

MITSUBISHI HEAVY INDUSTRIES

VRF

INWERTEROWY SYSTEM MULTI KX



SPECYFIKACJA PROJEKTOWA

Project: ITB

System: Copy of Podstropowe i kasety

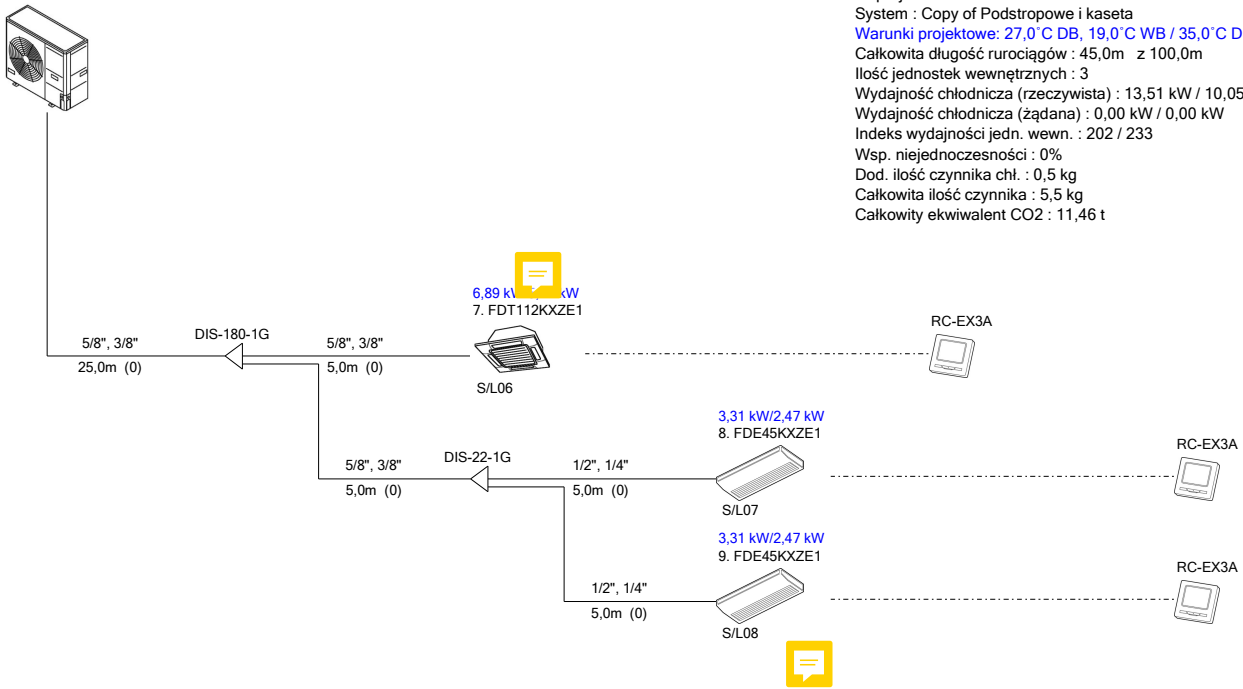
Klient:

Przygotował: tk

Lokalizacja: Warszawa

Data/czas raportu: 05.12.2019 13:08

Projekt : ITB
 Nr projektu : 0100
 System : Copy of Podstropowe i kasety
 Warunki projektowe : 27,0°C DB, 19,0°C WB / 35,0°C DB
 Całkowita długość rurociągów : 45,0m z 100,0m
 Ilość jednostek wewnętrznych : 3
 Wydajność chłodnicza (rzeczywista) : 13,51 kW / 10,05 kW
 Wydajność chłodnicza (żądana) : 0,00 kW / 0,00 kW
 Indeks wydajności jedn. wewn. : 202 / 233
 Wsp. niejednoczesności : 0%
 Dod. ilość czynnika chl. : 0,5 kg
 Całkowita ilość czynnika : 5,5 kg
 Całkowity ekwiwalent CO2 : 11,46 t





Projekt : ITB
Nr projektu : 0100
System : Copy of Podstropowe i kaseta

Lista uwag

✓ Brak uwag

Projekt : ITB
Nr projektu : 0100

System : Copy of Podstropowe i kaseta

Temperatury projektowe (chłodzenie)

temp. zewn. DB

35,0°C

temp. wewn. WB

19,0°C

Temperatury projektowe (ogrzewanie)

temp. zewn. WB

6,0°C

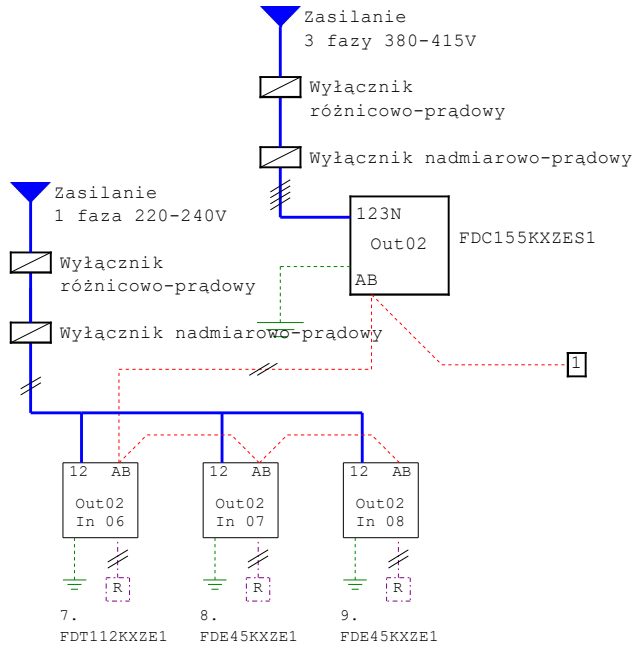
temp. wewn. DB

20,0°C

| Jed. | Pomieszczenie | Model | Wyd. nom. (kW) | | | Wyd. rzeczyw. (kW) | | | Jedn.wewn. | | Rzecz. Dł. (m) | Ruroci Dł. (m) | Adres | | |
|---------|---------------|--------------|----------------|-------|---------|--------------------|-------|---------|-----------------|-----|----------------------|----------------------|-------|-----|----|
| | | | Całkowita | Jawna | Ogrzew. | Całkowita | Jawna | Ogrzew. | Lokalizacja (m) | S/L | | | O/U | I/U | |
| | | FDC155KXZES1 | 15,50 | - | 16,30 | 15,25 | - | 16,39 | | | | | 1 | 02 | - |
| 7 | | FDT112KXZE1 | 6,89 | 5,11 | 8,30 | 6,89 | 5,11 | 8,30 | Poniżej | 0,0 | 30,0 | 30,0 | 1 | 02 | 06 |
| 8 | | FDE45KXZE1 | 3,31 | 2,47 | 3,59 | 3,31 | 2,47 | 3,59 | Poniżej | 0,0 | 35,0 | 35,0 | 1 | 02 | 07 |
| 9 | | FDE45KXZE1 | 3,31 | 2,47 | 3,59 | 3,31 | 2,47 | 3,59 | Poniżej | 0,0 | 35,0 | 35,0 | 1 | 02 | 08 |
| ŁĄCZNIE | | | 13,51 | 10,05 | 15,48 | 13,51 | 10,05 | 15,48 | | | | | | | |

