



technical data

Ceiling mounted corner cassette
FXKQ-MAVE

air conditioning systems

R-410A



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R-410A

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FXKQ-MAVE

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1 Specifications

| 1-1 TECHNICAL SPECIFICATIONS | | | | FXKQ25MAVE | FXKQ32MAVE | FXKQ40MAVE | FXKQ63MAVE |
|------------------------------|---|------------------------|-----------------------------|-----------------------------|--------------|-------------|-------------|
| Capacity | Cooling | kW | | 2.80 | 3.60 | 4.50 | 7.10 |
| | Heating | kW | | 3.20 | 4.00 | 5.00 | 8.00 |
| Power Input (50Hz) | Cooling | kW | | 0.066 | 0.066 | 0.076 | 0.105 |
| | Heating | kW | | 0.046 | 0.046 | 0.056 | 0.085 |
| Power Input (60Hz) | Cooling | kW | | 0.069 | 0.069 | 0.092 | 0.120 |
| | Heating | kW | | 0.049 | 0.049 | 0.072 | 0.100 |
| Casing | Material | | | Galvanised steel | | | |
| Dimensions | Unit | Height | mm | 215 | 215 | 215 | 215 |
| | | Width | mm | 1110 | 1110 | 1110 | 1310 |
| | | Depth | mm | 710 | 710 | 710 | 710 |
| Weight | Unit | | kg | 31 | 31 | 31 | 34 |
| Heat Exchanger | Dimensions | Nr of Rows | | 2 | 2 | 2 | 3 |
| | | Fin Pitch | mm | 1.75 | 1.75 | 1.75 | 1.75 |
| | | Face Area | m ² | 0.180 | 0.180 | 0.180 | 0.226 |
| | | Nr of Stages | | 11 | 11 | 11 | 11 |
| Fan | Type | | | Sirocco fan | | | |
| | Quantity | | | 1 | 1 | 1 | 1 |
| Air Flow Rate | Cooling | High | m ³ /min | 11.00 | 11.00 | 13.00 | 18.00 |
| | | Low | m ³ /min | 9.00 | 9.00 | 10.00 | 15.00 |
| Fan | Motor | Quantity | | 1 | 1 | 1 | 1 |
| | | Model | | 3D12H1AN1V1 | 3D12H1AN1V1 | 3D12H1AP1V1 | 4D12H1AJ1V1 |
| | | Output (high) | W | 15 | 15 | 20 | 45 |
| | | Drive | | | Direct drive | | |
| Refrigerant | Name | | | R-410A | | | |
| Cooling | Sound Pressure | High | dBA | 38.0 | 38.0 | 40.0 | 42.0 |
| | | Low | dBA | 33.0 | 33.0 | 34.0 | 37.0 |
| Piping connections | Liquid (OD) | Type | | Flare connection | | | |
| | | Diameter | mm | 6.35 | 6.35 | 6.35 | 9.52 |
| | Gas | Type | | Flare connection | | | |
| | | Diameter | mm | 12.7 | 12.7 | 12.7 | 15.9 |
| | Drain | Diameter | mm | 32 | 32 | 32 | 32 |
| Heat Insulation | | | Foamed Polyethylene | | | | |
| Decoration Panel | Model | | | BYK45FJW1 | BYK45FJW1 | BYK45FJW1 | BYK71FJW1 |
| | Colour | | | White | | | |
| | Dimensions | Height | mm | 70 | 70 | 70 | 70 |
| | | Width | mm | 1240 | 1240 | 1240 | 1440 |
| | | Depth | mm | 800 | 800 | 800 | 800 |
| Weight | | | kg | 8.5 | 8.5 | 8.5 | 9.5 |
| Air Filter | Resin net with mold resistance | | | | | | |
| Refrigerant control | Electronic expansion valve | | | | | | |
| Temperature control | Microprocessor thermostat for cooling and heating | | | | | | |
| Safety devices | PC board fuse | | | | | | |
| | Drain pump fuse | | | | | | |
| | Fan motor thermal fuse | Fan motor thermal fuse | Fan motor thermal protector | Fan motor thermal protector | | | |
| Standard Accessories | Installation and operation manual | | | | | | |
| | Metal clamp for drain hose | | | | | | |
| | Clamps | | | | | | |
| | Insulation for hanger bracket | | | | | | |
| | Positioning jig for installation | | | | | | |
| | Paper pattern for installation | | | | | | |
| | Drain hose | | | | | | |
| | Insulation for fitting | | | | | | |
| | Sealing pads | | | | | | |
| | Screws | | | | | | |
| | Washer | | | | | | |
| | Air outlet blocking pad | | | | | | |

1 Specifications

| 1-1 TECHNICAL SPECIFICATIONS | | | FXKQ25MAVE | FXKQ32MAVE | FXKQ40MAVE | FXKQ63MAVE |
|------------------------------|--|--|--|------------|------------|------------|
| Notes | | | Nominal cooling capacities are based on : indoor temperature : 27°CDB, 19°CWB, outdoor temperature : 35°CDB, equivalent refrigerant piping : 7.5m (horizontal) | | | |
| | | | Nominal heating capacities are based on : indoor temperature : 20°CDB, outdoor temperature : 7°CDB, 6°CWB, equivalent refrigerant piping : 7.5m (horizontal) | | | |
| | | | Capacities are net, including a deduction for cooling (an addition for heating) for indoor fan motor heat. | | | |
| | | | Sound pressure levels are measured at 220V | | | |

| 1-2 ELECTRICAL SPECIFICATIONS (50HZ) | | | FXKQ25MAVE | FXKQ32MAVE | FXKQ40MAVE | FXKQ63MAVE |
|--|----------------------------|----|--|------------|------------|------------|
| Power Supply | Name | | VE | | | |
| | Phase | | 1~ | | | |
| | Frequency | Hz | 50 | | | |
| | Voltage | V | 220-240 | | | |
| Current | Minimum circuit amps (MCA) | A | 0.3 | 0.3 | 0.3 | 0.5 |
| | Maximum fuse amps (MFA) | A | 15 | 15 | 15 | 15 |
| | Full load amps (FLA) | A | 0.2 | 0.2 | 0.2 | 0.4 |
| Voltage range | Minimum | V | -10% | | | |
| | Maximum | V | +10% | | | |
| Notes | | | Voltage range : units are suitable for use on electrical systems where voltage supplied to unit terminals is not below or above listed range limits. | | | |
| | | | Maximum allowable voltage range variation between phases is 2%. | | | |
| | | | MCA/MFA : MCA = 1.25 x FLA | | | |
| | | | MFA is smaller than or equal to 4 x FLA | | | |
| | | | Next lower standard fuse rating minimum 15A | | | |
| | | | Select wire size based on the MCA | | | |
| Instead of a fuse, use a circuit breaker | | | | | | |

