

AIR CONDITIONING SYSTEMS

HYBRID
CITY MULTI

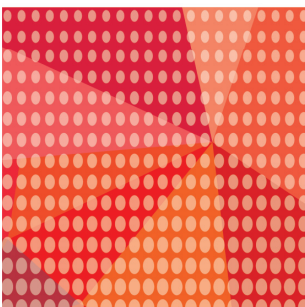


DATA BOOK

MODEL

PKFY-WL-VLM-E

PKFY-WL-VKM-E



PKFY-WL-VLM-E, PKFY-WL-VKM-E

| | |
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1. SPECIFICATIONS

Wall mounted

PKFY-WL-VLM-E, VKM-E

| Model | | PKFY-WL10VLM-E | | PKFY-WL15VLM-E | | PKFY-WL20VLM-E | | | |
|--|--------------------------------------|--|--|---|--|---|--|-----------------|--|
| Power source | | 1-phase 220-240V 50Hz, 1-phase 220V 60Hz | | 1-phase 220-240V 50Hz, 1-phase 220V 60Hz | | 1-phase 220-240V 50Hz, 1-phase 220V 60Hz | | | |
| Cooling capacity (Nominal) | *1 kW | 1.2 | | 1.7 | | 2.2 | | | |
| | *1 BTU / h | 4,100 | | 5,800 | | 7,500 | | | |
| (220V) | Power input | kW | | 0.02 | | 0.03 | | | |
| | Current input | A | | 0.20 | | 0.25 | | | |
| Heating capacity (Nominal) | *2 kW | 1.4 | | 1.9 | | 2.5 | | | |
| | *2 BTU / h | 4,800 | | 6,500 | | 8,500 | | | |
| (220V) | Power input | kW | | 0.01 | | 0.02 | | | |
| | Current input | A | | 0.15 | | 0.20 | | | |
| External finish | | Plastic, MUNSELL (0.7PB 9.2/0.4) | | Plastic, MUNSELL (0.7PB 9.2/0.4) | | Plastic, MUNSELL (0.7PB 9.2/0.4) | | | |
| External dimension HxWxD | | mm | | 299x773x237 | | 299x773x237 | | | |
| | | in. | | 11-25/32 x 30-7/16 x 9-11/32 | | 11-25/32 x 30-7/16 x 9-11/32 | | | |
| Net weight | | kg(lbs) | | 11 (25) | | 11 (25) | | | |
| Heat exchanger | | Cross fin (Aluminum fin and copper tube) | | Cross fin (Aluminum fin and copper tube) | | Cross fin (Aluminum fin and copper tube) | | | |
| Water Volume | | L | | 0.6 | | 0.7 | | | |
| FAN | Type x Quantity | | Line flow fan x 1 | | Line flow fan x 1 | | Line flow fan x 1 | | |
| | External static press. | Pa | 0 | | 0 | | 0 | | |
| | | mmH ₂ O | 0 | | 0 | | 0 | | |
| | Motor Type | | DC motor | | DC motor | | DC motor | | |
| | Motor output | | kW | | 0.030 | | 0.030 | | |
| | Driving mechanism | | Direct-driven by motor | | Direct-driven by motor | | Direct-driven by motor | | |
| | Airflow rate (Low-Mid2-Mid1-High) | m ³ / min | | 3.3-3.8-4.1-4.5 | | 3.3-3.8-4.3-4.9 | | 4.0-5.0-6.0-7.0 | |
| L/s | | 55-63-68-75 | | 55-63-72-82 | | 67-83-100-117 | | | |
| cfm | | 117-134-145-159 | | 117-134-152-173 | | 141-177-212-247 | | | |
| Sound pressure level (measured in anechoic room) (Low-Mid2-Mid1-High) | | dB <A> | | 22-26-28-30 | | 22-26-29-32 | | 22-28-33-36 | |
| Insulation material | | Polyethylene sheet | | Polyethylene sheet | | Polyethylene sheet | | | |
| Air filter | | PP honeycomb | | PP honeycomb | | PP honeycomb | | | |
| Protection device | | Fuse | | Fuse | | Fuse | | | |
| Refrigerant control device | | - | | - | | - | | | |
| Connectable HBC/Hydro unit | | CMB-WM-V-AA, CMB-WM-F-AA, CMB-WM-V-BB/CMH-WM-V-A | | CMB-WM-V-AA, CMB-WM-F-AA, CMB-WM-V-BB/CMH-WM-V-A | | CMB-WM-V-AA, CMB-WM-F-AA, CMB-WM-V-BB/CMH-WM-V-A | | | |
| Water piping diameter | Connection size | Inlet | in. | RC 3/4 screw | | RC 3/4 screw | | RC 3/4 screw | |
| | | Outlet | in. | RC 3/4 screw | | RC 3/4 screw | | RC 3/4 screw | |
| | Field pipe size | Inlet | mm I.D | 20 | | 20 | | 20 | |
| | | Outlet | mm I.D | 20 | | 20 | | 20 | |
| Field drain pipe size | | mm(in.) | | I.D. 16(5/8) | | I.D. 16(5/8) | | I.D. 16(5/8) | |
| Drawing | External | | BT01B059 | | BT01B059 | | BT01B059 | | |
| | Wiring | | RH79C061 | | RH79C061 | | RH79C061 | | |
| | Refrigerant cycle | | - | | - | | - | | |
| Standard attachment | Document | | Installation Manual, Instruction Book | | Installation Manual, Instruction Book | | Installation Manual, Instruction Book | | |
| | Accessory | | Mount board, Screw, Felt tape, Compression joint, L-shape connection pipe A/B, Compression joint ring (ø15), Insulation, Tie band | | Mount board, Screw, Felt tape, Compression joint, L-shape connection pipe A/B, Compression joint ring (ø15), Insulation, Tie band | | Mount board, Screw, Felt tape, Compression joint, L-shape connection pipe A/B, Compression joint ring (ø15), Insulation, Tie band | | |
| Optional parts | Drain pump kit | | PAC-SK01DM-E | | PAC-SK01DM-E | | PAC-SK01DM-E | | |
| | Valve kit | *5 | PAC-SK35VK-E | | PAC-SK35VK-E | | PAC-SK35VK-E | | |
| | | 6m Lead wire | PAC-SK40LW-E | | PAC-SK40LW-E | | PAC-SK40LW-E | | |
| | Attachment plate | | PAC-SK39AP-E | | PAC-SK39AP-E | | PAC-SK39AP-E | | |
| Plasma Quad Connect | | MAC-100FT-E | | MAC-100FT-E | | MAC-100FT-E | | | |
| Remarks | | * Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. * Due to continuing improvement, above specification may be subject to change without notice. | | | | | | | |

| Notes: | Unit converter |
|---|---|
| 1. Nominal cooling conditions Indoor: 27°C D.B./19°C W.B. (81°F D.B./66°F W.B.), Outdoor: 35°C D.B. (95°F D.B.) Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.) | BTU/h = kW x 3,412 |
| 2. Nominal heating conditions Indoor: 20°C D.B. (68°F D.B.), Outdoor: 7°C D.B./6°C W.B. (45°F D.B./43°F W.B.) Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.) | cfm = m ³ /min x 35.31 |
| 3. Be sure to install a valve on the water outlet. | lbs = kg/0.4536 |
| 4. Install a strainer (40 mesh or more) on the pipe next to the valve to remove the foreign matters. | |
| 5. Certain restrictions apply to indoor unit combinations. Refer to the section on the valve kit in the chapter "OPTIONAL PARTS" in the DATA BOOK for the restrictions. When the valve kit is installed farther away from the HBC than the distance between the HBC and the WL-model indoor unit, the maximum allowable height difference between the HBC and the valve kit is 15 meters. The maximum allowable piping length between the indoor unit and the valve kit is 5 meters. | |
| *Please group units that operate on 1 branch. | *Above specification data is subject to rounding variation. |

1. SPECIFICATIONS

Wall mounted

PKFY-WL-VLM-E, VKM-E

| Model | | | | PKFY-WL25VLM-E | PKFY-WL32VLM-E | PKFY-WL40VLM-E | |
|--|--------------------------------------|---------|----------------------|--|---|---|-------------|
| Power source | | | | 1-phase 220-240V 50Hz, 1-phase 220V 60Hz | 1-phase 220-240V 50Hz, 1-phase 220V 60Hz | 1-phase 220-240V 50Hz, 1-phase 220V 60Hz | |
| Cooling capacity (Nominal) | *1 | kW | 2.8 | 3.6 | 4.5 | | |
| | *1 | BTU / h | 9,600 | 12,300 | 15,400 | | |
| (220V) | Power input | | kW | 0.04 | 0.05 | | |
| | Current input | | A | 0.35 | 0.45 | | |
| Heating capacity (Nominal) | *2 | kW | 3.2 | 4.0 | 5.0 | | |
| | *2 | BTU / h | 10,900 | 13,600 | 17,100 | | |
| (220V) | Power input | | kW | 0.03 | 0.04 | | |
| | Current input | | A | 0.30 | 0.40 | | |
| External finish | | | | Plastic, MUNSELL (0.7PB 9.2/0.4) | Plastic, MUNSELL (0.7PB 9.2/0.4) | Plastic, MUNSELL (0.7PB 9.2/0.4) | |
| External dimension HxWxD | | | mm | 299x773x237 | 299x898x237 | 299x898x237 | |
| | | | in. | 11-25/32 x 30-7/16 x 9-11/32 | 11-25/32 x 35-3/8 x 9-11/32 | 11-25/32 x 35-3/8 x 9-11/32 | |
| Net weight | | | kg(lbs) | 11 (25) | 13(29) | 13(29) | |
| Heat exchanger | | | | Cross fin (Aluminum fin and copper tube) | | | |
| | | | | Water Volume | L | 0.7 | 1.0 |
| FAN | Type x Quantity | | | Line flow fan x 1 | | | |
| | External static press. | | Pa | 0 | | | |
| | | | mmH ₂ O | 0 | | | |
| | Motor Type | | | DC motor | | | |
| | Motor output | | kW | 0.030 | | | |
| | Driving mechanism | | | Direct-driven by motor | | | |
| | Airflow rate (Low-Mid2-Mid1-High) | | m ³ / min | 4.0-5.4-7.0-8.4 | | | |
| | | | L/s | 67-90-117-140 | | | |
| | | cfm | 141-191-247-297 | | | | |
| Sound pressure level (measured in anechoic room) (Low-Mid2-Mid1-High) | | | | dB <A> | 22-30-36-41 | 29-34-38-41 | 30-36-41-45 |
| Insulation material | | | | Polyethylene sheet | | | |
| Air filter | | | | PP honeycomb | | | |
| Protection device | | | | Fuse | | | |
| Refrigerant control device | | | | - | | | |
| Connectable HBC/Hydro unit | | | | CMB-WM-V-AA, CMB-WM-F-AA,CMB-WM-V-BB/CMH-WM-V-A | | | |
| Water piping diameter | Connection size | | Inlet | in. | RC 3/4 screw | RC 3/4 screw | |
| | | | Outlet | in. | RC 3/4 screw | RC 3/4 screw | |
| | Field pipe size | | Inlet | mm I.D | 20 | 20 | |
| | | | Outlet | mm I.D | 20 | 20 | |
| Field drain pipe size | | | mm(in.) | I.D. 16(5/8) | I.D. 16(5/8) | I.D. 16(5/8) | |
| Drawing | External | | | BT01B059 | | | |
| | Wiring | | | RH79C061 | | | |
| | Refrigerant cycle | | | - | | | |
| Standard attachment | Document | | | Installation Manual, Instruction Book | | | |
| | Accessory | | | Mount board, Screw, Felt tape, Compression joint, L-shape connection pipe A/B, Compression joint ring (ø15), Insulation, Tie band | | | |
| Optional parts | Drain pump kit | | | PAC-SK01DM-E | | | |
| | Valve kit | | *5 | PAC-SK35VK-E | | | |
| | | | 6m Lead wire | PAC-SK40LW-E | | | |
| | | | Attachment plate | PAC-SK39AP-E | | | |
| Plasma Quad Connect | | | MAC-100FT-E | | | | |
| Remarks | | | | * Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. * Due to continuing improvement, above specification may be subject to change without notice. | | | |

