

## Air Conditioning Technical Data

# FXAQ-A



> FXAQ15AUV1B  
> FXAQ20AUV1B  
> FXAQ25AUV1B  
> FXAQ32AUV1B  
> FXAQ40AUV1B  
> FXAQ50AUV1B

> FXAQ63AUV1B



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## FXAQ-A

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# 1 Features

For rooms with no false ceilings nor free floor space

- Ç Flat, stylish front panel blends easily within any interior d° cor and is easier to clean
- Ç Can easily be installed in both new and refurbishment projects
- Ç Reduced energy consumption thanks to specially developed DC fan motor
- Ç The air is comfortably spread up- and downwards thanks to 5 different discharge angles that can be programmed via the remote control
- Ç Maintenance operations can be performed easily from the front of the unit

1



Home leave operation



Fan only



Auto cooling-heating changeover



Whisper quiet



Vertical auto swing



Fan speed steps



Dry programme



Air filter



Weekly timer



Infrared remote control



Wired remote control



Centralised control



Auto-restart



Self diagnosis



Multi tenant



Drain pump kit

## 2 Specifications

| 2-1 Technical Specifications |                                                        |          |      |                                   | FXAQ15A                    | FXAQ20A | FXAQ25A | FXAQ32A | FXAQ40A      | FXAQ50A | FXAQ63A |
|------------------------------|--------------------------------------------------------|----------|------|-----------------------------------|----------------------------|---------|---------|---------|--------------|---------|---------|
| Power input - 50Hz           | Cooling                                                | Nom.     | kW   |                                   | 0.02                       |         | 0.03    |         | 0.02         | 0.03    | 0.05    |
|                              | Heating                                                | Nom.     | kW   |                                   | 0.03                       |         |         | 0.04    | 0.02         | 0.04    | 0.06    |
| Dimensions                   | Unit                                                   | Height   | mm   |                                   | 290                        |         |         |         |              |         |         |
|                              |                                                        | Width    | mm   |                                   | 795                        |         |         |         | 1,050        |         |         |
|                              |                                                        | Depth    | mm   |                                   | 266                        |         |         |         | 269          |         |         |
|                              |                                                        |          |      |                                   |                            |         |         |         |              |         |         |
| Weight                       | Unit                                                   |          | kg   |                                   | 12                         |         |         |         | 15           |         |         |
| Casing                       | Colour                                                 |          |      |                                   | White                      |         |         |         |              |         |         |
| Heat exchanger               | Rows                                                   | Quantity |      |                                   | 2                          |         |         |         |              |         |         |
|                              | Fin pitch                                              |          | mm   |                                   | 1.4                        |         |         |         |              |         |         |
|                              | Face area                                              |          | m²   |                                   | 0.161                      |         |         |         | 0.213        |         |         |
|                              | Stages                                                 | Quantity |      |                                   | 14                         |         |         |         |              |         |         |
| Fan                          | Type                                                   |          |      |                                   | Cross flow fan             |         |         |         |              |         |         |
|                              | Air flow rate - 50Hz                                   | Cooling  | High | m³/min                            | 8.4                        | 9.1     | 9.4     | 9.8     | 12.2         | 14.4    | 18.3    |
|                              |                                                        |          | Low  | m³/min                            | 7.0                        |         |         |         | 9.7          | 11.5    | 13.5    |
| Fan motor                    | Model                                                  |          |      |                                   | KFD-280-40-8K              |         |         |         | ARW30W8P43DK |         |         |
|                              | Drive                                                  |          |      |                                   | Direct drive               |         |         |         |              |         |         |
| Air filter                   | Type                                                   |          |      |                                   | Washable resin net         |         |         |         |              |         |         |
| Sound power level            | Cooling                                                | High     | dBA  |                                   | 51.0                       | 52.0    | 53.0    | 55.0    |              | 58.0    | 63.0    |
| Sound pressure level         | Cooling                                                | High     | dBA  |                                   | 32.0                       | 33.0    | 35.0    | 37.5    | 37.0         | 41.0    | 46.5    |
|                              |                                                        | Low      | dBA  |                                   | 28.5                       |         |         |         | 33.5         | 35.5    | 38.5    |
|                              | Heating                                                | High     | dBA  |                                   | 33.0                       | 34.0    | 36.0    | 38.5    | 38.0         | 42.0    | 47.0    |
|                              |                                                        | Low      | dBA  |                                   | 28.5                       |         |         |         | 33.5         | 35.5    | 38.5    |
| Refrigerant                  | Type                                                   |          |      |                                   | R-410A                     |         |         |         |              |         |         |
|                              | Control                                                |          |      |                                   | Electronic expansion valve |         |         |         |              |         |         |
| Piping connections           | Liquid                                                 | Type     |      | Flare connection                  |                            |         |         |         |              |         |         |
|                              |                                                        | OD       | mm   | 6,35                              |                            |         |         |         |              |         | 9,52    |
|                              | Gas                                                    | Type     |      | Flare connection                  |                            |         |         |         |              |         |         |
|                              |                                                        | OD       | mm   | 12.7                              |                            |         |         |         |              |         | 15.9    |
|                              | Drain                                                  |          |      |                                   | VP13 (I.D. 15/O.D. 18)     |         |         |         |              |         |         |
| Sound absorbing insulation   |                                                        |          |      | Foamed polystyrene / polyethylene |                            |         |         |         |              |         |         |
| Control systems              | Infrared remote control                                |          |      |                                   | BRC7EA628 / BRC7EA629      |         |         |         |              |         |         |
|                              | Wired remote control                                   |          |      |                                   | BRC1E61                    |         |         |         |              |         |         |
|                              | Simplified wired remote control for hotel applications |          |      |                                   | -                          |         |         |         |              |         |         |

Standard Accessories : Installation and operation manual; Quantity : 1;

Standard Accessories : Installation panel; Quantity : 1;

Standard Accessories : Paper pattern for installation; Quantity : 1;

Standard Accessories : Insulation tape; Quantity : 1;

Standard Accessories : Clamps; Quantity : 1;

