Airflow           |     |
|-----------|-------------------|-----|
| HIGH      | m <sup>3</sup> /h | 770 |
|           | l/s               | 214 |
|           | CFM               | 453 |
| MED       | m <sup>3</sup> /h | 680 |
|           | l/s               | 189 |
|           | CFM               | 400 |
| LOW       | m <sup>3</sup> /h | 530 |
|           | l/s               | 147 |
|           | CFM               | 312 |
| QUIET     | m <sup>3</sup> /h | 360 |
|           | l/s               | 100 |
|           | CFM               | 212 |

### ● Heating

| Fan speed | Airflow           |     |
|-----------|-------------------|-----|
| HIGH      | m <sup>3</sup> /h | 770 |
|           | l/s               | 214 |
|           | CFM               | 453 |
| MED       | m <sup>3</sup> /h | 680 |
|           | l/s               | 189 |
|           | CFM               | 400 |
| LOW       | m <sup>3</sup> /h | 560 |
|           | l/s               | 156 |
|           | CFM               | 330 |
| QUIET     | m <sup>3</sup> /h | 380 |
|           | l/s               | 106 |
|           | CFM               | 224 |

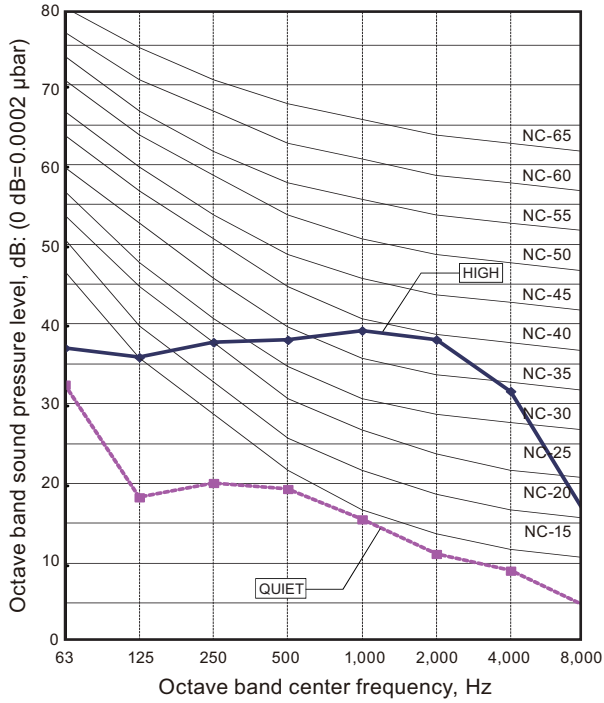


## 6. Operation noise (sound pressure)

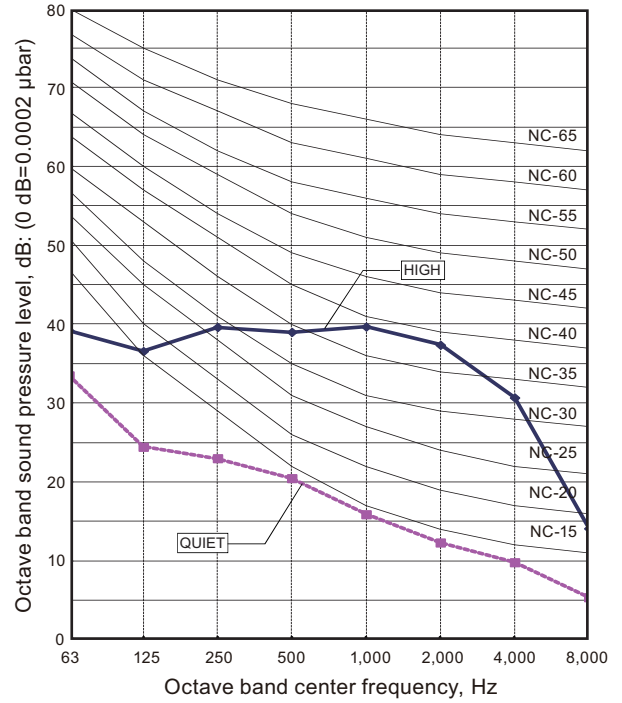
### 6-1. Noise level curve

#### ■ Model:ASYG07LMCE

##### ● Cooling

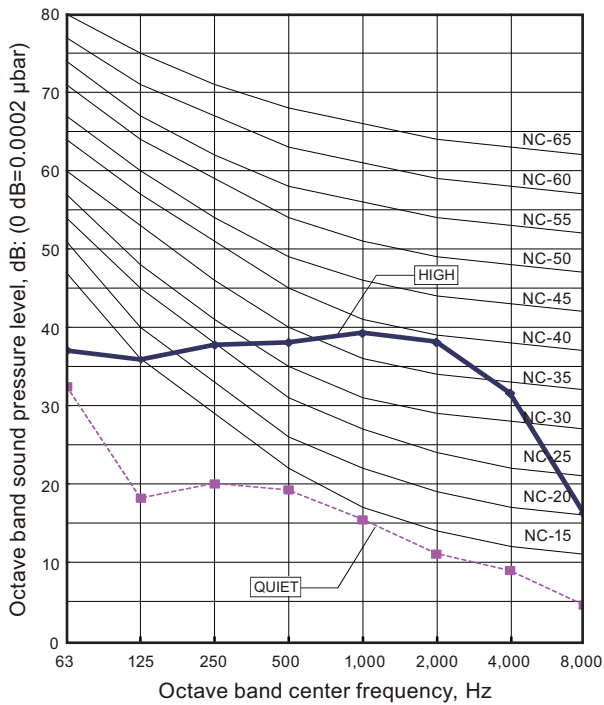


##### ● Heating

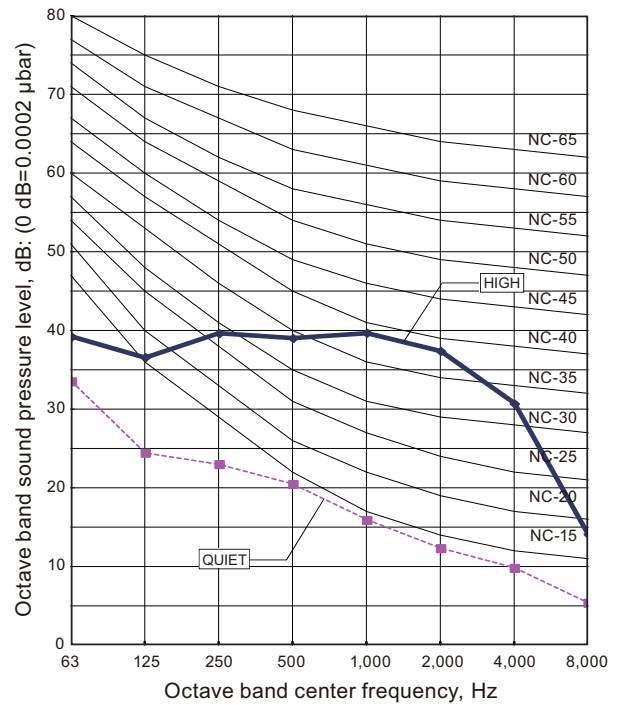


#### ■ Model:ASYG09LMCE

##### ● Cooling

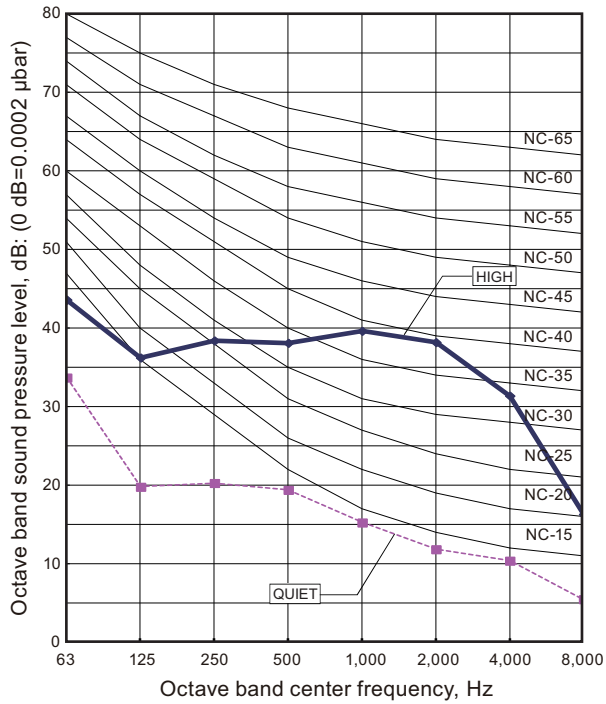


##### ● Heating

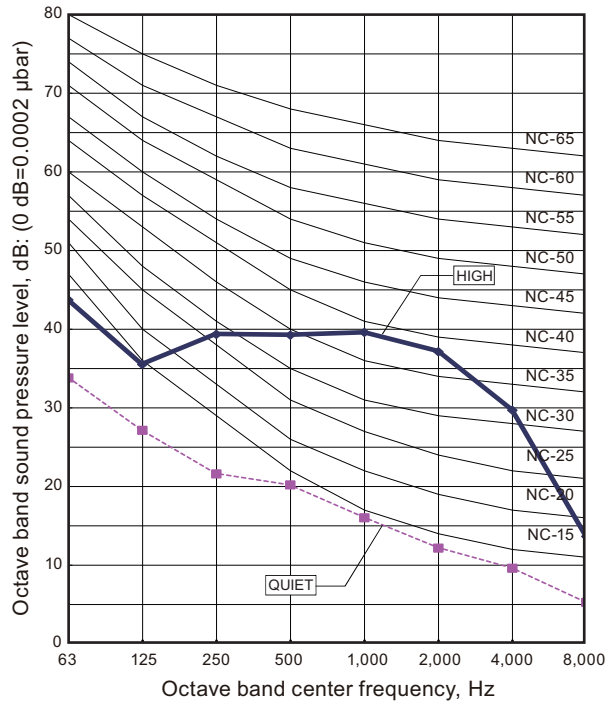


## Model:ASYG12LMCE

### Cooling

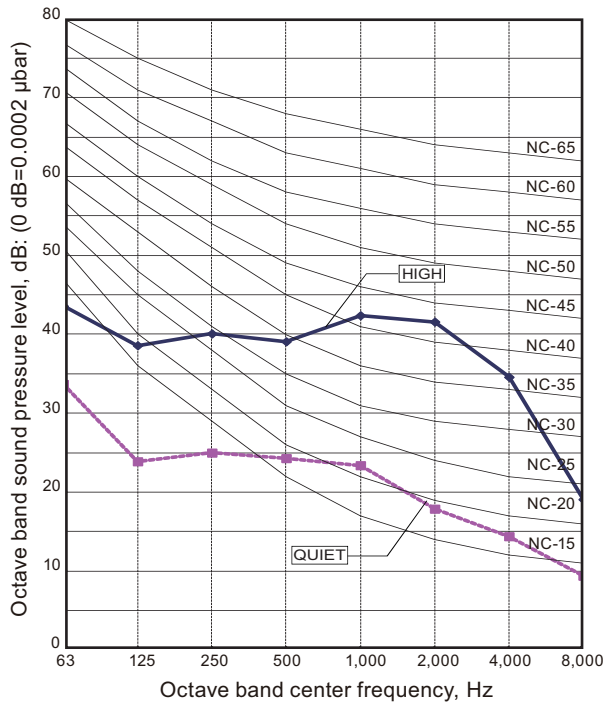


### Heating

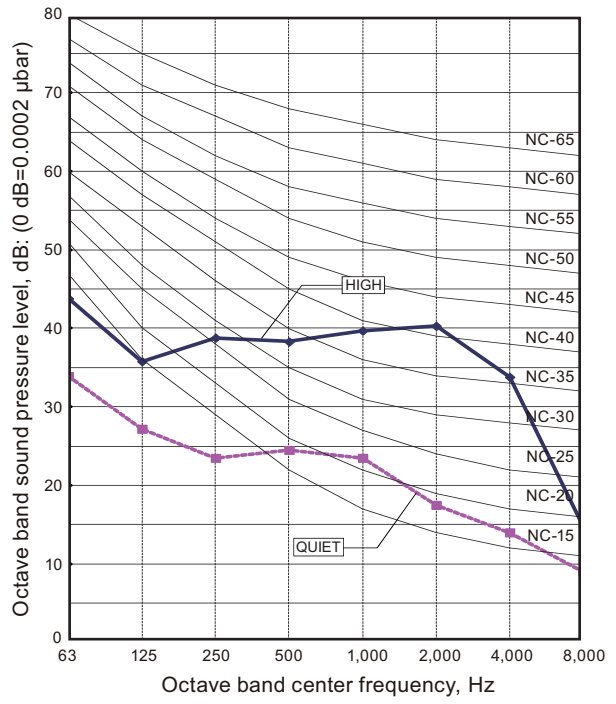


## Model:ASYG14LMCE

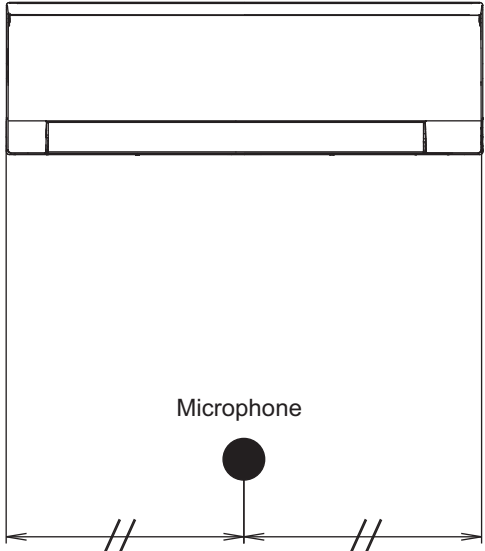
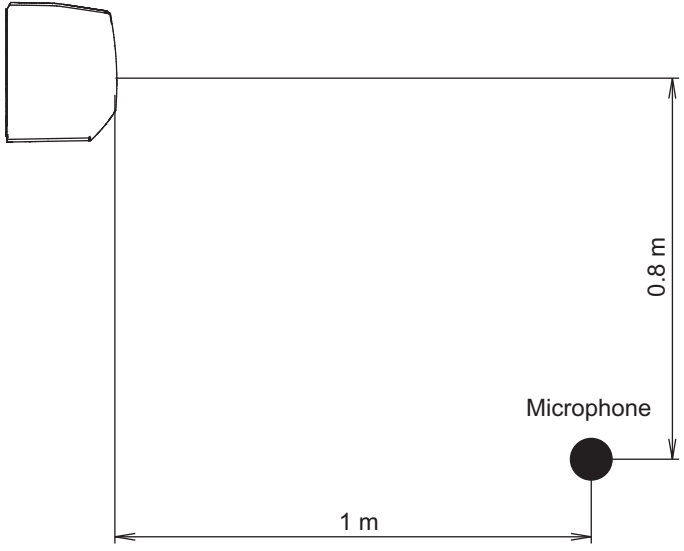
### Cooling