Notes:

- Nominal cooling conditions
Indoor: 27°C D.B./19°C W.B. (81°F D.B./66°F W.B.), Outdoor: 35°C D.B. (95°F D.B.)
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
 - Nominal heating conditions
Indoor: 20°C D.B. (68°F D.B.), Outdoor: 7°C D.B./6°C W.B. (45°F D.B./43°F W.B.)
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
 - Be sure to install a valve on the water outlet.
 - Install a strainer (40 mesh or more) on the pipe next to the valve to remove the foreign matters.
 - Certain restrictions apply to indoor unit combinations.
Refer to the section on the valve kit in the chapter "OPTIONAL PARTS" in the DATA BOOK for the restrictions.
When the valve kit is installed farther away from the HBC than the distance between the HBC and the WL-model indoor unit, the maximum allowable height difference between the HBC and the valve kit is 15 meters.
The maximum allowable piping length between the indoor unit and the valve kit is 5 meters.
- *Please group units that operate on 1 branch.

| Unit converter | |
|---|------------------------------|
| BTU/h | =kW x 3,412 |
| cfm | =m ³ /min x 35.31 |
| lbs | =kg/0.4536 |
| *Above specification data is subject to rounding variation. | |

1. SPECIFICATIONS

Wall mounted

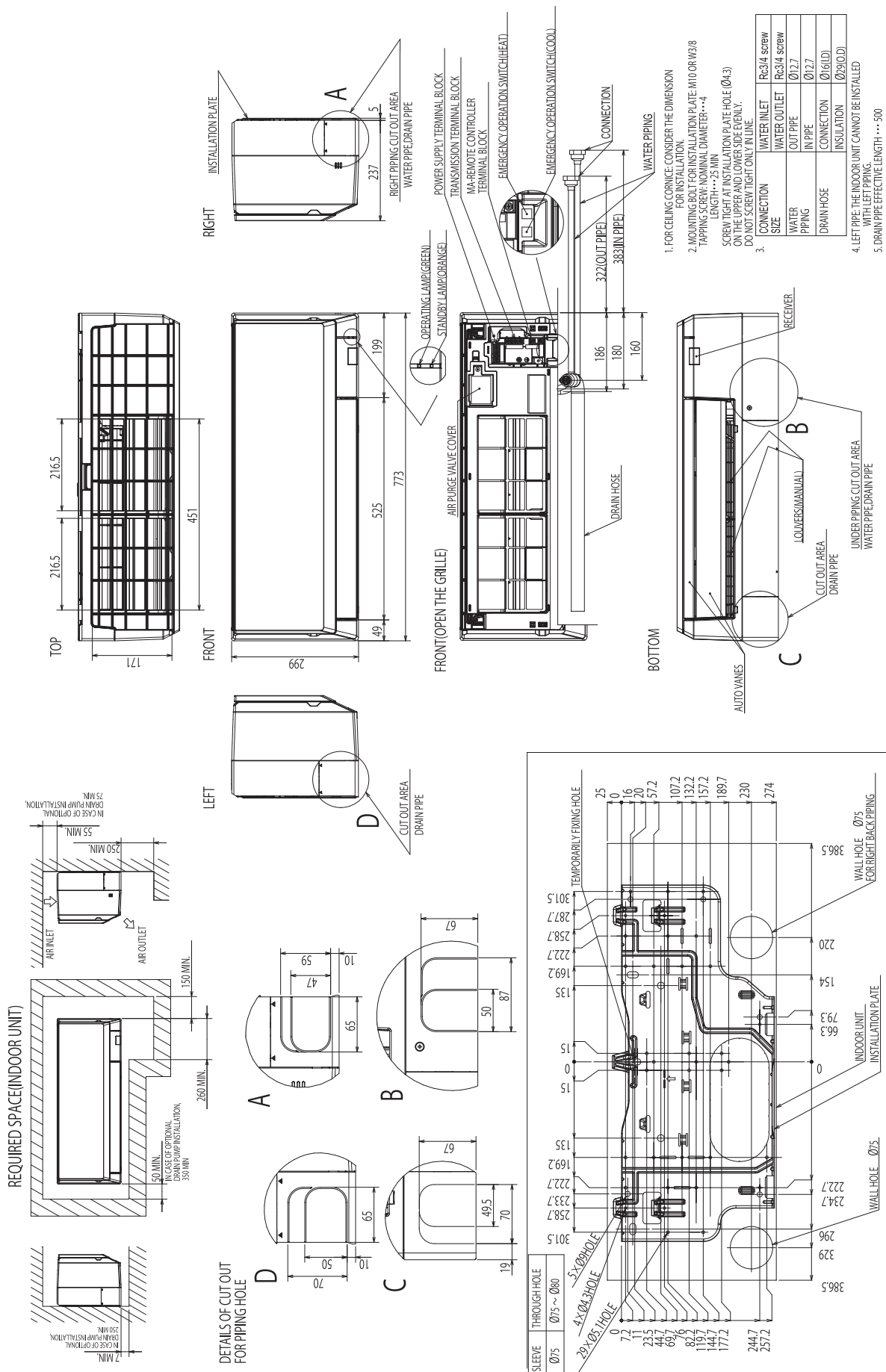
PKFY-WL-VLM-E, VKM-E

| Model | | | | PKFY-WL50VKM-E | PKFY-WL63VKM-E | PKFY-WL80VKM-E |
|--|----------------------------|----------------------|---------|--|--|--|
| Power source | | | | 1-phase 220-240V 50Hz, 1-phase 220V 60Hz | 1-phase 220-240V 50Hz, 1-phase 220V 60Hz | 1-phase 220-240V 50Hz, 1-phase 220V 60Hz |
| Cooling capacity (Nominal) (220V) | *1 | kW | 5.6 | 7.1 | 9.0 | |
| | | BTU / h | 19,100 | 24,200 | 30,700 | |
| | Power input | kW | 0.04 | 0.05 | 0.07 | |
| | | Current input | A | 0.46 | 0.56 | 0.76 |
| Heating capacity (Nominal) (220V) | *2 | kW | 6.3 | 8.0 | 10.0 | |
| | | BTU / h | 21,500 | 27,300 | 34,100 | |
| | Power input | kW | 0.04 | 0.05 | 0.07 | |
| | | Current input | A | 0.40 | 0.50 | 0.70 |
| External finish | | | | Plastic, MUNSELL (1.0Y 9.2/0.2) | Plastic, MUNSELL (1.0Y 9.2/0.2) | Plastic, MUNSELL (1.0Y 9.2/0.2) |
| External dimension HxWxD | | | | mm | 365 x 1170 x 295 | 365 x 1170 x 295 |
| | | | | in. | 14-3/8 x 46-1/16 x 11-5/8 | 14-3/8 x 46-1/16 x 11-5/8 |
| Net weight | | | | kg(lbs) | 20 (44) | 20 (44) |
| Heat exchanger | | | | Cross fin (Aluminum fin and copper tube) | Cross fin (Aluminum fin and copper tube) | Cross fin (Aluminum fin and copper tube) |
| Water Volume | | | | L | 2.0 | 2.0 |
| FAN | Type x Quantity | | | Line flow fan x 1 | Line flow fan x 1 | Line flow fan x 1 |
| | External static press. | Pa | | 0 | 0 | 0 |
| | | mmH ₂ O | | 0 | 0 | 0 |
| | Motor Type | | | DC motor | DC motor | DC motor |
| | Motor output | | | kW | 0.069 | 0.069 |
| | Driving mechanism | | | Direct-driven by motor | Direct-driven by motor | Direct-driven by motor |
| | Airflow rate (Low-High) | m ³ / min | | 18-20 | 18-22 | 18-26 |
| | | L/s | | 300-333 | 300-367 | 300-433 |
| cfm | | 636-706 | 636-777 | 636-918 | | |
| Sound pressure level (measured in anechoic room) (Low-High) | | | | dB <A> | 39-42 | 39-45 |
| Insulation material | | | | Polyethylene sheet | Polyethylene sheet | Polyethylene sheet |
| Air filter | | | | PP honeycomb | PP honeycomb | PP honeycomb |
| Protection device | | | | Fuse | Fuse | Fuse |
| Refrigerant control device | | | | - | - | - |
| Connectable HBC/Hydro unit | | | | CMB-WM-V-AA, CMB-WM-F-AA,CMB- WM-V-BB/CMH-WM-V-A | CMB-WM-V-AA, CMB-WM-F-AA,CMB- WM-V-BB/CMH-WM-V-A | CMB-WM-V-AA, CMB-WM-F-AA,CMB- WM-V-BB/CMH-WM-V-A |
| Water piping diameter *3 *4 | Connection size | Inlet | in. | RC 3/4 screw | RC 1-1/4 screw | RC 1-1/4 screw |
| | | Outlet | in. | RC 3/4 screw | RC 1-1/4 screw | RC 1-1/4 screw |
| | Field pipe size | Inlet | mm I.D | 20 | 30 | 30 |
| | | Outlet | mm I.D | 20 | 30 | 30 |
| Field drain pipe size | | | | mm(in.) | I.D. 16(5/8) | I.D. 16(5/8) |
| Drawing | External | | | RK01N845 | RK01N845 | RK01N845 |
| | Wiring | | | BT79B108 | BT79B108 | BT79B108 |
| | Refrigerant cycle | | | - | - | - |
| Standard attachment | Document | | | Installation Manual, Instruction Book | Installation Manual, Instruction Book | Installation Manual, Instruction Book |
| | Accessory | | | Mount board, Screw, Felt tape, L-shape connection pipe A/B, I-shape connection pipe A/B, Insulation, Tie band | Mount board, Screw, Felt tape, L-shape connection pipe A/B, I-shape connection pipe A, Insulation, Tie band | Mount board, Screw, Felt tape, L-shape connection pipe A/B, I-shape connection pipe A, Insulation, Tie band |
| Optional parts | Drain pump kit | | | PAC-SK19DM-E | PAC-SK19DM-E | PAC-SK19DM-E |
| | Valve kit | *5 | | PAC-SK35VK-E | PAC-SK35VK-E | PAC-SK35VK-E |
| | | 6m Lead wire | | PAC-SK40LW-E | PAC-SK40LW-E | PAC-SK40LW-E |
| | | Attachment plate | | PAC-SK39AP-E | PAC-SK39AP-E | PAC-SK39AP-E |
| Plasma Quad Connect | | | | MAC-100FT-E | MAC-100FT-E | MAC-100FT-E |
| Remarks | | | | * Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. * Due to continuing improvement, above specification may be subject to change without notice. | | |

