DAIKIN

## Air Conditioning

# Technical Data

**Fully flat cassette**

**EEDEN14-100**

FFQ-C

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## FFQ-C


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# 1 Features



- Unique design in the market: integrates fully flat into the ceiling and fits flush into architectural ceiling modules
- Remarkable blend of iconic design and engineering excellence with an elegant finish in white or a combination of silver and white
- The presence sensor (optional) adjusts the set point with standard 1°C if no one is detected in the room, it is possible to adjust the set point with 2, 3 or 4°C (optional). It also automatically directs air flow away from any person to avoid draught.
- The floor sensor (optional) detects the average floor temperature and ensures even temperature distribution between ceiling and floor. Cold feet will become history.
- Individual flap control: possibility to adapt the room layout by fixing the position of each flap individually
- Low energy consumption thanks to specially developed small tube heat exchanger, DC fan motor and drain pump
- Fresh air intake for healthy living
- No optional adapter needed for DIII-connection, link your unit into the wider building management system.

Inverter


Presence & floor sensor


Home leave operation


Fan only

Draught prevention

Auto cooling-heating changeover


Whisper quiet


Ceiling soiling prevention


Individual flap control


Vertical auto swing


Fan speed steps

Dry programme


Air filter

Weekly timer


Infrared remote control


Wired remote control

Auto-restart


Self diagnosis


Drain pump kit


Twin/triple/ double twin application


Multi model application


Super Multi Plus

# 2 Specifications

| 2-1 Technical Specifications | | | | | FFQ25C | FFQ35C | FFQ50C | FFQ60C |
|---|---|---|---|---|---|---|---|---|
| Casing | Material | | | | Galvanised steel plate | | | |
| Dimensions | Unit | Height/Width/Depth | | mm | 260/575/575 | | | |
| | Packed unit | Height/Width/Depth | | mm | 270/780/616 | | | |
| Weight | Unit | | | kg | 16 | | 17.5 | |
| | Packed unit | | | kg | 19 | | 20.5 | |
| Decoration panel | Model | | | | BYFQ60CW | | | |
| | Colour | | | | White (N9.5) | | | |
| | Dimensions | Height/Width/Depth | | mm | 46/620/620 | | | |
| | Weight | | | kg | 2.8 | | | |
| Decoration panel 2 | Model | | | | BYFQ60CS | | | |
| | Colour | | | | White (N9.5) + Silver | | | |
| | Dimensions | Depth/Height/Width | | mm | 620/46/620 | | | |
| | Weight | | | kg | 2.8 | | | |
| Decoration panel 3 | Model | | | | BYFQ60B3W1 | | | |
| | Colour | | | | White (RAL9010) | | | |
| | Dimensions | Height/Width/Depth | | mm | 55/700/700 | | | |
| | Weight | | | kg | 2.7 | | | |
| Heat exchanger | Inside length | | | mm | 1,295 | | 1,248 | |
| | Outside length | | | mm | 1,342 | | | |
| | Rows | Quantity | | | 2 | | 3 | |
| | Fin pitch | | | mm | 1.2 | | | |
| | Passes | Quantity | | | 5 | | 7 | |
| | Face area | | | m² | 0.290 | | 0.300 | |
| | Stages | Quantity | | | 12 | | 16 | |
| | Empty tubeplate hole | Quantity | | | 0 | | | |
| | Fin | Type | | | Cross fin coil (multi slit fins and hi-XA tubes) | | | |
| Fan | Type | | | | Turbo fan | | | |
| | Quantity | | | | 1 | | | |
| | Air flow rate | Cooling | High | m³/min | 9 | 10 | 12 | 14.5 |
| | | | Nom. | m³/min | 8 | 8.5 | 10 | 12.5 |
| | | | Low | m³/min | 6.5 | | 7.5 | 9.5 |
| | | Heating | High | m³/min | 9 | 10 | 12 | 14.5 |
| | | | Nom. | m³/min | 8 | 8.5 | 10 | 12.5 |
| | | | Low | m³/min | 6.5 | | 7.5 | 9.5 |
| Fan motor | Model | | | | QTS32D15M | | | |
| | Speed | Steps | | | 3 | | | |
| | Output | High | | W | 50 | | | |
| Sound power level | Cooling | / | | dBA | 48 | 51 | 56 | 60 |
| Sound pressure level | Cooling | High/Nom./Low | | dBA | 31/28.5/25 | 34/30.5/25 | 39/34/27 | 43/40/32 |
| | Heating | Super high/High/Nom./Low | | dBA | -/31/28.5/25 | -/34/30.5/25 | -/39/34/27 | -/43/40/32 |
| Refrigerant | Type | | | | R-410A | | | |
| Piping connections | Sound absorbing insulation | | | | Foamed Polyurethane | | | |
| | Liquid | Type/OD | | mm | Flare connection/6.35 | | | |
| | Gas | Type/OD | | mm | Flare connection/9.52 | | Flare connection/12.7 | |
| | Drain | | | | VP20 (I.D. 20/O.D. 26) | | | |
| | Heat insulation | | | | Foamed polystyrene/polyethylene | | | |
| Air filter | Type | | | | Resin net with mold resistance | | | |

Standard Accessories : Insulation for fitting; Quantity : 2;

Standard Accessories : Screws; Quantity : 4;

Standard Accessories : Installation manual; Quantity : 1;

Standard Accessories : Operation manual; Quantity : 1;

Standard Accessories : Sealing pad; Quantity : 4;

# 2 Specifications

Standard Accessories : Paper pattern for installation; Quantity : 1;
Standard Accessories : Washer for hanger bracket; Quantity : 8;
Standard Accessories : Drain hose; Quantity : 1;
Standard Accessories : Metal clamp for drain hose; Quantity : 1;
Standard Accessories : Clamps; Quantity : 7;



| 2-2 Electrical Specifications | | | FFQ25C | FFQ35C | FFQ50C | FFQ60C |
|---|---|---|---|---|---|---|
| Power supply | Name | | VE | | | |
| | Phase | | 1~ | | | |
| | Frequency | Hz | 50 | | | |
| | Voltage | V | 220-240 | | | |

**Notes**

(1) Dimensions do not include control box

(2) The sound power level is an absolute value indicating the power which a sound source generates.

# 3 Safety device settings

## 3 - 1 Safety Device Settings

**FFQ-C**

| Safety devices | | FFQ25-60C |
|---|---|---|
| Fuse | | 250V 5A |
| Fan motor thermal fuse | °C | --- |
| Fan motor thermal protector | °C | --- |
| Drain pump fuse | °C | --- |

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# 4 Options

## 4 - 1 Options



### FFQ-C

| | Compatibility | | | Sky Air |
|---|---|---|---|---|
| Description | BYFQ60B3W1 | BYFQ60C2W1W | BYFQ60C2W1S | Model name |
| Decoration panel (Current) | - | - | - | BYFQ60B3W1 |
| New decoration panel (White) | - | - | - | BYFQ60C2W1W |
| New decoration panel (Silver) | - | - | - | BYFQ60C2W1S |
| Sensor kit (White) | NO | YES | NO | BRYQ60A2W (*3) |
| Sensor kit (Silver) | NO | NO | YES | BRYQ60A2S (*3) |
| Sealing member of air discharge outlet | YES | YES | YES | BDBHQ44C60 |
| Panel spacer | YES | NO | NO | KDBQ44B60 |
| Replacement long-life filter | YES | YES | YES | KAFQ441BA60 |
| Fresh air intake kit | YES | YES | YES | KDDQ44XA60 |
| Infrared remote controller (H/P) | YES | NO | NO | BRC7EB530W (*1,2) |
| Infrared remote controller (H/P) (White) | NO | YES | NO | BRC7F530W (*1,2) |
| Infrared remote controller (H/P) (Silver) | NO | NO | YES | BRC7F530S (*1,2) |
| Wired remote controller | YES | YES | YES | BRC1D528 (*2) |
| Wired remote controller | YES | YES | YES | BRC1E52A7 + B7 (*4) |
| Central remote control | YES | YES | YES | DCS302B51 |
| Unified ON/OFF control | YES | YES | YES | DCS301B51 |
| Schedule timer | YES | YES | YES | DST301B51 |
| Wiring adapter for electrical appendices | YES | YES | YES | KRP1B57 |
| Wiring adapter for electrical appendices | YES | YES | YES | KRP4A53 |
| Wiring adapter (hour meter) | YES | YES | YES | EKRP1B2 |
| Installation box for adapter PCB | YES | YES | YES | KRP1B101, KRP1BA101 |
| Remote sensor | YES | YES | YES | KRCS01-4B |
| I-touch controller | YES | YES | YES | DCS601C51 |