Standard Accessories : Screws; Quantity : 1;

| 2-2 Electrical Specifications |                            |       |    | FXAQ15A | FXAQ20A | FXAQ25A | FXAQ32A | FXAQ40A | FXAQ50A | FXAQ63A |
|-------------------------------|----------------------------|-------|----|---------|---------|---------|---------|---------|---------|---------|
| Power supply                  | Name                       |       |    | V1      |         |         |         |         |         |         |
|                               | Phase                      |       |    | 1~      |         |         |         |         |         |         |
|                               | Frequency                  |       | Hz | 50      |         |         |         |         |         |         |
|                               | Voltage                    |       | V  | 220-240 |         |         |         |         |         |         |
| Current - 50Hz                | Minimum circuit amps (MCA) |       | A  | 0.3     |         | 0.4     |         |         | 0.5     | 0.7     |
|                               | Maximum fuse amps (MFA)    |       | A  | 16      |         |         |         |         |         |         |
|                               | Full load amps (FLA)       | Total | A  | 0.2     |         | 0.3     |         |         | 0.4     | 0.6     |

## 2 Specifications

### Notes

Cooling: indoor temp. 27°CDB, 19.0°CWB; outdoor temp. 35°CDB; equivalent piping length: 5m (horizontal)

Heating: indoor temp. 20°CDB; outdoor temp. 7°CDB, 6°CWB; equivalent refrigerant piping: 5m (horizontal)

Capacities are net, including a deduction for cooling (an addition for heating) for indoor fan motor heat.

Sound levels are measured in an anechoic room.

Operation sound differs with operation and ambient conditions

The sound pressure level is measured via a microphone at 1m distance of the unit.

Voltage range: units are suitable for use on electrical systems where voltage supplied to unit terminal is not below or above listed range limits.

Maximum allowable voltage range variation between phases is 2%.

MCA/MFA:  $MCA = 1.25 \times FLA$

Contains fluorinated greenhouse gases

Instead of a fuse, use a circuit breaker

Select wire size based on the value of MCA

Next lower standard fuse rating minimum 16A

$MFA \leq 4 \times FLA$

### 3 Electrical data

#### 3 - 1 Electrical Data

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| Indoor unit |    |         |                                  | Power supply |     | IFM   |     | Input (W) |         |
|-------------|----|---------|----------------------------------|--------------|-----|-------|-----|-----------|---------|
| Model name  | Hz | Voltage | Voltage range                    | MCA          | MFA | kW    | FLA | Cooling   | Heating |
| FXAQ15AUV1B | 50 | 220~240 | MAX. 50Hz 264V<br>MIN. 50Hz 198V | 0,30         | 16  | 0,040 | 0,2 | 17        | 25      |
| FXAQ20AUV1B | 50 | 220~240 | MAX. 50Hz 264V<br>MIN. 50Hz 198V | 0,30         | 16  | 0,040 | 0,2 | 19        | 29      |
| FXAQ25AUV1B | 50 | 220~240 | MAX. 50Hz 264V<br>MIN. 50Hz 198V | 0,40         | 16  | 0,040 | 0,3 | 28        | 34      |
| FXAQ32AUV1B | 50 | 220~240 | MAX. 50Hz 264V<br>MIN. 50Hz 198V | 0,40         | 16  | 0,040 | 0,3 | 30        | 35      |
| FXAQ40AUV1B | 50 | 220~240 | MAX. 50Hz 264V<br>MIN. 50Hz 198V | 0,40         | 16  | 0,043 | 0,3 | 20        | 20      |
| FXAQ50AUV1B | 50 | 220~240 | MAX. 50Hz 264V<br>MIN. 50Hz 198V | 0,50         | 16  | 0,043 | 0,4 | 33        | 39      |
| FXAQ63AUV1B | 50 | 220~240 | MAX. 50Hz 264V<br>MIN. 50Hz 198V | 0,70         | 16  | 0,043 | 0,6 | 50        | 60      |

##### Notes

- 1) The units are suitable for use with electrical systems in which the voltage supplied to the unit terminals is not below or above the listed range limits.
- 2) The maximum allowable voltage that is unbalanced between phases is ·2·%.
- 3) MCA/MFA  
MCA = 1.25 X FLA  
MFA ≤ 4 X FLA
- 4) Select the wire size according to the MCA.
- 5) Use a circuit breaker instead of a fuse.

##### Symbols

- MCA: Minimum Circuit Ampere [A]
- MFA: Maximum Fuse Ampere [A]
- kW: Fan motor rated output [kW]
- FLA: Full Load Ampere [A]
- IFM: Indoor fan motor

## 4 Safety device settings

### 4 - 1 Safety Device Settings

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| Safety devices |          | 15          | 20 | 25 | 32 | 40 | 50 | 60 |
|----------------|----------|-------------|----|----|----|----|----|----|
| FXAQ~AUV1B     | PCB fuse | 250V, 3.15A |    |    |    |    |    |    |

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## 5 Options

### 5 - 1 Options

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|                             | Option kit                                        | Product name               | Availability |
|-----------------------------|---------------------------------------------------|----------------------------|--------------|
|                             |                                                   |                            | VRV          |
|                             |                                                   |                            | FXAQ15AUV1B  |
|                             |                                                   |                            | FXAQ20AUV1B  |
|                             |                                                   |                            | FXAQ25AUV1B  |
|                             |                                                   |                            | FXAQ32AUV1B  |
|                             |                                                   |                            | FXAQ40AUV1B  |
|                             |                                                   |                            | FXAQ50AUV1B  |
|                             |                                                   |                            | FXAQ63AUV1B  |
|                             |                                                   |                            |              |
| Individual control systems  | Wired remote control                              | BRC1H51W/S/K, BRC1E53A/B/C | ✓            |
|                             | Wireless remote control (H/P)                     | BRC7EA628, BRC7EA629       | ✓            |
| Centralised control systems | Central remote control                            | DCS302C51/DCS302CA61       | ✓            |
|                             | Unified ON/OFF controller                         | DCS301A51/DCS301BA61       | ✓            |
|                             | Schedule timer                                    | DST301B51/DST301BA61       | ✓            |
| Other options               | Adaptor for wiring                                | KRP1B56                    | ✓            |
|                             | Wiring adaptor for electrical appendices -1-      | KRP2A51(3), KRP2A61(3)     | ✓            |
|                             | Wiring adaptor for electrical appendices -2-      | KRP4AA51(3)                | ✓            |
|                             | Remote sensor                                     | KRCS01-1B                  | ✓            |
|                             | Installation box for adaptor PCB                  | KRP4AA93(1)(2)             | ✓            |
|                             | Electrical box with earth terminal (-2- blocks)   | KJB212AA                   | ✓            |
|                             | Electrical box with earth terminal (-3- blocks)   | KJB311AA                   | ✓            |
|                             | Noise filter (for electromagnetic interface only) | KEK26-1A                   | ✓            |
|                             | External control adaptor for outdoor unit         | DTA104A51, DTA104A61       | ✓            |
|                             | Must be installed on the outdoor unit             |                            |              |
|                             | Adaptor for multi-tenant applications             | DTA114A61                  | ✓            |
|                             | Must be installed on the outdoor unit             |                            |              |
|                             | Wire harness                                      | EKEWTSC (4)                | ✓            |
|                             | On/OFF thermostat (wireless)                      | K.RSS (5)                  | ✓            |

Up to -2- adaptor PCBs can be installed per installation box.