| 1-3 ELECTRICAL SPECIFICATIONS (60HZ) | | | FXKQ25MAVE | FXKQ32MAVE | FXKQ40MAVE | FXKQ63MAVE |
|--|----------------------------|----|--|------------|------------|------------|
| Power Supply | Name | | VE | | | |
| | Phase | | 1~ | | | |
| | Frequency | Hz | 60 | | | |
| | Voltage | V | 220 | | | |
| Current | Minimum circuit amps (MCA) | A | 0.4 | 0.4 | 0.5 | 0.6 |
| | Maximum fuse amps (MFA) | A | 15 | 15 | 15 | 15 |
| | Full load amps (FLA) | A | 0.3 | 0.3 | 0.4 | 0.5 |
| Voltage range | Minimum | V | -10% | | | |
| | Maximum | V | +10% | | | |
| Notes | | | Voltage range : units are suitable for use on electrical systems where voltage supplied to unit terminals is not below or above listed range limits. | | | |
| | | | Maximum allowable voltage range variation between phases is 2%. | | | |
| | | | MCA/MFA : MCA = 1.25 x FLA | | | |
| | | | MFA is smaller than or equal to 4 x FLA | | | |
| | | | Next lower standard fuse rating minimum 15A | | | |
| | | | Select wire size based on the MCA | | | |
| Instead of a fuse, use a circuit breaker | | | | | | |

2 Safety device settings

| | | FXKQ25MA | FXKQ32MA | FXKQ40MA | FXKQ63MA |
|-----------------------------|----|-------------|----------|------------------------------------|----------|
| PC BOARD FUSE | | 250V 5A | | | |
| FAN MOTOR THERMAL FUSE | °C | 146 \pm 3 | | - | |
| FAN MOTOR THERMAL PROTECTOR | °C | - | | OFF: 120 \pm 5 / ON: 105 or less | |
| DRAIN PUMP THERMAL FUSE | °C | 145 | | | |

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3 Options

| | FXKQ25MA | FXKQ32MA | FXKQ40MA | FXKQ63MA |
|------------------------------|----------|------------|----------|------------|
| DECORATION PANEL | | BYK45FW1 | | BYK71FW1 |
| PANEL SPACER | | KPBJ52F56W | | KPBJ52F80W |
| LONG LIFE REPLACEMENT FILTER | | KAFJ521F56 | | KAFJ521F80 |
| AIR DISCHARGE GRILL | | K-HV7AW | | K-HV9AW |
| AIR DISCHARGE BLIND PANEL | | KDBJ52F56W | | KDBJ52F80W |
| FLEXIBLE DUCT (WITH SHUTTER) | | KFDJ52F56 | | KFDJ52F80 |

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The diagram illustrates the internal components of the ceiling-mounted corner cassette. It shows a cross-section of the unit with various parts labeled. On the left, there is an air discharge grill and a decoration panel for front discharge. A shutter is located at the top left. A flexible duct with a shutter is connected to the unit. A fresh air intake position is indicated on the right side. A long life filter is positioned at the bottom right, and a panel spacer is located at the bottom right corner.

4 Control systems

Individual control systems

| | | FXKQ25MA | FXKQ32MA | FXKQ40MA | FXKQ63MA |
|-------------------------|--------------|----------|----------|----------|----------|
| WIRED REMOTE CONTROL | | | | BRC1D61 | |
| INFRARED REMOTE CONTROL | Heat pump | | | BRC4C61 | |
| | Cooling only | | | BRC4C63 | |

Centralised control systems

| | | FXKQ25MA | FXKQ32MA | FXKQ40MA | FXKQ63MA |
|----------------------------|--|----------|----------|-----------|----------|
| CENTRALISED REMOTE CONTROL | | | | DCS302C51 | |
| UNIFIED ON/OFF CONTROL | | | | DCS301B51 | |
| SCHEDULE TIMER | | | | DST301B51 | |

Others

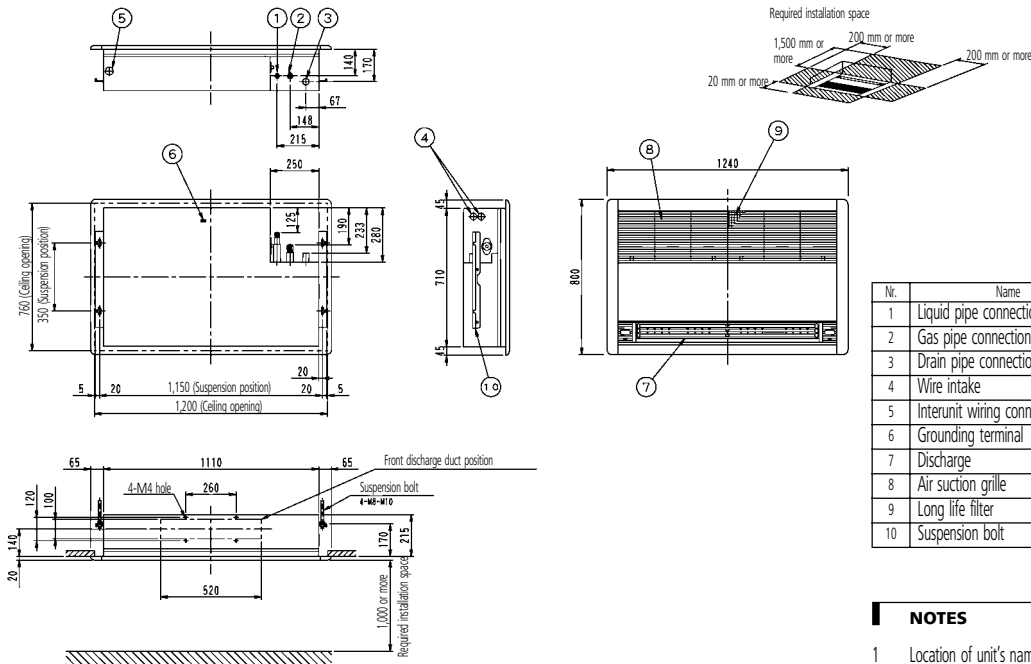
| | | FXKQ25MA | FXKQ32MA | FXKQ40MA | FXKQ63MA |
|--|--|----------|----------|-----------|----------|
| WIRING ADAPTER | | | | KRP1B61 | |
| WIRING ADAPTER FOR ELECTRICAL APPENDICES (1) | | | | KRP2A61 | |
| WIRING ADAPTER FOR ELECTRICAL APPENDICES (2) | | | | KRP4A51 | |
| REMOTE SENSOR | | | | KRCS01-1 | |
| ELECTRICAL BOX WITH EARTH TERMINAL (3 BLOCKS) | | | | KJB311A | |
| ELECTRICAL BOX WITH EARTH TERMINAL (2 BLOCKS) | | | | KJB212A | |
| NOISE FILTER (FOR ELECTROMAGNETIC INTERFACE USE ONLY) | | | | KEK26-1A | |
| EXTERNAL CONTROL ADAPTER FOR OUTDOOR UNITS (INSTALLATION ON INDOOR UNIT) | | | | DTA104A61 | |