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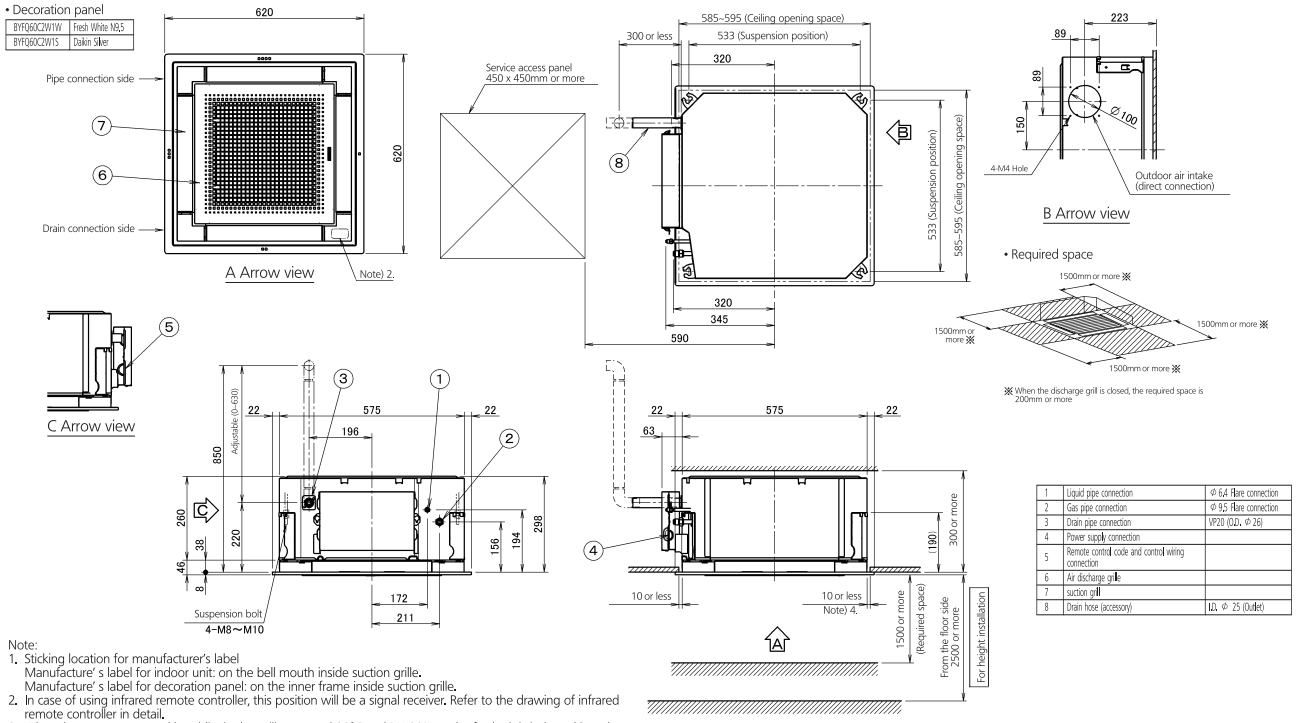
(*1) Sensing function not available
(*2) Independently controllable flaps function not available
(*3) Sensor kit option not applicable with RR and RQ models
(*4) Independently controllable flaps function not available in combination RR and RQ models

# 5 Dimensional drawings

## 5 - 1 Dimensional Drawings



### FFQ25-35C




| | | |
|---|---|---|
| 1 | Liquid pipe connection | Ø 6.4 Flare connection |
| 2 | Gas pipe connection | Ø 9.5 Flare connection |
| 3 | Drain pipe connection | VP20 (I.D. Ø 26) |
| 4 | Power supply connection | |
| 5 | Remote control code and control wiring connection | |
| 6 | Air discharge grille | |
| 7 | suction grill | |
| 8 | Drain hose (accessory) | I.D. Ø 25 (Outlet) |

Note:
1. Sticking location for manufacturer's label
   Manufacture' s label for indoor unit: on the bell mouth inside suction grille.
   Manufacture' s label for decoration panel: on the inner frame inside suction grille.
2. In case of using infrared remote controller, this position will be a signal receiver. Refer to the drawing of infrared remote controller in detail.
3. When the temperature and humidity in the ceiling exceed 30°C and RH 80% or the fresh air is inducted into the ceiling or the unit continues 24 hour operation, an additional insulation (thickness 10mm or more glasswool or polyethylene form) is required.
4. Though the installation is acceptable up to maximum of 595mm square ceiling opening, Keep the clearance of 10mm or less between the main unit and the ceiling opening so that the panel overlap allowance can be ensured.

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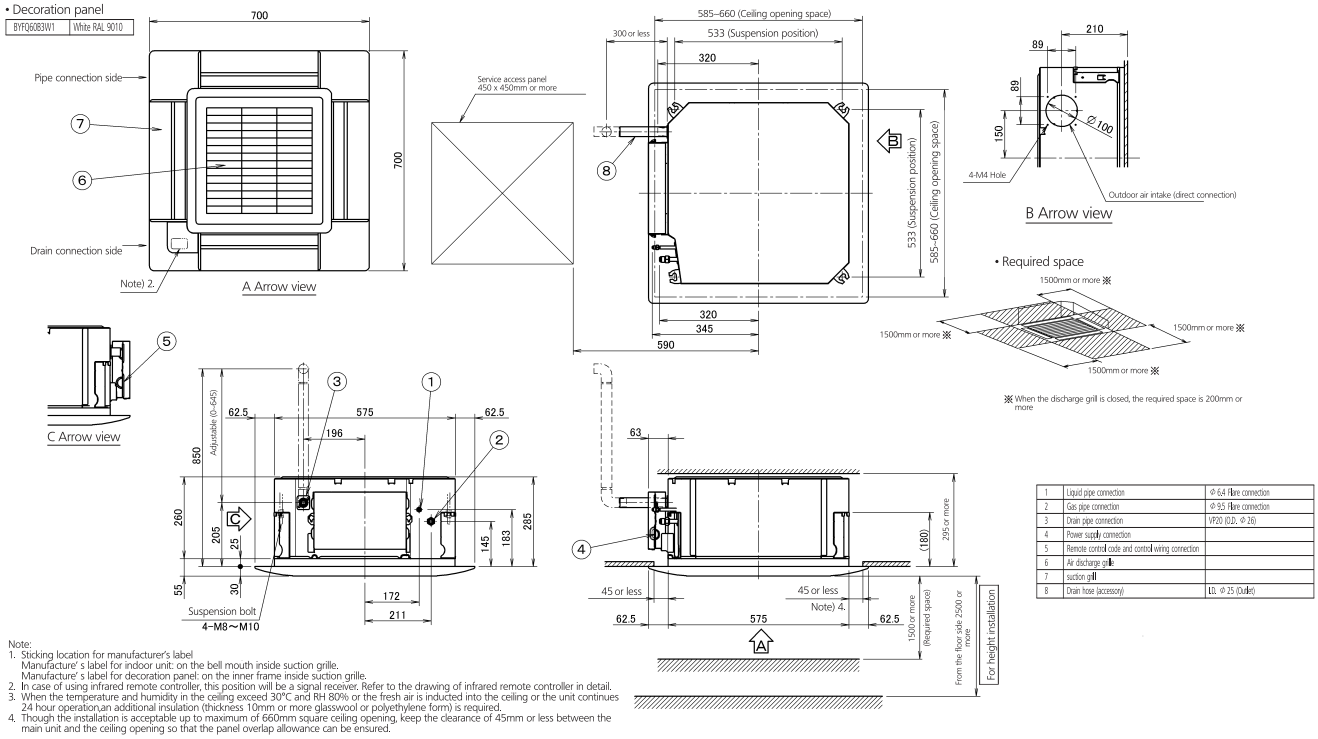
### FFQ25-35C




| | | |
|---|---|---|
| 1 | Liquid pipe connection | Ø 6.4 Flare connection |
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2. In case of using infrared remote controller, this position will be a signal receiver. Refer to the drawing of infrared remote controller in detail.
3. When the temperature and humidity in the ceiling exceed 30°C and RH 80% or the fresh air is inducted into the ceiling or the unit continues 24 hour operation,an additional insulation (thickness 10mm or more glasswool or polyethylene form) is required.
4. Though the installation is acceptable up to maximum of 660mm square ceiling opening, keep the clearance of 45mm or less between the main unit and the ceiling opening so that the panel overlap allowance can be ensured.

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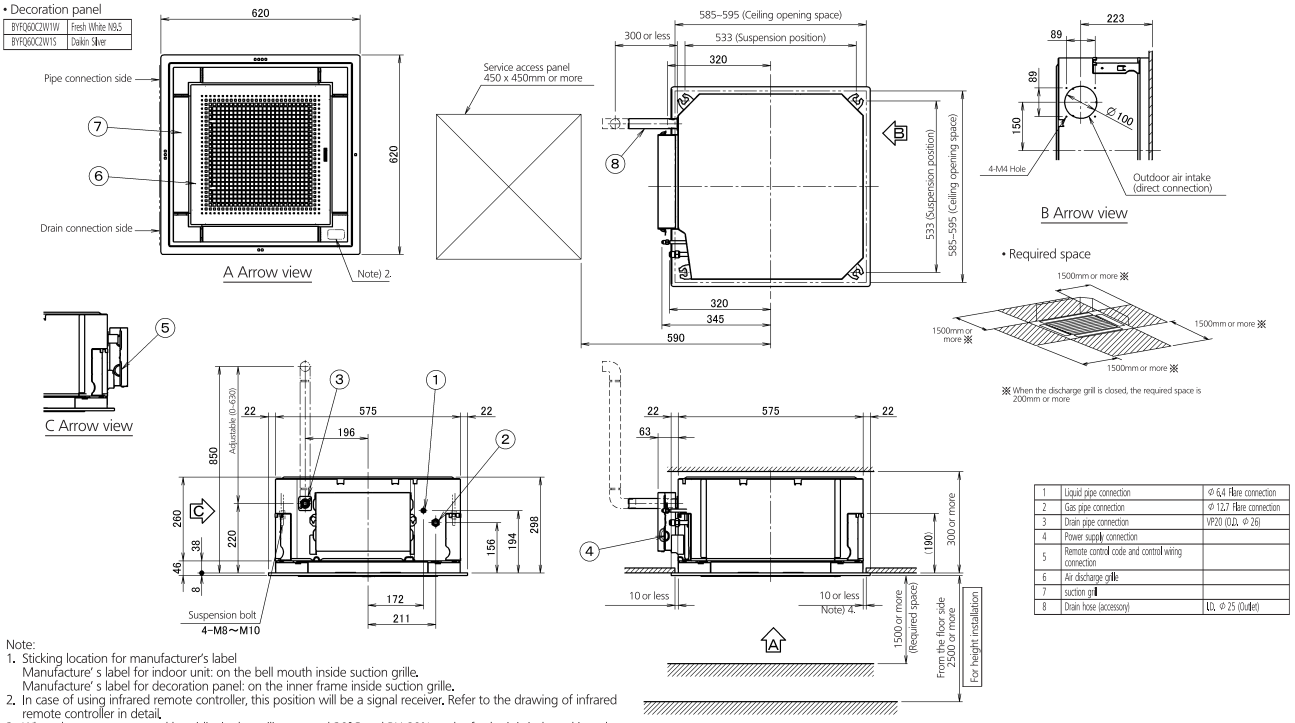
# 5 Dimensional drawings