| Notes: | Unit converter |
|--|---|
| 1.Nominal cooling conditions Indoor: 27°C D.B./19°C W.B. (81°F D.B./66°F W.B.), Outdoor: 35°C D.B. (95°F D.B.) Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.) | BTU/h =kW x 3,412 |
| 2.Nominal heating conditions Indoor: 20°C D.B. (68°F D.B.), Outdoor: 7°C D.B./6°C W.B. (45°F D.B./43°F W.B.) Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.) | cfm =m ³ /min x 35.31 |
| 3.Be sure to install a valve on the water outlet. | lbs =kg/0.4536 |
| 4.Install a strainer (40 mesh or more) on the pipe next to the valve to remove the foreign matters. | |
| 5.Certain restrictions apply to indoor unit combinations. Refer to the section on the valve kit in the chapter "OPTIONAL PARTS" in the DATA BOOK for the restrictions. When the valve kit is installed farther away from the HBC than the distance between the HBC and the WL-model indoor unit, the maximum allowable height difference between the HBC and the valve kit is 15 meters. The maximum allowable piping length between the indoor unit and the valve kit is 5 meters. | |
| *Please group units that operate on 1 branch. | *Above specification data is subject to rounding variation. |

PKFY-WL10, 15, 20, 25VLM-E

Unit: mm

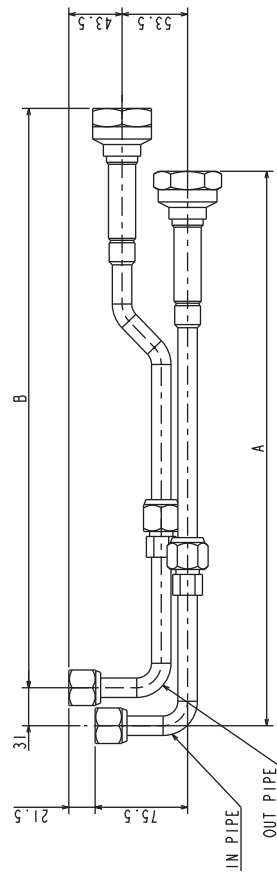


PKFY-WL50, 63, 80VKM-E

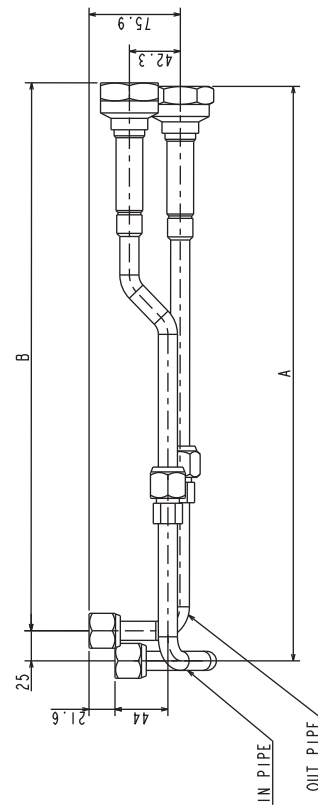
Unit: mm

DETAILS OF WATER PIPE

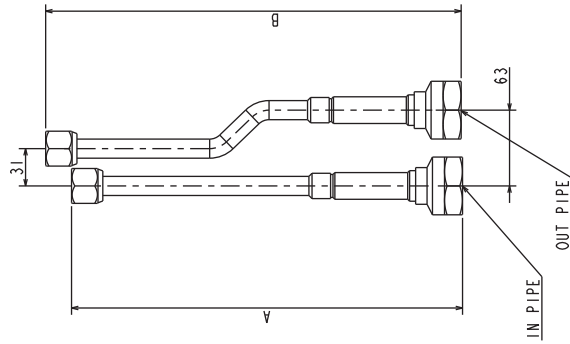
FOR RIGHT PIPING WORK



FOR RIGHT REAR PIPING WORK



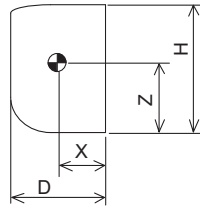
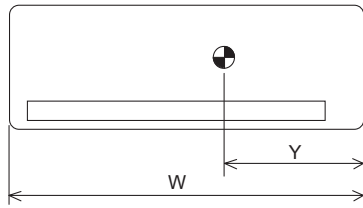
FOR RIGHT BOTTOM PIPING WORK



DIMENSIONAL CHANGE DUE TO JOINT (mm)

| | FOR RIGHT BOTTOM PIPING WORK | | FOR RIGHT REAR PIPING WORK | | FOR RIGHT REAR PIPING WORK | |
|------------------|------------------------------|-------|----------------------------|-------|----------------------------|-------|
| | A | B | A | B | A | B |
| A/B | | | | | | |
| WL50(RC3/4) | 319 | 339.4 | 446.6 | 466.9 | 471.5 | 449.4 |
| WL63/80(RC1-1/4) | 325 | 345.4 | 452.6 | 472.9 | 477.5 | 455.4 |