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5 Dimensional drawing & centre of gravity

5 - 1 Dimensional drawing

FXKQ25,32,40MA



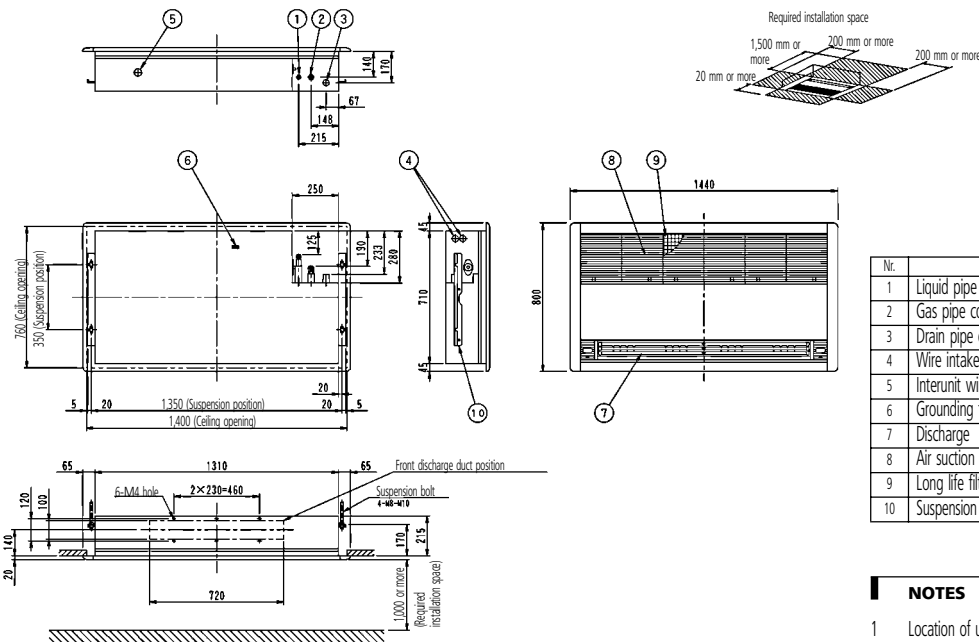
| Nr. | Name | Description |
|-----|-----------------------------|-------------------------|
| 1 | Liquid pipe connection | ø 6.4 Flare connection |
| 2 | Gas pipe connection | ø 12.7 Flare connection |
| 3 | Drain pipe connection | VP25 (O.D. ø 32) |
| 4 | Wire intake | |
| 5 | Interunit wiring connection | |
| 6 | Grounding terminal | Inside switch box (M4) |
| 7 | Discharge | |
| 8 | Air suction grille | |
| 9 | Long life filter | |
| 10 | Suspension bolt | |

NOTES

- Location of unit's name plate:
 - For main body: Bottom part of fan housing inside of air suction grille.
 - For decoration panel: Service lid face inside of air suction grille.
- When installing an optional accessory, refer to the installation drawings.

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FXKQ63MA



| Nr. | Name | Description |
|-----|-----------------------------|-------------------------|
| 1 | Liquid pipe connection | ø 9.5 Flare connection |
| 2 | Gas pipe connection | ø 15.9 Flare connection |
| 3 | Drain pipe connection | VP25 (O.D. ø 32) |
| 4 | Wire intake | |
| 5 | Interunit wiring connection | |
| 6 | Grounding terminal | Inside switch box (M4) |
| 7 | Discharge | |
| 8 | Air suction grille | |
| 9 | Long life filter | |
| 10 | Suspension bolt | |