## 5 - 1 Dimensional Drawings



### FFQ50-60C




| | | |
|---|---|---|
| 1 | Liquid pipe connection | Ø 6,4 Flare connection |
| 2 | Gas pipe connection | Ø 12,7 Flare connection |
| 3 | Drain pipe connection | VP20 (O.D. Ø 26) |
| 4 | Power supply connection | |
| 5 | Remote control code and control wiring connection | |
| 6 | Air discharge grille | |
| 7 | suction grill | |
| 8 | Drain hose (accessory) | I.D. Ø 25 (Outlet) |

Note:
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   Manufacture' s label for indoor unit: on the bell mouth inside suction grille.
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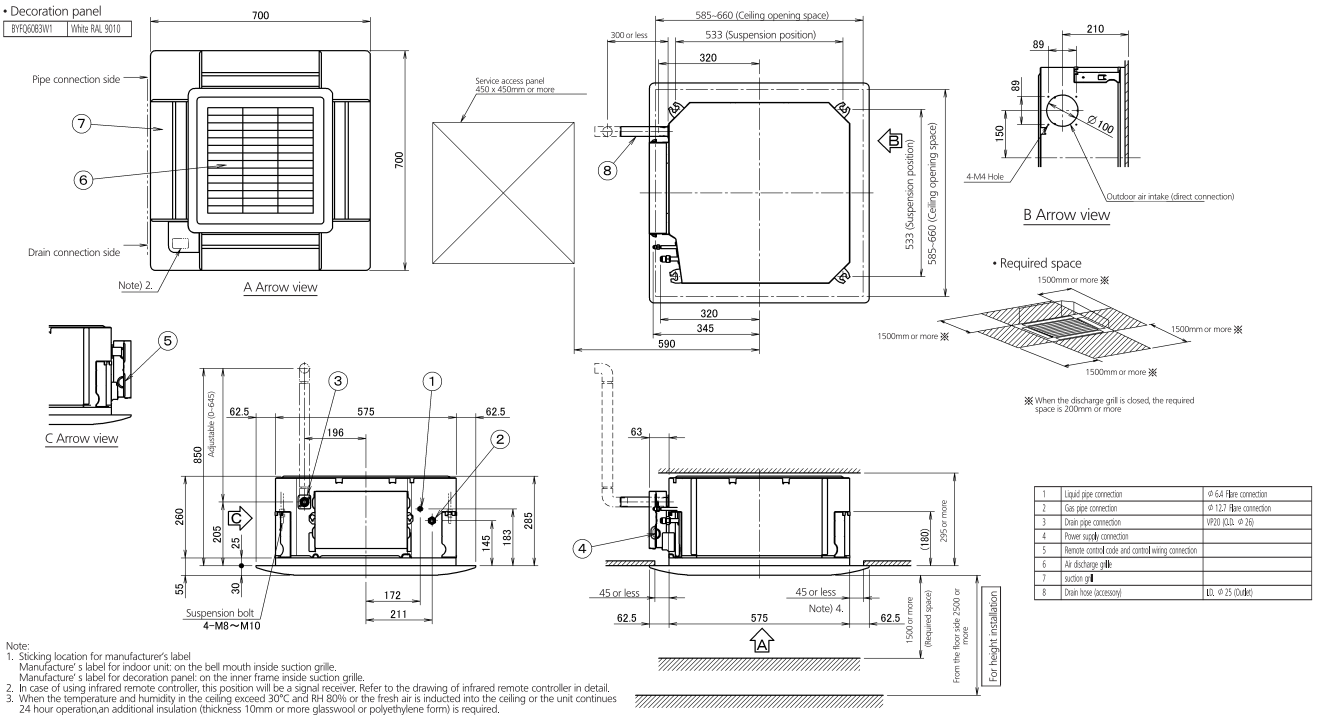
### FFQ50-60C




| | | |
|---|---|---|
| 1 | Liquid pipe connection | Ø 6,4 Flare connection |
| 2 | Gas pipe connection | Ø 12,7 Flare connection |
| 3 | Drain pipe connection | VP20 (O.D. Ø 26) |
| 4 | Power supply connection | |
| 5 | Remote control code and control wiring connection | |
| 6 | Air discharge grille | |
| 7 | suction grill | |
| 8 | Drain hose (accessory) | I.D. Ø 25 (Outlet) |

Note:
1. Sticking location for manufacturer's label
   Manufacture' s label for indoor unit: on the bell mouth inside suction grille.
   Manufacture' s label for decoration panel: on the inner frame inside suction grille.
2. In case of using infrared remote controller, this position will be a signal receiver. Refer to the drawing of infrared remote controller in detail.
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4. Though the installation is acceptable up to maximum of 660mm square ceiling opening, keep the clearance of 45mm or less between the main unit and the ceiling opening so that the panel overlap allowance can be ensured.

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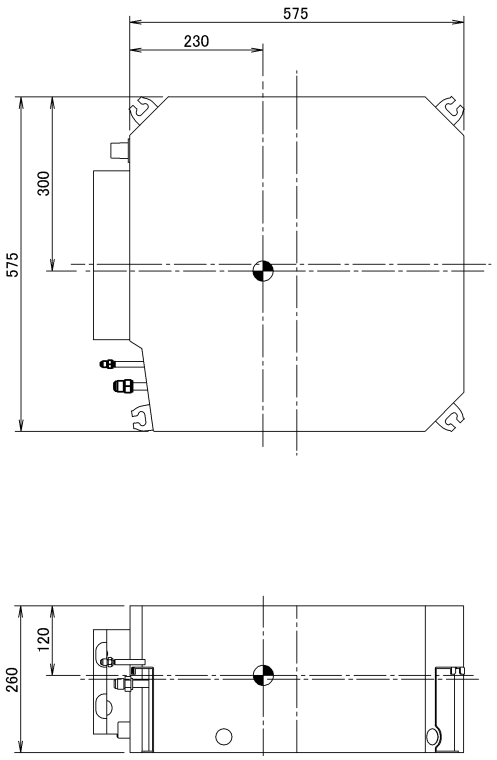
# 6 Centre of gravity

## 6 - 1 Centre of Gravity

**FFQ-C**

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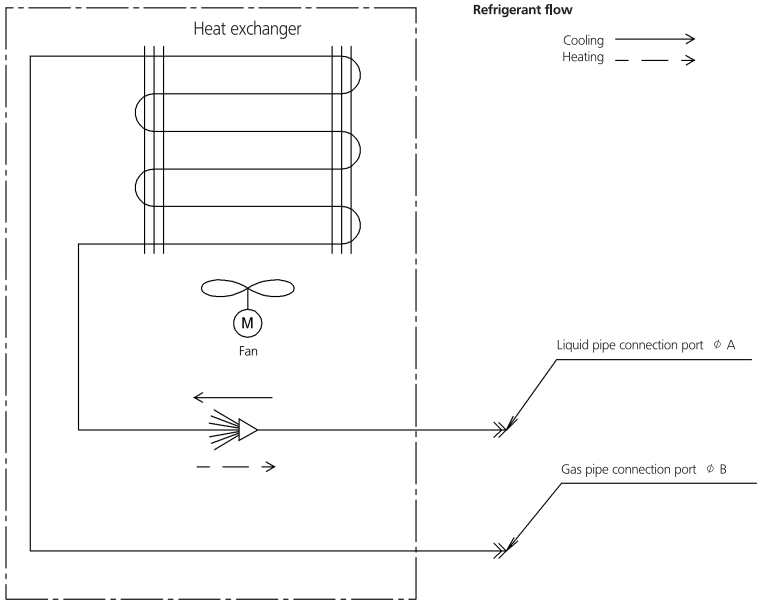
# 7 Piping diagrams