### Heating



### 6-2. Sound level check point



## 7. Safety devices

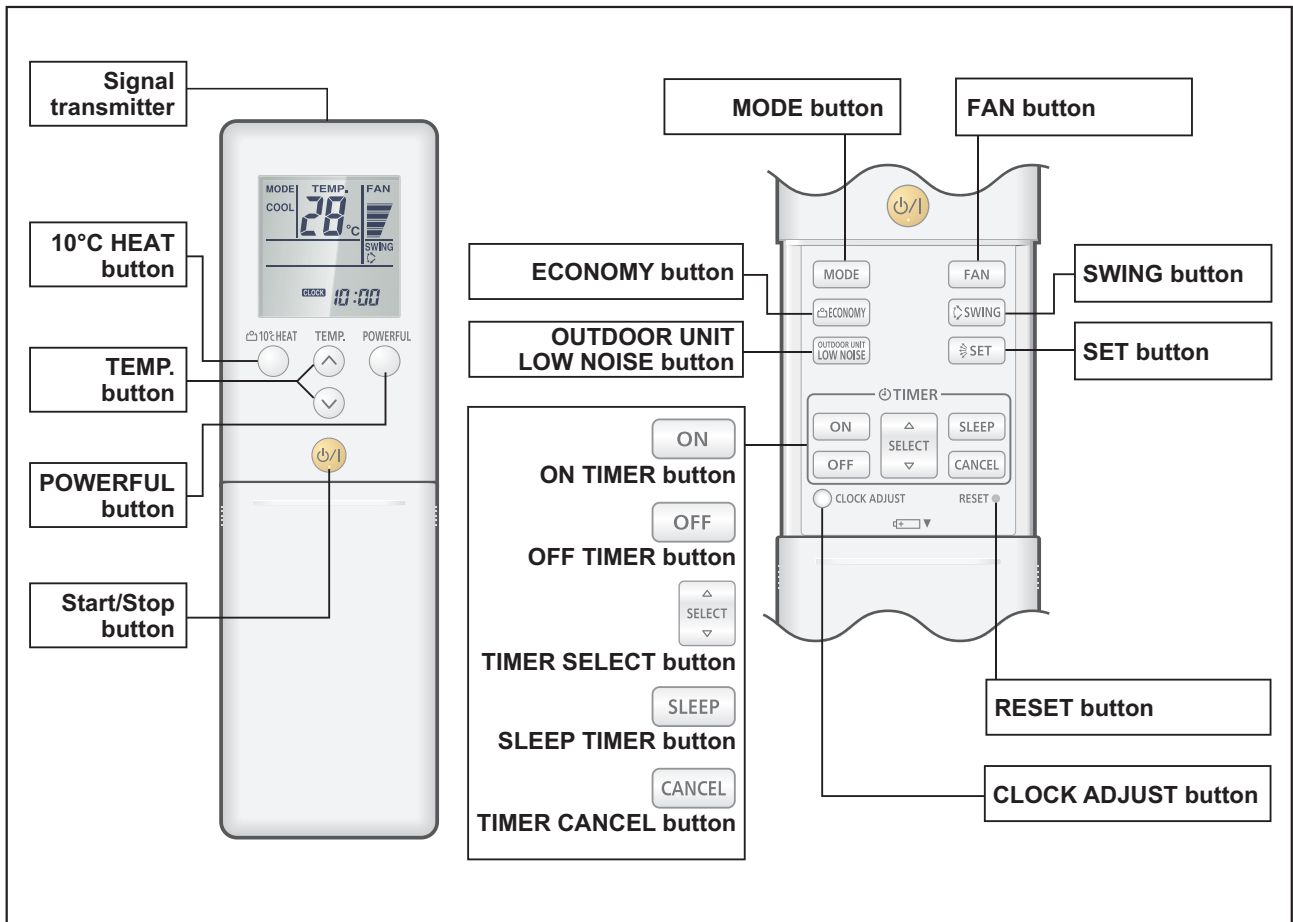
| Type of protection   | Protection form           |          | Model                        |            |            |            |
|----------------------|---------------------------|----------|------------------------------|------------|------------|------------|
|                      |                           |          | ASYG07LMCE                   | ASYG09LMCE | ASYG12LMCE | ASYG14LMCE |
| Circuit protection   | Current fuse (PCB*)       |          | 250 V, 3.15 A                |            |            |            |
| Fan motor protection | Thermal protector program | Activate | 105±10°C<br>Fan motor stop   |            |            |            |
|                      |                           | Reset    | 90±10°C<br>Fan motor restart |            |            |            |

\*PCB: Printed Circuit Board

## 8. Remote controller

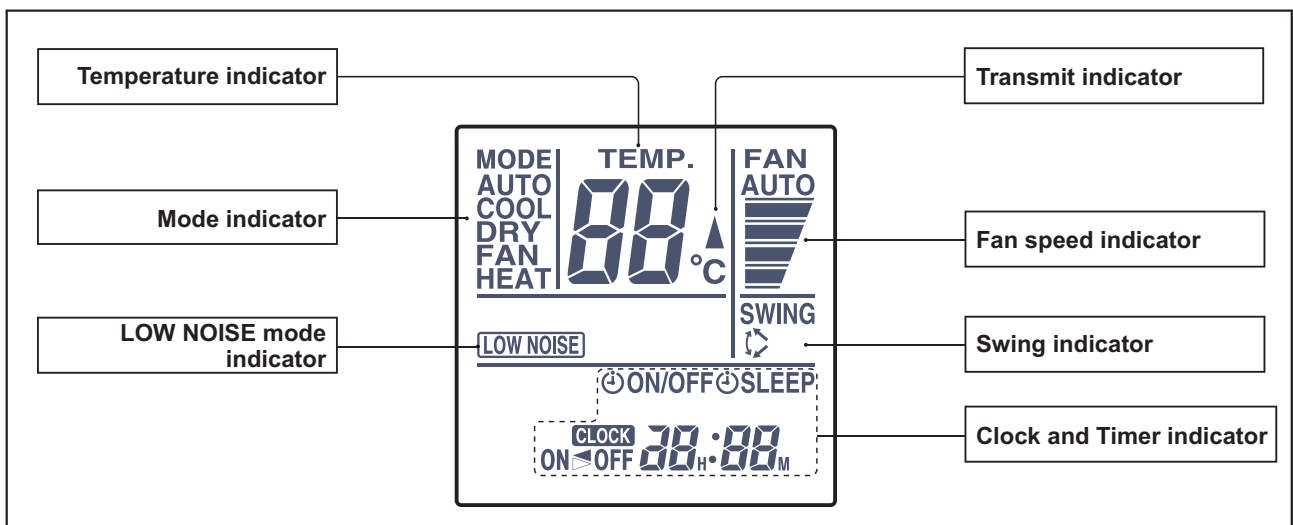
### 8-1. Wireless remote controller

#### Overview



**NOTE:** Functions may differ by type of the indoor unit. For details, refer to the operation manual.

#### Display panel

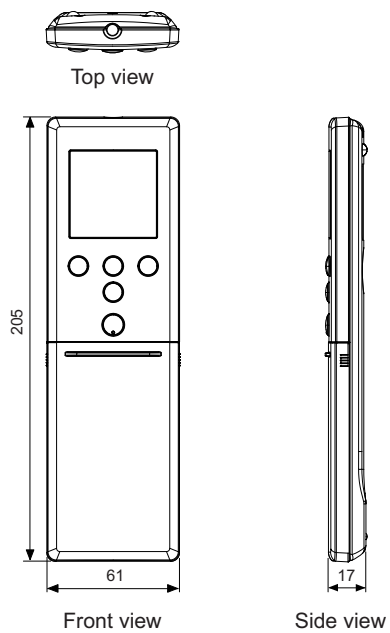


To facilitate explanation, the accompanying illustration has been drawn to show all possible indicators; in actual operation, however, the display will only show those indicators appropriate to the current operation.

## ■ Specifications

### ● Controller

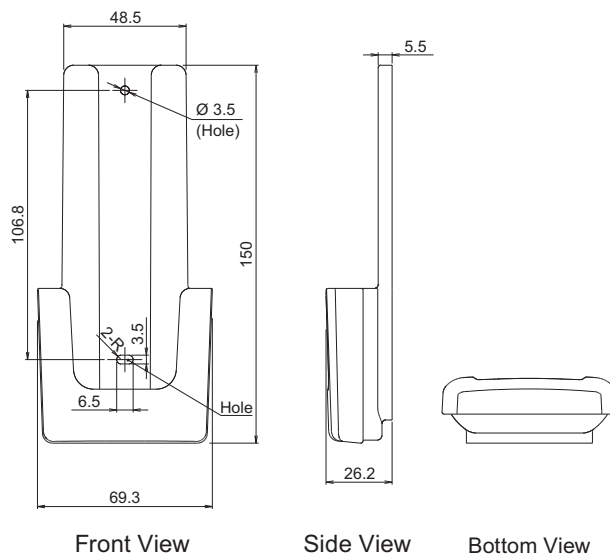
Unit: mm



|                  |    |                         |
|------------------|----|-------------------------|
| Size (H × W × D) | mm | 205 × 61 × 17           |
| Weight           | g  | 122 (without batteries) |

### ● Holder

Unit: mm



|                  |    |                   |
|------------------|----|-------------------|
| Size (H × W × D) | mm | 150 × 69.3 × 26.2 |
| Weight           | g  | 27                |

## 9. External input and output

With using external input and output functions, this product can be operated inter-connectedly with an external device.

| Connector | Input         | Output                  | Remarks   |
|-----------|---------------|-------------------------|---|
| CNA01     | Control input | —                       | See external input/output settings for details. |
| CNB01     | —             | Operation status output |   |
| CNB02     | —             | Error status output     |   |

### 9-1. External input

With using external input function, some functions on this product can be controlled from an external device.

- "Operation/Stop" mode or "Forced stop" mode can be selected with function setting of indoor unit.
- A twisted pair cable (22AWG) should be used. Maximum length of cable is 150 m.
- The wire connection should be separate from the power cable line.

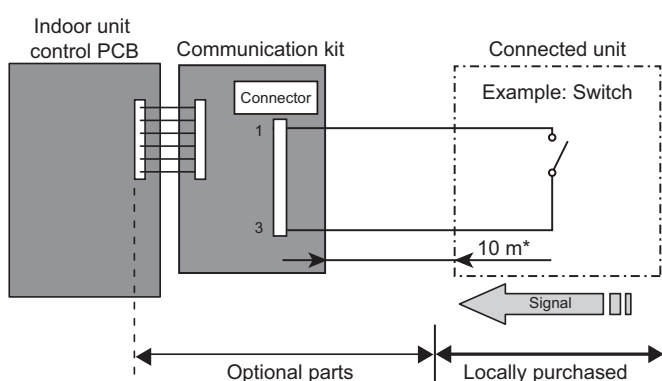
#### ■ Control input (Operation/Stop or Forced stop)

The air conditioner can be remotely operated by means of the following on-site work.

Unit operation is started at the following contents by adding the contact input of a commercial on/off switch to a connector on the external control PCB and turning it on.

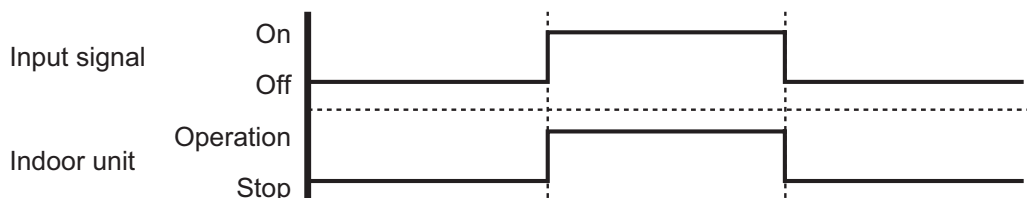
| Unit operation        | Initial setting after power is on  | Starting mode other than initial setting |
|-----------------------|------------------------------------|--|
| Operation mode        | Auto changeover                    | Mode at previous operation               |
| Set temperature       | 24 °C                              | Temperature at previous operation        |
| Airflow mode          | AUTO                               | Mode at previous operation               |
| Air direction (swing) | Standard air direction (swing OFF) | Air direction at previous operation      |

#### ● Circuit diagram example

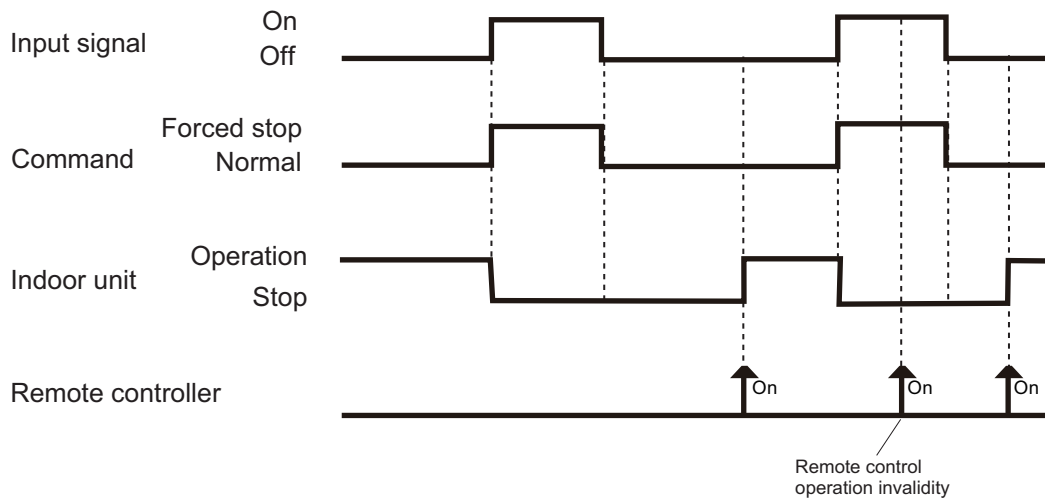


- Contact capacity: DC 24 V or more, 10 mA or more.
- \*: Make the distance from the PCB to the connected unit within 10 m.
- Use non-polar relays and switches.