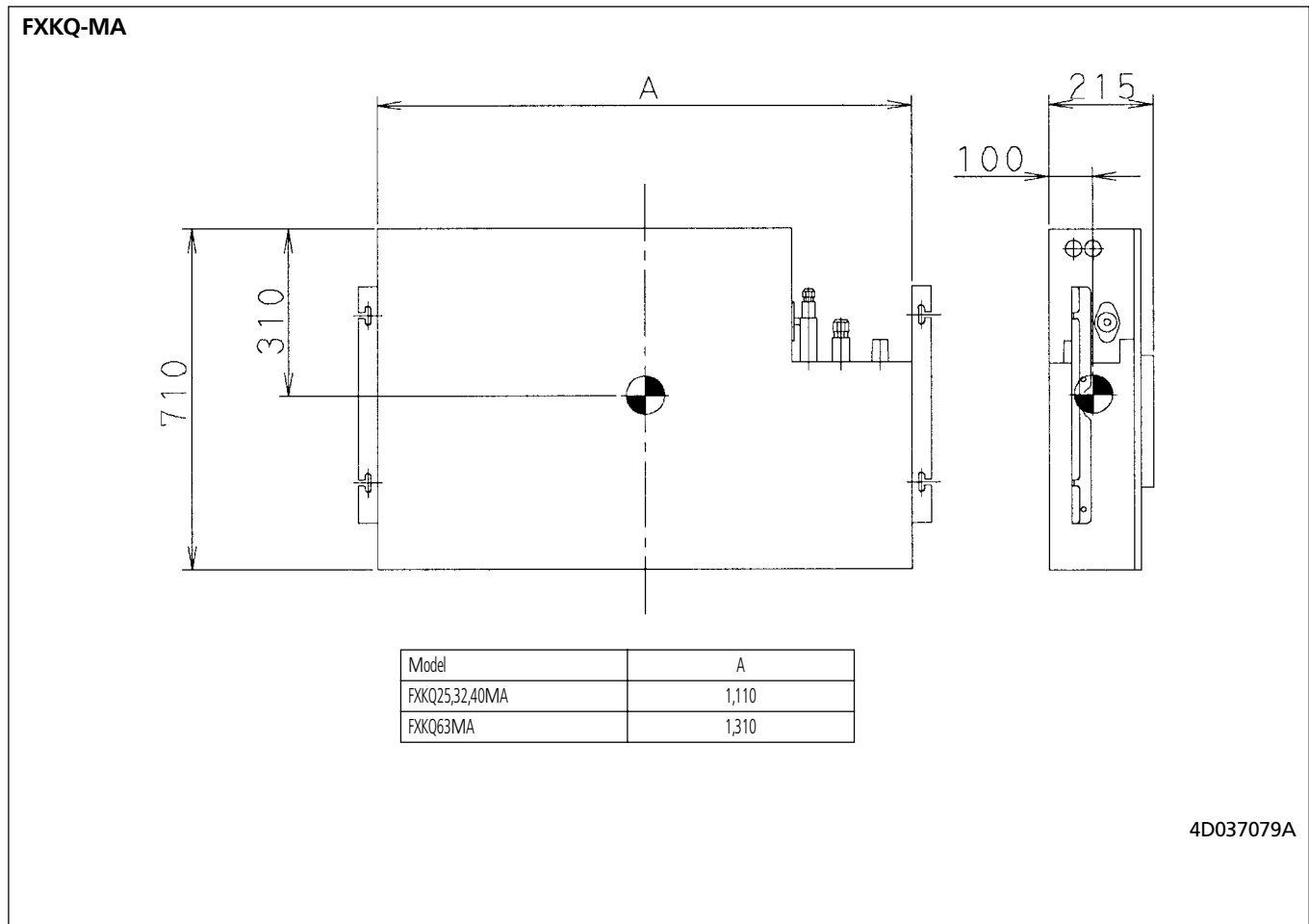
NOTES

- Location of unit's name plate:
 - For main body: Bottom part of fan housing inside of air suction grille.
 - For decoration panel: Service lid face inside of air suction grille.
- When installing an optional accessory, refer to the installation drawings.

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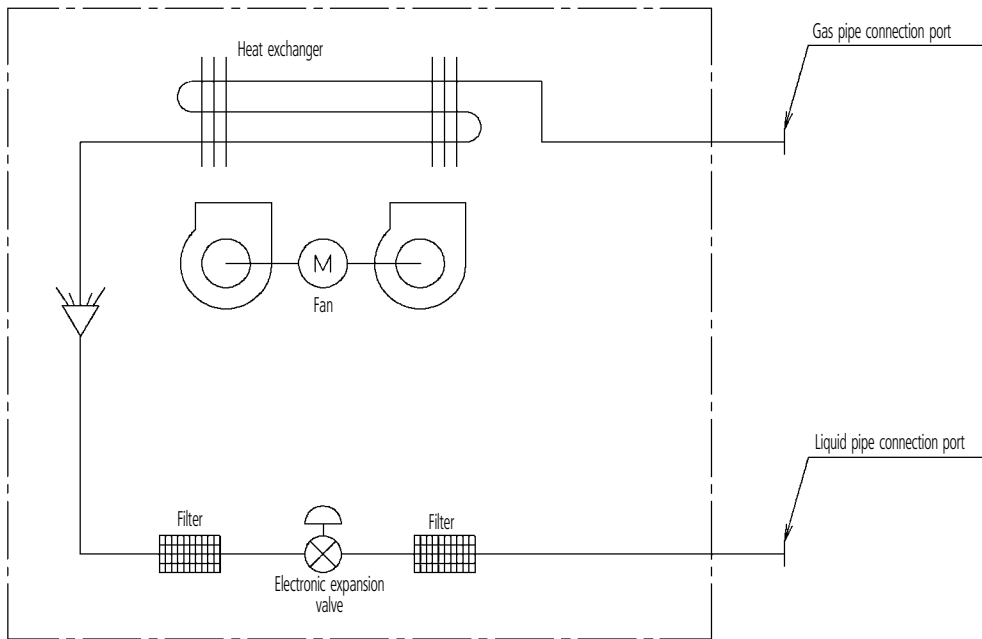
5 Dimensional drawing & centre of gravity