## 7 - 1 Piping Diagrams



**FFQ-C**




| Model | A | B |
|---|---|---|
| FFQ25C | 6.35 | 9.52 |
| FFQ35C | | |
| FFQ50C | | 12.7 |
| FFQ60C | | |

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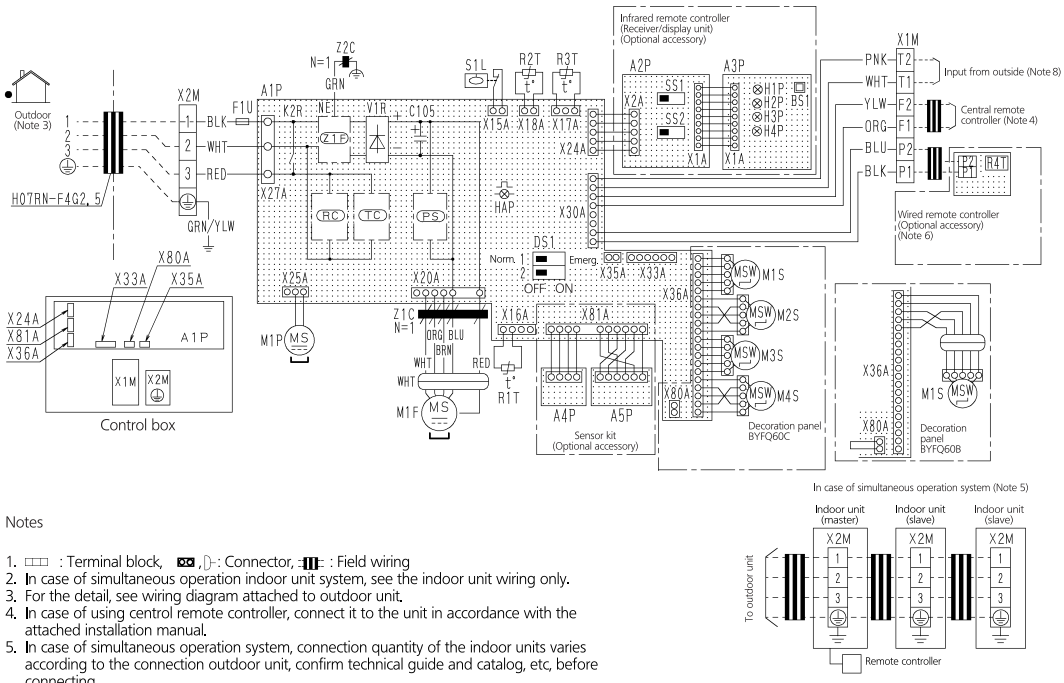
# 8 Wiring diagrams

## 8 - 1 Wiring Diagrams - Single Phase

**FFQ-C**

| | |
|---|---|
| **Indoor unit** | |
| A1P | Printed circuit board |
| C105 | Capacitor (M1F) |
| DS1 | Dip switch on PCB |
| F1U | Fuse (F, 5A, 250V) |
| HAP | Flashing lamp (service monitor-green) |
| K2R | Magnetic relay |
| M1F | Fan motor |
| M1P | Drain pump motor |
| M1S • M2S • M3S | Swing motor |
| R1T | Thermistor (air) |
| R2T • R3T | Thermistor (coil) |
| S1L | Float switch |
| V1R | Diode bridge |
| X1M | Terminal block |
| X2M | Terminal block |
| Z1F | Noise filter |
| Z1C | Ferrite core |
| Z2C | Ferrite core |
| PS | Switching power supply |
| RC | Receiver |
| TC | Transmitter |
| **Infrared remote controller (Receiver/display unit)** | |
| A2P | Printed circuit board |
| A3P | Printed circuit board |
| BS1 | Push button switch on PCB |
| H1P | Pilot lamp (on-red) |
| H2P | Pilot lamp (timer-green) |
| H3P | Pilot lamp (filter sign-red) |
| H4P | Pilot lamp (defrost-orange) |
| SS1 | Selector switch (main/sub) |
| SS2 | Selector switch (infrared address set) |
| **Sensor kit** | |
| A4P | Printed circuit board |
| A5P | Printed circuit board |
| **Wired remote controller** | |
| R4T | Thermistor (air) |
| **Connector for optional parts** | |
| X24A | Connector (Infrared remote controller) |
| X33A | Connector (adapter for wiring) |
| X35A | Connector (Power supply for adapter) |
| X81A | Connector (Sensor kit) |




Notes

1. □□□ : Terminal block, ⊠, ⊐: Connector, ⫴: Field wiring
2. In case of simultaneous operation indoor unit system, see the indoor unit wiring only.
3. For the detail, see wiring diagram attached to outdoor unit.
4. In case of using centrol remote controller, connect it to the unit in accordance with the attached installation manual.
5. In case of simultaneous operation system, connection quantity of the indoor units varies according to the connection outdoor unit, confirm technical guide and catalog, etc, before connecting.
6. In case of main/sub changeover, see the installation manual attached to remote controller.
7. Symbols show as follows: BLK:Black RED:Red BLU:Blue WHT:White YLW:Yellow GRN:Green ORG:Orange BRN:Brown PNK:Pink.
8. When connecting the input wiresing from outside, forced off or on/off control operation can be selected by the remote controller See installation manual for more details.

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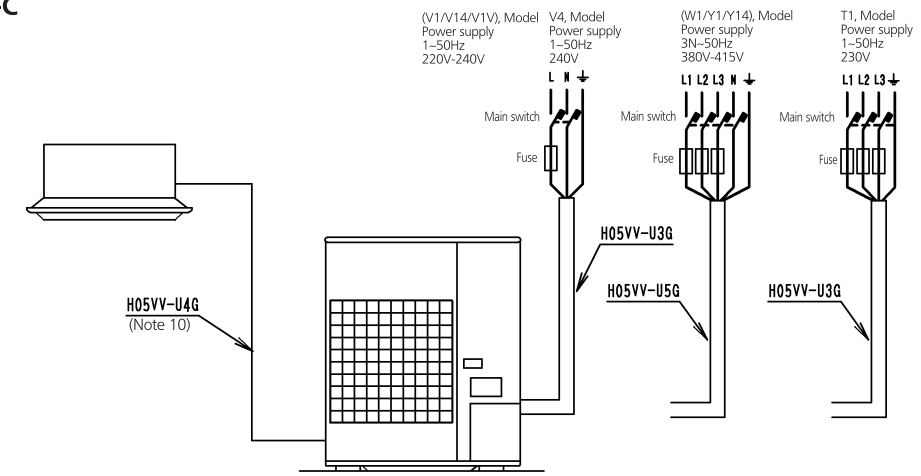
# 9 External connection diagrams

## 9 - 1 External Connection Diagrams

**FFQ-C**




**NOTES**

1 ——— Line voltage wiring
——— Control circuit wiring

2 All wiring, components and materials to be procured on the site must comply with the applicable local and national codes.

3 Use copper conductors only.

4 As for details, see wiring diagrams.

5 Install fuse and mainswitch for safety.

6 All field wiring and components must be provided by a licensed electrician.

7 The unit shall be grounded in compliance with the applicable local and national codes.

8 Wiring shown are general points-of-connection guides only and are not intended for or to include all details for a specific installation.

9 Never share a common power supply with other equipment.

10 Show only in case of protected pipes. Use HO7RN-F in case of no protection.

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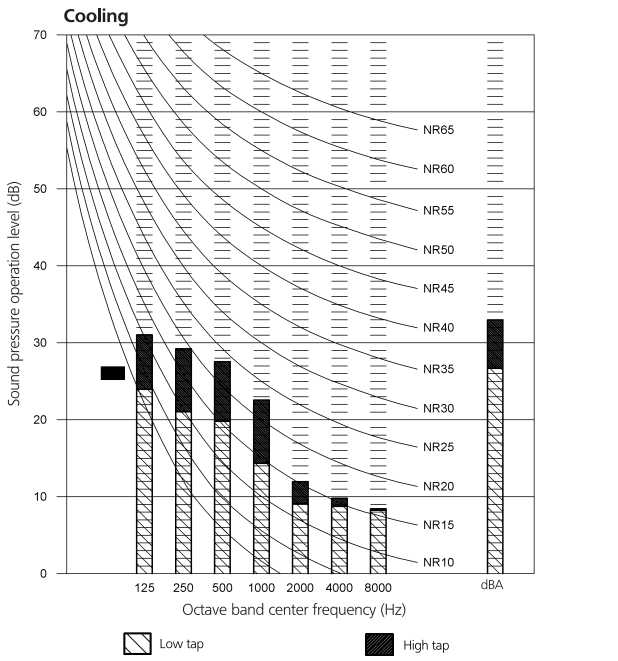
# 10 Sound data

## 10 - 1 Sound Pressure Spectrum - Cooling

### FFQ25C




**NOTES**

1 Data is valid at free field condition.
2 Data is valid at nominal operation condition.
3 dBA = A-weighted sound pressure level (A-scale according to IEC).
4 Reference acoustic pressure 0dB = 20µPa.
5 Sound power level:

| High tap |
|---|
| 48 dB |

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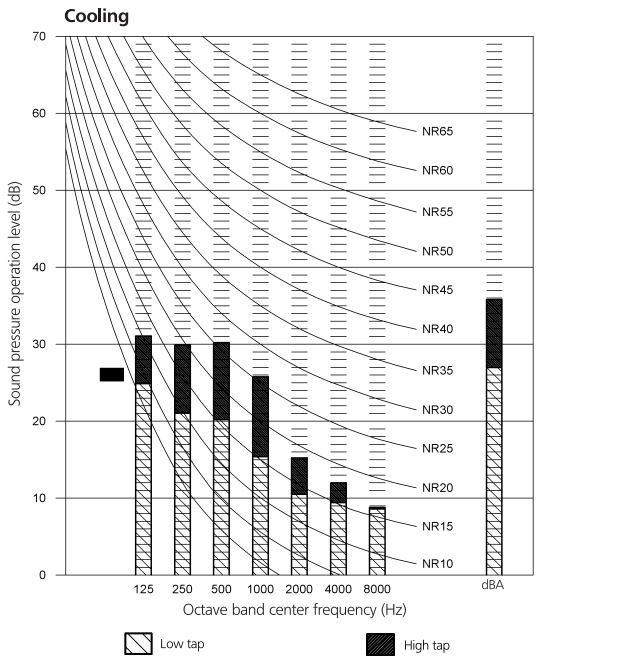
### FFQ35C