Only one installation box can be installed per indoor unit.

This option needs to be installed together with installation box -KRP4AA93-.

Can only be used in combination with wireless room thermostat -K.RSS-.

This option needs to be ordered together with -EKEWTSC-.

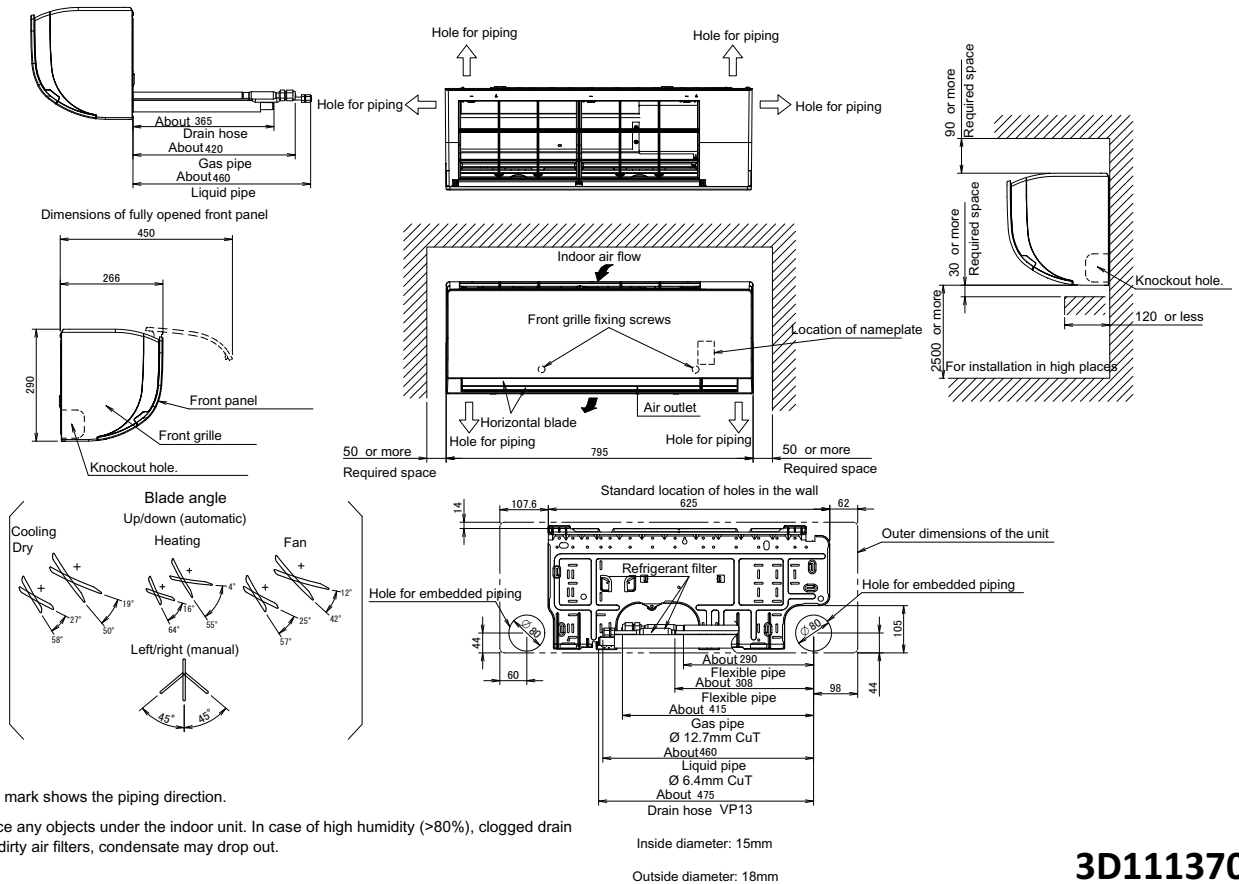
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## 6 Dimensional drawings