5 - 2 Centre of gravity



6 Piping diagram

FXKQ-MA



Piping connection diameters

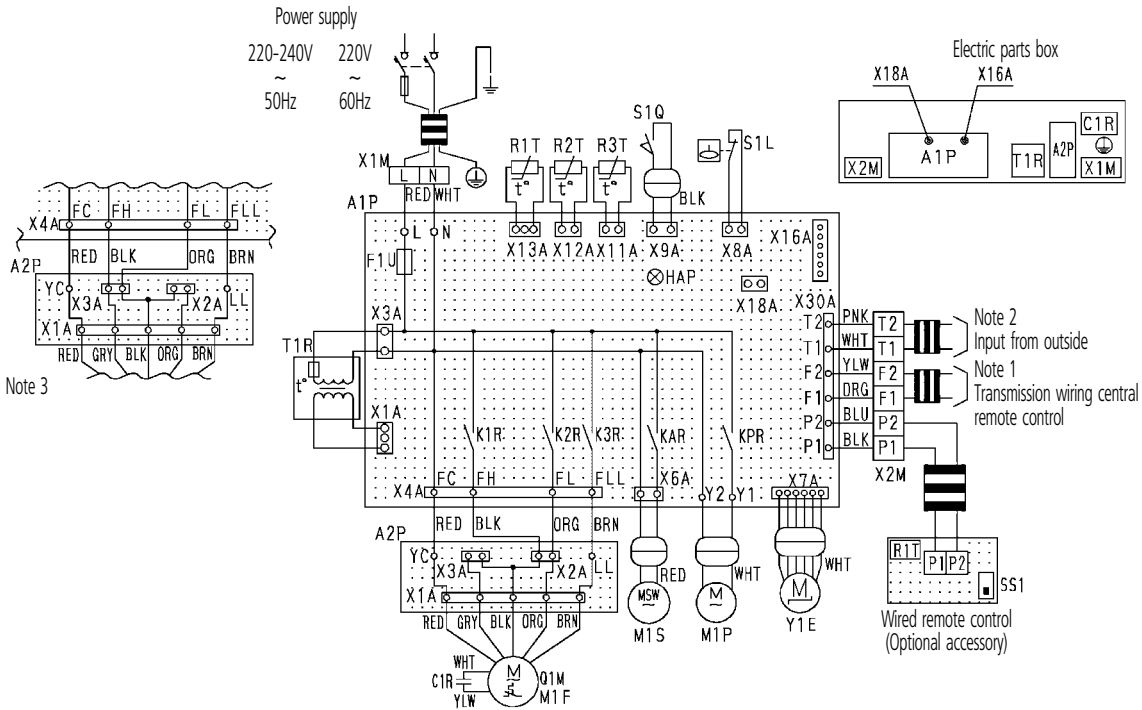
| Model | Gas | Liquid |
|----------------|-------|--------|
| FXKQ25,32,40MA | ø12.7 | ø6.4 |
| FXKQ63MA | ø15.9 | ø9.5 |

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7 Wiring diagram

7 - 1 Wiring diagram

FXKQ-MA



| Indoor Unit | | R1T | Thermistor (Air) |
|-------------|--|---------|--|
| A1P | Printed circuit board | R2T+R3T | Thermistor (Coil) |
| A2P | Terminal board | S1Q | Limit switch (Swing flap) |
| C1R | Capacitor (M1F) | T1R | Transformer (220-240V/22V) |
| F1U | Fuse (5A, 250V) | X1M | Terminal block (Power) |
| HAP | Light emitting diode (Service monitor-green) | X2M | Terminal block (Control) |
| K1R-K3R | Magnetic relay (M1F) | Y1E | Electronic expansion valve |
| KAR | Magnetic relay (M1S) | | Wired remote control |
| KPR | Magnetic relay (M1P) | R1T | Thermistor (Air) |
| M1F | Motor (Indoor fan) | SS1 | Selector Switch (Main/Sub) |
| M1P | Motor (Drain pump) | | Connector for optional parts |
| M1S | Motor (Swing flap) | X16A | Connector (Adapter for wiring) |
| Q1M | Thermo switch (M1F embedded) | X18A | Connector (Wiring adapter for electrical appendices) |

| | | | |
|--|------------------|----------------------|--------------|
| | : Terminal block | COLORS : BLK : Black | PNK : Pink |
| | : Connector | BLU : Blue | RED : Red |
| | : Terminal | BRN : Brown | WHT : White |
| | : Field wiring | GRY : Gray | YLW : Yellow |
| | | ORG : Orange | |

NOTES

- In case using central remote control, connect it to the unit in accordance with the attached instruction manual.
- When connecting the input wires from outside, forced off or on/off control operation can be selected by remote control. In details, refer to the installation manual attached the unit.
- In case high E.S.P. operation, change over the wiring connection from X2A to X3A.
- Use copper conductors only.

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8 Sound data

8 - 1 Sound level data

FXKQ-MA

| Model | Sound pressure level - 220 V | | Sound pressure level - 240 V | | Sound power level |
|----------|------------------------------|----|------------------------------|----|-------------------|
| | H | L | H | L | |
| FXKQ25MA | 38 | 33 | 40 | 35 | * |
| FXKQ32MA | 38 | 33 | 40 | 35 | * |
| FXKQ40MA | 40 | 34 | 42 | 36 | * |
| FXKQ63MA | 42 | 37 | 44 | 39 | * |