**NOTES**

1 Data is valid at free field condition.
2 Data is valid at nominal operation condition.
3 dBA = A-weighted sound pressure level (A-scale according to IEC).
4 Reference acoustic pressure 0dB = 20µPa.
5 Sound power level:

| High tap |
|---|
| 51 dB |

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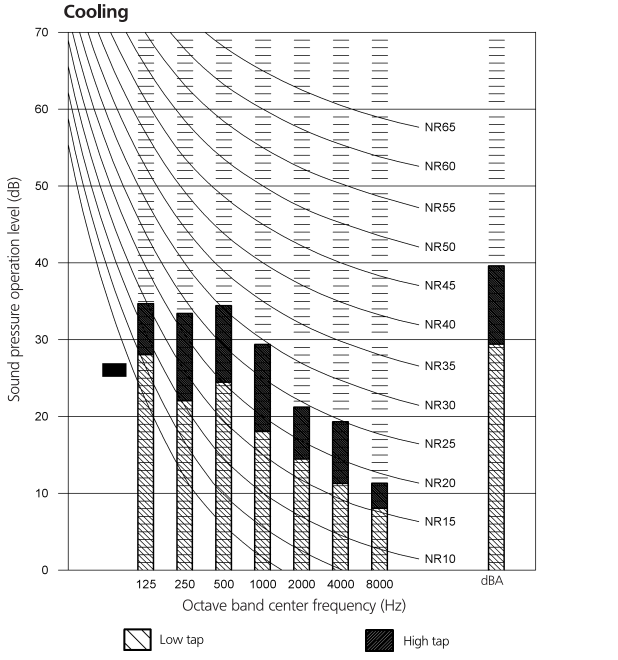
### FFQ50C




**NOTES**

1 Data is valid at free field condition.
2 Data is valid at nominal operation condition.
3 dBA = A-weighted sound pressure level (A-scale according to IEC).
4 Reference acoustic pressure 0dB = 20µPa.
5 Sound power level:

| High tap |
|---|
| 56 dB |

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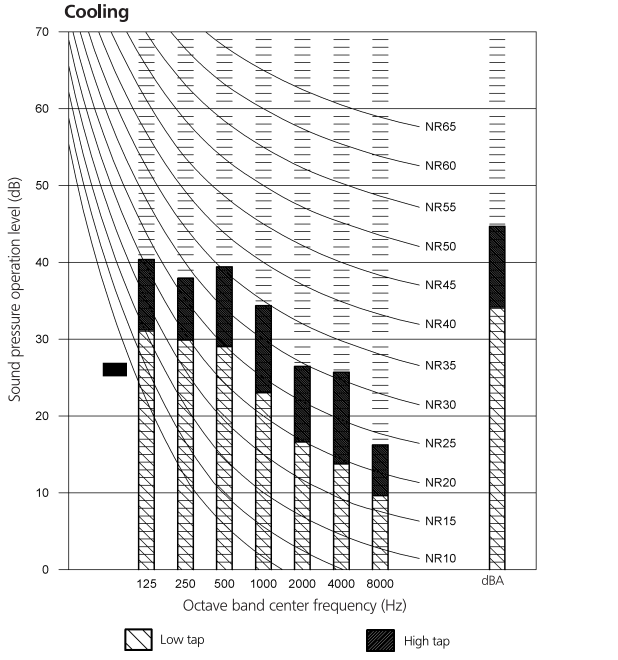
### FFQ60C




**NOTES**

1 Data is valid at free field condition.
2 Data is valid at nominal operation condition.
3 dBA = A-weighted sound pressure level (A-scale according to IEC).
4 Reference acoustic pressure 0dB = 20µPa.
5 Sound power level:

| High tap |
|---|
| 60 dB |

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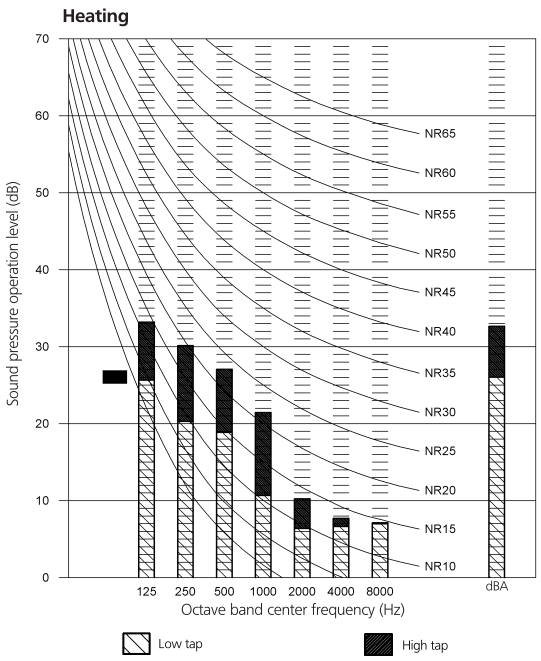
# 10 Sound data

## 10 - 2 Sound Pressure Spectrum - Heating



### FFQ25C




**NOTES**

1 Data is valid at free field condition.
2 Data is valid at nominal operation condition.
3 dBA = A-weighted sound pressure level (A-scale according to IEC).
4 Reference acoustic pressure 0dB = 20µPa.
5 Sound power level:

| High tap |
|---|
| 48 dB |

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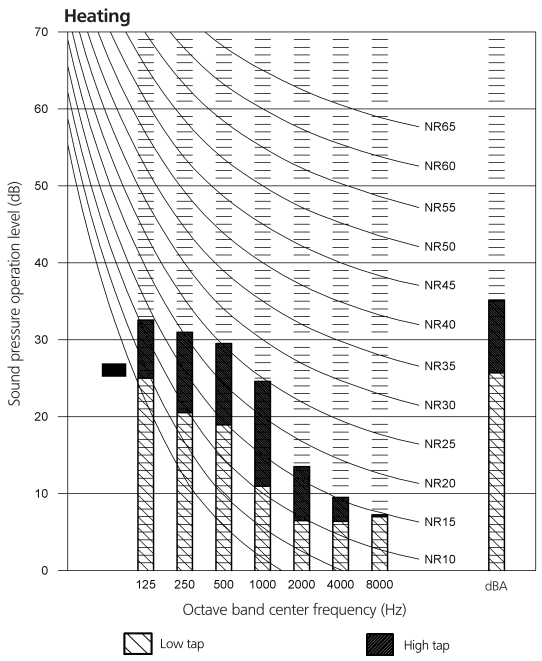
### FFQ35C




**NOTES**

1 Data is valid at free field condition.
2 Data is valid at nominal operation condition.
3 dBA = A-weighted sound pressure level (A-scale according to IEC).
4 Reference acoustic pressure 0dB = 20µPa.
5 Sound power level:

| High tap |
|---|
| 51 dB |

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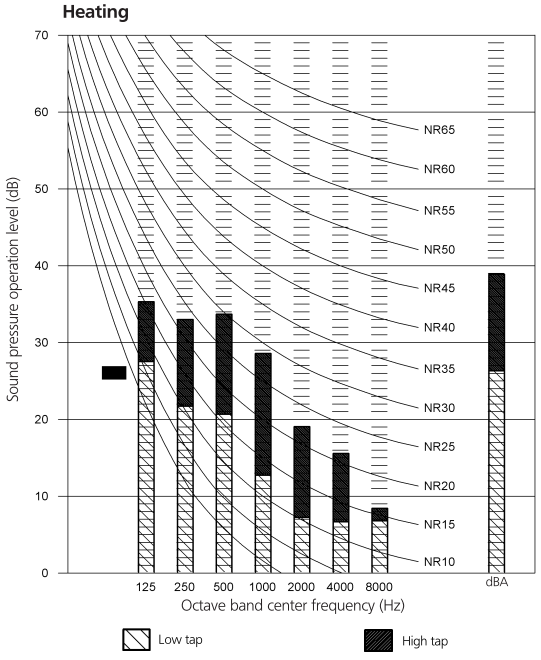
### FFQ50C



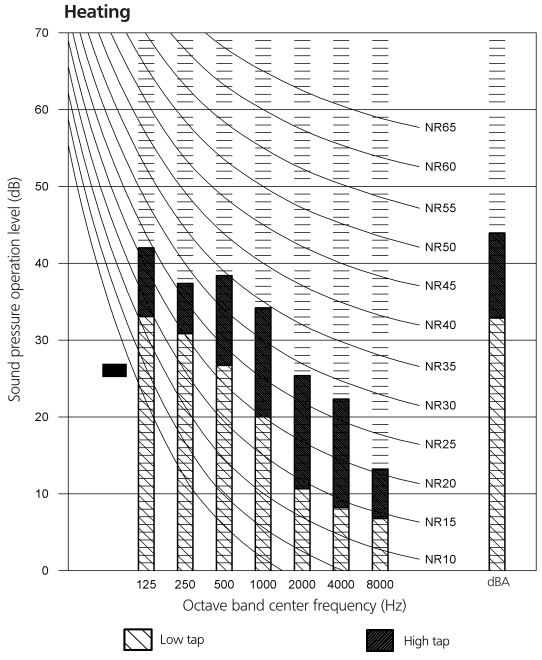

**NOTES**

1 Data is valid at free field condition.
2 Data is valid at nominal operation condition.
3 dBA = A-weighted sound pressure level (A-scale according to IEC).
4 Reference acoustic pressure 0dB = 20µPa.
5 Sound power level:

| High tap |
|---|
| 56 dB |

3D082564

### FFQ60C




**NOTES**

1 Data is valid at free field condition.
2 Data is valid at nominal operation condition.
3 dBA = A-weighted sound pressure level (A-scale according to IEC).
4 Reference acoustic pressure 0dB = 20µPa.
5 Sound power level:

| High tap |
|---|
| 60 dB |

3D082565

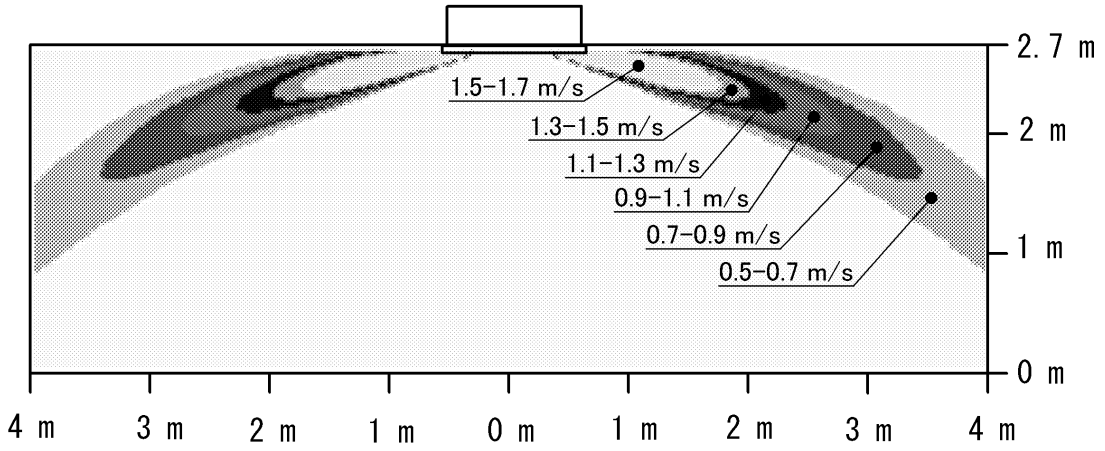
# 11 Air flow patterns

## 11 - 1 Air Flow Pattern - Cooling

**FFQ25C**

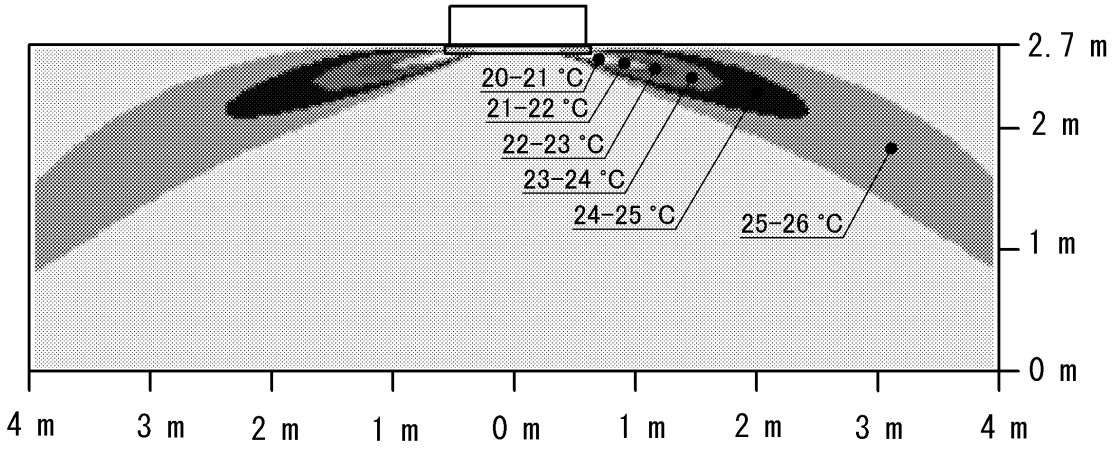
Cooling air velocity distribution

All round air discharge, air flow direction: horizontal




Cooling air temperature distribution

All round air discharge, air flow direction: horizontal




4D083819

# 11 Air flow patterns

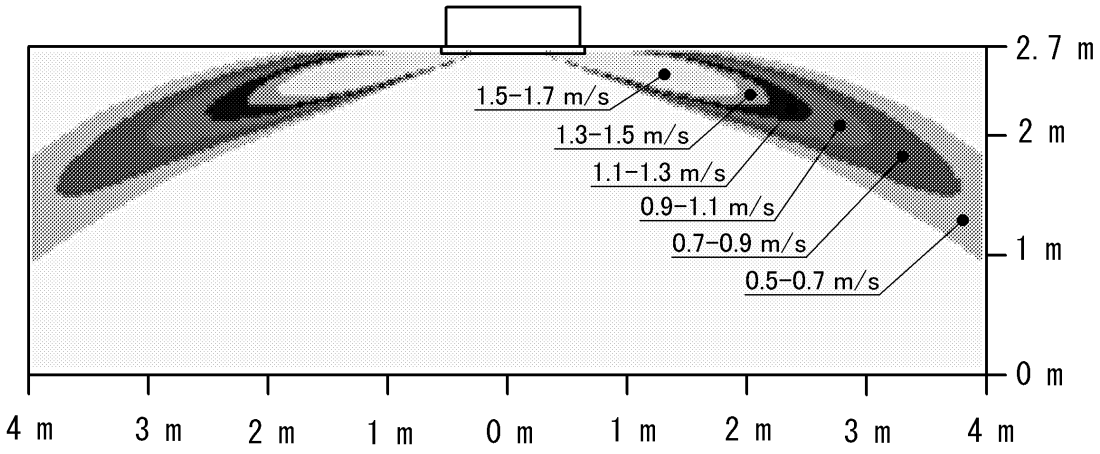
## 11 - 1 Air Flow Pattern - Cooling

**FFQ35C**

Cooling air velocity distribution

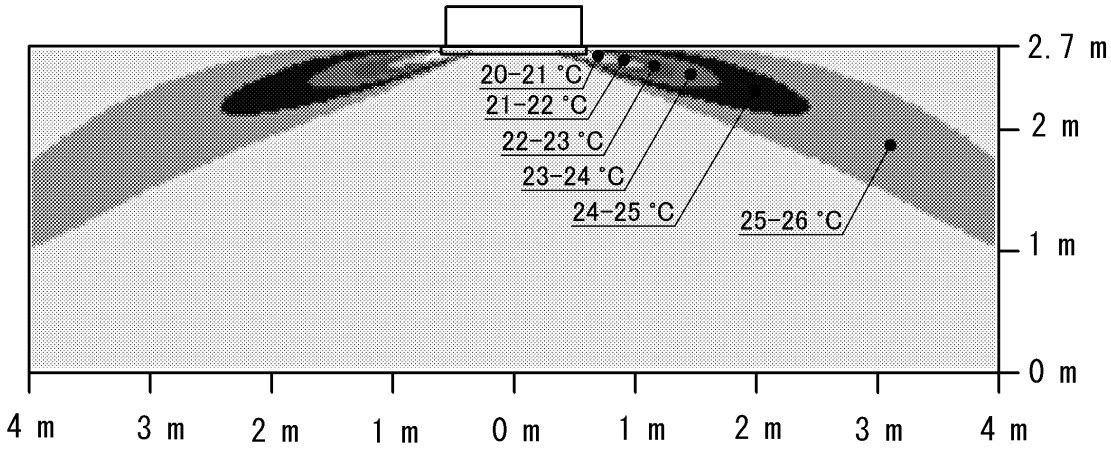
All round air discharge, air flow direction: horizontal