PKFY-WL-VLM-E, VKM-E

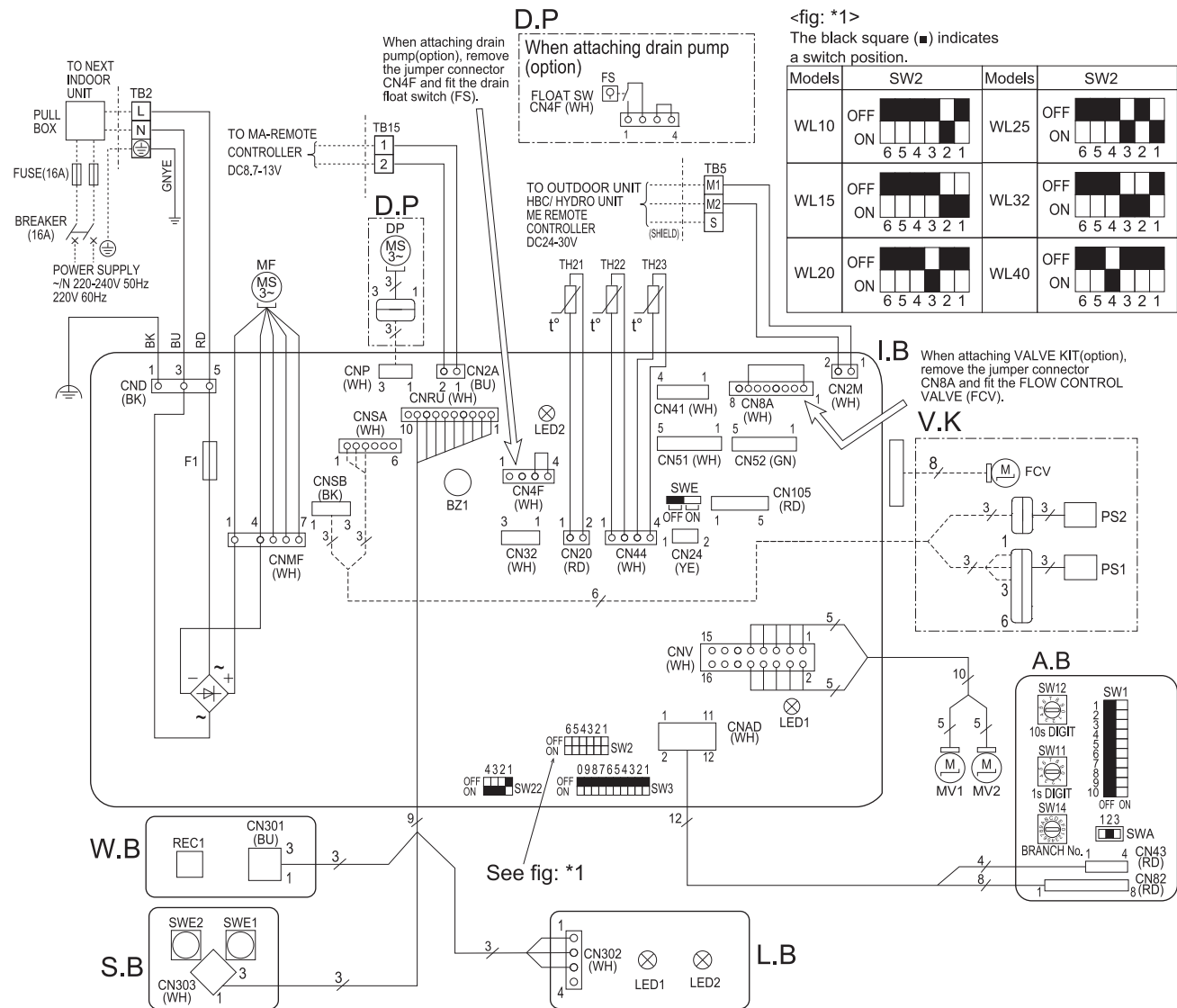


| Model | W | D | H | (mm) | | |
|----------------|------|-----|-----|------|-----|-----|
| | | | | X | Y | Z |
| PKFY-WL10VLM-E | 773 | 237 | 299 | 130 | 340 | 150 |
| PKFY-WL15VLM-E | 773 | 237 | 299 | 130 | 340 | 150 |
| PKFY-WL20VLM-E | 773 | 237 | 299 | 130 | 340 | 150 |
| PKFY-WL25VLM-E | 773 | 237 | 299 | 130 | 340 | 150 |
| PKFY-WL32VLM-E | 898 | 237 | 299 | 120 | 390 | 150 |
| PKFY-WL40VLM-E | 898 | 237 | 299 | 120 | 390 | 150 |
| PKFY-WL50VKM-E | 1170 | 295 | 365 | 190 | 460 | 190 |
| PKFY-WL63VKM-E | 1170 | 295 | 365 | 190 | 460 | 190 |
| PKFY-WL80VKM-E | 1170 | 295 | 365 | 190 | 460 | 190 |

PKFY-WL-VLM-E, VKM-E

PKFY-WL10, 15, 20, 25, 32, 40VLM-E

PKFY-WL-VLM-E, VKM-E



<fig: *1>
The black square (■) indicates a switch position.

| Models | SW2 | Models | SW2 |
|--------|----------------------|--------|----------------------|
| WL10 | OFF ON [SW2 diagram] | WL25 | OFF ON [SW2 diagram] |
| WL15 | OFF ON [SW2 diagram] | WL32 | OFF ON [SW2 diagram] |
| WL20 | OFF ON [SW2 diagram] | WL40 | OFF ON [SW2 diagram] |

See fig: *1

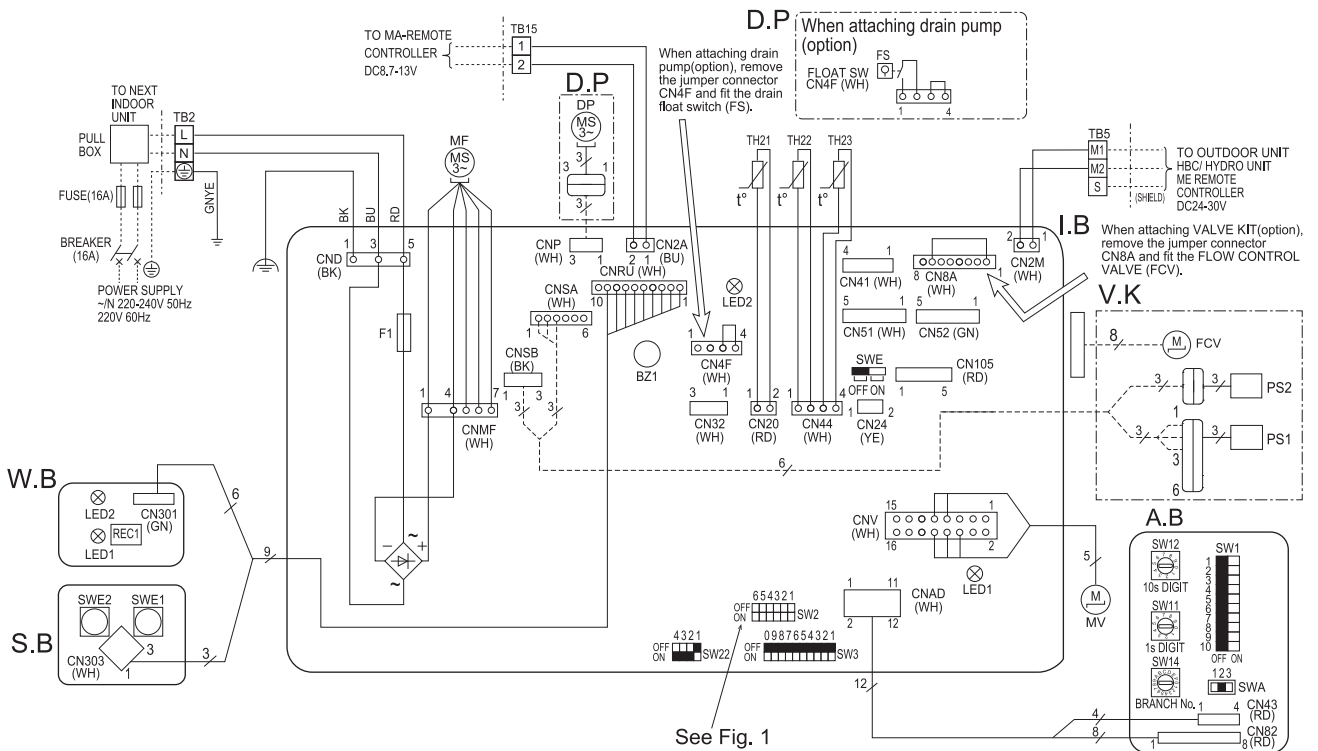
- NOTES:
- At servicing for outdoor unit, always follow the wiring diagram of outdoor unit.
 - In case of using MA-Remote controller, please connect to TB15. (Remote controller wire is non-polar.)
 - In case of using M-NET, please connect to TB5. (Transmission line is non-polar.)
 - Symbol [S] of TB5 is the shield wire connection.
 - Symbols used in wiring diagram above are, [] : terminal block, [] : connector.
 - The setting of the SW2 dip switches differs in the capacity. For the detail, refer to the fig: *1.

| SYMBOL | NAME | SYMBOL | NAME |
|--------|-------------------------------------|--------|---|
| I.B | INDOOR CONTROLLER BOARD | TH21 | THERMISTOR ROOM TEMP. DETECTION (0°C/15kΩ, 25°C/5.4kΩ) |
| CN32 | CONNECTOR REMOTE SWITCH | TH22 | THERMISTOR PIPE TEMP. DETECTION / INLET WATER (0°C/15kΩ, 25°C/5.4kΩ) |
| CN51 | CENTRALLY CONTROL | TH23 | THERMISTOR PIPE TEMP. DETECTION / OUTLET WATER (0°C/15kΩ, 25°C/5.4kΩ) |
| CN52 | REMOTE INDICATION | | |
| CN105 | IT TERMINAL | | |
| BZ1 | BUZZER | A.B | ADDRESS BOARD |
| F1 | FUSE (T3.15A/250V) | SW1 | SWITCH MODE SELECTION |
| LED1 | POWER SUPPLY (I.B) | SW11 | SWITCH ADDRESS SETTING 1s DIGIT |
| LED2 | POWER SUPPLY (MA-REMOTE CONTROLLER) | SW12 | SWITCH ADDRESS SETTING 10s DIGIT |
| SW2 | SWITCH CAPACITY CODE | SW14 | SWITCH BRANCH No. |
| SW3 | SWITCH MODE SELECTION | S.B | SWITCH BOARD |
| SW22 | SWITCH PAIR NO. SETTING | SWE1 | SWITCH EMERGENCY OPERATION(HEAT) |
| SWE | SWITCH FAN-DRAIN PUMP (TEST MODE) | SWE2 | SWITCH EMERGENCY OPERATION(COOL) |
| MF | FAN MOTOR | W.B | PCB FOR WIRELESS REMOTE CONTROLLER |
| MV1 | VANE MOTOR (UPPER) | REC1 | RECEIVING UNIT |
| MV2 | VANE MOTOR (LOWER) | L.B | LED BOARD |
| TB2 | TERMINAL POWER SUPPLY | LED1 | LED(OPERATING INDICATOR:GREEN) |
| TB5 | BLOCK TRANSMISSION | LED2 | LED(STANDBY FOR HEATING : ORANGE) |
| TB15 | TERMINAL MA-REMOTE CONTROLLER | D.P | DRAIN PUMP KIT (OPTION) |
| V.K | VALVE KIT (OPTION) | FS | DRAIN FLOAT SWITCH |
| FCV | FLOW CONTROL VALVE | DP | DRAIN PUMP |
| PS1 | PRESSURE SENSOR 1 (INLET WATER) | | |
| PS2 | PRESSURE SENSOR 2 (OUTLET WATER) | | |

LED on indoor controller board for service

| Symbol | Meaning | Function |
|--------|---------------------------------------|---|
| LED1 | Main power supply | Main power supply (Indoor unit:220-240V) Power on → lamp is lit |
| LED2 | Power supply for MA-Remote controller | Power supply for MA-Remote controller on → lamp is lit |