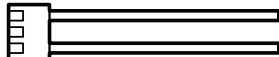
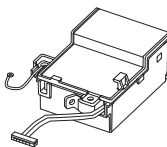
#### ● When function setting is "Operation/Stop" mode



## ● When function setting is "Forced stop" mode



## ● Optional part

| Part name            | Model name | Exterior   |
|----------------------|------------|--|
| External connect kit | UTY-XWZXZ5 | External input wire<br> |
| Communication kit    | UTY-XCBXZ2 |                        |

\* For operating the external function, the wall mounted type requires the communication kit in addition to the wire (UTY-XWZXZ5).



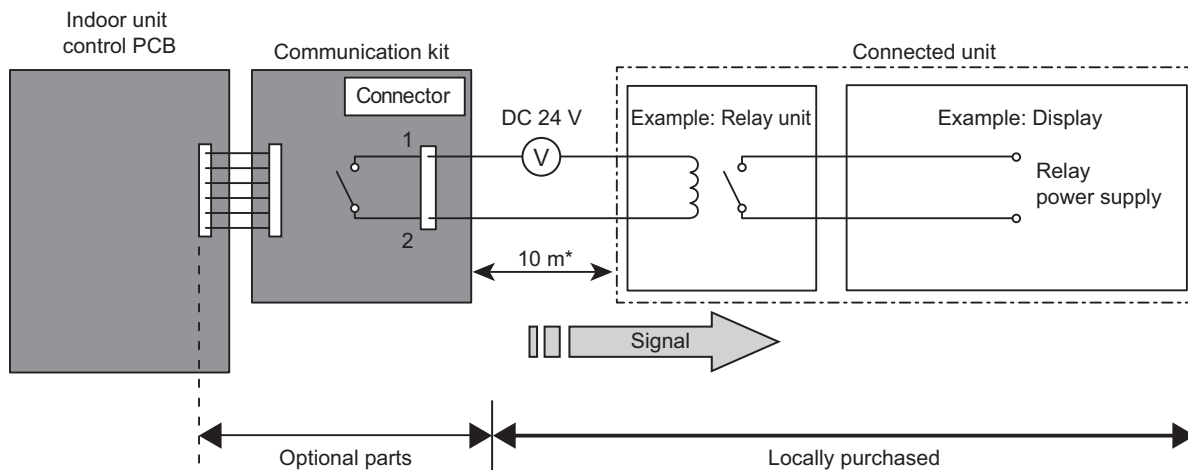
## 9-2. External output

With using external output function, operating status of this product can be transmitted to the external device, and also, this product can be inter-connected with the external device.

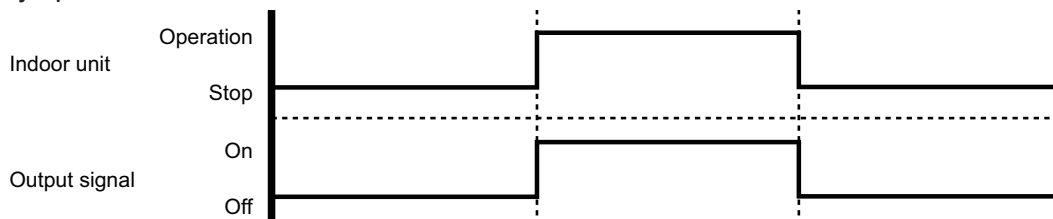
### ■ Operation status output

Air conditioner operation status signal can be output.

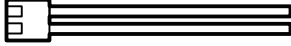
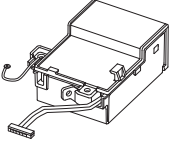
#### ● Circuit diagram example



- \*: Make the distance from the PCB to the connected unit within 10 m.
- Relay spec: Max. DC 24 V, 10 mA to less than 500 mA.



#### ● Optional part

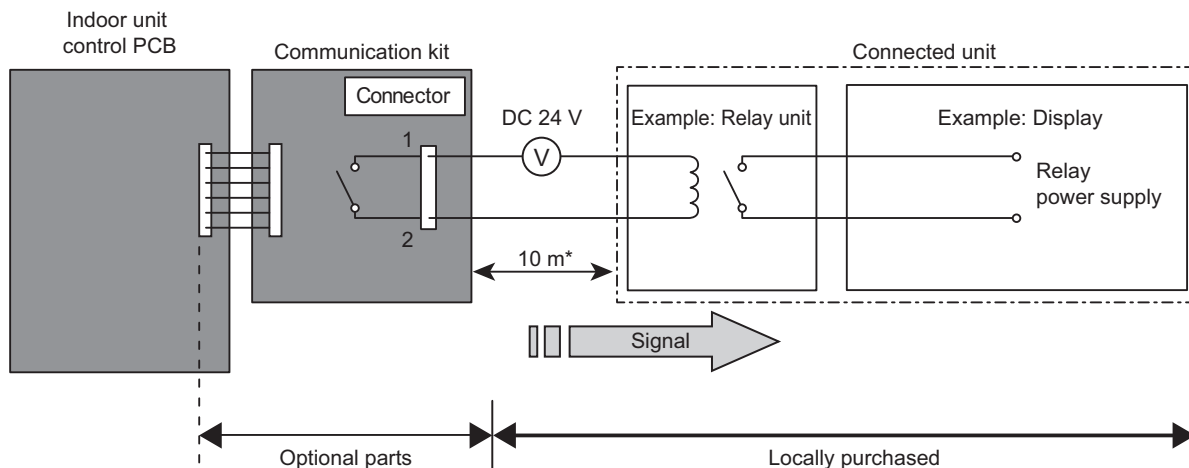
| Part name            | Model name | Exterior  |
|----------------------|------------|---|
| External connect kit | UTY-XWZXZ5 | External output wire<br> |
| Communication kit    | UTY-XCBXZ2 |                          |

\* For operating the external function, the wall mounted type requires the communication kit in addition to the wire (UTY-XWZXZ5).

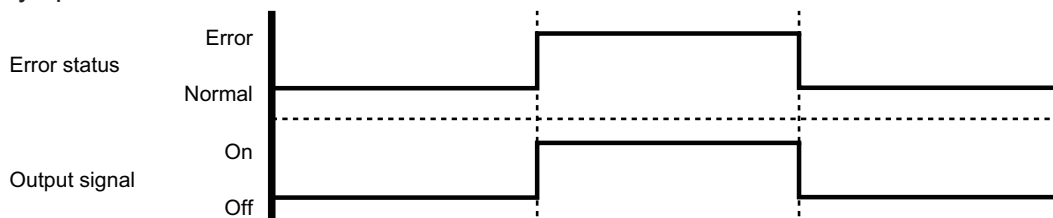
## ■ Error status output

Air conditioner error status signal can be output.


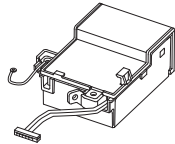
### ● Circuit diagram example



- \*: Make the distance from the PCB to the connected unit within 10 m.
- Relay spec: Max. DC 24 V, 10 mA to less than 500 mA.



### ● Optional part

| Part name            | Model name | Exterior  |
|----------------------|------------|---|
| External connect kit | UTY-XWZXZ5 | External output wire<br> |
| Communication kit    | UTY-XCBXZ2 |                          |

\* For operating the external function, the wall mounted type requires the communication kit in addition to the wire (UTY-XWZXZ5).

## 10. Function settings

To adjust the functions of this product according to the installation environment, various types of function settings are available.

**NOTE:** Incorrect settings can cause a product malfunction.

### 10-1. Function settings by using remote controller

Some function settings can be changed on the remote controller. After confirming the setting procedure and the content of each function setting, select appropriate functions for your installation environment.

**NOTE:** Incorrect settings can cause a product malfunction.

#### ■ Setting procedure by using wireless remote controller

The function number and the associated setting value are displayed on the LCD of the remote controller. Follow the instructions written in the local setup procedure supplied with the remote controller, and select appropriate setting according to the installation environment.

**Before connecting the power supply of the indoor unit, reconfirm following items:**

- Piping air tight test and vacuuming have been performed firmly.
- There is no wiring mistake.

**Then, connect the power supply of the indoor unit.**

**Entering function setting mode:**

While pressing the POWERFUL button and TEMP. (∧) button simultaneously, press the RESET button to enter the function setting mode.

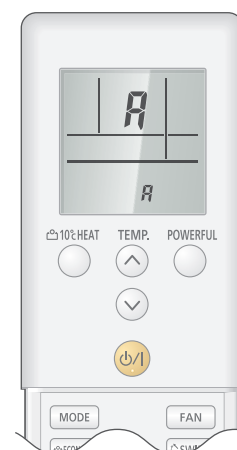
#### STEP 1: Setting the remote controller custom code

Use the following steps to select the custom code of the remote controller. (Note that the air conditioner cannot receive a custom code if the air conditioner has not been set for the custom code.)

The custom codes that are set through this process are applicable only to the signal in the function setting.

For details on how to set the custom codes through the normal process, refer to ["Custom code setting for wireless remote controller"](#) on page 28.

1. Press the TEMP. (∧) (∨) buttons to change the custom code between  $\overline{A}$  →  $\overline{B}$  →  $\overline{C}$  →  $\overline{D}$ . Match the code on the display to the air conditioner custom code. (Initially set to  $\overline{A}$ .) If the custom code does not need to be selected, press the 10 °C HEAT button, and proceed to **STEP 2**.
2. Press the MODE button and check that the indoor unit can receive signals at the displayed custom code.
3. Press the 10 °C HEAT button to accept the custom code, and proceed to **STEP 2**.
4. After completing the function setting, be sure to disconnect the power supply and then reconnect it.

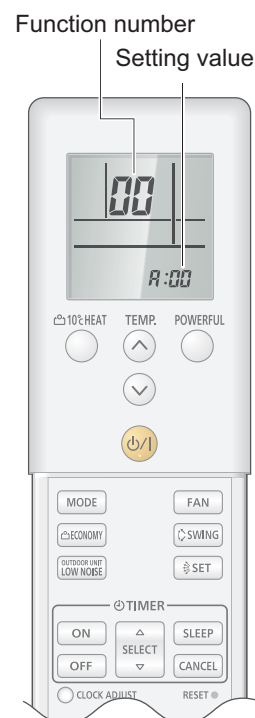


**NOTES:**

- The air conditioner custom code is set to  $\text{F}$  prior to shipment.
- The remote controller resets to custom code  $\text{F}$  when the batteries on the remote controller are replaced. If you use a custom code other than code  $\text{F}$ , reset the custom code after replacing the batteries.
- If you do not know the air conditioner custom code setting, try each of the custom codes ( $\text{F} \rightarrow \text{b} \rightarrow \text{c} \rightarrow \text{d}$ ) until you find the code that operates the air conditioner.

**STEP 2: Selecting the function number and setting value**

1. Press the TEMP. ( $\wedge$ ) ( $\vee$ ) buttons to select the function number. To switch between the left and right digits, press the 10 °C HEAT button.
2. Press the POWERFUL button to proceed the setting value. To return the function number selection, press the POWERFUL button again.
3. Press the TEMP. ( $\wedge$ ) ( $\vee$ ) buttons to select the setting value. To switch between the left and right digits, press the 10 °C HEAT button.
4. Press the MODE button, and START/STOP button, in the order listed to confirm the settings.
5. Press the RESET button to cancel the function setting mode.
6. After completing the function setting, be sure to disconnect the power supply and then reconnect it.

**⚠ CAUTION**

After disconnecting the power supply, wait 30 seconds or more before reconnecting it. The function setting will not become active unless the power supply is disconnected and then reconnected.

## ■ Contents of function setting

Each function setting listed in this section is adjustable in accordance with the installation environment.

**NOTE:** Setting will not be changed if invalid numbers or setting values are selected.

### ● Function setting list

|    | Function no. | Functions   |
|----|--------------|---|
| 1) | 11           | Filter sign   |
| 2) | 30           | Room temperature sensor control for cooling           |
| 3) | 31           | Room temperature sensor control for heating           |
| 4) | 40           | Auto restart  |
| 5) | 42           | Room temperature sensor switching                     |
| 6) | 44           | Remote controller custom code                         |
| 7) | 46           | External input control                                |
| 8) | 48           | Room temperature sensor switching (Aux.)              |
| 9) | 49           | Indoor unit fan control for energy saving for cooling |

#### 1) Filter sign

Select appropriate intervals for displaying the filter sign on the indoor unit according to the estimated amount of dust in the air of the room.