Cooling air temperature distribution

All round air discharge, air flow direction: horizontal




4D083820

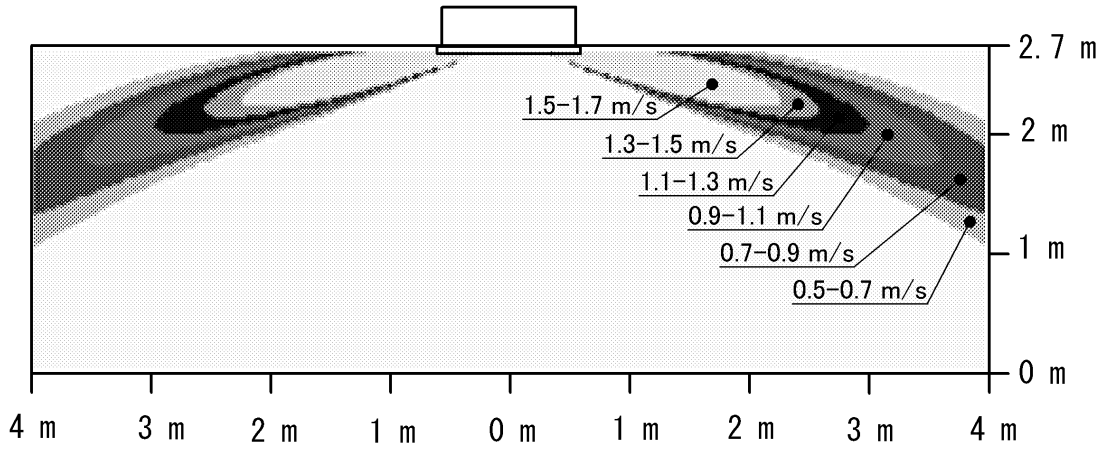
# 11 Air flow patterns

## 11 - 1 Air Flow Pattern - Cooling

**FFQ50C**

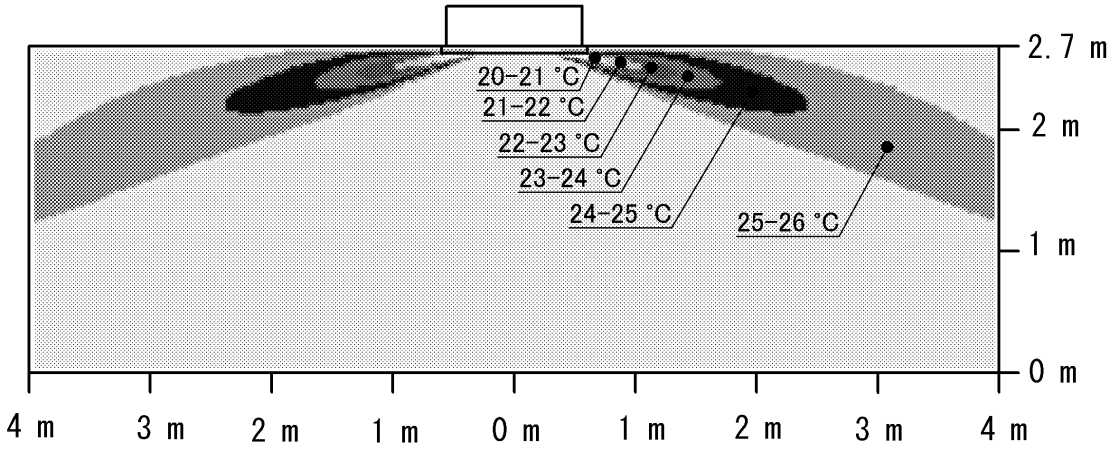
Cooling air velocity distribution

All round air discharge, air flow direction: horizontal




Cooling air temperature distribution

All round air discharge, air flow direction: horizontal




4D083821

# 11 Air flow patterns

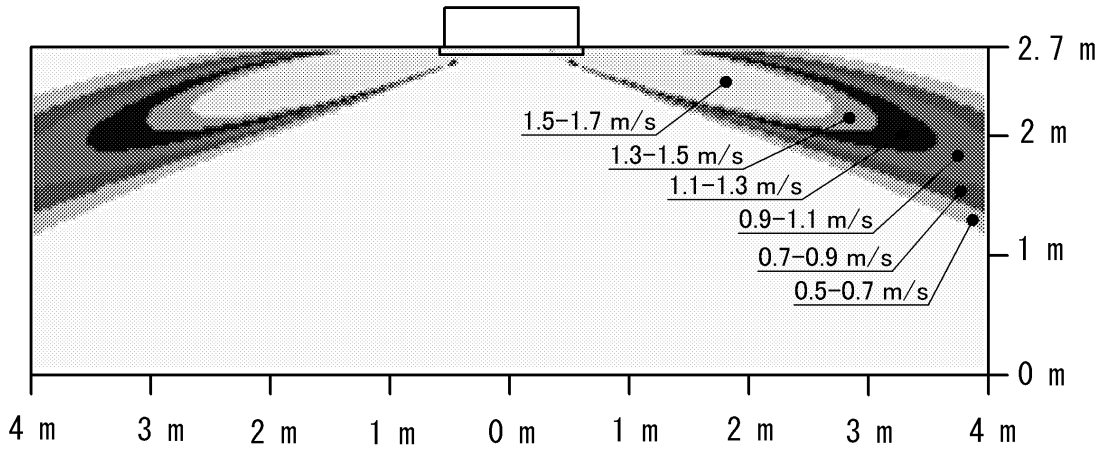
## 11 - 1 Air Flow Pattern - Cooling

**FFQ60C**

Cooling air velocity distribution

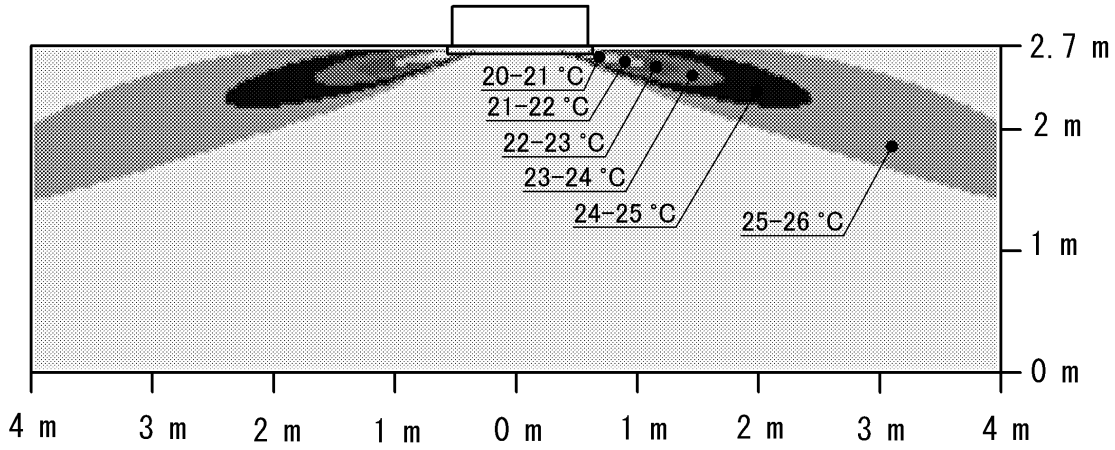
All round air discharge, air flow direction: horizontal