PKFY-WL50, 63, 80VKM-E



See Fig. 1

[LEGEND]

| SYMBOL | NAME | SYMBOL | NAME |
|--------|-------------------------------------|--------|--|
| I.B | INDOOR CONTROLLER BOARD | TH21 | THERMISTOR ROOM TEMP. DETECTION (0°C/15kΩ, 25°C/5.4kΩ) |
| CN32 | CONNECTOR REMOTE SWITCH | TH22 | PIPE TEMP. DETECTION / INLET WATER (0°C/15kΩ, 25°C/5.4kΩ) |
| CN51 | CENTRALLY CONTROL | TH23 | PIPE TEMP. DETECTION / OUTLET WATER (0°C/15kΩ, 25°C/5.4kΩ) |
| CN52 | REMOTE INDICATION | | |
| CN105 | IT TERMINAL | | |
| BZ1 | BUZZER | A.B | ADDRESS BOARD |
| F1 | FUSE (T3.15AL250V) | SW1 | SWITCH MODE SELECTION |
| LED1 | POWER SUPPLY (I.B) | SW11 | ADDRESS SETTING 1s DIGIT |
| LED2 | POWER SUPPLY (MA-REMOTE CONTROLLER) | SW12 | ADDRESS SETTING 10s DIGIT |
| SW2 | SWITCH CAPACITY CODE | SW14 | BRANCH No. |
| SW3 | MODE SELECTION | S.B | SWITCH BOARD |
| SW22 | PAIR NO. SETTING | SWE1 | EMERGENCY OPERATION(HEAT) |
| SWE | FAN-DRAIN PUMP (TEST MODE) | SWE2 | EMERGENCY OPERATION(COOL) |
| MF | FAN MOTOR | W.B | PCB FOR WIRELESS REMOTE CONTROLLER |
| MV | VANE MOTOR | LED1 | LED(OPERATION INDICATOR:GREEN) |
| TB2 | TERMINAL POWER SUPPLY | LED2 | LED(PREPARATION FOR HEATING : ORANGE) |
| TB5 | BLOCK TRANSMISSION | REC1 | RECEIVING UNIT |
| TB15 | MA-REMOTE CONTROLLER | D.P | DRAIN PUMP KIT (OPTION) |
| V.K | VALVE KIT (OPTION) | FS | DRAIN FLOAT SWITCH |
| FCV | FLOW CONTROL VALVE | DP | DRAIN PUMP |
| PS1 | PRESSURE SENSOR 1 (INLET WATER) | | |
| PS2 | PRESSURE SENSOR 2 (OUTLET WATER) | | |

<Fig.1> The black square(■) indicates a switch position.

| Models | SW2 |
|--------|----------------|
| WL50 | OFF ON 654321 |
| WL63 | OFF ON 654321 |
| WL80 | OFF ON 654321 |

NOTES:

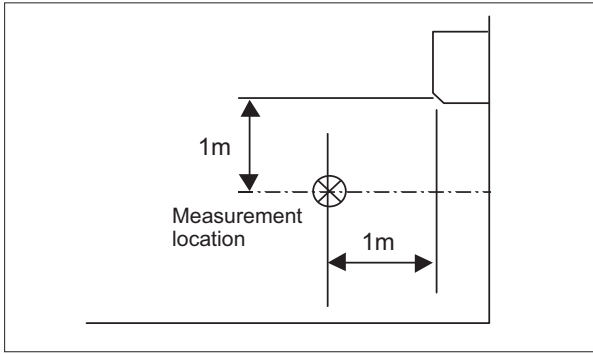
- At servicing for outdoor unit, always follow the wiring diagram of outdoor unit.
- In case of using MA-Remote controller, please connect to TB15. (Remote controller wire is non-polar.)
- In case of using M-NET, please connect to TB5. (Transmission line is non-polar.)
- Symbol [S] of TB5 is the shield wire connection.
- Symbols used in wiring diagram above are, : terminal block, : connector.
- The setting of the SW2 dip switches differs in the capacity. For the detail, refer to the Fig. 1.

LED on indoor controller board for service

| Symbol | Meaning | Function |
|--------|---------------------------------------|--|
| LED1 | Main power supply | Main power supply (Indoor unit:220-240V) Power on → lamp is lit |
| LED2 | Power supply for MA-Remote controller | Power supply for MA-Remote controller Power on → lamp is lit |

5-1. Sound levels

Wall mounted

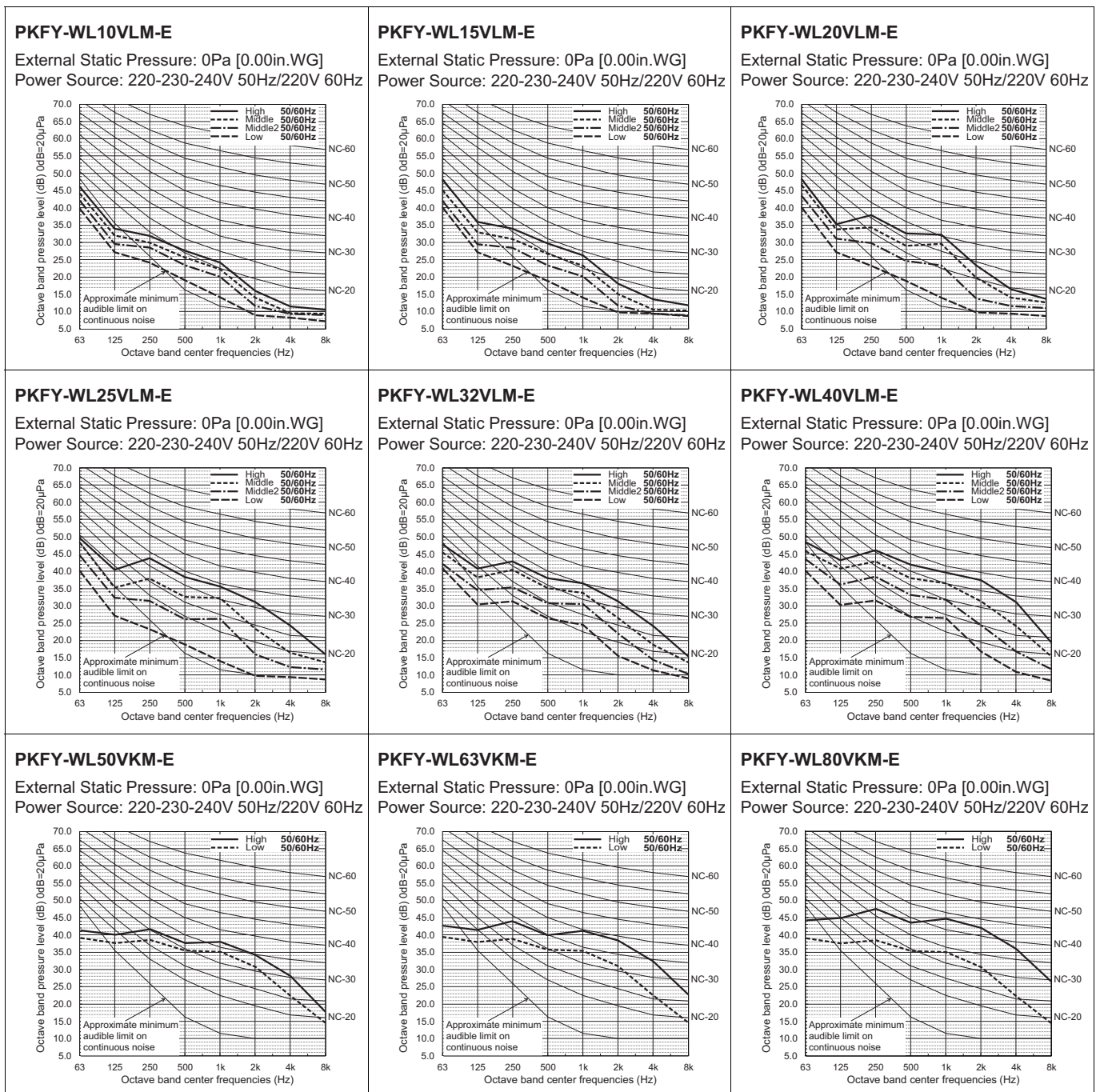


Sound level at anechoic room: Low-(Middle2-Middle1)-High

| Model | Sound level dB (A) |
|----------------|--------------------|
| PKFY-WL10VLM-E | 22-26-28-30 |
| PKFY-WL15VLM-E | 22-26-29-32 |
| PKFY-WL20VLM-E | 22-28-33-36 |
| PKFY-WL25VLM-E | 22-30-36-41 |
| PKFY-WL32VLM-E | 29-34-38-41 |
| PKFY-WL40VLM-E | 30-36-41-45 |
| PKFY-WL50VKM-E | 39-42 |
| PKFY-WL63VKM-E | 39-45 |
| PKFY-WL80VKM-E | 39-49 |

* Measured in anechoic room.