(*) Prezentowana jest maksymalna wydajność ogrzewania

| |
|--------------------------------|
| Projekt: ITB |
| Nr projektu: 0100 |
| System: Copy of Podstropowe |



| | | |
|-----------------------|-----------|-----------|
| Jedn. zewn. | 380v | 415v |
| Prąd pracy (A) | 8,60/7,10 | 7,90/6,50 |
| Współczynnik mocy (%) | 92/91 | 92/91 |
| Prąd rozruchu (A) | | 5,00 |
| Prąd maks. (A) | | 13,5 |
| Pobór mocy el. (kW) | | 5,20/4,28 |

| | | |
|---------------------------|-----------|-----------|
| Jedn. wewn. (chl./ogrz.) | 220v | 240v |
| Całk. pobór mocy el. (kW) | 0,24/0,24 | 0,24/0,24 |
| Całkowity prąd pracy (A) | 2,02/2,02 | 1,92/1,92 |

Schematy elektryczne mają charakter wyłącznie poglądowy
Instalację elektryczną wykonać zgodnie z obowiązującymi normami.
(* Prąd pracy, współczynnik mocy, pobór mocy jedn. zewn. podany dla wydajności nominalnej.

Lista materiałów w projekcie

Projekt : ITB
Nr projektu : 0100

W projekcie nie występują sterowniki centralne i sterowniki BMS

Lista materiałów w systemie

Projekt : ITB
Nr projektu : 0100
System : Copy of Podstropowe i kasety

| Jedn. zewn. | Ilość |
|--------------|-------|
| FDC155KXZES1 | 1 |

| Jedn.wewn. | Ilość |
|-------------|-------|
| FDT112KXZE1 | 1 |
| FDE45KXZE1 | 2 |

| Panel | Ilość |
|--------------|-------|
| T-PSAE-5AW-E | 1 |

| Trójnik | Ilość |
|------------|-------|
| DIS-180-1G | 1 |
| DIS-22-1G | 1 |

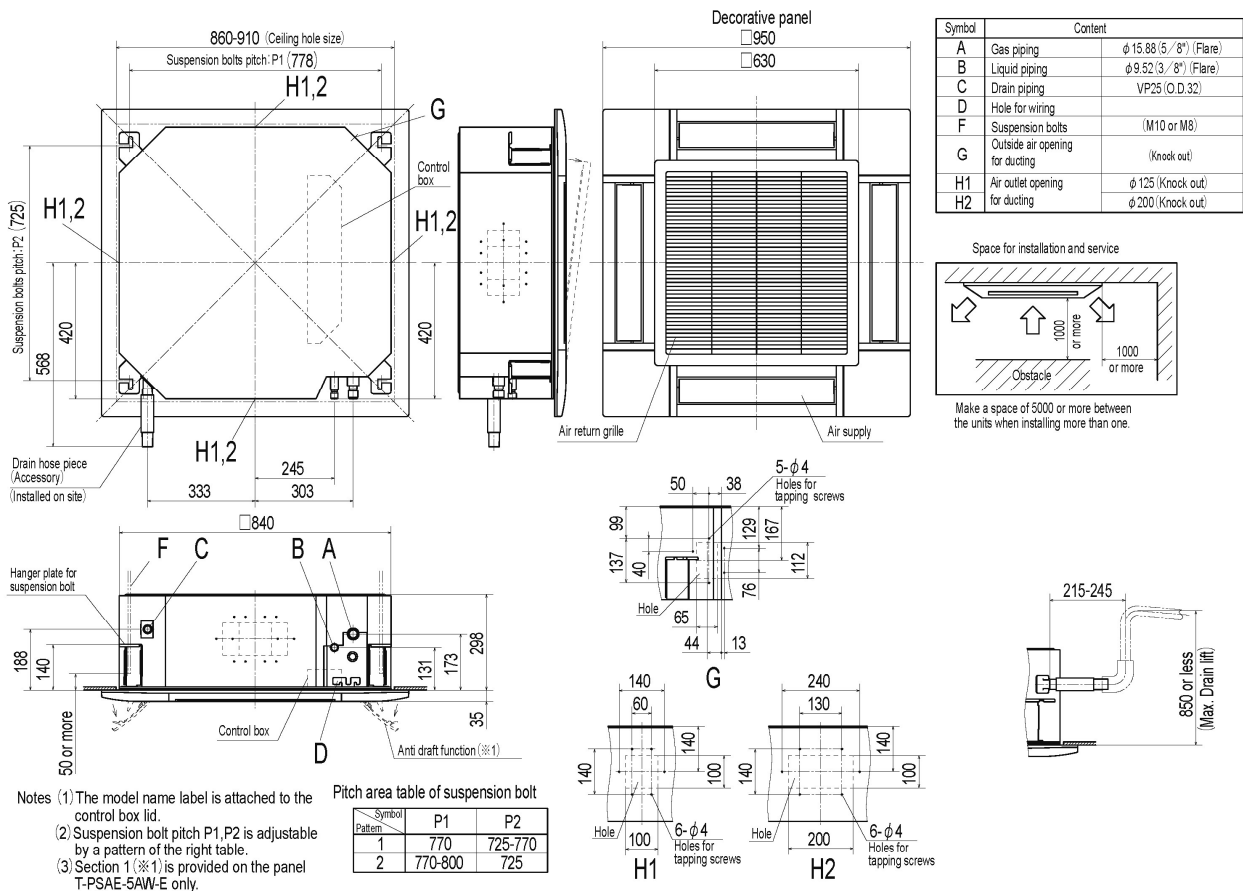
| Sterowniki | Ilość |
|------------|-------|
| RC-EX3A | 3 |

| | |
|--------------------------|--------|
| Dod. ilość czynnika chł. | 0,5 kg |
|--------------------------|--------|

| Średnica rurociągu | Całkowita dł. (m) |
|--------------------|-------------------|
| 1/4" | 10,0 |
| 3/8" | 35,0 |
| 1/2" | 10,0 |
| 5/8" | 35,0 |