If the indication is not required, select "No indication" (03).

| Function number | Setting value | Setting description         | Factory setting |
|-----------------|---------------|-----------------------------|-----------------|
| 11              | 00            | Standard (400 hours)        |                 |
|                 | 01            | Long interval (1,000 hours) |                 |
|                 | 02            | Short interval (200 hours)  |                 |
|                 | 03            | No indication               | ◆               |

#### 2) Room temperature sensor control for cooling

Depending on the installed environment, correction of the room temperature sensor may be required. Select the appropriate control setting according to the installed environment.

| Function number | Setting value | Setting description    | Factory setting |
|-----------------|---------------|------------------------|-----------------|
| 30              | 00            | Standard               | ◆               |
|                 | 01            | Slightly lower control |                 |
|                 | 02            | Lower control          |                 |
|                 | 03            | Higher control         |                 |

#### 3) Room temperature sensor control for heating

Depending on the installed environment, correction of the room temperature sensor may be required. Select the appropriate control setting according to the installed environment.

| Function number | Setting value | Setting description     | Factory setting |
|-----------------|---------------|-------------------------|-----------------|
| 31              | 00            | Standard                | ◆               |
|                 | 01            | Lower control           |                 |
|                 | 02            | Slightly higher control |                 |
|                 | 03            | Higher control          |                 |

#### 4) Auto restart

Enables or disables automatic restart after a power interruption.

| Function number | Setting value | Setting description | Factory setting |
|-----------------|---------------|---------------------|-----------------|
| 40              | 00            | Enable              | ◆               |
|                 | 01            | Disable             |                 |

**NOTE:** Auto restart is an emergency function such as for power outage etc. Do not attempt to use this function in normal operation. Be sure to operate the unit by remote controller or external device.

#### 5) Room temperature sensor switching

(Only for wired remote controller)

When using the wired remote controller temperature sensor, change the setting to "Both" (01).

| Function number | Setting value | Setting description | Factory setting |
|-----------------|---------------|---------------------|-----------------|
| 42              | 00            | Indoor unit         | ◆               |
|                 | 01            | Both                |                 |

00: Sensor on the indoor unit is active.

01: Sensors on both indoor unit and wired remote controller are active.

**NOTE:** Remote controller sensor must be turned on by using the remote controller.

#### 6) Remote controller custom code

(Only for wireless remote controller)

The indoor unit custom code can be changed. Select the appropriate custom code.

| Function number | Setting value | Setting description | Factory setting |
|-----------------|---------------|---------------------|-----------------|
| 44              | 00            | A                   | ◆               |
|                 | 01            | B                   |                 |
|                 | 02            | C                   |                 |
|                 | 03            | D                   |                 |

#### 7) External input control

"Operation/Stop" mode or "Forced stop" mode can be selected.

| Function number | Setting value | Setting description  | Factory setting |
|-----------------|---------------|----------------------|-----------------|
| 46              | 00            | Operation/Stop mode  | ◆               |
|                 | 01            | (Setting prohibited) |                 |
|                 | 02            | Forced stop mode     |                 |

#### 8) Room temperature sensor switching (Aux.)

To use the temperature sensor on the wired remote controller only, change the setting to "Wired remote controller" (01).

This function will only work if the function setting 42 is set at "Both" (01).

When the setting value is set to "Both" (00), more suitable control of the room temperature is possible by setting function setting 30 and 31 too.

| Function number | Setting value | Setting description     | Factory setting |
|-----------------|---------------|-------------------------|-----------------|
| 48              | 00            | Both                    | ◆               |
|                 | 01            | Wired remote controller |                 |

### 9) Indoor unit fan control for energy saving for cooling

Enables or disables the power-saving function by controlling the indoor unit fan rotation when the outdoor unit is stopped during cooling operation.

| Function number | Setting value | Setting description | Factory setting |
|-----------------|---------------|---------------------|-----------------|
| 49              | 00            | Disable             |                 |
|                 | 01            | Enable              | ◆               |

00: When the outdoor unit is stopped, the indoor unit fan operates continuously following the setting on the remote controller.

01: When the outdoor unit is stopped, the indoor unit fan operates intermittently at a very low speed.

## 10-2. Custom code setting for wireless remote controller

To interconnect the air conditioner and the wireless remote controller, assignment of the custom code for the wireless remote controller is required.

**NOTE:** Air conditioner cannot receive a signal if the air conditioner has not been set for the custom code.

When 2 or more air conditioners are installed in a room, and the remote controller is operating an air conditioner other than the one you wish to set, change the custom code of the remote controller to operate only the air conditioner you wish to set. (4 selections possible.)

Confirm the setting of the remote controller custom code and the function setting. If these do not match, the remote controller cannot be used to operate for the air conditioner.

1. Press the START/STOP button until only the clock is displayed on the remote controller display.
2. Press the MODE button for at least 5 seconds to display the current custom code. (Initially set to  $\text{H}$ .)
3. Press the TEMP. ( $\wedge$ ) ( $\vee$ ) buttons to change the custom code between  $\text{H} \rightarrow \text{b} \rightarrow \text{c} \rightarrow \text{d}$ . Match the code on the display to the air conditioner custom code. (Initially set to  $\text{H}$ .)
4. Press the MODE button again to return to the clock display. The custom code will be changed.


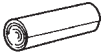


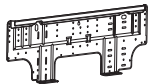

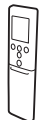
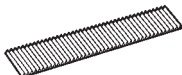

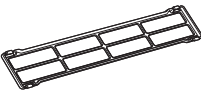




### NOTES:

- If no button is pressed within 30 seconds after the custom code is displayed, the system returns to the original clock indicator. In this case, start again from step 1.
- The air conditioner custom code is set to  $\text{H}$  prior to shipment. To change the custom code, contact your retailer.
- If you do not know the assigned code for the air conditioner, try each of the custom code ( $\text{H} \rightarrow \text{b} \rightarrow \text{c} \rightarrow \text{d}$ ) until you find the code which operates the air conditioner.


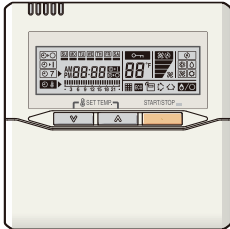



## 11. Accessories

| Part name                | Exterior   | Q'ty | Part name                            | Exterior   | Q'ty |
|--------------------------|--|------|--------------------------------------|--|------|
| Operating manual         |   | 1    | Cloth tape                           |   | 1    |
| Installation manual      |   | 1    | Tapping screw (large),<br>M4 × 25 mm |   | 5    |
| Wall hook bracket        |   | 1    | Tapping screw (small),<br>M3 × 12 mm |   | 2    |
| Remote controller        |   | 1    | Air cleaning filter                  |   | 2    |
| Battery                  |   | 2    | Filter holder                        |   | 2    |
| Remote controller holder |  | 1    | Seal A<br>(for 15 model)             |  | 1    |

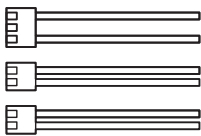
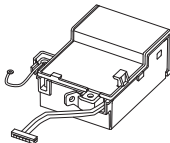
## 12. Optional parts

### 12-1. Controllers

| Exterior   | Part name                | Model name | Summary  |
|--|--------------------------|------------|--|
|   | Wired remote controller  | UTY-RVNYM  | Large and full-dot liquid crystal screen, wide and large keys easy to press, user-intuitive arrow key.<br>Wire type: Polar 3-wire                                  |
|   | Wired remote controller  | UTY-RNNYM  | Room temperature can be controlled by detecting the temperature accurately with built-in thermo sensor.<br>Wire type: Polar 3-wire                                 |
|  | Simple remote controller | UTY-RSNYM  | Compact remote controller concentrates on the basic functions such as Start/Stop, fan control, temperature setting, and operation mode.<br>Wire type: Polar 3-wire |

**NOTE:** Available functions may differ by the remote controller. For details, refer to the operation manual.

### 12-2. Others

| Exterior  | Part name            | Model name | Summary   |
|---|----------------------|------------|---|
|  | External connect kit | UTY-XWZXZ5 | Required when external device is connected.                   |
|  | Communication kit    | UTY-XCBXZ2 | Use to connect with optional devices and air conditioner PCB. |

# **Part 2. OUTDOOR UNIT**

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**SINGLE TYPE:**

**AOYG07LMCE**

**AOYG09LMCE**

**AOYG12LMCE**

**AOYG14LMCE**

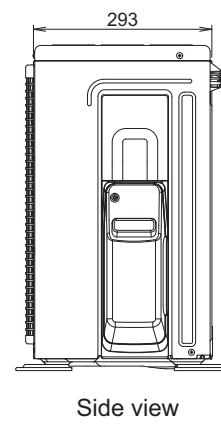
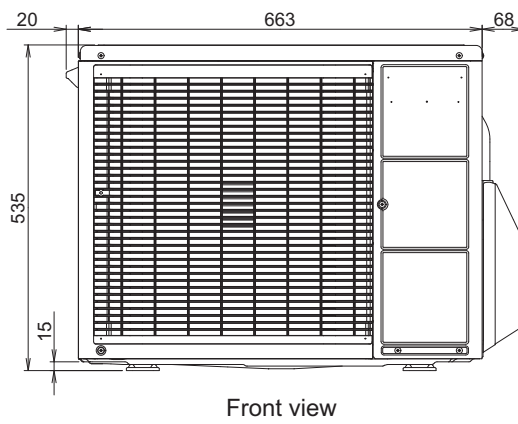
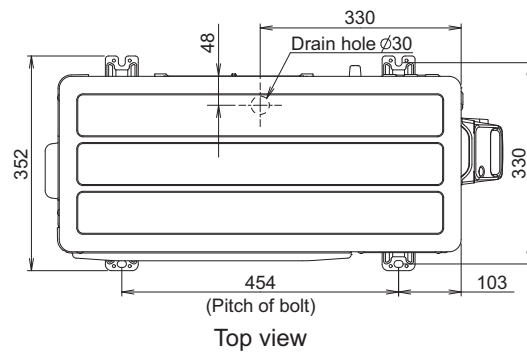
# 1. Specifications

| Type  |                                 |                   |                   | Inverter heat pump                       |                                 |                      |  |
|---|---------------------------------|-------------------|-------------------|--|---------------------------------|----------------------|--|
| Model name  |                                 |                   |                   | AOYG07LMCE                               | AOYG09LMCE                      | AOYG12LMCE           | AOYG14LMCE                               |
| Power supply  |                                 |                   |                   | 230 V ~ 50 Hz                            |                                 |                      |  |
| Available voltage range   |                                 |                   |                   | 198—264 V                                |                                 |                      |  |
| Starting current  |                                 |                   |                   | 3.3                                      | 3.5                             | 4.8                  | 6.3                                      |
| Fan   | Airflow rate                    | Cooling           | m <sup>3</sup> /h | 1,670                                    |                                 | 1,830                | 1,940                                    |
|   |                                 | Heating           |                   | 1,470                                    |                                 | 1,600                | 1,700                                    |
|   | Type × Q'ty                     | Propeller fan × 1 |                   |  |                                 |                      |  |
| Motor output  |                                 |                   | W                 | 23                                       |                                 | 37                   |  |
| Sound pressure level *1   |                                 | Cooling           | dB (A)            | 45                                       |                                 | 50                   |  |
|   |                                 | Heating           |                   | 45                                       |                                 | 50                   |  |
| Sound power level   |                                 | Cooling           | dB (A)            | 58                                       |                                 | 61                   | 65                                       |
|   |                                 | Heating           |                   | 56                                       |                                 | 61                   | 65                                       |
| Heat exchanger type   | Dimensions (H × W × D)          |                   | mm                | 650 × 504 × 18.2                         |                                 | 642 × 504 × 36.4     | 896 × 504 × 36.4                         |
|   | Fin pitch                       |                   |                   | 1.3                                      |                                 | 1.4                  | 1.3                                      |
|   | Rows × Stages                   |                   |                   | 1 × 24                                   |                                 | 2 × 24               |  |
|   | Pipe type                       |                   |                   | Copper                                   |                                 |                      |  |
|   | Fin type                        |                   |                   | Type (Material)                          |                                 | Corrugate (Aluminum) |  |
|   |                                 |                   | Surface treatment |  | Corrosion resistance (Blue fin) |                      |  |
| Compressor  | Type × Q'ty                     |                   | W                 | Rotary × 1                               |                                 |                      |  |
|   | Motor output                    |                   |                   | 500                                      | 610                             | 750                  |  |
| Refrigerant   | Type (Global warming potential) |                   | R410A (1975)      |  |                                 |                      |  |
|   | Charge                          |                   | g                 | 700                                      | 850                             | 1,050                |  |
| Refrigerant oil   | Type                            |                   | POE (VG74)        |  |                                 |                      |  |
|   | Amount                          |                   | cm <sup>3</sup>   | 280                                      |                                 |                      |  |
| Enclosure   | Material                        |                   | Steel sheet       |  |                                 |                      |  |
|   | Color                           |                   | Beige             |  |                                 |                      |  |
|   |                                 |                   |                   | Approximate color of MUNSELL 10YR7.5/1.0 |                                 |                      |  |
| Dimensions (H × W × D)  | Net                             |                   | mm                | 535 × 663 × 293                          |                                 | 540 × 790 × 290      |  |
|   | Gross                           |                   |                   | 595 × 790 × 395                          |                                 | 648 × 938 × 400      |  |
| Weight  | Net                             |                   | kg                | 21                                       |                                 | 26                   | 34                                       |
|   | Gross                           |                   |                   | 25                                       |                                 | 30                   | 37                                       |
| Connection pipe   | Size                            | Liquid            | mm (in)           | Ø 6.35 (Ø 1/4)                           |                                 |                      |  |
|   |                                 | Gas               |                   | Ø 9.52 (Ø 3/8)                           |                                 | Ø 12.7 (Ø 1/2)       |  |
|   | Method                          |                   | Flare             |  |                                 |                      |  |
|   | Pre-charge length               |                   | 15                |  |                                 |                      |  |
|   | Max. length                     |                   | 20                |  |                                 |                      |  |
| Max. height difference  |                                 | 15                |                   |  |                                 |                      |  |
| Operation range   |                                 | Cooling           | °C                | -10 to 43                                |                                 |                      |  |
|   |                                 | Heating           |                   | -15 to 24                                |                                 |                      |  |
| Drain hose  | Material                        |                   | PP+LLDPE          |  |                                 | LDPE                 |  |
|   | Size                            |                   | mm                | Ø 13.0 (I. D.), Ø 16.0 to Ø 16.8 (O. D.) |                                 |                      | Ø 13.0 (I. D.), Ø 16.0 to Ø 16.7 (O. D.) |
| <b>NOTES:</b>   |                                 |                   |                   |  |                                 |                      |  |
| <ul style="list-style-type: none"> <li>• Specifications are based on the following conditions: <ul style="list-style-type: none"> <li>– Cooling: Indoor temperature of 27 °CDB/19 °CWB, and outdoor temperature of 35 °CDB/24 °CWB.</li> <li>– Heating: Indoor temperature of 20 °CDB/15 °CWB, and outdoor temperature of 7 °CDB/6 °CWB.</li> <li>– Pipe length: 5 m, Height difference: 0 m.</li> </ul> </li> <li>• Protective function might work when using it outside the operation range.</li> <li>• *1: Sound pressure level <ul style="list-style-type: none"> <li>– Measured values in manufacturer's anechoic chamber.</li> <li>– Because of the surrounding sound environment, the sound levels measured in actual installation conditions might be higher than the specified values here.</li> </ul> </li> </ul> |                                 |                   |                   |  |                                 |                      |  |