5-2. NC curves

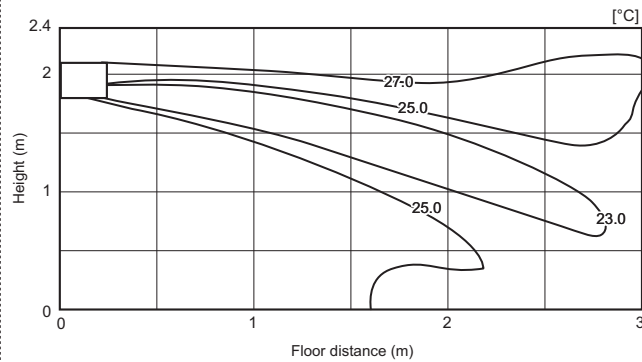


PKFY-WL-VLM-E, VKM-E

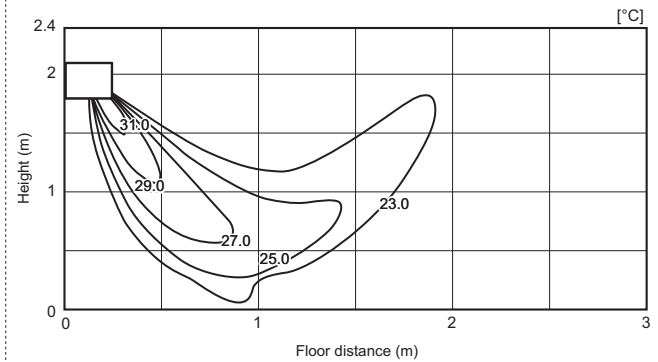
6-1. Temperature distributions

PKFY-WL10VLM-E

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Horizontal air flow

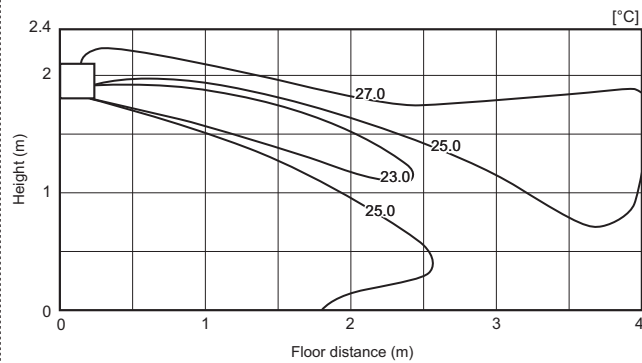


<Heating mode>
Downward air flow

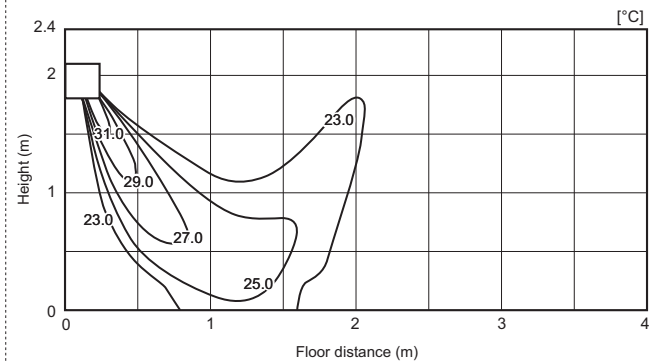


PKFY-WL15VLM-E

<Cooling mode>
Horizontal air flow

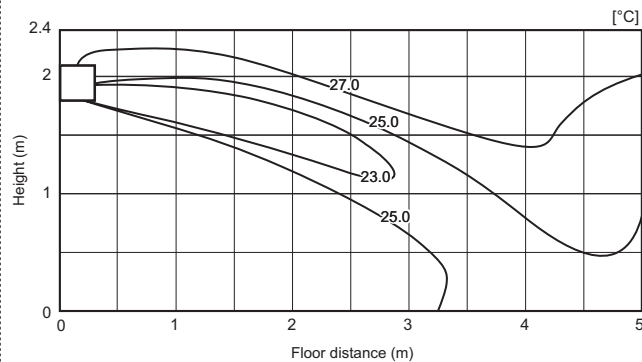


<Heating mode>
Downward air flow

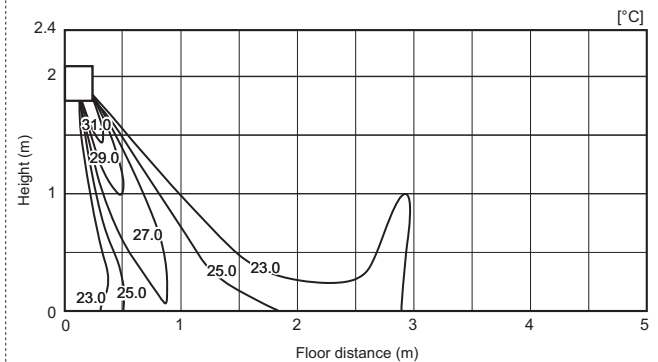


PKFY-WL20VLM-E

<Cooling mode>
Horizontal air flow



<Heating mode>
Downward air flow

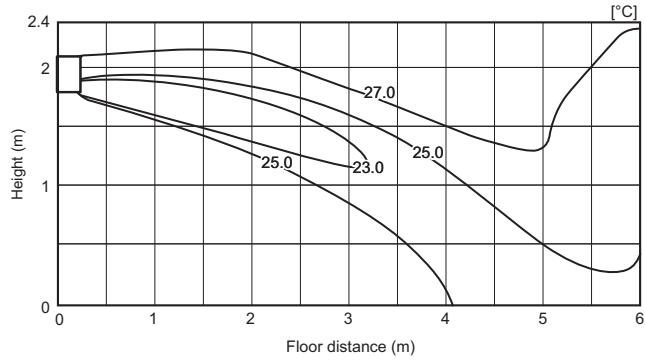


Note : These figures show typical temperature distributions in the conditions above. In the actual installation, they may differ from these figures under the influence of air temperature conditions, ceiling height, cooling/heating load, obstacles, etc.

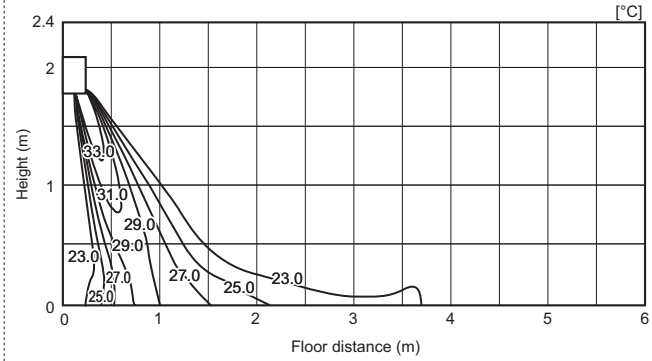
PKFY-WL-VLM-E, VKM-E

PKFY-WL25VLM-E

<Cooling mode>
Horizontal air flow

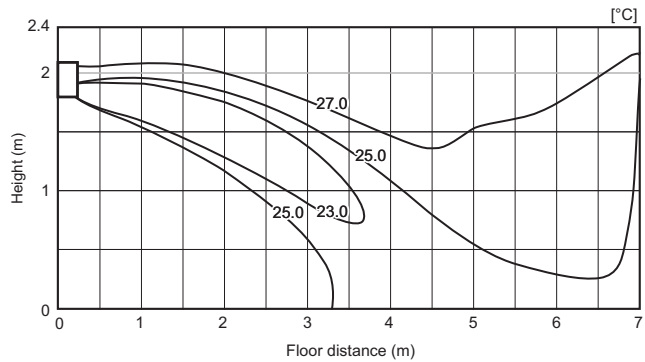


<Heating mode>
Downward air flow

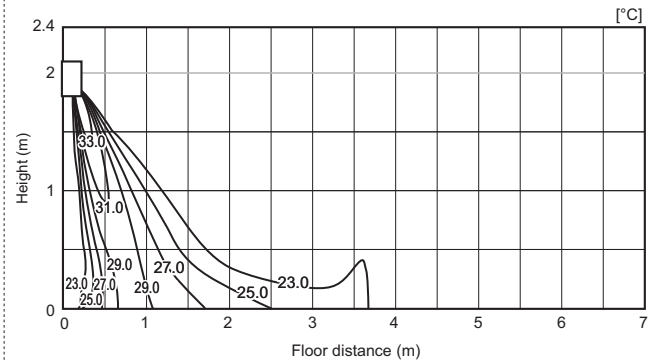


PKFY-WL32VLM-E

<Cooling mode>
Horizontal air flow

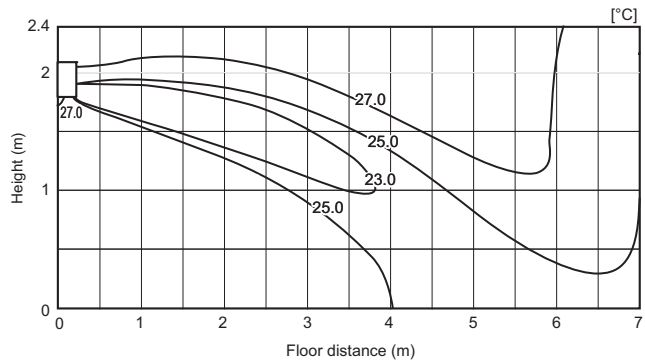


<Heating mode>
Downward air flow

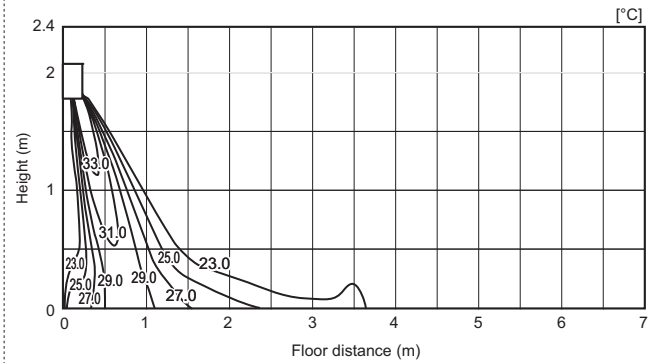


PKFY-WL40VLM-E

<Cooling mode>
Horizontal air flow



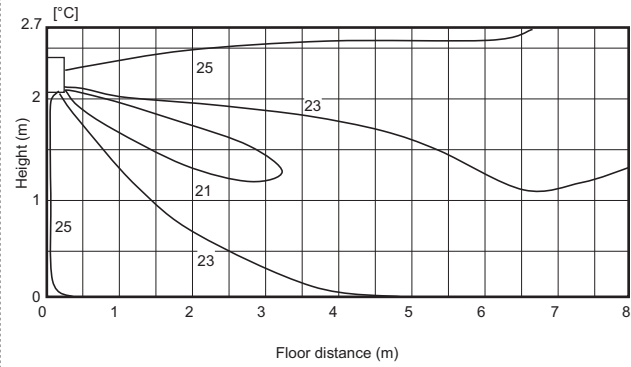
<Heating mode>
Downward air flow



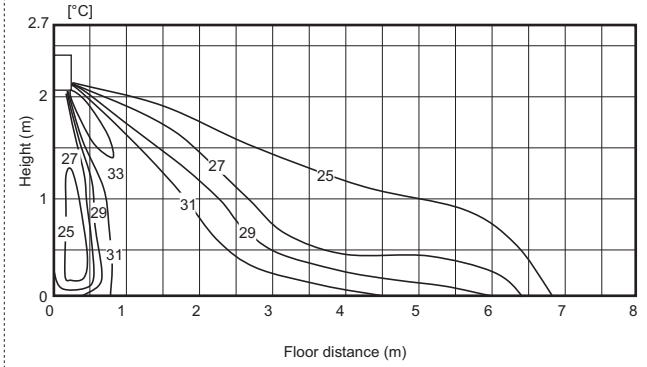
Note : These figures show typical temperature distributions in the conditions above. In the actual installation, they may differ from these figures under the influence of air temperature conditions, ceiling height, cooling/heating load, obstacles, etc.