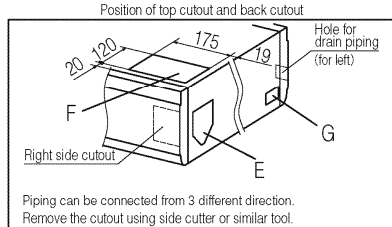
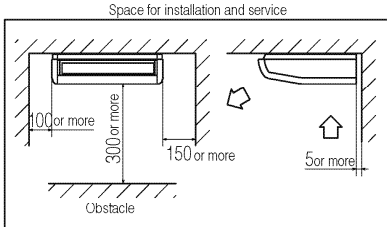
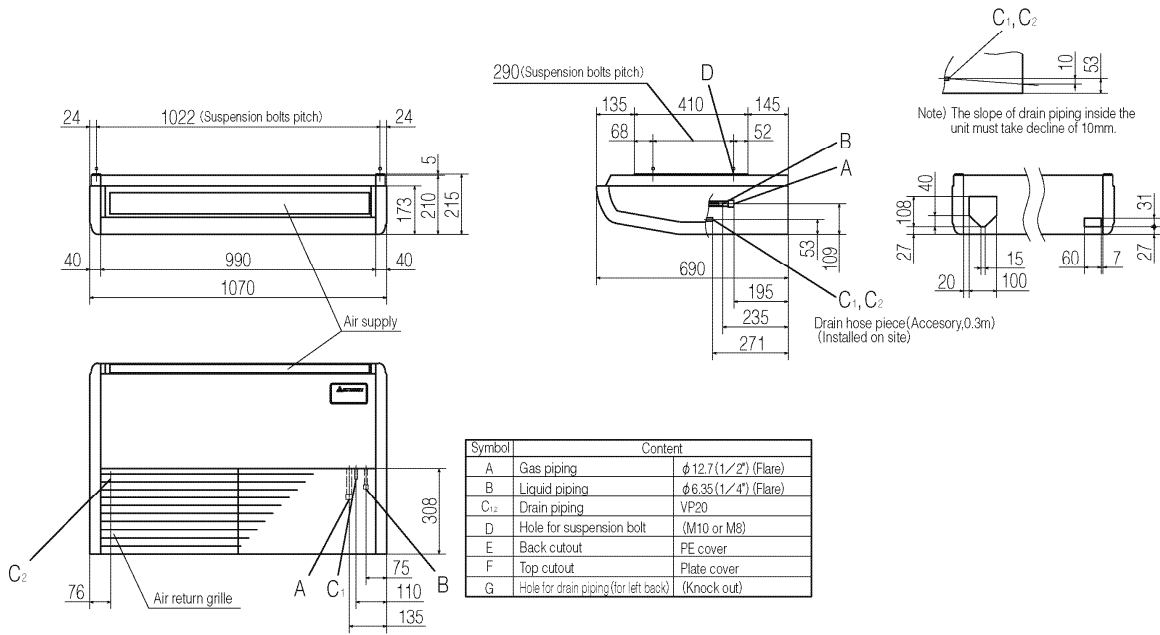
FDT90KXE1, 112KXE1, 140KXE1, 160KXE1

Unit:mm



FDE36KXZE1, 45KXZE1, 56KXZE1

Unit:mm



Note (1) The model name label is attached on the fan casing inside the air return grille.

Make a space of 4000 or more between the units when installing more than one.

FDC121KXZEN1, 140KXZEN1, 155KXZEN1

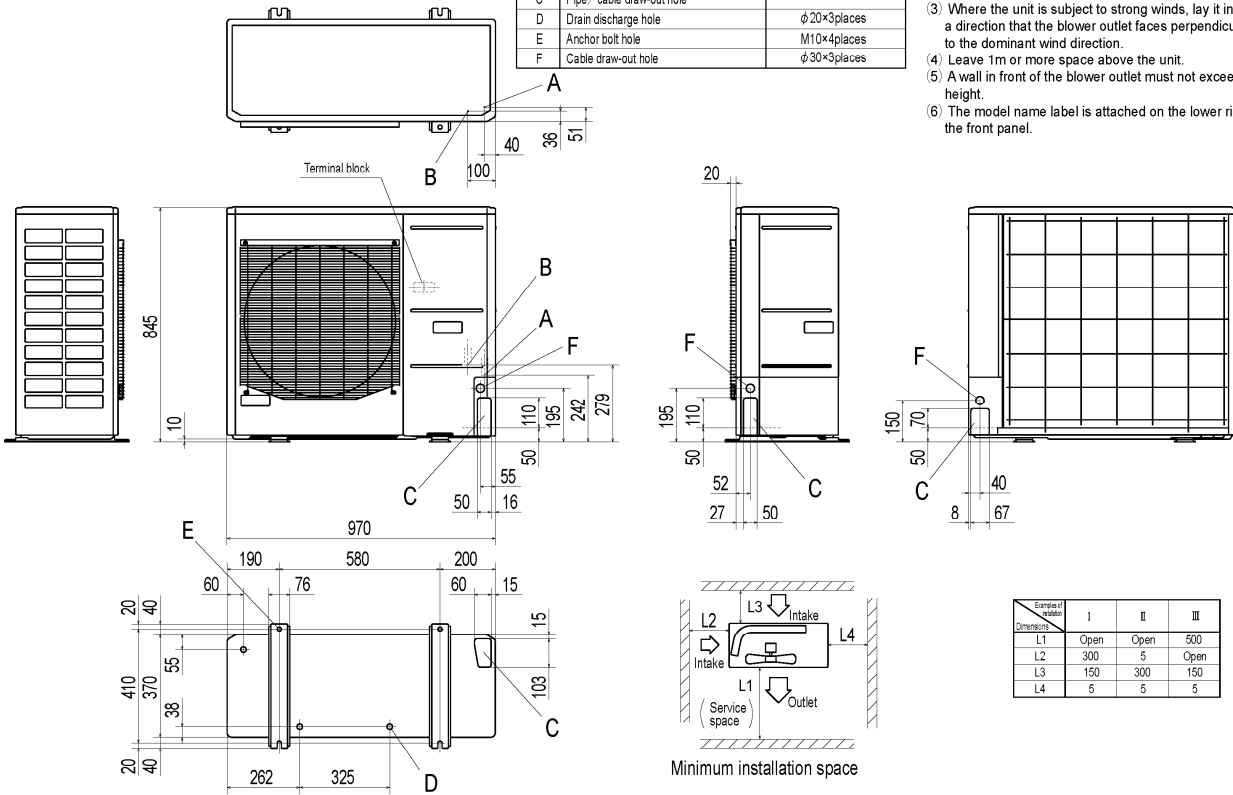
Unit:mm

Meaning of marks

| Mark | Content | |
|------|--|-----------------------|
| A | Service valve connection (gas side) | φ15.88 (5/8") (Flare) |
| B | Service valve connection (liquid side) | φ9.52 (3/8") (Flare) |
| C | Pipe / cable draw-out hole | |
| D | Drain discharge hole | φ20×3places |
| E | Anchor bolt hole | M10×4places |
| F | Cable draw-out hole | φ30×3places |

Notes

- (1) It must not be surrounded by walls on the four sides.
- (2) The unit must be fixed with anchor bolts. An anchor bolt must not protrude more than 15mm.
- (3) Where the unit is subject to strong winds, lay it in such a direction that the blower outlet faces perpendicularly to the dominant wind direction.
- (4) Leave 1m or more space above the unit.
- (5) A wall in front of the blower outlet must not exceed the units height.
- (6) The model name label is attached on the lower right corner of the front panel.