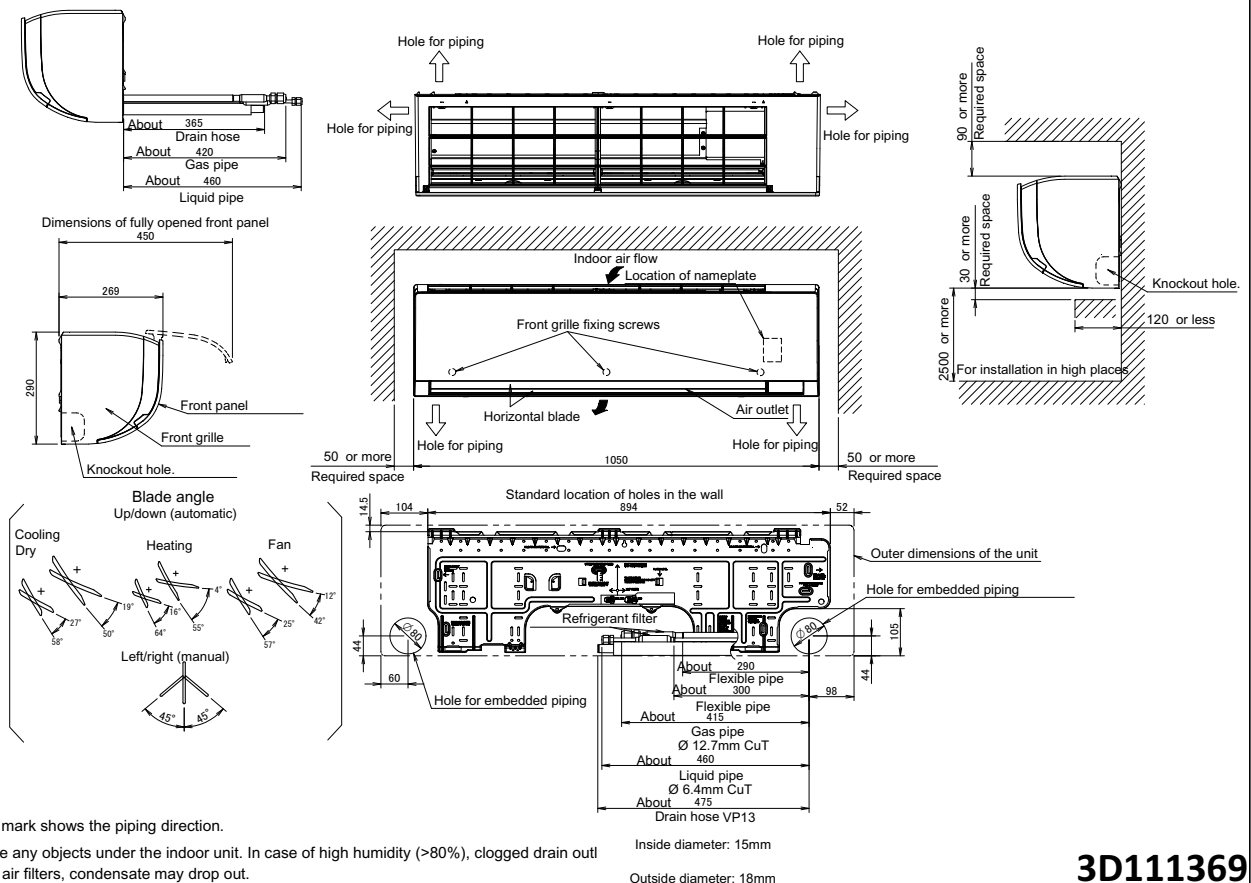
### 6 - 1 Dimensional Drawings

#### FXAQ15-32A



3D111370

#### FXAQ40-50A

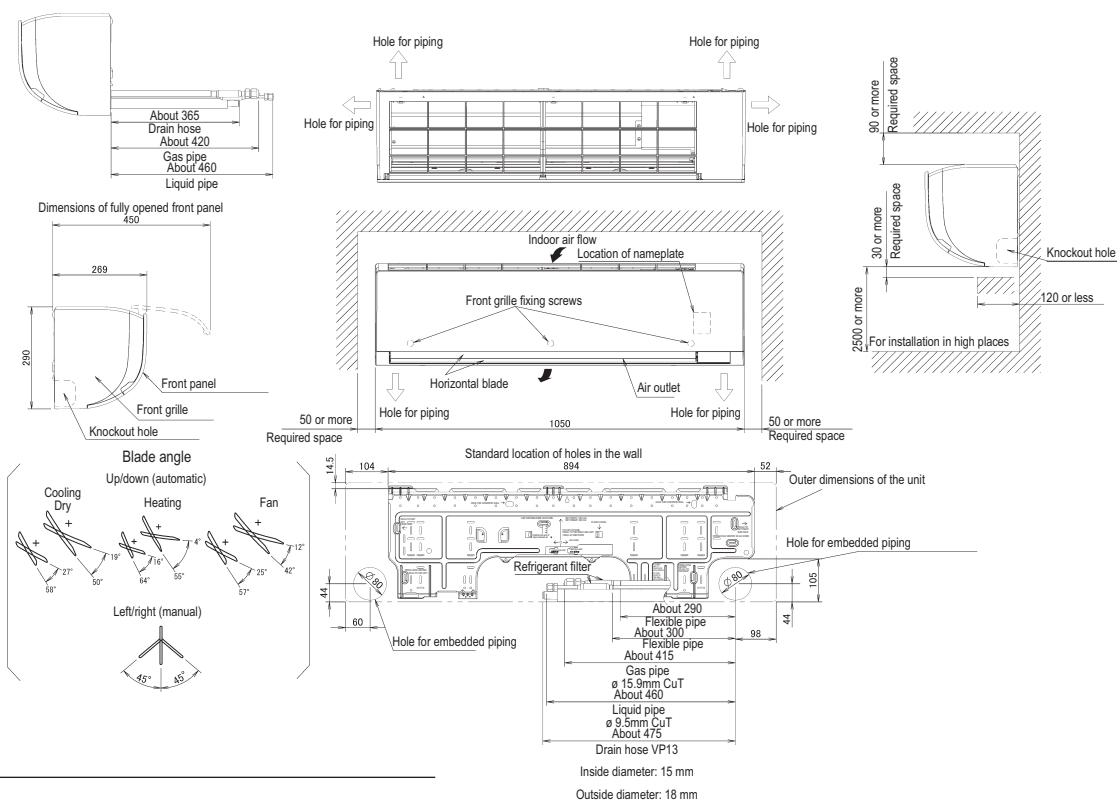


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## 6 Dimensional drawings

### 6 - 1 Dimensional Drawings

#### FXAQ63A



#### NOTES

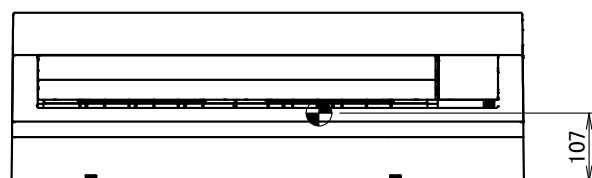
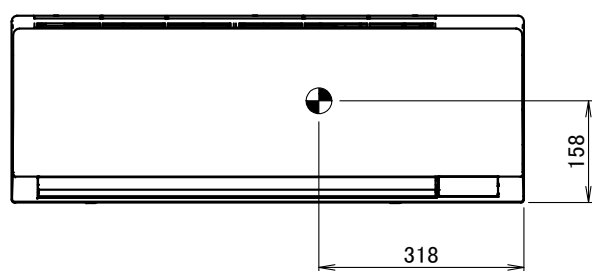
1. The mark shows the piping direction.
2. Do not place any objects under the indoor unit. In case of high humidity (>80%), clogged drain outlets or dirty air filters, condensate may drop out.