Cooling air temperature distribution

All round air discharge, air flow direction: horizontal




4D083822

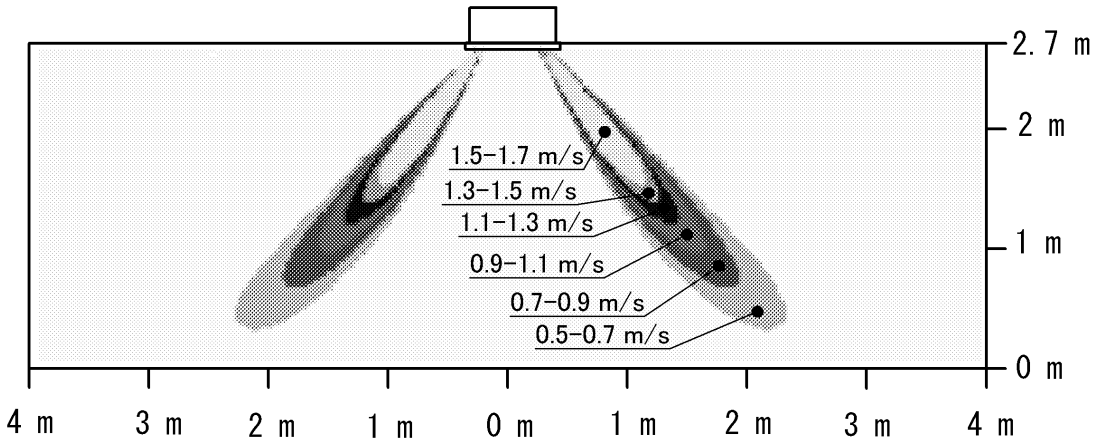
# 11 Air flow patterns

## 11 - 2 Air Flow Pattern - Heating

**FFQ25C**

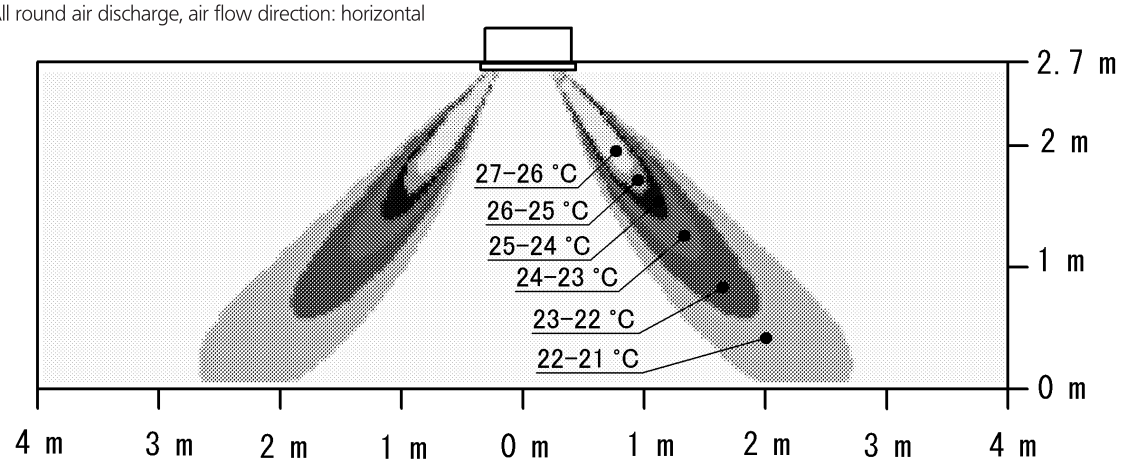
Heating air velocity distribution

All round air discharge, air flow direction: horizontal




Heating air temperature distribution

All round air discharge, air flow direction: horizontal




4D083829

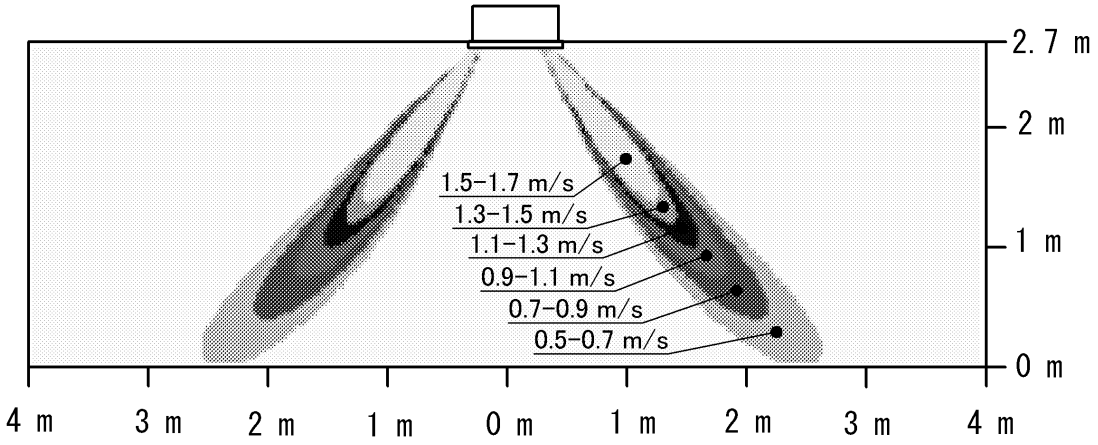
# 11 Air flow patterns

## 11 - 2 Air Flow Pattern - Heating

**FFQ35C**

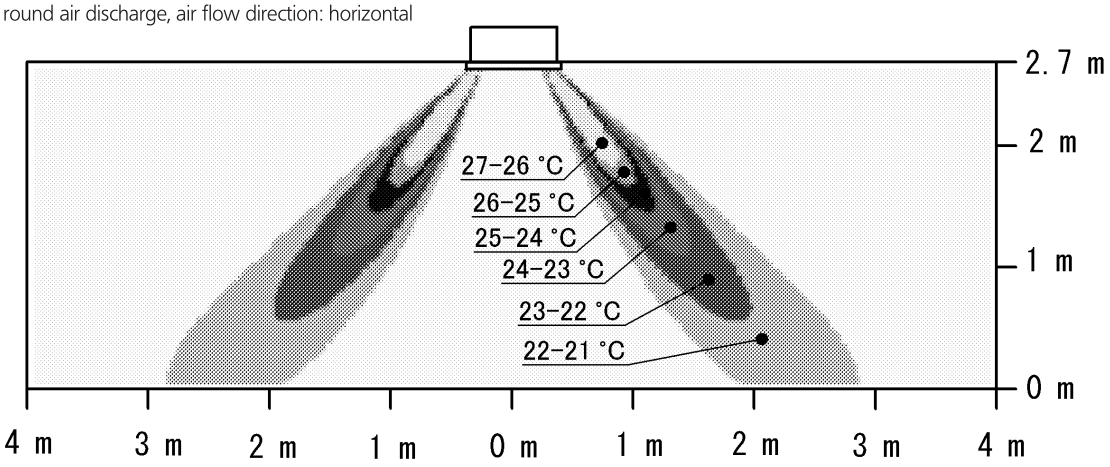
Heating air velocity distribution

All round air discharge, air flow direction: horizontal




Heating air temperature distribution

All round air discharge, air flow direction: horizontal




4D083830

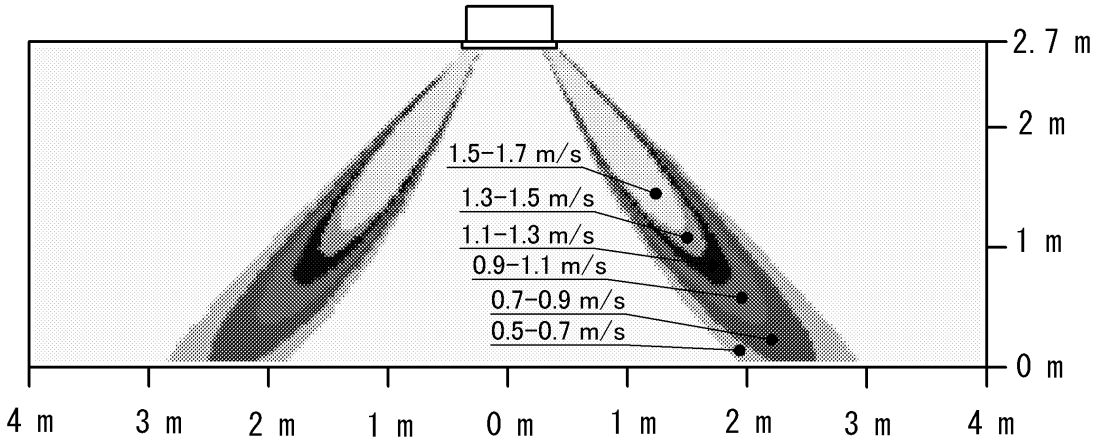
# 11 Air flow patterns

## 11 - 2 Air Flow Pattern - Heating

**FFQ50C**

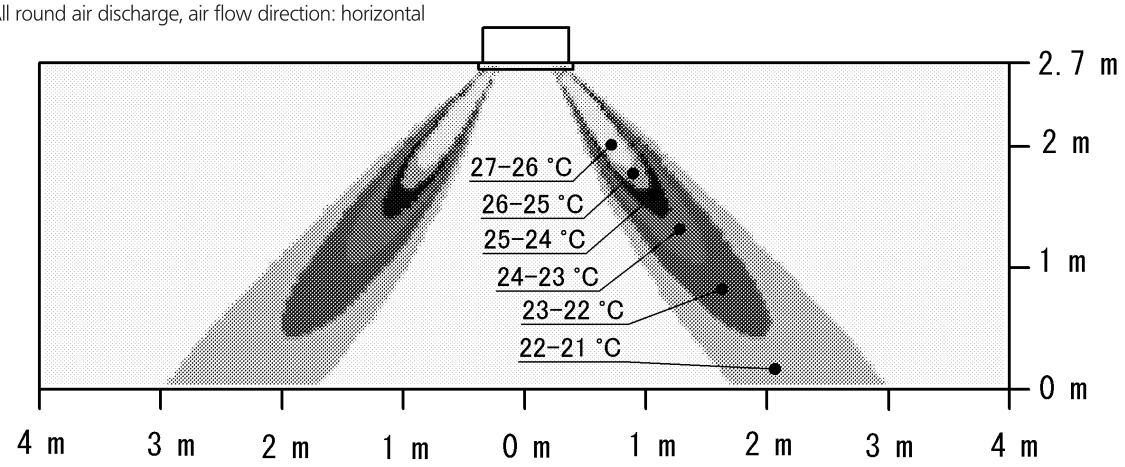
Heating air velocity distribution

All round air discharge, air flow direction: horizontal




Heating air temperature distribution

All round air discharge, air flow direction: horizontal




4D083831

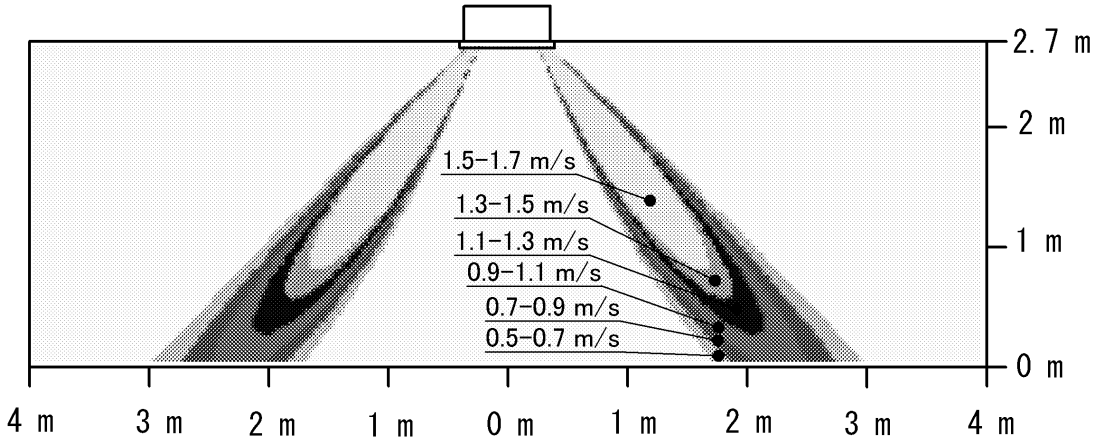
# 11 Air flow patterns

## 11 - 2 Air Flow Pattern - Heating

**FFQ60C**

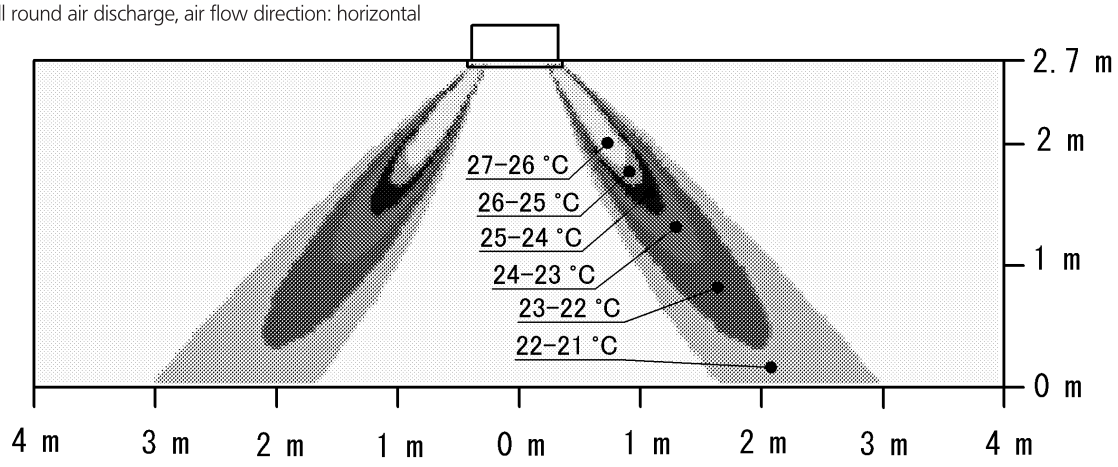
Heating air velocity distribution

All round air discharge, air flow direction: horizontal




Heating air temperature distribution

All round air discharge, air flow direction: horizontal




4D083832

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