Ceiling Cassette -4way- type (FDT)

| Models | | FDT112KXZE1 | |
|---|------|--|--|
| Panel model (Option) | | Standard : T-PSA-5AW-E Draft prevention : T-PSAE-5AW-E | |
| Nominal cooling capacity*1 | kW | 11.2 | |
| Nominal heating capacity*2 | | 12.5 | |
| Power source | | 220-240V ~ 50Hz / 220V ~ 60Hz | |
| Power consumption | Cool | kW | 0.14 - 0.14 / 0.14 |
| | Heat | | 0.14 - 0.14 / 0.14 |
| Running current | Cool | A | 1.12 - 1.02 / 1.12 |
| | Heat | | 1.12 - 1.02 / 1.12 |
| Sound Pressure Level | | dB(A) | P-Hi : 49 Hi : 39 Me : 37 Lo : 31 |
| Sound Power Level | | | 66 |
| Exterior dimensions Height x Width x Depth | | mm | Unit : 298 × 840 × 840 Panel : 35 × 950 × 950 |
| Exterior appearance (Munsell color) | | | Plaster White (6.8Y8.9/0.2) near equivalent |
| Net weight*3 | kg | Unit : 25 Standard panel : 5 | |
| Refrigerant equipment | | | |
| Heat exchanger | | Louver fin & inner grooved tubing | |
| Refrigerant control | | Electronic Expansion Valve | |
| Air handling equipment | | | |
| Fan type & Q'ty | | Turbo fan × 1 | |
| Motor | W | 120 | |
| Starting method | | Direct line start | |
| Air flow(Standard) | CMM | P-Hi : 38 Hi : 26 Me : 23 Lo : 17 | |
| Available static pressure | Pa | 0 | |
| Outside air intake | | Possible | |
| Air filter, Q'ty | | Pocket plastic net × 1 (Washable) | |
| Shock & vibration absorber | | Rubber sleeve(for fan motor) | |
| Insulation (noise & heat) | | Polyurethane fom | |
| n control | | Wired : RC-EX3, RC-E5, RCH-E3 | |
| Remote control switch (option) | | Wireless : RCN-T-5AW-E2 | |
| Room temperature control | | Thermostat by electronics | |
| Safety equipment | | Overload protection for fan motor Frost protection thermostat | |
| Installation data | | Liquid line: ϕ 9.52 (3/8") | |
| Refrigerant piping size | | Gas line: ϕ 15.88 (5/8") | |
| Connecting method | | Flare piping | |
| Refrigerant | | R410A | |
| Drain pump | | Built-in Drain pump | |
| Drain hose | | Connectable with VP25 | |
| Insulation for piping | | Necessary(both Liquid & Gas line) | |
| Accessories | | Mounting kit, Drain hose | |

Notes

Adapted to **RoHS** directive

(1) The data are measured at the following conditions.

| Item | Indoor air temperature | | Outdoor air temperature | | Standards |
|-----------|------------------------|-------|-------------------------|-------|-----------|
| | DB | WB | DB | WB | |
| Cooling*1 | 27 °C | 19 °C | 35 °C | 24 °C | ISO-T1 |
| Heating*2 | 20 °C | | 7 °C | 6 °C | |

(2) This packaged air-conditioner is manufactured and tested in conformity with the following standard.
ISO-T1 "UNITARY AIR-CONDITIONERS"

(3) Draft prevention panel weight*3 : 6kg

(4) Option : Motion sensor kit (LB-T-5W-E)

Ceiling Suspended type (FDE)

| Models | | FDE45KXZE1 | |
|---|------|--|------|
| Nominal cooling capacity*1 | kW | 4.5 | |
| Nominal heating capacity*2 | | 5.0 | |
| Power source | | 220-240V ~ 50Hz / 220V ~ 60Hz | |
| Power consumption | Cool | kW | 0.05 |
| | Heat | | 0.05 |
| Running current | Cool | A | 0.45 |
| | Heat | | 0.45 |
| Sound Pressure Level | | dB(A) P-Hi : 46 Hi : 38 Me : 36 Lo : 31 | |
| Exterior dimensions Height x Width x Depth | | mm 210 × 1,070 × 690 | |
| Exterior appearance (Munsell color) | | Plaster White (6.8Y8.9/0.2) near equivalent | |
| Net weight | kg | 28 | |
| Refrigera Heat exchanger | | Louver fin & inner grooved tubing | |
| Refrigerant control | | Electronic Expansion Valve | |
| Air handling equipment Fan type & Q'ty | | Centrifugal fan × 2 | |
| Motor | W | 30 | |
| Starting method | | Direct line start | |
| Air flow(Standard) | CMM | P-Hi : 13 Hi : 10 Me : 9 Lo : 7 | |
| Available static pressure | Pa | 0 | |
| Outdoor air intake | | Not possible | |
| Air filter, Q'ty | | Pocket plastic net × 2 (Washable) | |
| Shock & vibration absorber | | Rubber sleeve(for fan motor) | |
| Insulation (noise & heat) | | Polyurethane form | |
| Operation control Operation switch | | Remote control switch Option: RC-E5, RC-EX1A | |
| Room temperature control | | Thermostat by electronics | |
| Safety equipment | | Internal thermostat for fan motor Frost protection thermostat | |
| Installation data Refrigerant piping size | | Liquid line: φ 6.35 (1/4") Gas line: φ 12.7 (1/2") | |
| Connecting method | | Flare piping | |
| Refrigerant | | R410A | |
| Drain hose | | Connectable with V P 2 0 | |
| Insulation for piping | | Necessary(both Liquid & Gas line) | |
| Accessories | | Mounting kit, Drain hose | |

Notes

Adapted to **RoHS** directive

(1) The data are measured at the following conditions.

| Item | Indoor air temperature | | Outdoor air temperature | | Standards |
|-----------|------------------------|-------|-------------------------|-------|-----------|
| | DB | WB | DB | WB | |
| Cooling*1 | 27 °C | 19 °C | 35 °C | 24 °C | ISO-T1 |
| Heating*2 | 20 °C | | 7 °C | 6 °C | |

(2) This packaged air-conditioner is manufactured and tested in conformity with the following standard.