3D111368

## 7 Centre of gravity

### 7 - 1 Centre of Gravity

#### FXAQ15-32A

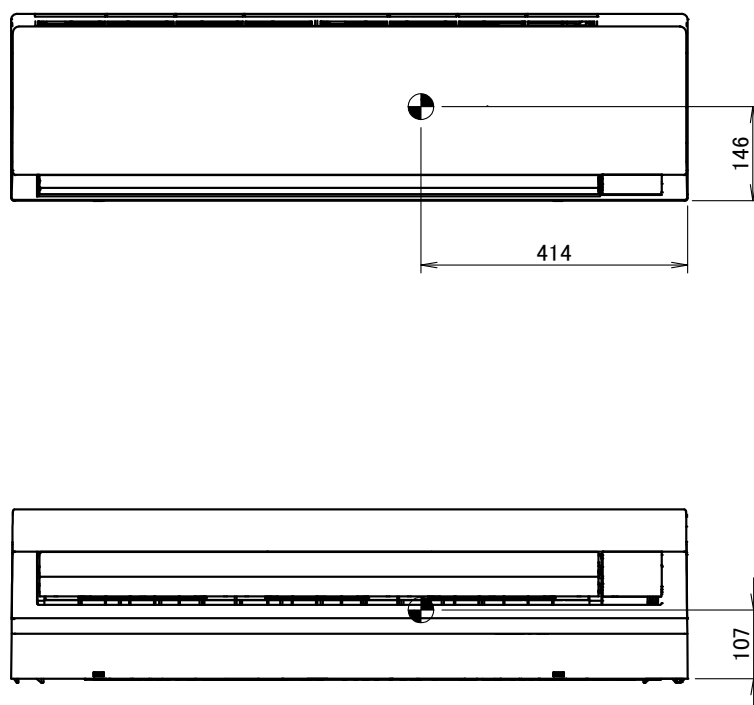


4D112526

## 7 Centre of gravity

### 7 - 1 Centre of Gravity

FXAQ40-63A



4D112525

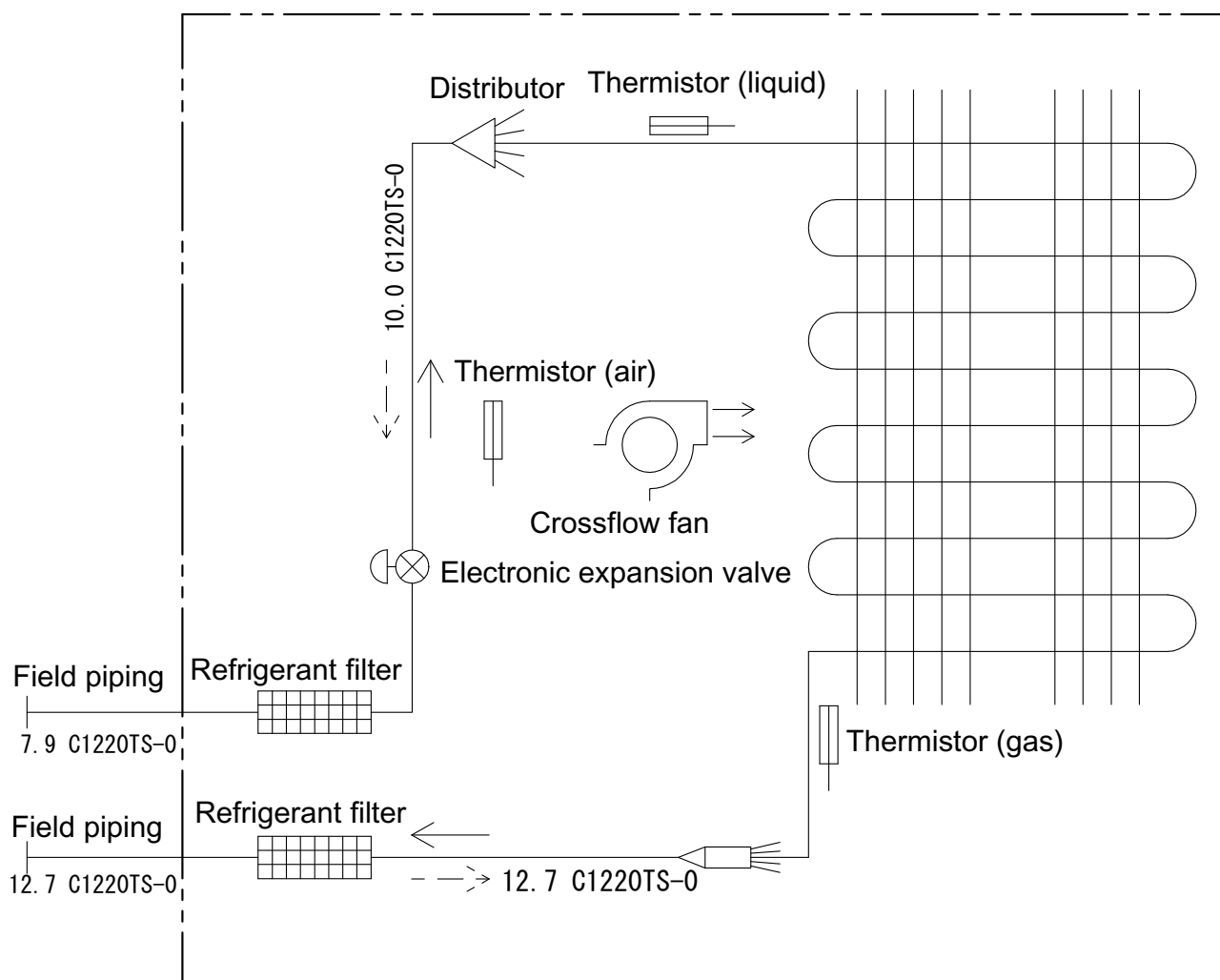
## 8 Piping diagrams

### 8 - 1 Piping Diagrams

#### FXAQ-A

8

#### Indoor unit

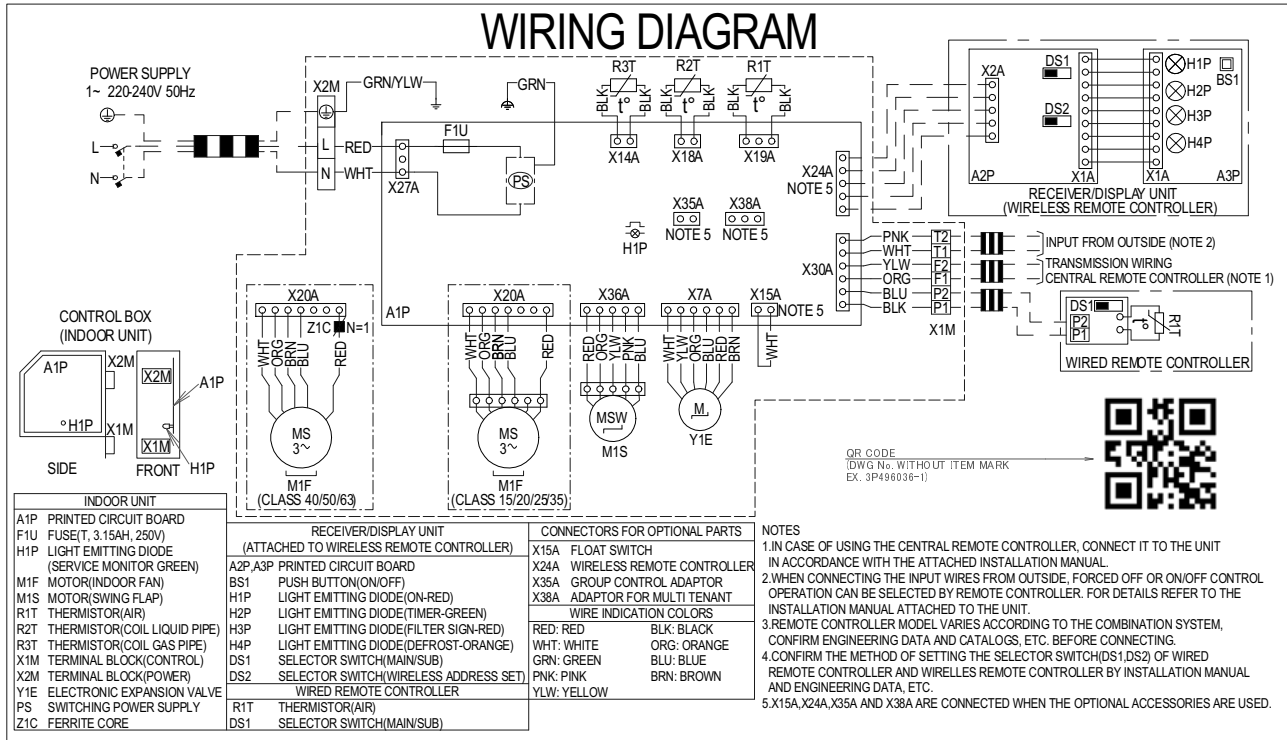


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## 9 Wiring diagrams

### 9 - 1 Wiring Diagrams - Single Phase

#### FXAQ-A



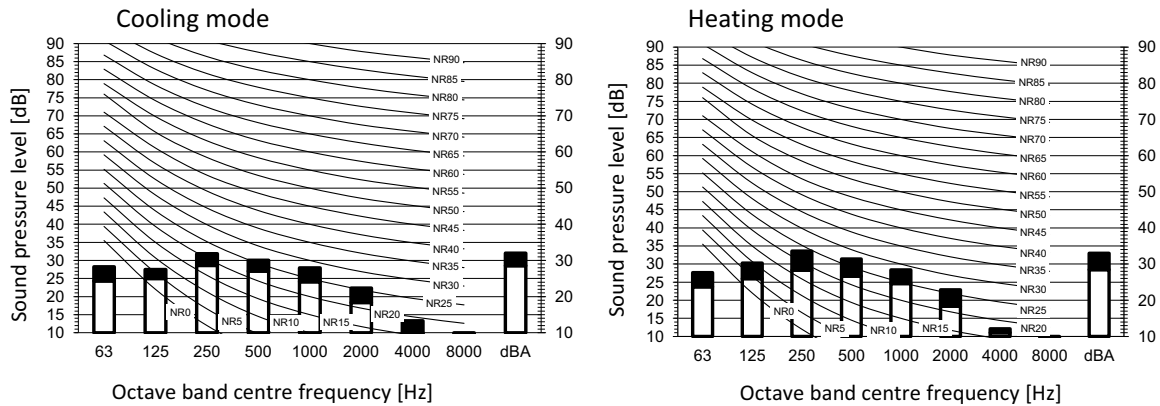
3D108400-1A

# 10 Sound data

## 10 - 1 Sound Pressure Spectrum

10

### FXAQ15A



#### Legend

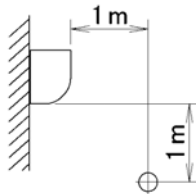
dBA = A-weighted sound pressure level (A scale according to IEC).

A Scale

B Fan speed: High

C Fan speed: Low