## 2. Dimensions

### 2-1. Models:AOYG07LMCE, AOYG09LMCE, and AOYG12LMCE

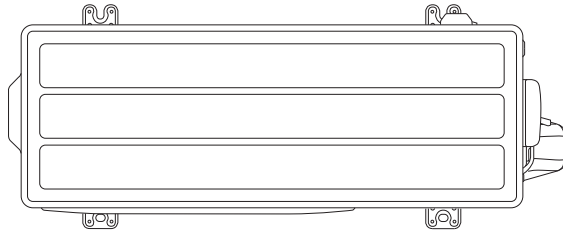
Unit: mm



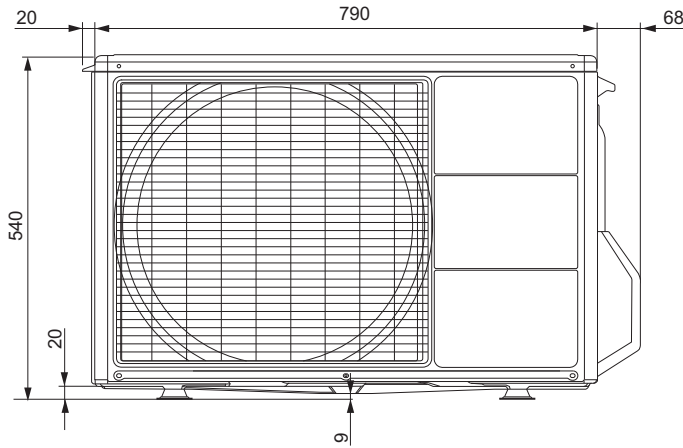
## 2-2. Model:AOYG14LMCE

Unit: mm

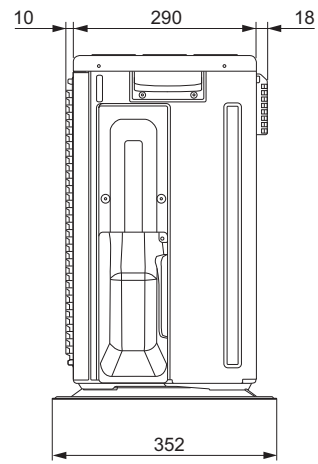
OUTDOOR UNIT  
AOYG07-14LMCE



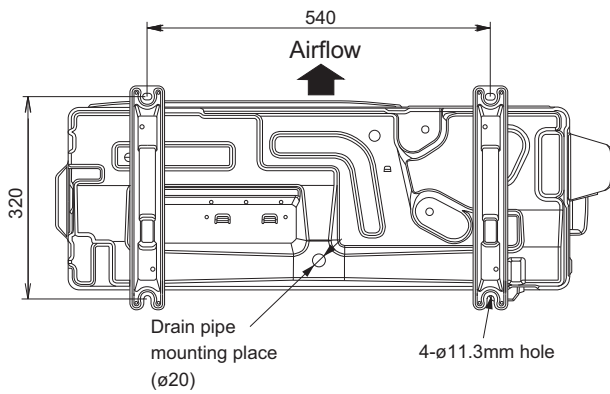
Top view



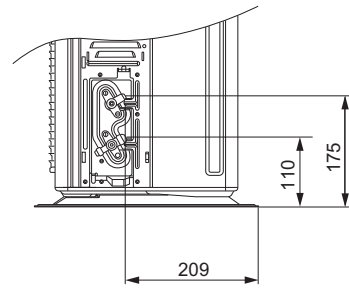
Front view



Side view



Bottom view



### 3. Installation space

#### 3-1. Models:AOYG07LMCE, AOYG09LMCE, AOYG12LMCE, and AOYG14LMCE

##### ■ Space requirement

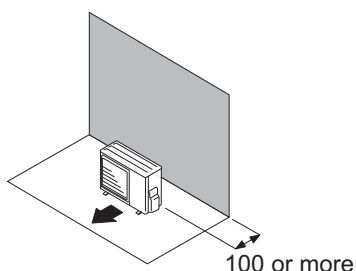
Provide sufficient installation space for product safety.

##### ● Single outdoor unit installation

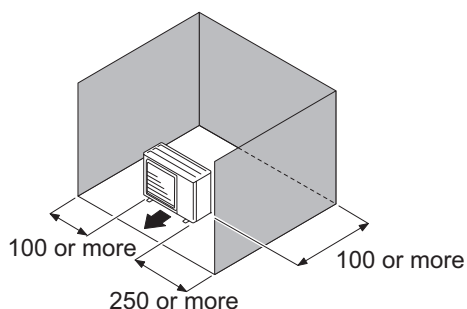
- When the upper space is open:

Unit: mm

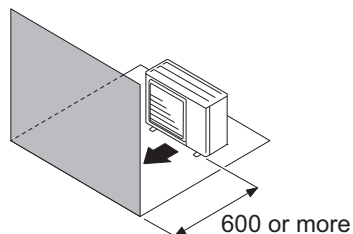
When there are obstacles at the rear only.



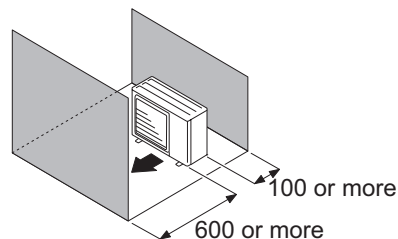
When there are obstacles at the rear and sides.



When there are obstacles at the front only.



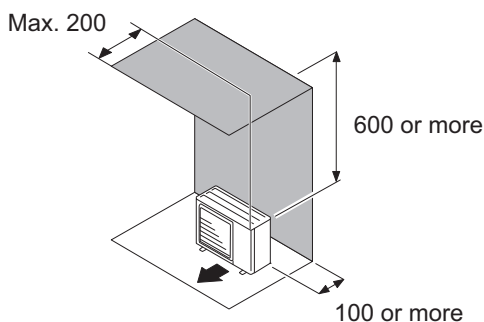
When there are obstacles at the front and rear.



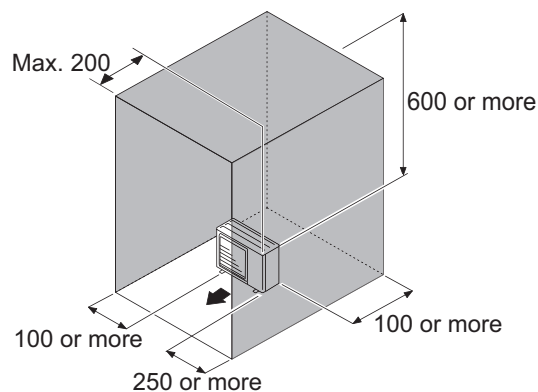
- When there is an obstruction in the upper space:

Unit: mm

When there are obstacles at the rear and above.



When there are obstacles at the rear, sides, and above.

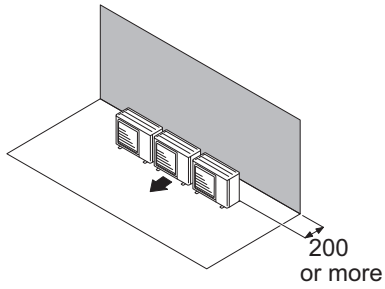


## ● Multiple outdoor unit installation

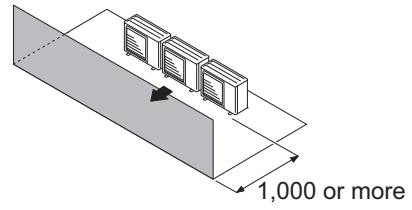
- When the upper space is open:

Unit: mm

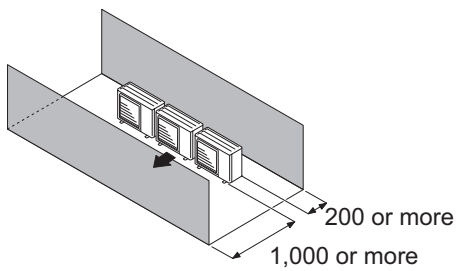
When there are obstacles at the rear only.



When there are obstacles at the front only.



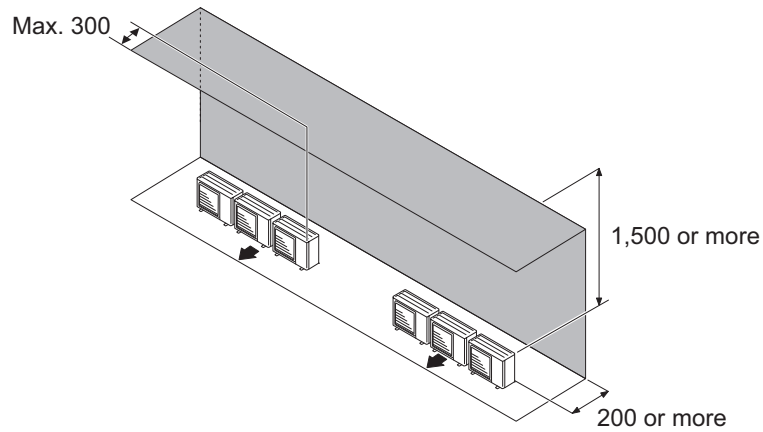
When there are obstacles at the front and rear.



- When there is an obstruction in the upper space:

Unit: mm

When there are obstacles at the rear and above.

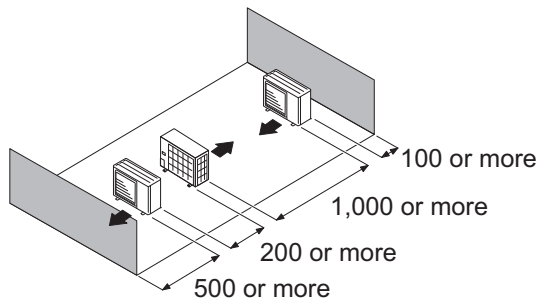




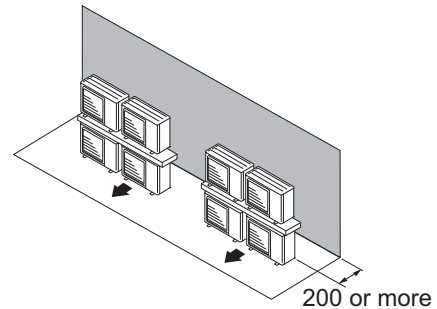
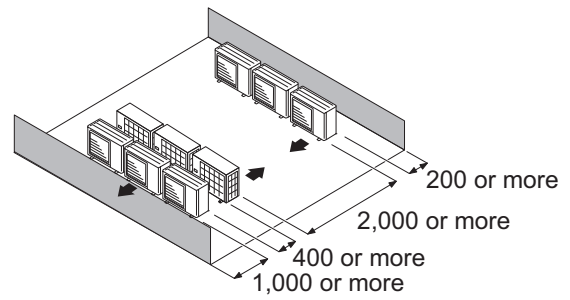
## ● Outdoor unit installation in multi-row

Unit: mm

Single parallel unit arrangement



Multiple parallel unit arrangement

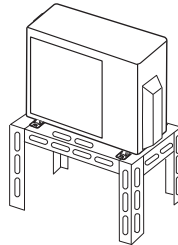


### NOTES:

- If the space is larger than stated above, the condition will be the same as when there is no obstacle.
- Height above the floor level should be 50 mm or more.
- When installing the outdoor unit, be sure to open the front and left side to obtain better operation efficiency.