ISO-T1 "UNITARY AIR-CONDITIONERS"

(3) When wireless remote controller is used, fan is 3 speed setting(Hi-Me-Lo) only.

FDC121KXZEN1, 121KXZES1, 140KXZEN1, 140KXZES1, 155KXZEN1, 155KXZES1

| Models | | FDC121KXZEN1 | FDC140KXZEN1 | FDC155KXZEN1 | FDC121KXZES1 | FDC140KXZES1 | FDC155KXZES1 |
|--|---------------------|--|--------------|--------------|----------------------------------|--------------|--------------|
| Nominal cooling capacity*1 | | 12.1 | 14.0 | 15.5 | 12.1 | 14.0 | 15.5 |
| Nominal heating capacity*2 | kW | 12.1 | 14.0 | 15.5 | 12.1 | 14.0 | 15.5 |
| Maximum heating capacity | | 12.5 | 16.0 | 16.3 | 12.5 | 16.0 | 16.3 |
| Power source | | 1 Phase 220-240V 50Hz, 220V 60Hz | | | 3 Phase 380-415V 50Hz, 380V 60Hz | | |
| Power consumption | Cooling | 3.16 | 3.96 | 5.20 | 3.16 | 3.96 | 5.20 |
| | Heating | 3.09 | 3.66 | 4.28 | 3.09 | 3.66 | 4.28 |
| Running current | Cooling | 15.3/14.0 | 19.8/17.9 | 25.7/23.6 | 5.2/4.7 | 6.5/6.0 | 8.6/7.9 |
| | Heating | 15.2/13.9 | 18.3/16.8 | 21.4/19.6 | 5.1/4.7 | 6.1/5.6 | 7.1/6.5 |
| Power factor | Cooling | 94/94 | 92/92 | 92/92 | 94/94 | 92/92 | 92/92 |
| | Heating | 93/93 | 91/91 | 91/91 | 93/93 | 91/91 | 91/91 |
| EER | | 3.82 | 3.54 | 2.98 | 3.82 | 3.54 | 2.98 |
| ODP | | 3.91 | 3.83 | 3.62 | 3.91 | 3.83 | 3.62 |
| Sound Pressure Level (Cooling/Heating) | dB (A) | 53/56 | 53/57 | 54/57 | 53/56 | 53/57 | 54/57 |
| Sound Power Level (Cooling/Heating) | dB (A) | 70/72 | 71/72 | 71/74 | 70/72 | 71/72 | 71/74 |
| Starting current | A | 5 | | | | | |
| Maximum current | A | 28 | 28 | 28 | 13.5 | 13.5 | 13.5 |
| Exterior dimensions | mm | 845x970x370 | | | | | |
| Height x Width x Depth | | 845x970x370 | | | | | |
| Exterior appearance (Munsell color) | | Slucco white (4.2/7.5/1.1) near equivalent | | | | | |
| Net weight | kg | 85 | | | 87 | | |
| Refrigerant equipment compressor type & Q'ty | | RMTS126MDC21 X 1 | | | RMTS126MDC31 X 1 | | |
| Motor | kW | 2.3 | 2.9 | 3.2 | 2.3 | 2.9 | 3.2 |
| Starting method | | Direct line start | | | | | |
| Capacity control | % | 26-100 | 21-100 | 21-100 | 26-100 | 21-100 | 21-100 |
| Greenhouse heater | W | 20 | | | | | |
| Refrigerant equipment Heat exchanger | | Straight fin & inner grooved tubing | | | | | |
| Refrigerant control | | Electronic expansion valve | | | | | |
| Refrigerant type | | R410A | | | | | |
| Refrigerant amount | kg | 5.0 | | | | | |
| Refrigerant oil | ℓ | 1.0 (R-MA68) | | | | | |
| Defrost control | | Microcomputer controlled De-Icar | | | | | |
| Air handling equipment fan type & Q'ty | | Propeller fan X 1 | | | | | |
| Motor | W | 86 | | | | | |
| Starting method | | Direct line start | | | | | |
| Air flow (Standard) | m ³ /min | 75/75 | 75/82 | 75/82 | 75/75 | 75/82 | 75/82 |
| Shock & vibration absorber | | Rubber mount (for compressor & fan motor) | | | | | |
| Safety equipment | | Compressor over current protection / abnormal high pressure protection abnormal low pressure protection / abnormal discharge temperature protection / over current protection | | | | | |
| Installation data | mm (in) | Liquid line: 9.52 (3/8") Gas line: 15.88 (5/8") | | | | | |
| Refrigerant piping size | | Flare (both Liquid & Gas lines) | | | | | |
| Connecting method | | High 4.15 Low 2.21 | | | | | |
| MAX. Pressure | MPa | Hole for drain (420 X 3pcs) | | | | | |
| Drain | | Necessary (both Liquid & Gas line) | | | | | |
| Insulation for piping | | IP24 | | | | | |
| IP number | | | | | | | |
| Accessories | | | | | | | |

Notes (1) The data are measured at the following conditions.

| Operation | Item | Indoor air temperature | | Outdoor air temperature | | Standards |
|-----------|------|------------------------|-------|-------------------------|-------|----------------|
| | | DB | WB | DB | WB | |
| Cooling*1 | DB | 27 °C | 19 °C | 35 °C | 24 °C | ISO5151-11, H1 |
| | WB | 20 °C | - | 7 °C | 6 °C | |

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
 (3) Sound level indicates the value in an anechoic chamber.
 During operation these value are somewhat higher due to ambient conditions.

- (4) Refrigerant piping size applicable to European installations are shown parentheses.
 (5) This air-conditioner is adapted RoHS directive.