Location of microphone



| Cooling  |    |      |
|----------|----|------|
| Total dB |    |      |
| A        | B  | C    |
| dBA      | 32 | 28,5 |

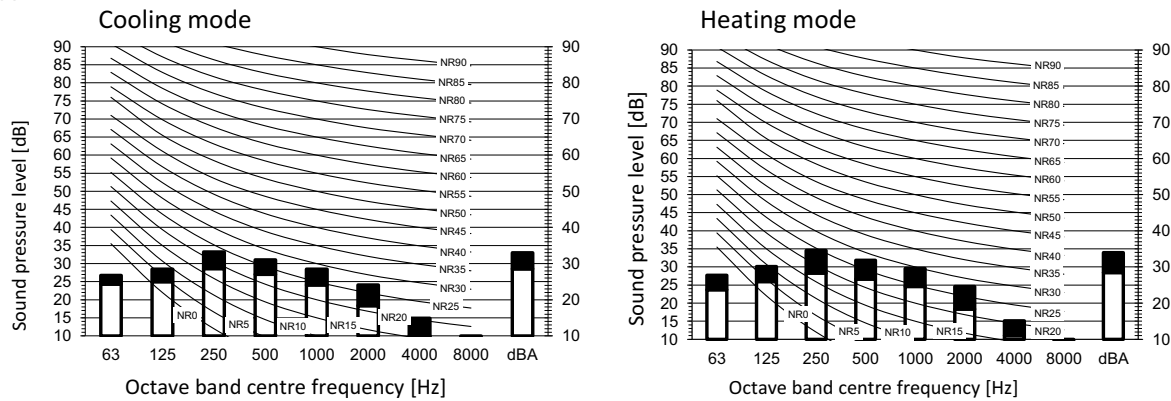
| Heating  |    |      |
|----------|----|------|
| Total dB |    |      |
| A        | B  | C    |
| dBA      | 33 | 28,5 |

#### Notes

- 1 . Operating conditions: power source 220-240 V/220 V 50/60 Hz; JIS standard
- 2 . Background noise already taken into account.
- 3 . Operating noise varies depending on operation and ambient conditions.
- 4 . The operation noise measuring method is in accordance with JISC9612.
- 5 . Measuring location: anechoic chamber

3D112488

### FXAQ20A



#### Legend

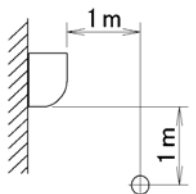
dBA = A-weighted sound pressure level (A scale according to IEC).