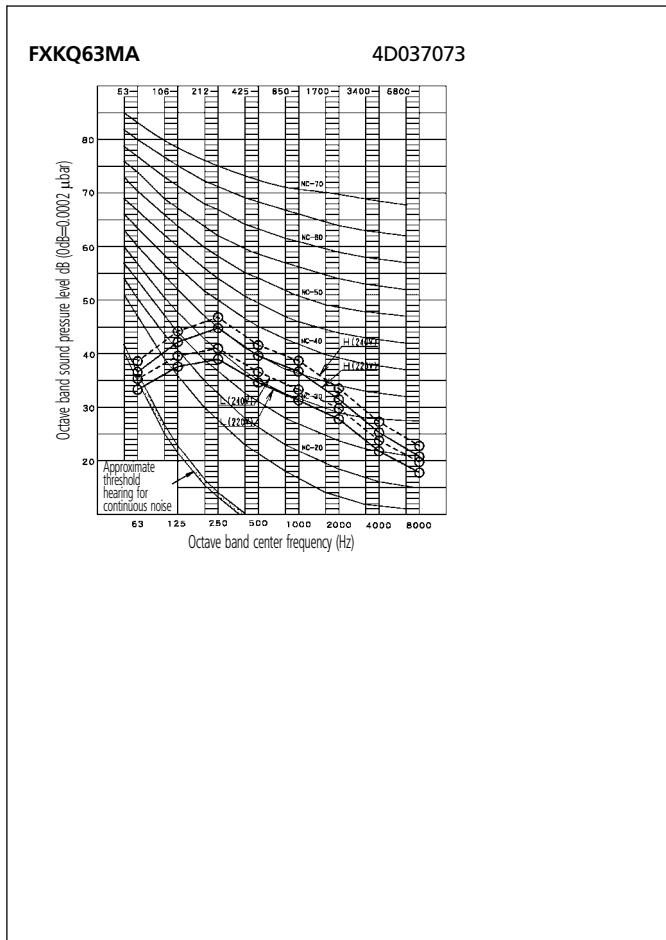
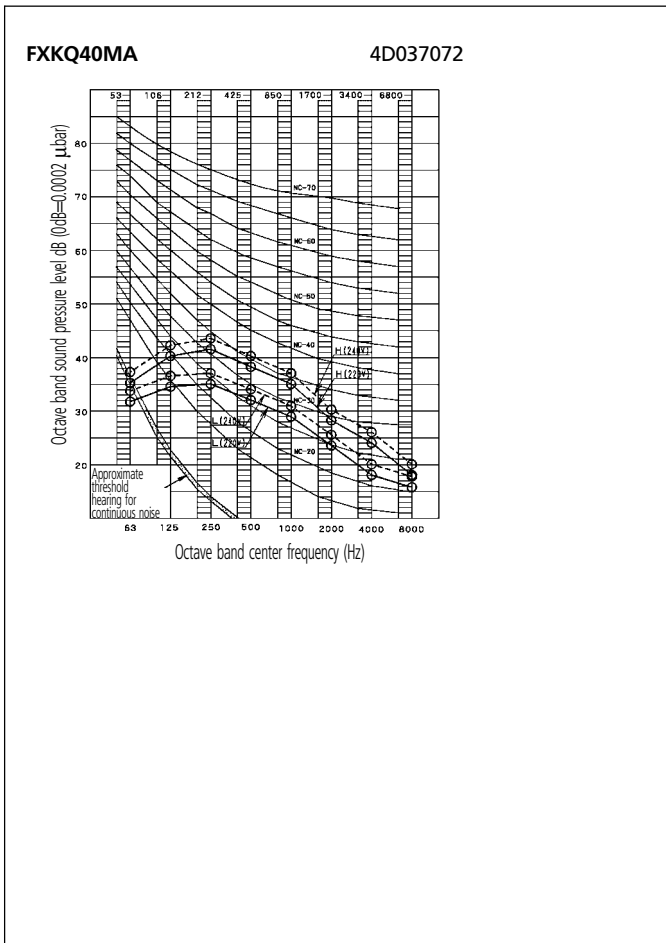
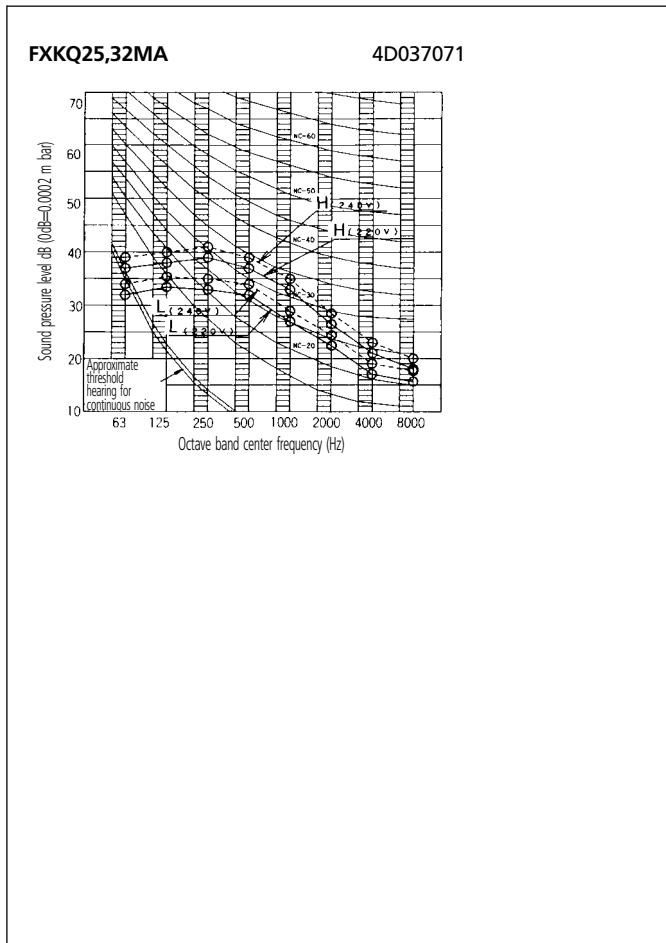
* data were not available at the time of publication

NOTES

- 1 Reference acoustic pressure 0dB=0.0002μbar
- 2 Operation noise differs with operation and ambient conditions
- 3 Measuring place: anechoic chamber

8 Sound data

8 - 2 Sound pressure spectrum

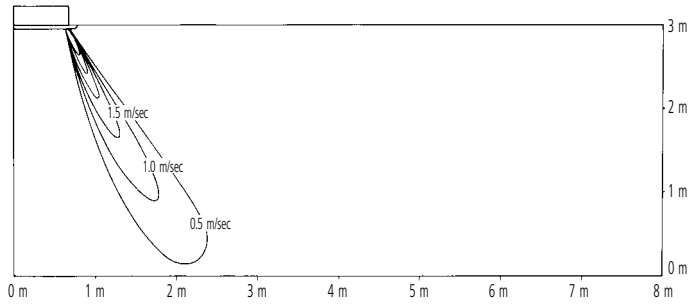


9 Air flow pattern

FXKQ63MA

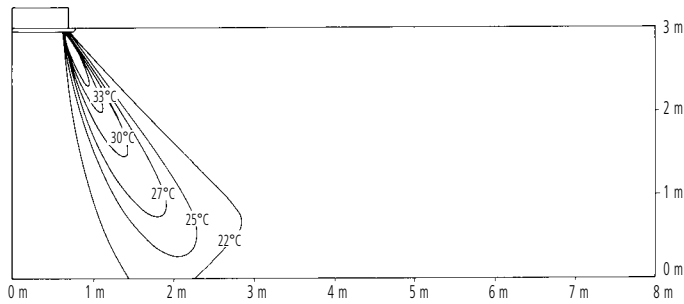
Heating air velocity distribution

Lower air blow



Heating temperature distribution

Lower air blow



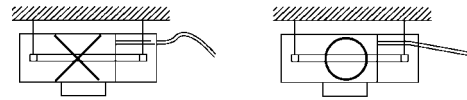
NOTES

- 1 The corner type is applicable on a high ceiling. The standard set-up height is 3 m. Shown here is the measurement distribution at the ceiling height of 3 m.