Range of usage & limitations

FDC121KXZEN1, 121KXZES1, 140KXZEN1, 140KXZES1, 155KXZEN1, 155KXZES1

| System | | FDC121KXZEN1 121KXZES1 | FDC140KXZEN1 140KXZES1 | FDC155KXZEN1 155KXZES1 |
|---|---------------------------|--|---------------------------|---------------------------|
| Indoor intake air temperature (Upper, lower limits) | | Please see the next page. | | |
| Outdoor air temperature (Upper, lower limits) | | | | |
| Indoor units that can be used in combination | Number of connected units | 1 to 8 units | 1 to 10 units* | 1 to 10 units* |
| | Total capacity | 97 - 181 | 112 - 210 | 124 - 233 |
| Total Piping Length (Total of the lengths of all piping) | | MAX. 100m | | |
| Maximum Piping Distance (From outdoor unit to farthest indoor unit) | | Indoor unit MAX. 70m | | |
| Total length of ø9.52 liquid pipe | | Within 50 m | | |
| Difference in height between indoor and outdoor units | Outdoor unit is higher | MAX. 30m | | |
| | Outdoor unit is lower | MAX. 15m | | |
| Difference in height between indoor units | | MAX. 15m | | |
| Permissible height difference between the first branch and the indoor unit | | | | |
| Indoor unit atmosphere (behind ceiling) temperature and humidity | | Dew point temperature 28 °C or less, relative humidity 80% or less | | |
| Compressor stop/start frequency | 1 cycle time | 5 min or more (2 minutes or more from start to stop or 3 minutes or more from stop to start) | | |
| | Stop time | 3 min or more | | |
| Power source voltage | Voltage fluctuation | Within ±10% of rated voltage | | |
| | Voltage drop during start | Within ±15% of rated voltage | | |
| | Phase unbalance | Within ±3% of rated voltage | | |

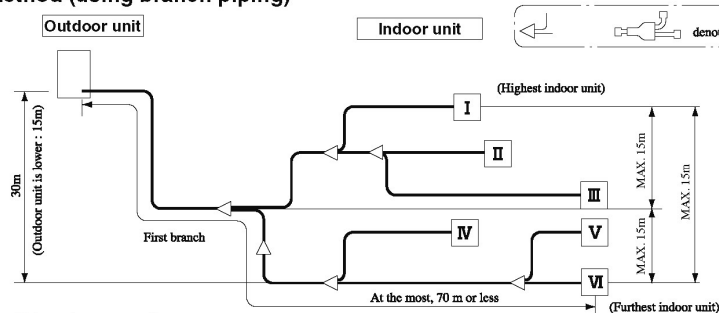
*When connecting 9 units or more, set the connectable capacity as follows :

140 : 110% or less

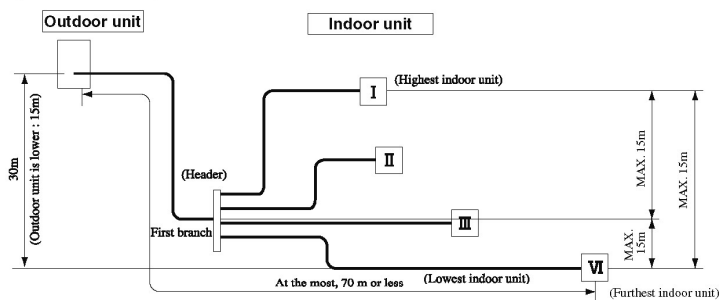
155 : 100% or less

Allowable length of refrigerant piping, height difference between indoor and outdoor unit

(1) Branch pipe method (using branch piping)



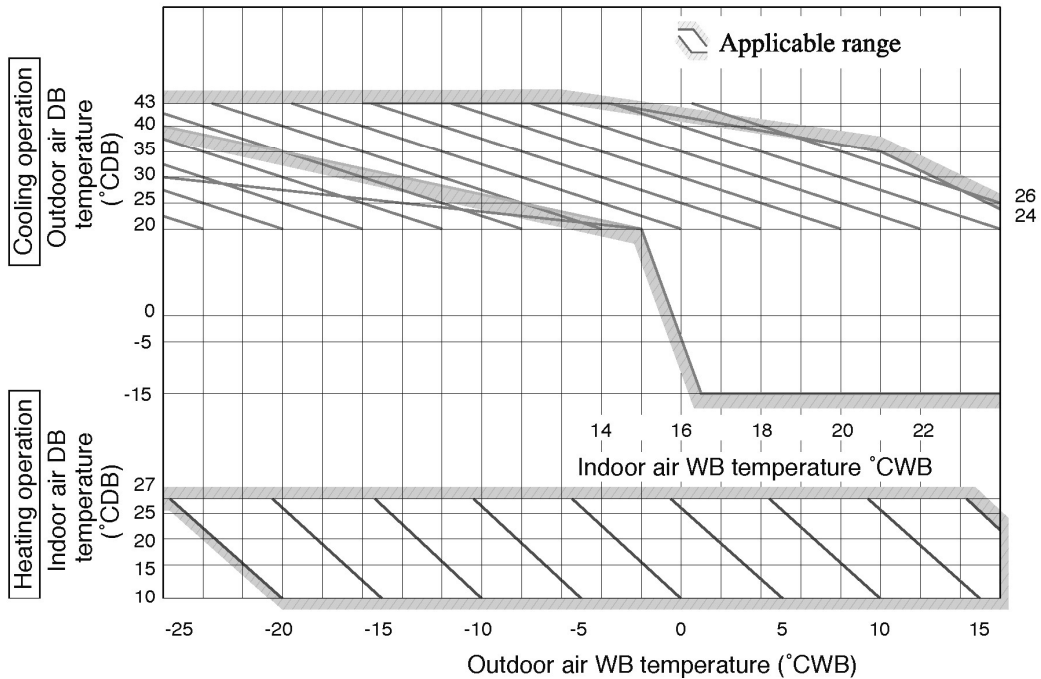
(2) Header System (Header used)



Notes (1) There is no limit to the permissible piping lengths for the main pipes or other piping, but keep furthest indoor unit piping to 50m with a diameter of ø9.52.

(2) A branch piping system cannot be connected after a header system.

Range of usage & limitations



“CAUTION” Cooling operation under low ambient air temperature conditions

Micro KXZ models can be operated in cooling mode at low ambient air temperature condition within above temperature range. However in case of severely low temperature conditions if the following precaution is not observed, it may not be operated in spite of operable temperature range mentioned above and cooling capacity may not be established under certain conditions.

[Precaution]

In case of severely low temperature condition

- 1) Install the outdoor unit at the place where strong wind cannot blow directly into the outdoor unit.
- 2) If there is no installation place where can prevent strong wind from directly blowing into the outdoor unit, mount the flex flow adaptor (prepared as option part) or like such devices onto the outdoor unit in order to divert the strong wind.

[Reason]

Under the low ambient air temperature conditions of -5°C or lower, if strong wind directly blow into the outdoor unit, the outdoor heat exchanger temperature will drop, even though the outdoor fan is stopped by outdoor fan control. This makes high and low pressures to drop as well. This low pressure drop makes the indoor heat exchanger temperature to drop and will activate anti-frost control at indoor heat exchanger at frequent intervals, that cooling operation may not be established for any given time.

Noise level

Note (1) The data are based on the following conditions.