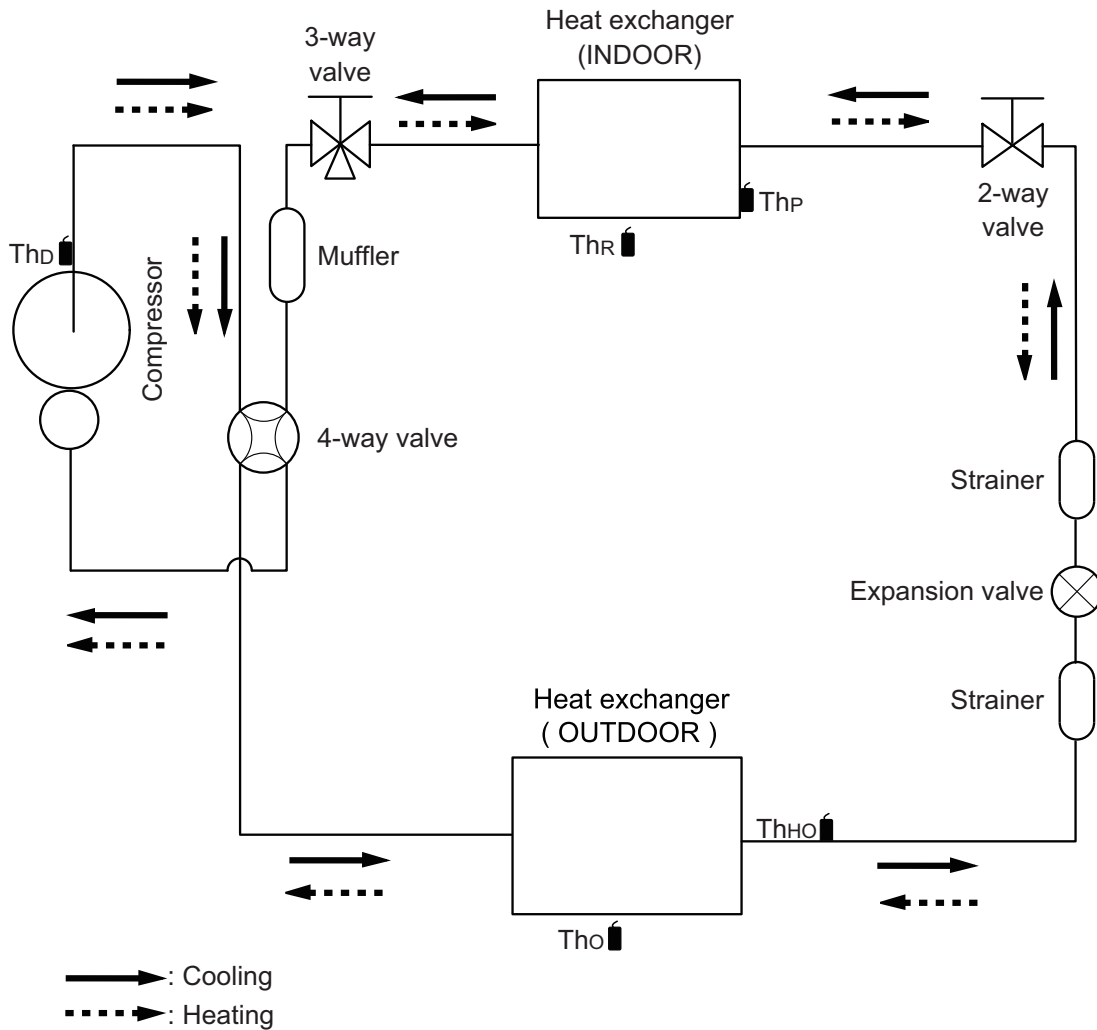
### ⚠ CAUTION

- Do not install the outdoor unit in two-stage where the drain water could freeze. Otherwise the drainage from the upper unit may form ice and cause a malfunction of the lower unit.
- When the outdoor temperature is 0 °C or less, do not use the accessory drain pipe and drain cap. If the drain pipe and drain cap are used, the drain water in the pipe may freeze in extremely cold climate. (For reverse cycle model only.)
- In area with heavy snowfall, if the inlet and outlet of the outdoor unit is blocked with snow, it might become difficult to get warm, and it is likely to cause product malfunction. Construct a canopy and a pedestal, or place the unit on a high stand that is locally installed.



## 4. Refrigerant circuit

### 4-1. Models: AOYG07LMCE, AOYG09LMCE, AOYG12LMCE, and AOYG14LMCE



ThD : Thermistor (Discharge temperature)

Tho : Thermistor (Outdoor temperature)

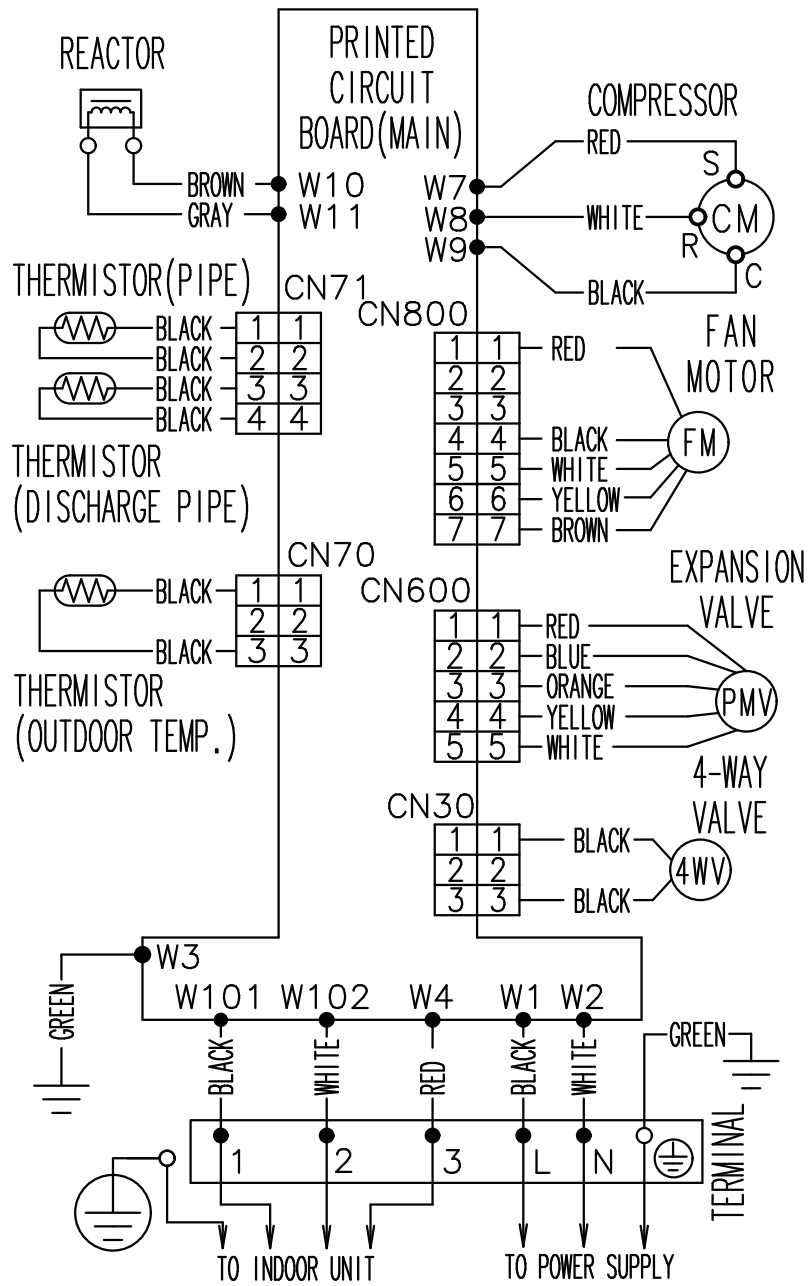
Tho : Thermistor (Heat exchanger out temperature)

ThR : Thermistor (Room temperature)

ThP : Thermistor (Pipe temperature)