A Scale

B Fan speed: High

C Fan speed: Low

Location of microphone



| Cooling  |    |      |
|----------|----|------|
| Total dB |    |      |
| A        | B  | C    |
| dBA      | 33 | 28,5 |

| Heating  |    |      |
|----------|----|------|
| Total dB |    |      |
| A        | B  | C    |
| dBA      | 34 | 28,5 |

#### Notes

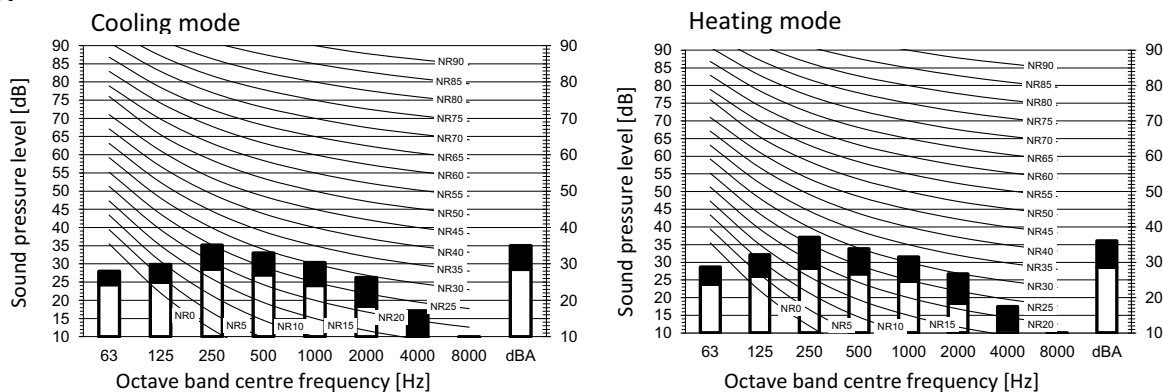
- 1 . Operating conditions: power source 220-240 V/220 V 50/60 Hz; JIS standard
- 2 . Background noise already taken into account.
- 3 . Operating noise varies depending on operation and ambient conditions.
- 4 . The operation noise measuring method is in accordance with JISC9612.
- 5 . Measuring location: anechoic chamber

3D112489

# 10 Sound data

## 10 - 1 Sound Pressure Spectrum

### FXAQ25A



#### Legend

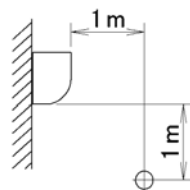
dBA = A-weighted sound pressure level (A scale according to IEC).

A Scale

B Fan speed: High

C Fan speed: Low

Location of microphone



Cooling

Total dB

| A   | B  | C    |
|-----|----|------|
| dBA | 35 | 28,5 |

Heating

Total dB

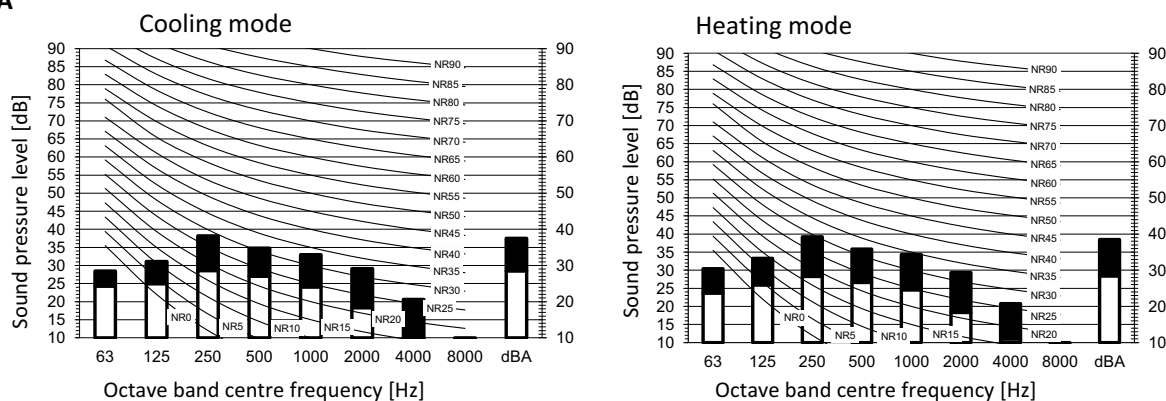
| A   | B  | C    |
|-----|----|------|
| dBA | 36 | 28,5 |

#### Notes

1. Operating conditions: power source 220-240 V/220 V 50/60 Hz; JIS standard
2. Background noise already taken into account.
3. Operating noise varies depending on operation and ambient conditions.
4. The operation noise measuring method is in accordance with JISC9612.
5. Measuring location: anechoic chamber

3D112490

### FXAQ32A



#### Legend

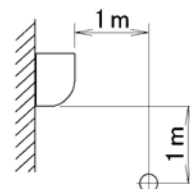
dBA = A-weighted sound pressure level (A scale according to IEC).

A Scale

B Fan speed: High

C Fan speed: Low

Location of microphone



Cooling

Total dB

| A   | B    | C    |
|-----|------|------|
| dBA | 37,5 | 28,5 |

Heating

Total dB

| A   | B    | C    |
|-----|------|------|
| dBA | 38,5 | 28,5 |

#### Notes

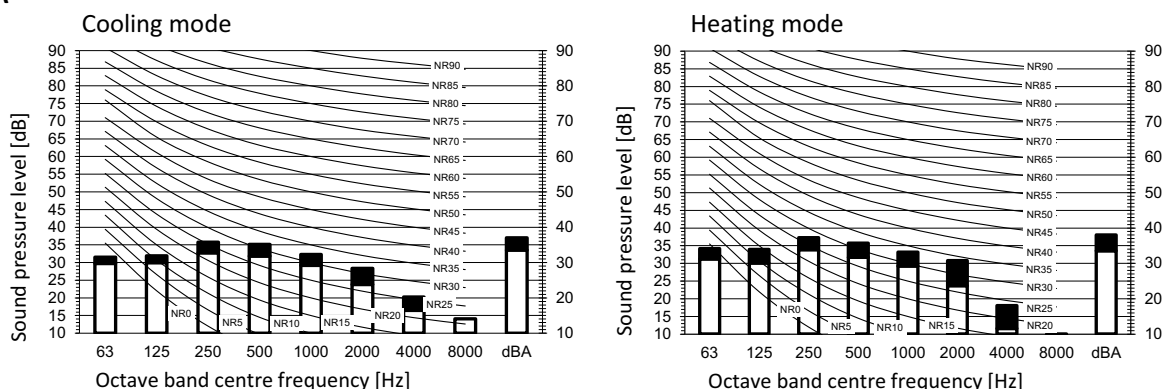
1. Operating conditions: power source 220-240 V/220 V 50/60 Hz; JIS standard
2. Background noise already taken into account.
3. Operating noise varies depending on operation and ambient conditions.
4. The operation noise measuring method is in accordance with JISC9612.
5. Measuring location: anechoic chamber

3D112491

# 10 Sound data

## 10 - 1 Sound Pressure Spectrum

### FXAQ40A



#### Legend

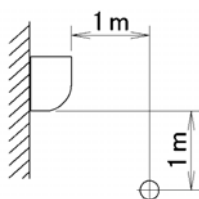
dBA = A-weighted sound pressure level (A scale according to IEC).