Ambient air temperature: Indoor unit 27°CDB, 19°CWB. Outdoor unit 35°CDB

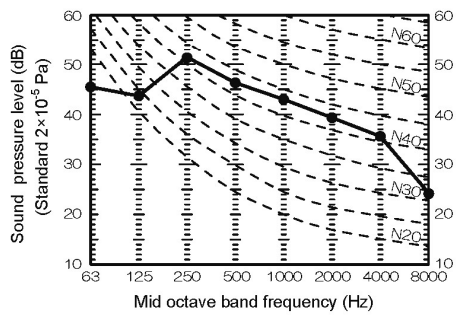
(2) The data in the chart are measured in an anechoic room.

(3) The noise levels measured in the field are usually higher than the data because of reflection.

Ceiling cassette-4 way type (FDT)

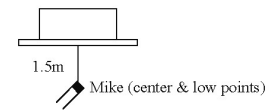
FDT112KXZE1

Noise level 49dB(A) at P-Hi



Measured based on JIS B 8616

Mike position as right



Noise level

Note (1) The data are based on the following conditions.

Ambient air temperature: Indoor unit 27°CDB, 19°CWB. Outdoor unit 35°CDB

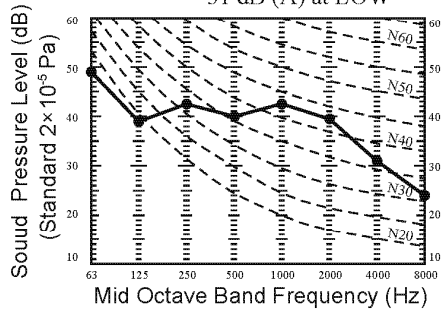
(2) The data in the chart are measured in an anechoic room.

(3) The noise levels measured in the field are usually higher than the data because of reflection.

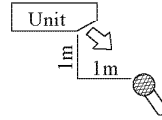
Ceiling suspended type (FDE)

FDE45KXZE1

Noise level 46 dB (A) at P-HIGH
38 dB (A) at HIGH
36 dB (A) at MEDIUM
31 dB (A) at LOW



Measured based on JIS B 8616
Mike position as right



Mike (in front & below unit)

Noise level

Measured based on JIS B 8616

Mike position as highest noise level in position as below

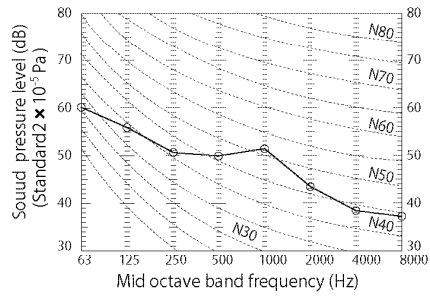
Distance from front side 1m

Height 1m

FDC155KXZEN1, 155KXZES1

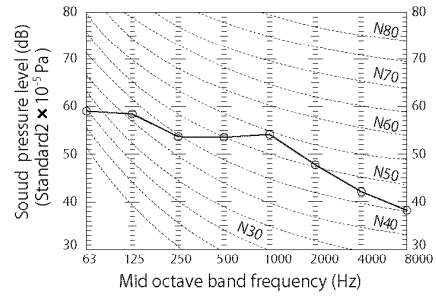
Cooling

Noise level 54 dB (A)



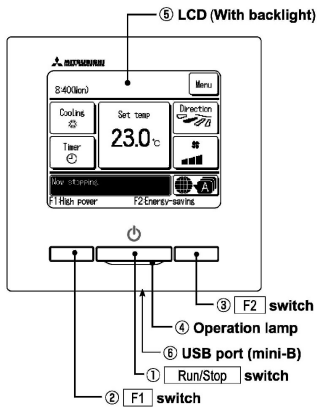
Heating

Noise level 57 dB (A)

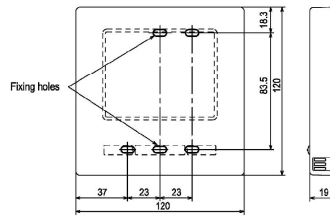


RC-EX3A

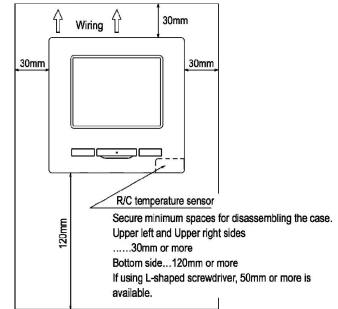
Unit:mm



Dimensions (Viewed from front)



Installation space



Touch panel system, which is operated by tapping the LCD screen with a finger, is employed for any operations other than the ① Run/Stop, ② F1 ③ F2 switches.

① Run/Stop switch

One push on the button starts operation and another push stops operation.

② F1 switch ③ F2 switch

This switch starts operation that is set in F1/F2 function setting.

④ Operation lamp

This lamp lights in green (yellow-green) during operation. It changes to red (orange) if any error occurs. Operation lamp luminance can be changed.

⑤ LCD (With backlight)

A tap on the LCD lights the backlight. The backlight turns off automatically if there is no operation for certain period of time. Lighting period of the backlight lighting can be

changed. If the backlight is ON setting, when the screen is tapped while the backlight is turned off, the backlight only is turned on. (Operations with switches ①, ② and ③ are excluded.)

⑥ USB port

USB connector (mini-B) allows connecting to a personal computer.

For operating methods, refer to the instruction manual attached to the software for personal computer (remote control utility software).

Note

· When connecting to a personal computer, do not connect simultaneously with other USB devices. Please be sure to connect to the computer directly, without going through a hub, etc.

• Do not install the remote control at following places.

- (1) It could cause break-down or deformation of remote control.
 - Where it is exposed to direct sunlight
 - Where the ambient temperature becomes 0 °C or below, or 40 °C or above
 - Where the surface is not flat
 - Where the strength of installation area is insufficient
 - (2) Moisture may be attached to internal parts of the remote controller, resulting in a display failure.
 - Place with high humidity where condensation occurs on the remote controller
 - Where the remote controller gets wet
 - (3) Accurate room temperature may not be detected using the temperature sensor of the remote controller.
 - Where the average room temperature cannot be detected
 - Place near the equipment to generate heat
 - Place affected by outside air in opening/closing the door
 - Place exposed to direct sunlight or wind from air conditioner
 - Where the difference between wall and room temperature is large
 - (4) When you are using the automatic grille up and down panel in the IU, you may not be able to confirm the up and down motion.
 - Where the IU cannot be visually confirmed
- When installing the unit at a hospital, telecommunication facility, etc., take measures to suppress electric noises. It could cause malfunction or break-down due to hazardous effects on the inverter, private power generator, high frequency medical equipment, radio communication equipment, etc. The influences transmitted from the remote control to medical or communication equipment could disrupt medical activities, video broadcasting or cause noise interference.