PKFY-P50, 63, 80VKM-E

<Cooling mode>
Horizontal air flow



<Heating mode>
Downward air flow

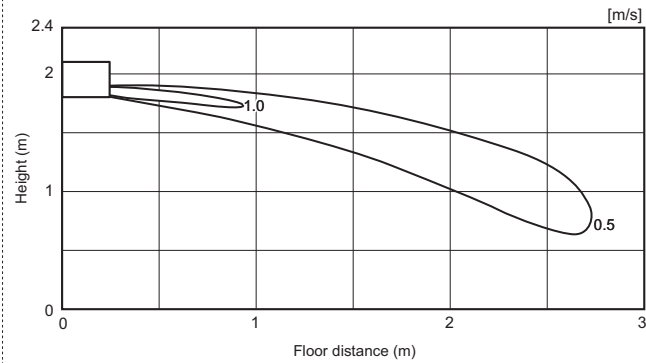


Note : These figures show typical temperature distributions in the conditions above. In the actual installation, they may differ from these figures under the influence of air temperature conditions, ceiling height, cooling/heating load, obstacles, etc.

6-2. Airflow distributions

PKFY-WL10VLM-E

<Cooling mode>
Horizontal air flow



<Heating mode>
Downward air flow

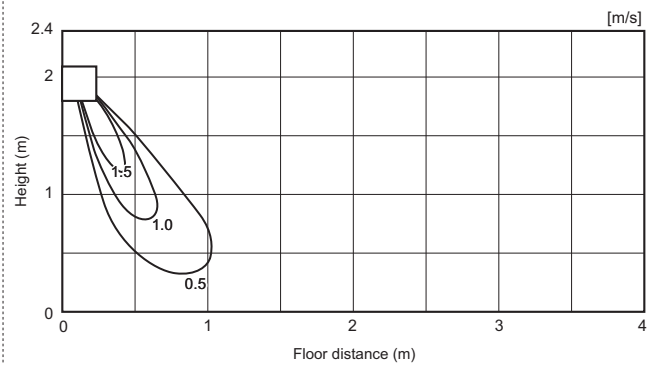


PKFY-WL15VLM-E

<Cooling mode>
Horizontal air flow

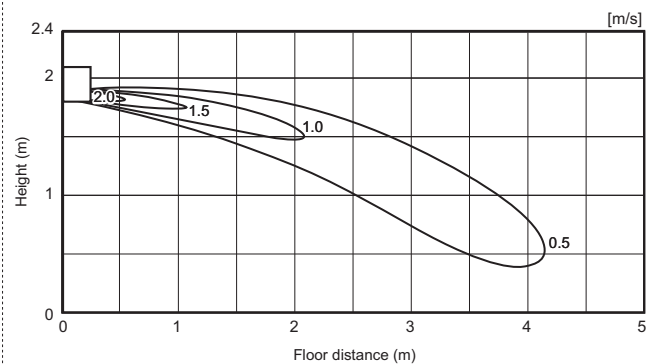


<Heating mode>
Downward air flow

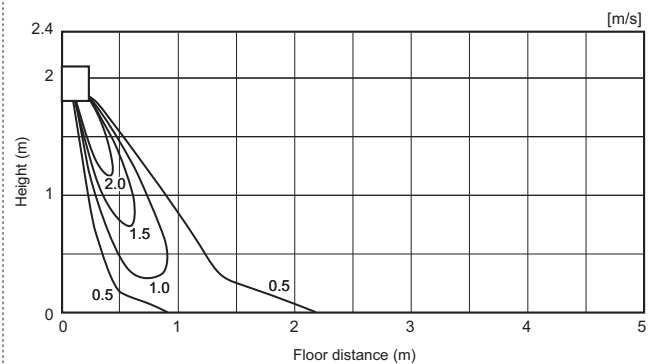


PKFY-WL20VLM-E

<Cooling mode>
Horizontal air flow



<Heating mode>
Downward air flow

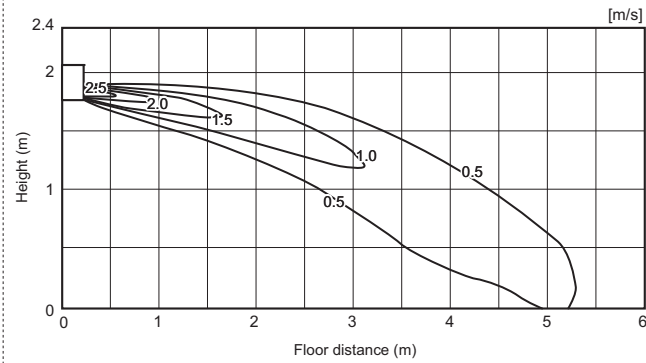


Note : These figures show typical airflow distributions in the conditions above. In the actual installation, they may differ from these figures under the influence of air temperature conditions, ceiling height, cooling/heating load, obstacles, etc.

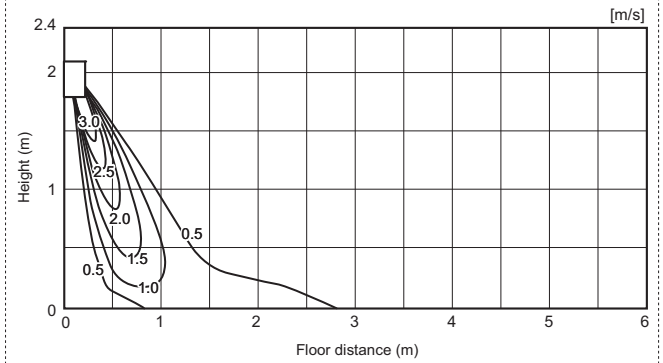
PKFY-WL-VLM-E, VKM-E

PKFY-WL25VLM-E

<Cooling mode>
Horizontal air flow

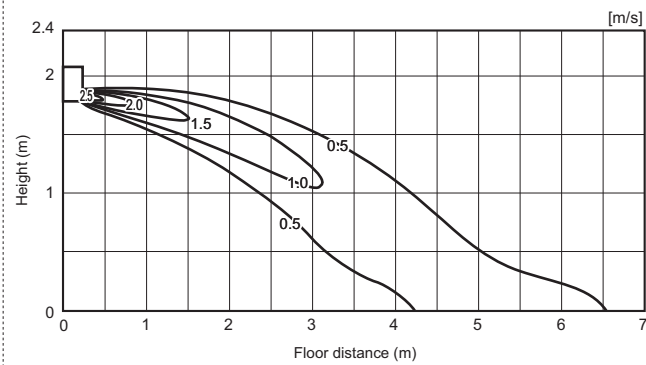


<Heating mode>
Downward air flow

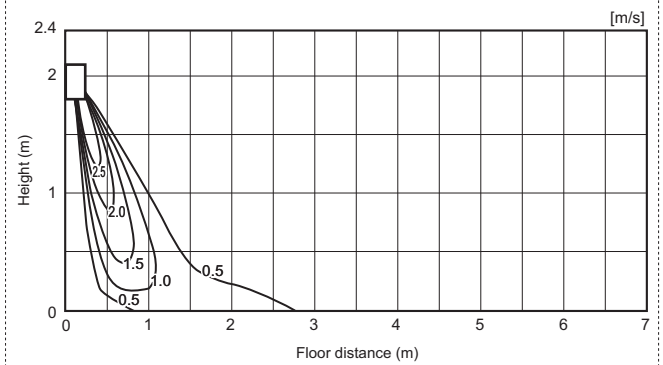


PKFY-WL32VLM-E

<Cooling mode>
Horizontal air flow

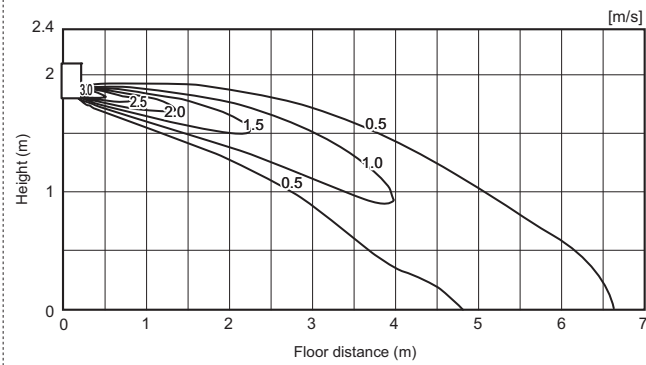


<Heating mode>
Downward air flow

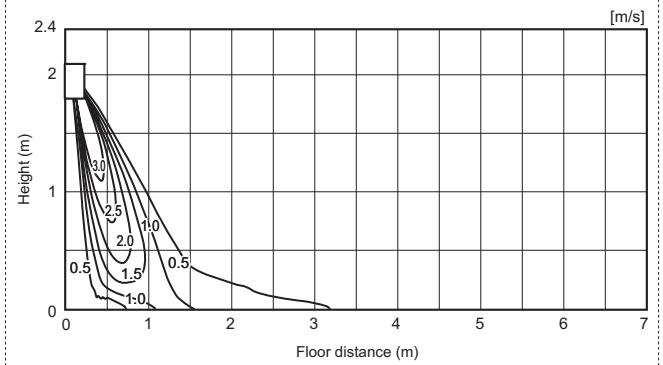


PKFY-WL40VLM-E

<Cooling mode>
Horizontal air flow



<Heating mode>
Downward air flow

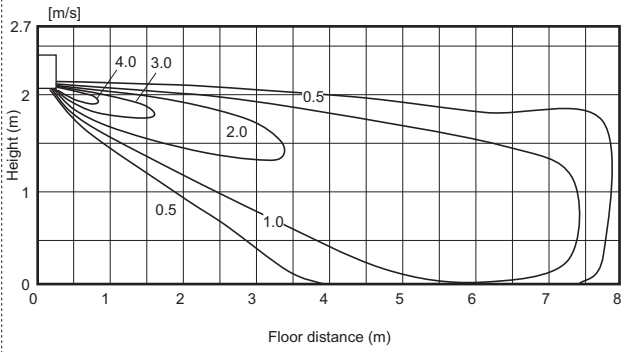


Note : These figures show typical airflow distributions in the conditions above. In the actual installation, they may differ from these figures under the influence of air temperature conditions, ceiling height, cooling/heating load, obstacles, etc.