10 Installation

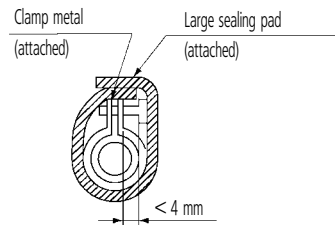
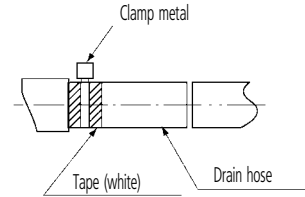
10 - 1 Drainage instructions

Rig the drain pipe as shown below and take measures against condensation. Improperly rigged piping could lead to leaks and eventually wet furniture and belongings.



Install the drain pipes.

- Keep piping as short as possible and slope it downwards so that the air does not remain trapped inside the pipe.
- The diameter of the drain pipe should be larger than or equal to the diameter of the connecting pipe (Vinyl tube; pipe size: 25 mm; outer dimension: 32 mm).
- Use the attached drain hose and clamp metal. Insert the drain hose into the drain socket, up to the white tape. Tighten the clamp until the screw head is less than 4 mm from the hose.

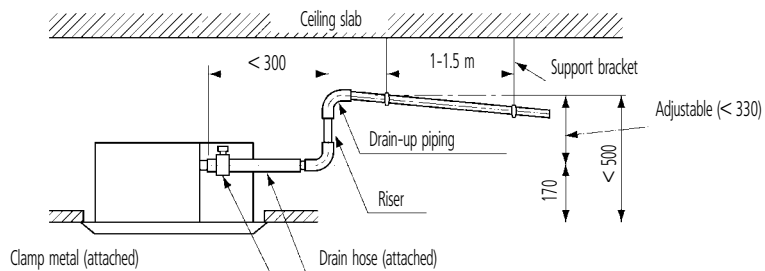


CAUTION

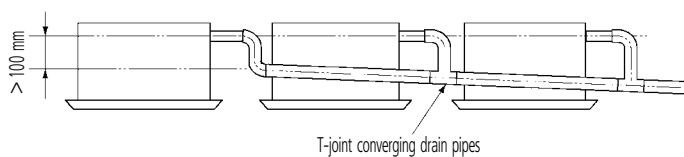
- 1 Installing the unit at an angle opposite to the drain piping might cause leaks.
- Wrap the attached sealing pad over the clamp and drain hose to insulate.
 - Insulate the drain hose inside the building.
 - Insulate the clamp and drain hose with the attached large sealing pad. If the drain hose cannot be sufficiently set on a slope, execute the drain raising piping. Secure a downward gradient of 1/100 or more for the drain pipe. To accomplish this, mount supporting brackets at an interval of 1 - 1.5 m.

Precautions when installing drain-up piping.

- Make sure the drain-up piping is maximum 330 mm high. Install the drain-up piping horizontally, and make sure it is not further than 300 mm from the base of the drain socket.



- Use the following outline if installing concentrated drain piping. If converging multiple drain pipes, install according to the procedure shown on the right.



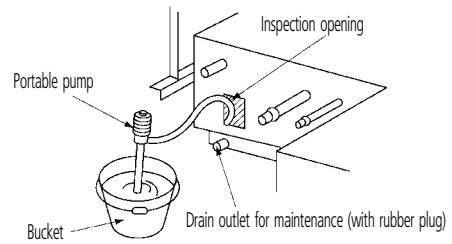
Select converging drain pipes whose gauge is suitable for the operating capacity of the unit.

10 Installation

10 - 1 Drainage instructions

When piping work is finished

- Check if drainage flows smoothly. Open the inspection opening, add approximately 1,000 cc of water slowly into the drain pan and check drainage flow.



NOTE

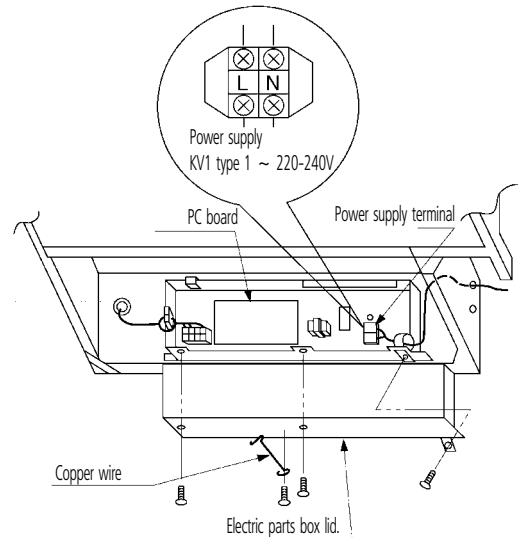
- 1 Use the drain outlet for maintenance to drain water from the drain pan.

When electric wiring work is finished

- Check drainage flow during COOL running, explained under "TEST OPERATION"

When electric wiring work is not finished

- Remove the electric parts box lid, connect power supply and remote control to the terminals.
Next, press the inspection/test operation button "TEST" on the remote control. The unit will engage the test operation mode. Press the operation mode selector button "FAN" until selection FAN OPERATION "FAN". Then, press the ON/OFF button "ON/OFF". The indoor unit fan and drain pump will start up. Check that the water has drained from the unit. Press "TEST" to go back to the first mode.