R/C cable: 0.3 mm² × 2-core
When the cable length is longer than 100 m, the max size for wires used in the R/C case is 0.5 mm². Connect them to wires of larger size near the outside of R/C. When wires are connected, take measures to prevent water, etc. from entering inside.

| | |
|---------|-------------------------------|
| ≦ 200 m | 0.5 mm ² × 2-core |
| ≦ 300 m | 0.75 mm ² × 2-core |
| ≦ 400 m | 1.25 mm ² × 2-core |
| ≦ 600 m | 2.0 mm ² × 2-core |

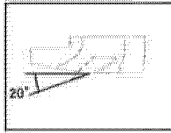
Adapted to RoHS directive

Temperature and velocity distribution

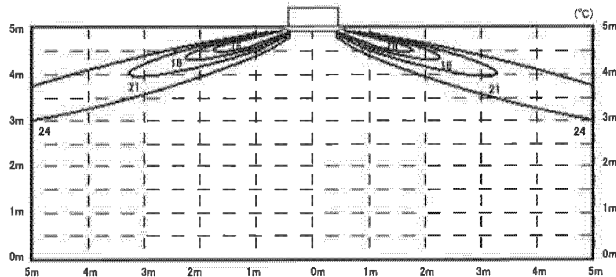
FDT112KXZE1

Cooling Air flow:P-Hi

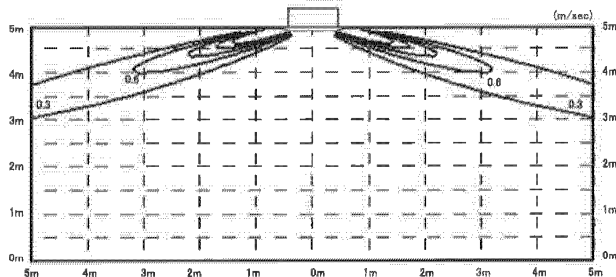
Louver position



Temperature distribution

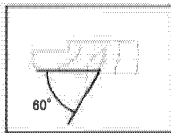


Velocity distribution

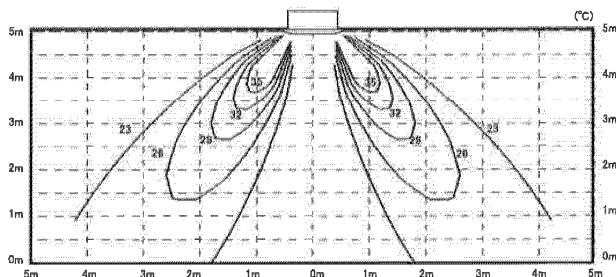


Heating Air flow:P-Hi

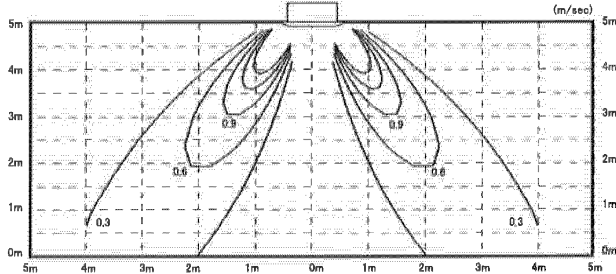
Louver position



Temperature distribution



Velocity distribution



Indoor temperature

Cooling 27°CDB/ 19°CWB

Heating 20°CDB

Note:

These figures represent the typical main range of temperature and velocity distribution at the center of air outlet within the published conditions.

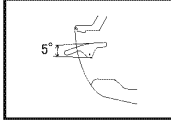
In the actual installation, they may differ from the typical figures under the influence of air temperature conditions, ceiling height, operation conditions and obstacles.

Temperature and velocity distribution

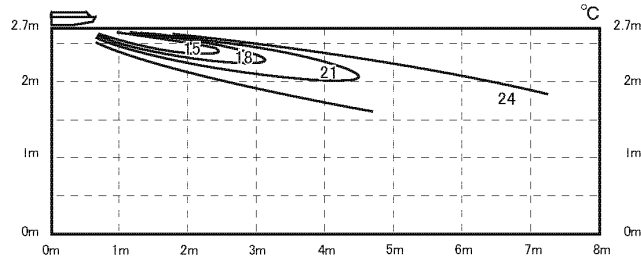
FDE45KXZE1

Cooling Air flow: P-Hi

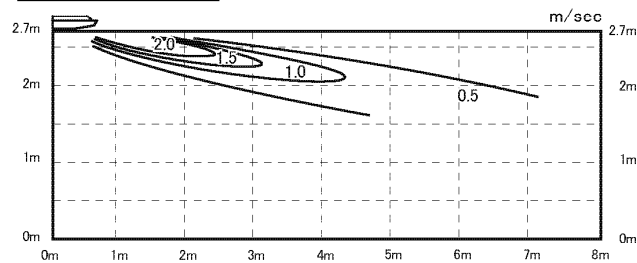
Louver position



Temperature distribution

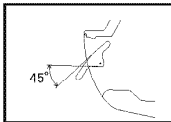


Velocity distribution

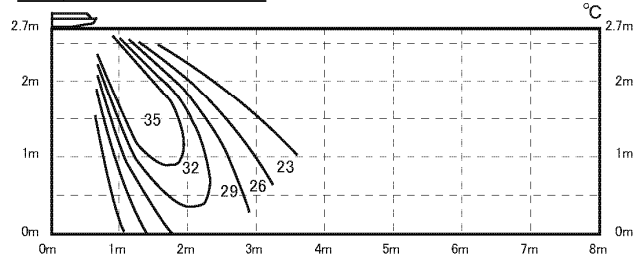


Heating Air flow: P-Hi

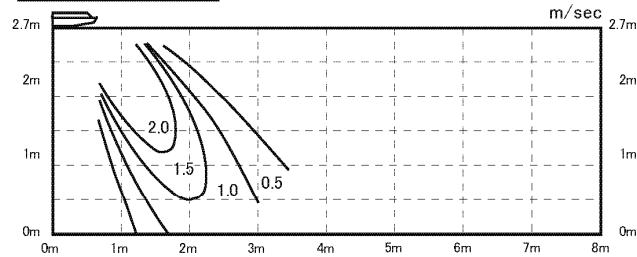
Louver position



Temperature distribution



Velocity distribution



Indoor temperature

Cooling 27°CDB/ 19°CWB

Heating 20°CDB

Note:

These figures represent the typical main range of temperature and velocity distribution at the center of air outlet within the published conditions.

In the actual installation, they may differ from the typical figures under the influence of air temperature conditions, ceiling height, operation conditions and obstacles.