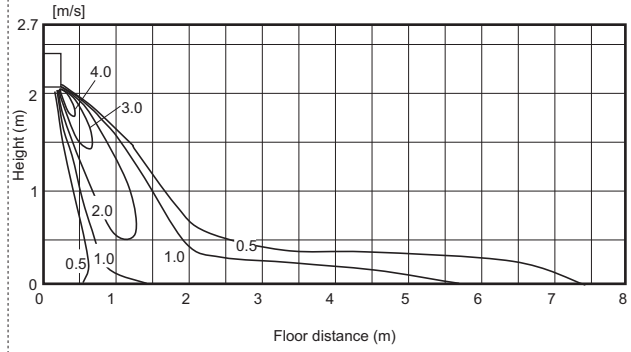
PKFY-WL-VLM-E, VKM-E

PKFY-P50, 63, 80VKM-E

<Fan mode>
Horizontal air flow



<Fan mode>
Downward air flow



Note : These figures show typical airflow distributions in the conditions above. In the actual installation, they may differ from these figures under the influence of air temperature conditions, ceiling height, cooling/heating load, obstacles, etc.

PKFY-WL-VLM-E, VKM-E

7. ELECTRICAL CHARACTERISTICS

Wall mounted

Symbols: MCA (Max.Circuit Amps =1.25xFLA), FLA (Full Load Amps)
IFM (Indoor Fan Motor), Output (Fan motor rated output)

| | Power supply | | IFM | | |
|----------------|----------------------------|--------------------------|--------|-------------|--------|
| | Volts/Hz | Range +-10% | MCA(A) | Output (kW) | FLA(A) |
| PKFY-WL10VLM-E | 220-240V/50Hz 220V/60Hz | Max.: 264V Min.: 198V | 0.25 | 0.030 | 0.20 |
| PKFY-WL15VLM-E | | | 0.25 | 0.030 | 0.20 |
| PKFY-WL20VLM-E | | | 0.32 | 0.030 | 0.25 |
| PKFY-WL25VLM-E | | | 0.44 | 0.030 | 0.35 |
| PKFY-WL32VLM-E | | | 0.44 | 0.030 | 0.35 |
| PKFY-WL40VLM-E | | | 0.57 | 0.030 | 0.45 |
| PKFY-WL50VKM-E | | | 0.58 | 0.069 | 0.46 |
| PKFY-WL63VKM-E | | | 0.70 | 0.069 | 0.56 |
| PKFY-WL80VKM-E | | | 0.95 | 0.069 | 0.76 |

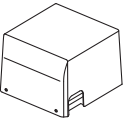

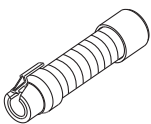
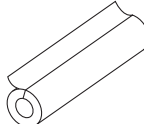
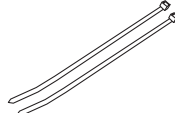
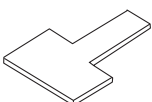
PKFY-WL-VLM-E, VKM-E

8-1. Optional parts line up for the Indoor unit

| | Description | Model |
|---------------|---------------------|--------------|
| PKFY-WL-VLM-E | Drain pump kit | PAC-SK01DM-E |
| | Valve kit | PAC-SK35VK-E |
| | Attachment plate | PAC-SK39AP-E |
| | 6m Lead wire | PAC-SK40LW-E |
| | Plasma Quad Connect | MAC-100FT-E |
| PKFY-WL-VKM-E | Drain pump kit | PAC-SK19DM-E |
| | Valve kit | PAC-SK35VK-E |
| | Attachment plate | PAC-SK39AP-E |
| | 6m Lead wire | PAC-SK40LW-E |
| | Plasma Quad Connect | MAC-100FT-E |

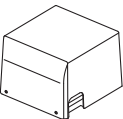

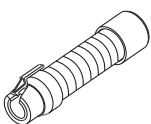
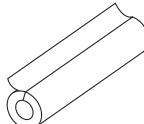
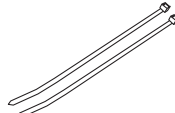
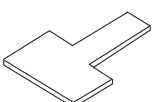
8-2. Drain pump

PAC-SK01DM-E

| | | | | | |
|---|---|---|---|--|---|
| If drain water can not flow out the Indoor unit by gravity and gradient, a Drain-pump for draining is needed. Drain pump PAC-SK01DM-E can pump water up to 850mm [33-1/2 in.] high from the drain pan. | | | | | |
| Item | ① Drain pump | ② Screw | ③ Drain hose | ④ Flexible hose cover | ⑤ Band |
| Quantity | 1 | (M4×16)×1, (M4×35)×6 | 1 | 1 | 2 |
| Shape |  |  |  |  |  |
| Item | ⑥ Paper gauge | | | | |
| Quantity | 1 | | | | |
| Shape |  | | | | |

Detailed installation information should be referred to its Installation Manual.

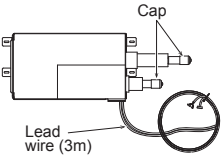
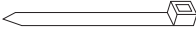
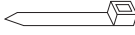

PAC-SK19DM-E

| | | | | | |
|---|---|---|---|--|---|
| If drain water can not flow out the Indoor unit by gravity and gradient, a Drain-pump for draining is needed. Drain pump PAC-SK19DM-E can pump water up to 850mm [33-1/2 in.] high from the drain pan. | | | | | |
| Item | ① Drain pump | ② Screw | ③ Drain hose | ④ Flexible hose cover | ⑤ Band |
| Quantity | 1 | (M4×16)×1, (M4×35)×6 | 1 | 1 | 2 |
| Shape |  |  |  |  |  |
| Item | ⑥ Paper gauge | | | | |
| Quantity | 1 | | | | |
| Shape |  | | | | |

Detailed installation information should be referred to its Installation Manual.

8-3. Valve kit

Valve kit is necessary for using HVRF-Y system
 In an HVRF-R2 system, if a valve kit is connected to any of the WL indoor units, all other indoor units must also have a valve.
 The table below summarizes the connectability of different combinations of indoor units.

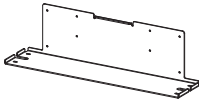
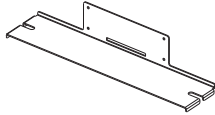
| | | | | |
|----------|---|---|--|---|
| Item | VALVE KIT | Band (large) | Band (small) | Screw |
| Quantity | 1 | 1 | 1 | 8 |
| Shape |  |  |  |  |

| Outdoor Unit | Indoor Unit | | | Connection |
|----------------|-------------|-----|----|-----------------|
| | A | B | C | |
| HVRF-R2 System | WLV | WLV | - | Connectable |
| | WLV | W | - | Connectable |
| | WLV | WL | - | Not connectable |
| | WLV | WP | - | Not connectable |
| | WLV | WL | W | Not connectable |
| | WLV | WL | WP | Not connectable |
| | WLV | W | WP | Not connectable |
| | WL | WL | - | Connectable |
| | WL | WP | - | Connectable |
| | WL | W | - | Not connectable |
| | WL | WP | W | Not connectable |
| | W | WP | - | Not connectable |

WLV = (E)WL-Type (With an optional valve kit)
 WL = (E)WL-Type (Without an optional valve kit)
 WP = WP-Type (Without a built-in valve and not compatible with the optional valve kit)
 W = W-Type (With a built-in valve)

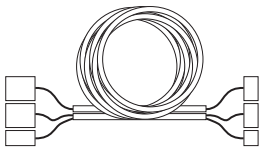
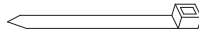
8-4. Attachment plate

When installing the valve kit on the ceiling plate or hanging it from the ceiling, the use of an attachment plate (PAC-SK39AP-E) is recommended.

| | | |
|----------|---|---|
| Item | Attachment-1 | Attachment-2 |
| Quantity | 1 | 1 |
| Shape |  |  |

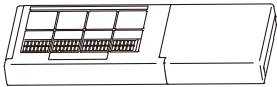


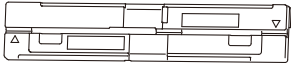

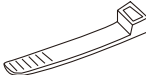

8-5. 6m Lead wire

The lead wire attached to the valve kit is 3 meters. If a longer lead wire is needed, use an optional part PAC-SK40LW-E (6m).
 Note that the maximum allowable piping distance between the valve kit and the indoor unit is 5 meters.

| | | |
|----------|---|---|
| Item | Lead wire (6m) | Band (large) |
| Quantity | 1 | |
| Shape |  |  |

8-6. Plasma Quad Connect

MAC-100FT-E

| | | | |
|----------|---|---|---|
| Item | Plasma Quad Connect (with connecting cable) | Installation plate | Fixing screw for Plasma Quad Connect and Installation plate 4 × 25 mm |
| Quantity | 1 | 1 | 5 |
| Shape |  |  |  |
| Item | Spacer Note: The spacer is used as packaging material. | Mounting cord clamp | Cable tie |
| Quantity | 1 | 1 | 1 |
| Shape |  |  |  |
| Item | Screw for Mounting cord clamp 4 × 16 (Use when joining room air conditioner parts) | | |
| Quantity | 1 | | |
| Shape |  | | |

Detailed installation information should be referred to its Installation Manual.

PKFY-WL-VLM-E, VKM-E

⚠ Warning

- Do not use refrigerant other than the type indicated in the manuals provided with the unit and on the nameplate.
 - Doing so may cause the unit or pipes to burst, or result in explosion or fire during use, repair, or at the time of disposal of the unit.
 - It may also be in violation of applicable laws.
 - MITSUBISHI ELECTRIC CORPORATION cannot be held responsible for malfunctions or accidents resulting from the use of the wrong type of refrigerant.
- Our air conditioning equipment and heat pumps contain a fluorinated greenhouse gas, R410A/R32.

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