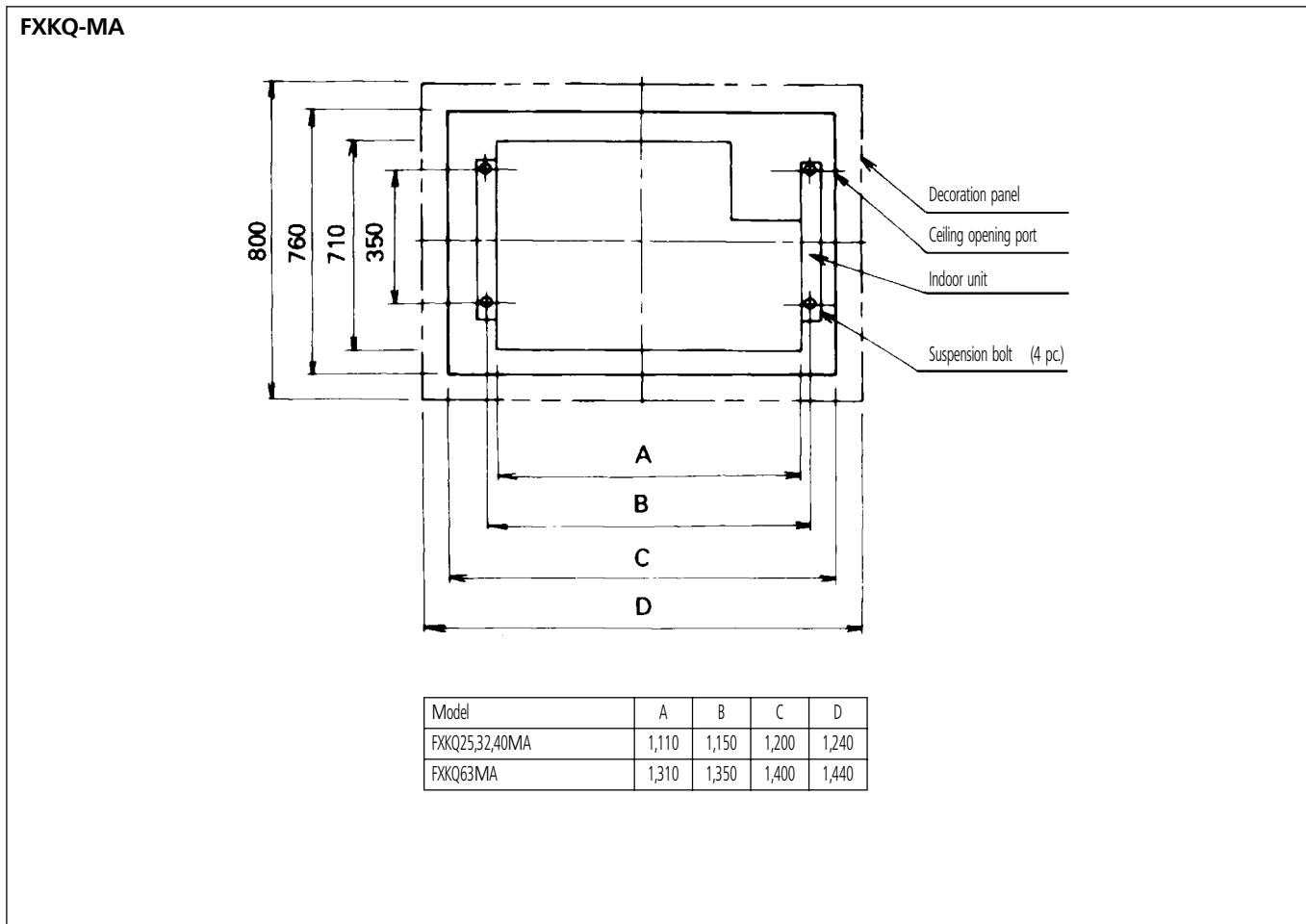


CAUTION

- 1 Do not connect the drain piping directly to sewage pipes that smell of ammonia. The ammonia in the sewage might enter the indoor unit through the drain pipes and corrode the heat exchanger.

10 Installation

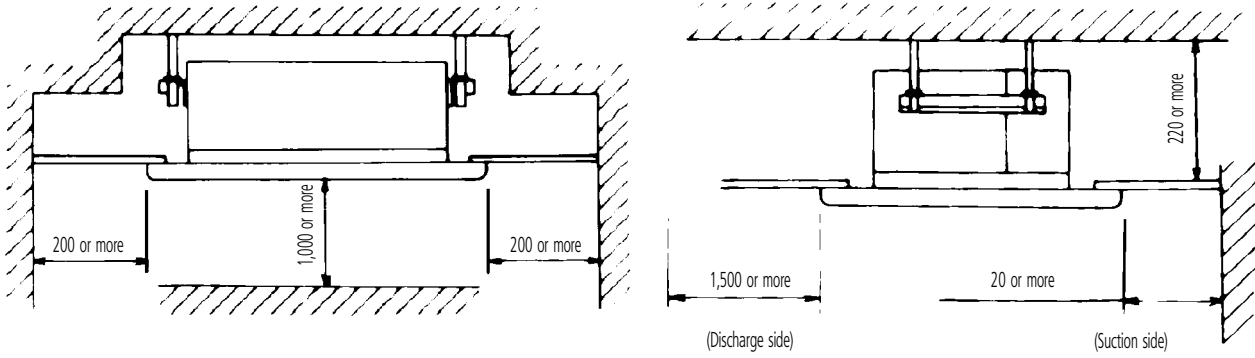
10 - 2 Suspension bolt pitch position



10 Installation

10 - 3 Service space

FXKQ-MA



NOTES

- 1 Above figures mean minimum values

In all of us,
a green heart



Daikin's unique position as a manufacturer of air conditioning equipment, compressors and refrigerants has led to its close involvement in environmental issues. For several years Daikin has had the intension to become a leader in the provision of products that have limited impact on the environment. This challenge demands the eco design and development of a wide range of products and an energy management system, resulting in energy conservation and a reduction of waste.



Daikin Europe N.V. is approved by LRQA for its Quality Management System in accordance with the ISO9001 standard. ISO9001 pertains to quality assurance regarding design, development, manufacturing as well as to services related to the product.



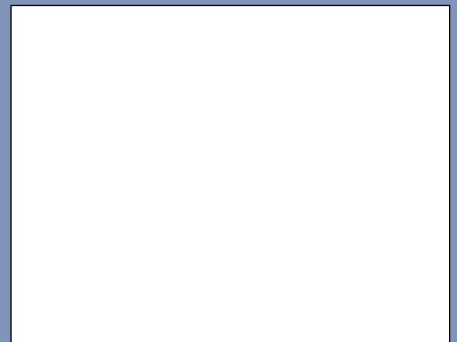
ISO14001 assures an effective environmental management system in order to help protect human health and the environment from the potential impact of our activities, products and services and to assist in maintaining and improving the quality of the environment.



Daikin units comply with the European regulations that guarantee the safety of the product.

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DAIKIN EUROPE N.V.

Naamloze Vennootschap
Zandvoordestraat 300
B-8400 Oostende, Belgium
www.daikin.eu
BTW: BE 0412 120 336
RPR Oostende