A Scale

B Fan speed: High

C Fan speed: Low

Location of microphone



| Cooling | Total dB |      |  |
|---------|----------|------|--|
| A       | B        | C    |  |
| dBA     | 37       | 33,5 |  |

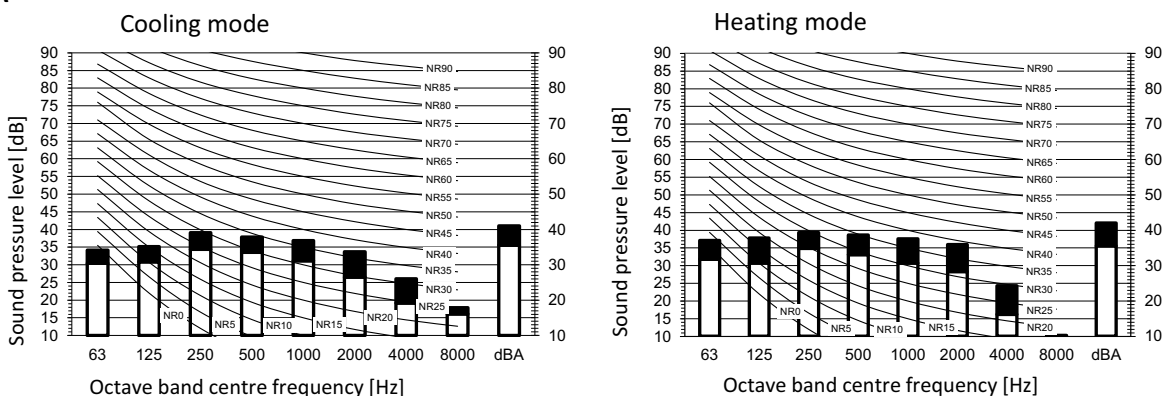
| Heating | Total dB |      |  |
|---------|----------|------|--|
| A       | B        | C    |  |
| dBA     | 38       | 33,5 |  |

#### Notes

- 1 . Operating conditions: power source 220-240 V/220 V 50/60 Hz; JIS standard
- 2 . Background noise already taken into account.
- 3 . Operating noise varies depending on operation and ambient conditions.
- 4 . The operation noise measuring method is in accordance with JISC9612.
- 5 . Measuring location: anechoic chamber

3D112492

### FXAQ50A



#### Legend

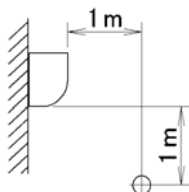
dBA = A-weighted sound pressure level (A scale according to IEC).

A Scale

B Fan speed: High

C Fan speed: Low

Location of microphone



| Cooling | Total dB |      |  |
|---------|----------|------|--|
| A       | B        | C    |  |
| dBA     | 41       | 35,5 |  |

| Heating | Total dB |      |  |
|---------|----------|------|--|
| A       | B        | C    |  |
| dBA     | 42       | 35,5 |  |

#### Notes

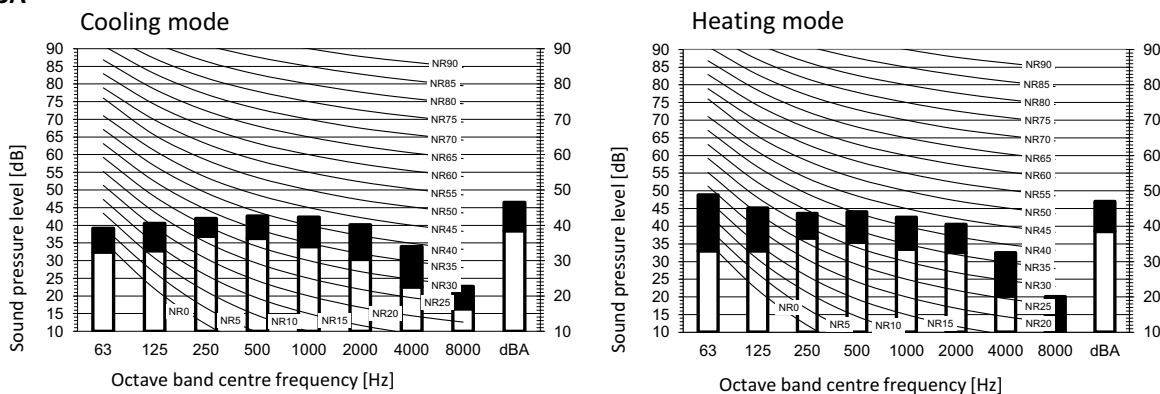
- 1 . Operating conditions: power source 220-240 V/220 V 50/60 Hz; JIS standard
- 2 . Background noise already taken into account.
- 3 . Operating noise varies depending on operation and ambient conditions.
- 4 . The operation noise measuring method is in accordance with JISC9612.
- 5 . Measuring location: anechoic chamber

3D112493

# 10 Sound data

## 10 - 1 Sound Pressure Spectrum

### FXAQ63A



#### Legend

dBA = A-weighted sound pressure level (A scale according to IEC).

- A Scale
- B Fan speed: High
- C Fan speed: Low

| Cooling  |      |      |
|----------|------|------|
| Total dB |      |      |
| A        | B    | C    |
| dBA      | 46,5 | 38,5 |

| Heating  |    |      |
|----------|----|------|
| Total dB |    |      |
| A        | B  | C    |
| dBA      | 47 | 38,5 |

#### Notes

- 1 . Operating conditions: power source 220-240 V/220 V 50/60 Hz; JIS standard
- 2 . Background noise already taken into account.
- 3 . Operating noise varies depending on operation and ambient conditions.
- 4 . The operation noise measuring method is in accordance with JISC9612.
- 5 . Measuring location: anechoic chamber

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EEDEN18 01/18



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