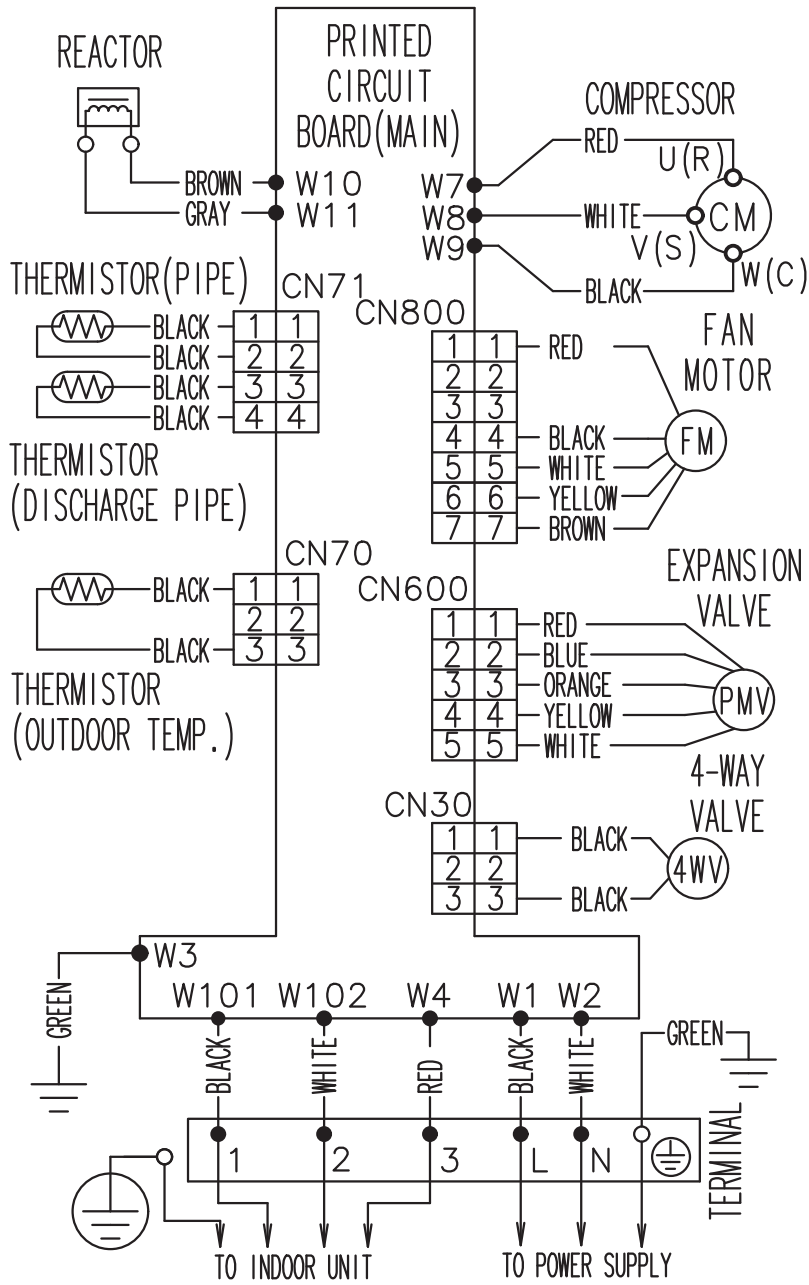
# 5. Wiring diagrams

## 5-1. Models:AOYG07LMCE and AOYG09LMCE

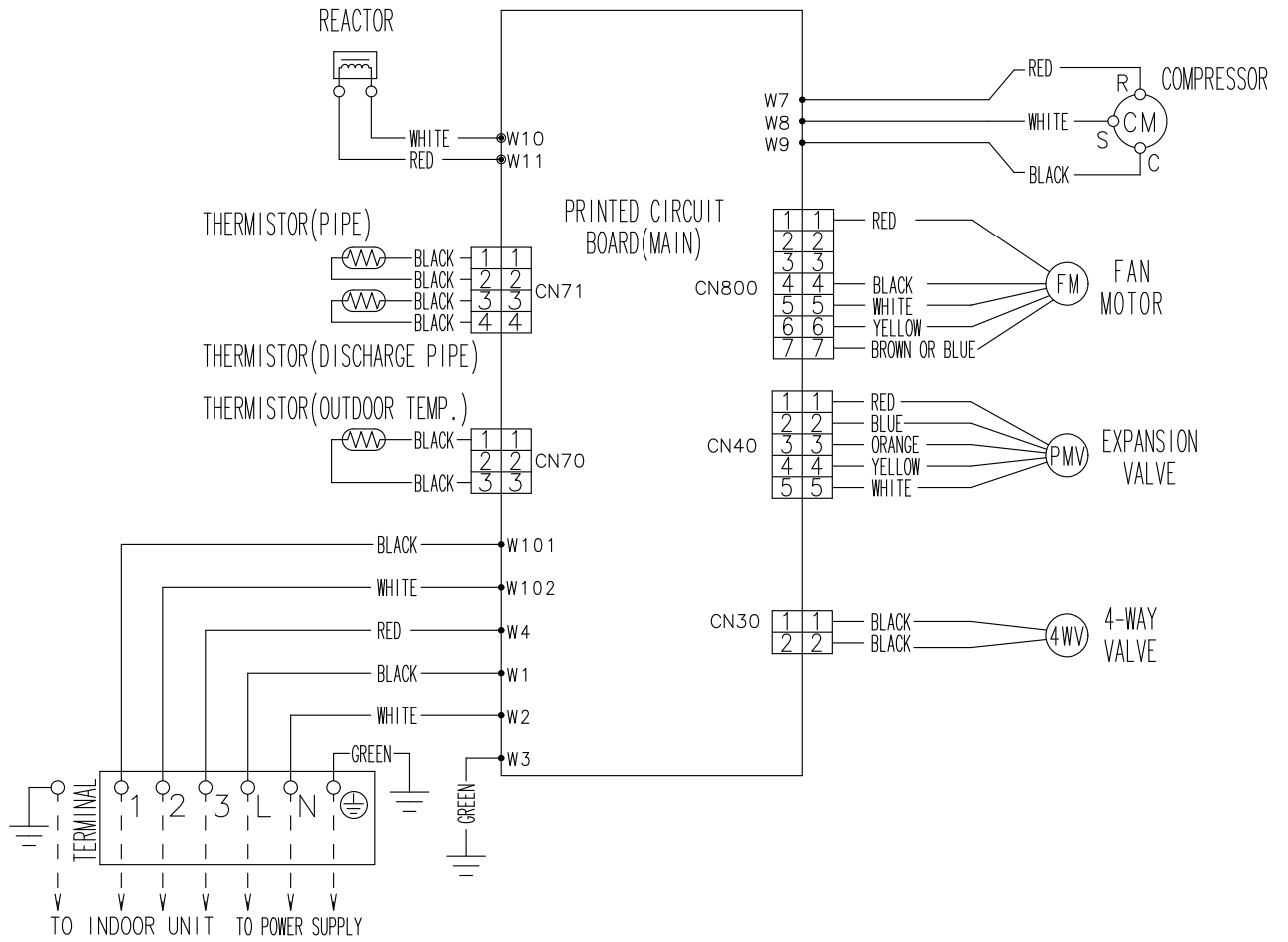


OUTDOOR UNIT  
AOYG07-14LMCE

## 5-2. Model:AOYG12LMCE

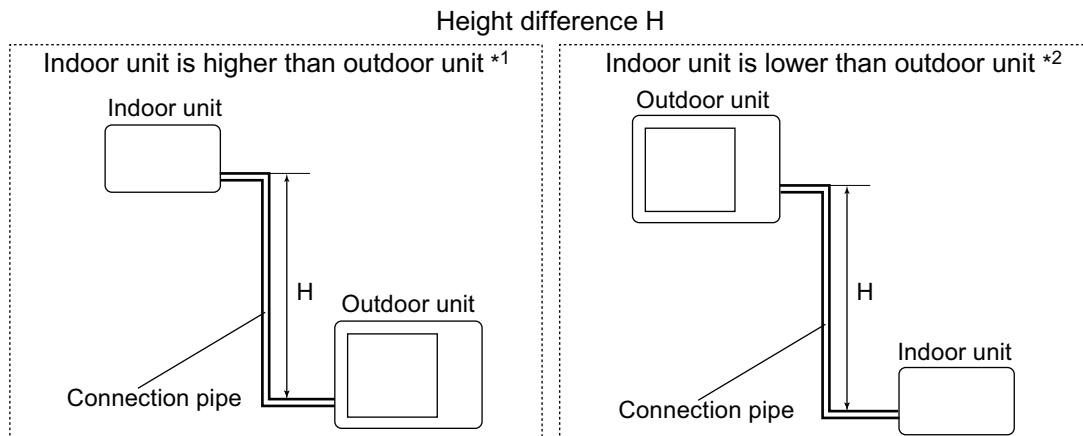


# 5-3. Model:AOYG14LMCE



OUTDOOR UNIT  
AOYG07-14LMCE

## 6. Capacity compensation rate for pipe length and height difference



### 6-1. Models:AOYG07LMCE and AOYG09LMCE

**NOTE:** Values mentioned in the table are calculated based on the maximum capacity.

| COOLING                 |  |      | Pipe length (m) |       |       |       |       |       |
|-------------------------|--|------|-----------------|-------|-------|-------|-------|-------|
|                         |  |      | 5               | 7.5   | 10    | 15    | 20    |       |
| Height difference H (m) | Indoor unit is higher than outdoor unit *1 | 15   | -               | -     | -     | 0.872 | 0.910 |       |
|                         |  | 10   | -               | -     | 0.961 | 0.886 | 0.925 |       |
|                         |  | 7.5  | -               | 0.979 | 0.965 | 0.890 | 0.929 |       |
|                         |  | 5    | 0.992           | 0.983 | 0.969 | 0.893 | 0.933 |       |
|                         |  |      | 0               | 1.000 | 0.991 | 0.976 | 0.901 | 0.940 |
|                         | Indoor unit is lower than outdoor unit *2  | -5   | 1.000           | 0.991 | 0.976 | 0.901 | 0.940 |       |
|                         |  | -7.5 | -               | 0.991 | 0.976 | 0.901 | 0.940 |       |
|                         |  | -10  | -               | -     | 0.976 | 0.901 | 0.940 |       |
|                         |  | -15  | -               | -     | -     | 0.901 | 0.940 |       |

| HEATING                 |  |      | Pipe length (m) |       |       |       |       |       |
|-------------------------|--|------|-----------------|-------|-------|-------|-------|-------|
|                         |  |      | 5               | 7.5   | 10    | 15    | 20    |       |
| Height difference H (m) | Indoor unit is higher than outdoor unit *1 | 15   | -               | -     | -     | 0.832 | 0.822 |       |
|                         |  | 10   | -               | -     | 0.917 | 0.832 | 0.822 |       |
|                         |  | 7.5  | -               | 0.961 | 0.917 | 0.832 | 0.822 |       |
|                         |  | 5    | 1.000           | 0.961 | 0.917 | 0.832 | 0.822 |       |
|                         |  |      | 0               | 1.000 | 0.961 | 0.917 | 0.832 | 0.822 |
|                         | Indoor unit is lower than outdoor unit *2  | -5   | 0.995           | 0.956 | 0.912 | 0.828 | 0.818 |       |
|                         |  | -7.5 | -               | 0.954 | 0.910 | 0.826 | 0.816 |       |
|                         |  | -10  | -               | -     | 0.908 | 0.824 | 0.814 |       |
|                         |  | -15  | -               | -     | -     | 0.815 | 0.805 |       |

## 6-2. Model:AOYG12LMCE

**NOTE:** Values mentioned in the table are calculated based on the maximum capacity.

| COOLING                 |  |      | Pipe length (m) |       |       |       |       |
|-------------------------|--|------|-----------------|-------|-------|-------|-------|
|                         |  |      | 5               | 7.5   | 10    | 15    | 20    |
| Height difference H (m) | Indoor unit is higher than outdoor unit *1 | 15   | -               | -     | -     | 0.858 | 0.868 |
|                         |  | 10   | -               | -     | 0.929 | 0.872 | 0.882 |
|                         |  | 7.5  | -               | 0.960 | 0.933 | 0.876 | 0.885 |
|                         |  | 5    | 0.992           | 0.964 | 0.937 | 0.879 | 0.889 |
| Height difference H (m) | Indoor unit is lower than outdoor unit *2  | 0    | 1.000           | 0.972 | 0.944 | 0.887 | 0.896 |
|                         |  | -5   | 1.000           | 0.972 | 0.944 | 0.887 | 0.896 |
|                         |  | -7.5 | -               | 0.972 | 0.944 | 0.887 | 0.896 |
|                         |  | -10  | -               | -     | 0.944 | 0.887 | 0.896 |
|                         |  | -15  | -               | -     | -     | 0.887 | 0.896 |

| HEATING                 |  |      | Pipe length (m) |       |       |       |       |
|-------------------------|--|------|-----------------|-------|-------|-------|-------|
|                         |  |      | 5               | 7.5   | 10    | 15    | 20    |
| Height difference H (m) | Indoor unit is higher than outdoor unit *1 | 15   | -               | -     | -     | 0.896 | 0.879 |
|                         |  | 10   | -               | -     | 0.968 | 0.890 | 0.879 |
|                         |  | 7.5  | -               | 0.994 | 0.968 | 0.896 | 0.879 |
|                         |  | 5    | 1.000           | 0.994 | 0.968 | 0.896 | 0.879 |
| Height difference H (m) | Indoor unit is lower than outdoor unit *2  | 0    | 1.000           | 0.994 | 0.968 | 0.896 | 0.879 |
|                         |  | -5   | 0.995           | 0.989 | 0.963 | 0.891 | 0.875 |
|                         |  | -7.5 | -               | 0.987 | 0.961 | 0.889 | 0.873 |
|                         |  | -10  | -               | -     | 0.959 | 0.887 | 0.871 |
|                         |  | -15  | -               | -     | -     | 0.878 | 0.862 |

## 6-3. Model:AOYG14LMCE

**NOTE:** Values mentioned in the table are calculated based on the maximum capacity.

| COOLING                 |  |      | Pipe length (m) |       |       |       |       |
|-------------------------|--|------|-----------------|-------|-------|-------|-------|
|                         |  |      | 5               | 7.5   | 10    | 15    | 20    |
| Height difference H (m) | Indoor unit is higher than outdoor unit *1 | 15   | -               | -     | -     | 0.893 | 0.909 |
|                         |  | 10   | -               | -     | 0.955 | 0.908 | 0.924 |
|                         |  | 7.5  | -               | 0.975 | 0.959 | 0.912 | 0.928 |
|                         |  | 5    | 0.992           | 0.979 | 0.963 | 0.916 | 0.931 |
|                         | Indoor unit is lower than outdoor unit *2  | 0    | 1.000           | 0.987 | 0.970 | 0.923 | 0.939 |
|                         |  | -5   | 1.000           | 0.987 | 0.970 | 0.923 | 0.939 |
|                         |  | -7.5 | -               | 0.987 | 0.970 | 0.923 | 0.939 |
|                         |  | -10  | -               | -     | 0.970 | 0.923 | 0.939 |
|                         |  | -15  | -               | -     | -     | 0.923 | 0.939 |

| HEATING                 |  |      | Pipe length (m) |       |       |       |       |
|-------------------------|--|------|-----------------|-------|-------|-------|-------|
|                         |  |      | 5               | 7.5   | 10    | 15    | 20    |
| Height difference H (m) | Indoor unit is higher than outdoor unit *1 | 15   | -               | -     | -     | 0.956 | 0.938 |
|                         |  | 10   | -               | -     | 1.004 | 0.956 | 0.938 |
|                         |  | 7.5  | -               | 1.013 | 1.004 | 0.956 | 0.938 |
|                         |  | 5    | 1.000           | 1.013 | 1.004 | 0.956 | 0.938 |
|                         | Indoor unit is lower than outdoor unit *2  | 0    | 1.000           | 1.013 | 1.004 | 0.956 | 0.938 |
|                         |  | -5   | 0.995           | 1.008 | 0.999 | 0.951 | 0.938 |
|                         |  | -7.5 | -               | 1.005 | 0.997 | 0.948 | 0.931 |
|                         |  | -10  | -               | -     | 0.994 | 0.946 | 0.929 |
|                         |  | -15  | -               | -     | -     | 0.937 | 0.919 |



## 7. Additional charge calculation

### 7-1. Models:AOYG07LMCE and AOYG09LMCE

|                    |   |       |
|--------------------|---|-------|
| Refrigerant type   |   | R410A |
| Refrigerant amount | g | 700   |

#### ■ Refrigerant charge

|                   |   |            |           |        |
|-------------------|---|------------|-----------|--------|
| Total pipe length | m | 15 or less | 20 (Max.) | 20 g/m |
| Additional charge | g | 0          | 100       |        |

### 7-2. Model:AOYG12LMCE

|                    |   |       |
|--------------------|---|-------|
| Refrigerant type   |   | R410A |
| Refrigerant amount | g | 850   |

#### ■ Refrigerant charge

|                   |   |            |           |        |
|-------------------|---|------------|-----------|--------|
| Total pipe length | m | 15 or less | 20 (Max.) | 20 g/m |
| Additional charge | g | 0          | 100       |        |

### 7-3. Model:AOYG14LMCE

|                    |   |       |
|--------------------|---|-------|
| Refrigerant type   |   | R410A |
| Refrigerant amount | g | 1,050 |

#### ■ Refrigerant charge

|                   |   |            |           |        |
|-------------------|---|------------|-----------|--------|
| Total pipe length | m | 15 or less | 20 (Max.) | 20 g/m |
| Additional charge | g | 0          | 100       |        |

## 8. Airflow

### 8-1. Models:AOYG07LMCE and AOYG09LMCE

#### ● Cooling

|                   |       |
|-------------------|-------|
| m <sup>3</sup> /h | 1,670 |
| l/s               | 464   |
| CFM               | 983   |

#### ● Heating

|                   |       |
|-------------------|-------|
| m <sup>3</sup> /h | 1,470 |
| l/s               | 408   |
| CFM               | 865   |

### 8-2. Model:AOYG12LMCE

#### ● Cooling

|                   |       |
|-------------------|-------|
| m <sup>3</sup> /h | 1,830 |
| l/s               | 508   |
| CFM               | 1,077 |

#### ● Heating

|                   |       |
|-------------------|-------|
| m <sup>3</sup> /h | 1,600 |
| l/s               | 444   |
| CFM               | 942   |

### 8-3. Model:AOYG14LMCE

#### ● Cooling

|                   |       |
|-------------------|-------|
| m <sup>3</sup> /h | 1,940 |
| l/s               | 539   |
| CFM               | 1,142 |

#### ● Heating

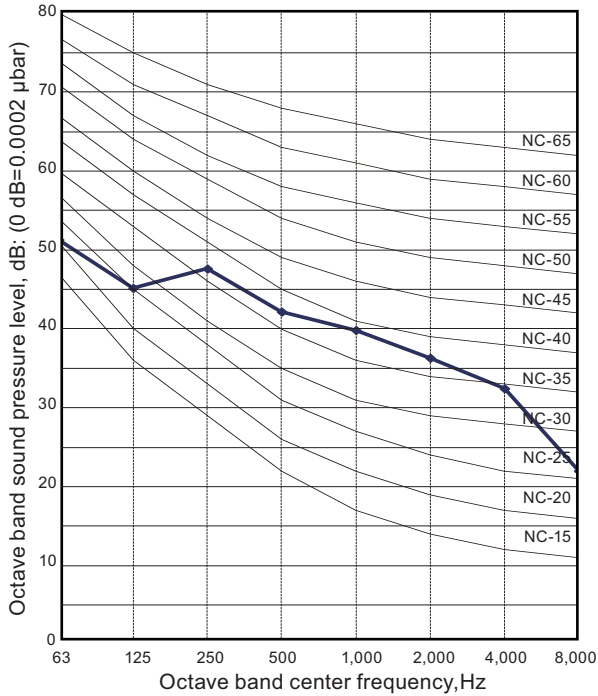
|                   |       |
|-------------------|-------|
| m <sup>3</sup> /h | 1,700 |
| l/s               | 472   |
| CFM               | 1,001 |

# 9. Operation noise (sound pressure)

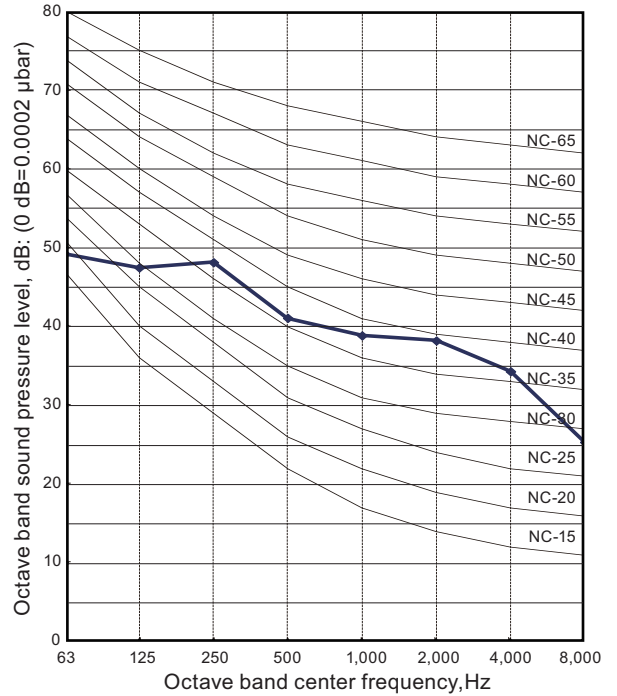
## 9-1. Noise level curve

### Model:AOYG07LMCE

#### Cooling

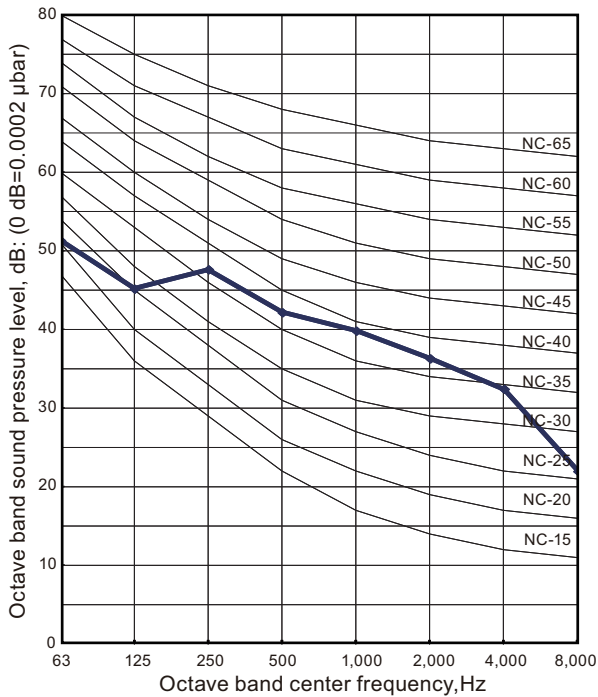


#### Heating

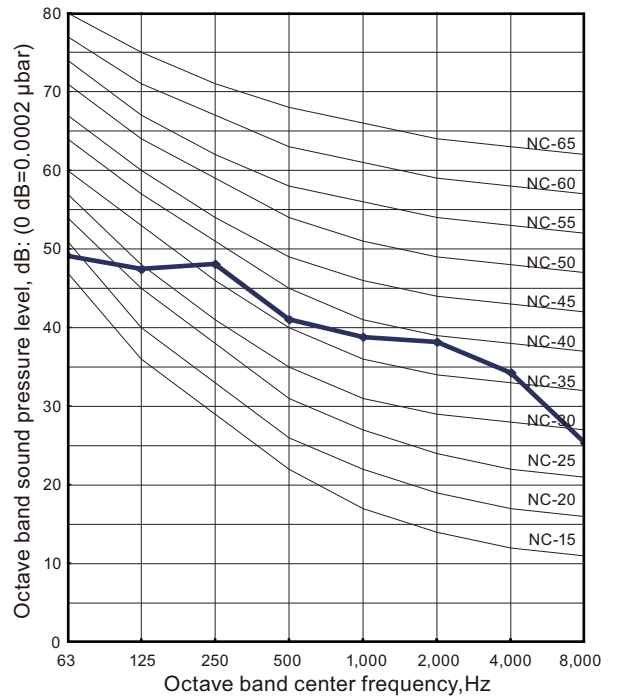


### Model:AOYG09LMCE

#### Cooling



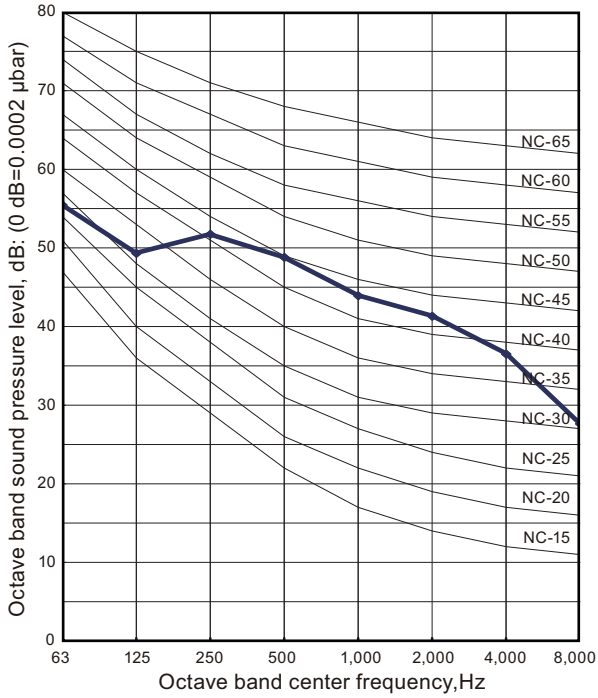
#### Heating



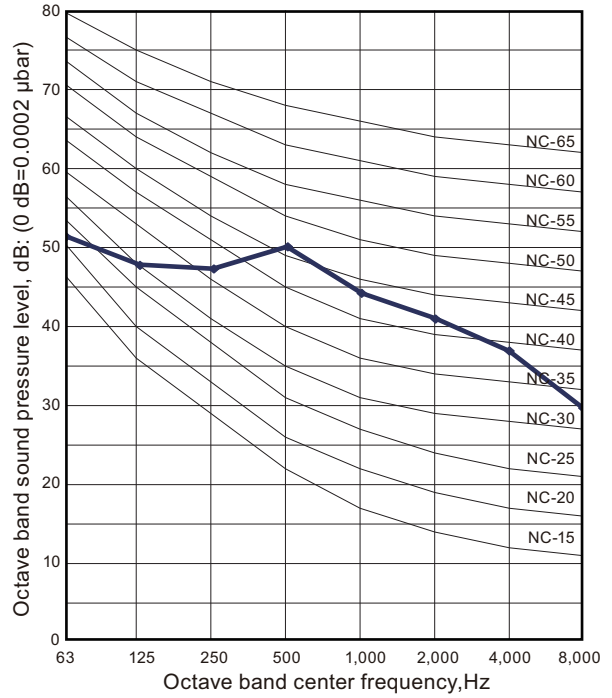
OUTDOOR UNIT  
AOYG07-14LMCE

## Model:AOYG12LMCE

### Cooling

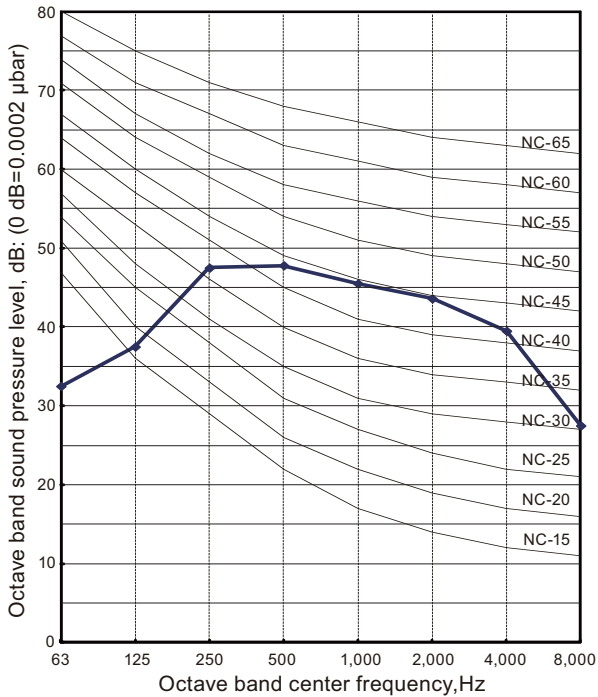


### Heating

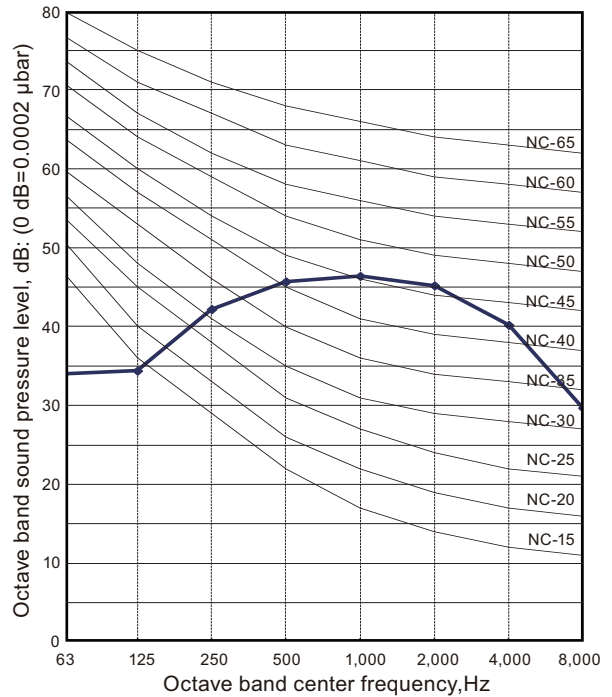


## Model:AOYG14LMCE

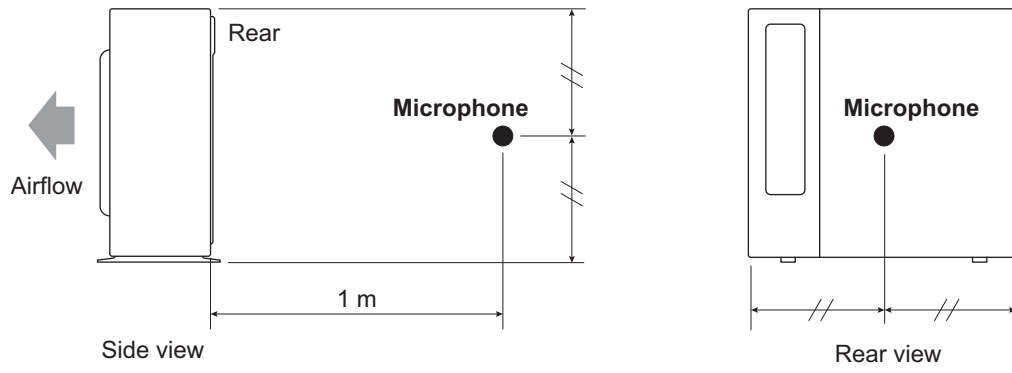
### Cooling



### Heating



## 9-2. Sound level check point



**NOTE:** Detailed shape of the actual outdoor unit might be slightly different from the one illustrated above.

## 10. Electrical characteristics

| Model name               |                         |                 | AOYG07LMCE | AOYG09LMCE | AOYG12LMCE | AOYG14LMCE |
|--------------------------|-------------------------|-----------------|------------|------------|------------|------------|
| Power supply             | Voltage                 | V               | 230 ~      |            |            |            |
|                          | Frequency               | Hz              | 50         |            |            |            |
| Max operating current *1 |                         | A               | 7.5        | 7.5        | 9.0        | 10.5       |
| Starting current         |                         | A               | 3.3        | 3.5        | 4.8        | 6.3        |
| Wiring spec. *2          | Circuit breaker current | A               | 15         |            |            |            |
|                          | Power cable             | mm <sup>2</sup> | 1.5        |            |            |            |
|                          | Connection cable *3     | mm <sup>2</sup> | 1.5        |            |            |            |
|                          | Limited wiring length   | m               | 21         |            |            |            |

\*1: Maximum current is the total current of the indoor unit and the outdoor unit.



\*2: Selected sample based on Japan Electrotechnical Standards and Codes Committee E0005. As the regulations of wire size and circuit breaker differ in each country or region, select appropriate devices complied to the regional standard.

\*3: Limit voltage drop to less than 2%. If voltage drop is 2% or more, increase cable conductor size.

# 11. Safety devices

| Type of protection    | Protection form                               |          | Model                                 |            |                               |            |
|-----------------------|---|----------|---------------------------------------|------------|-------------------------------|------------|
|                       |   |          | AOYG07LMCE                            | AOYG09LMCE | AOYG12LMCE                    | AOYG14LMCE |
| Circuit protection    | Current fuse (PCB*)                           |          | 250 V, 20 A                           |            |                               |            |
|                       |   |          | 250 V, 3.15 A                         |            | 250 V, 5 A                    |            |
| Fan motor protection  | Terminal protection program                   | Activate | 100±15°C<br>Fan motor stop            |            | 150±15°C<br>Fan motor stop    |            |
|                       |   | Reset    | 95±10°C<br>Fan motor restart          |            | 120±15°C<br>Fan motor restart |            |
| Compressor protection | Terminal protection program (Discharge temp.) | Activate | 110°C<br>Compressor stop              |            |                               |            |
|                       |   | Reset    | After 7 minutes<br>Compressor restart |            |                               |            |

## 12. Accessories

| Part name           | Exterior  | Q'ty | Part name  | Exterior  | Q'ty |
|---------------------|---|------|------------|---|------|
| Installation manual |  | 1    | Drain pipe |  | 1    |