MITSUBISHI ELECTRIC

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AIR CONDITIONING SYSTEMS

HYBRID CITY MULTI

# DATA BOOK

MODEL

# PURY-M200-500YNW-A1 (-BS)
# PURY-EM200-500YNW-A1 (-BS)

# GENERAL LINE-UP

## Heat Recovery R2-Series

PURY-M200YNW-A1(-BS) PURY-M250YNW-A1(-BS)
PURY-M300YNW-A1(-BS)

**8, 10, 12HP**

PURY-M350YNW-A1(-BS) PURY-M400YNW-A1(-BS)
PURY-M450YNW-A1(-BS)

**14, 16, 18HP**

PURY-M500YNW-A1(-BS)

**20HP**

## Heat Recovery High efficiency R2-Series

PURY-EM200YNW-A1(-BS) PURY-EM250YNW-A1(-BS)
PURY-EM300YNW-A1(-BS)

**8, 10, 12HP**

PURY-EM350YNW-A1(-BS) PURY-EM400YNW-A1(-BS)
PURY-EM450YNW-A1(-BS)

**14, 16, 18HP**

PURY-EM500YNW-A1(-BS)

**20HP**

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## PURY-M-YNW-A1, PURY-EM-YNW-A1

| Model | | | PURY-M200YNW-A1 (-BS) |
|---|---|---|---|
| Power source | | | 3-phase 4-wire 380-400-415 V 50/60 Hz |
| Cooling capacity *1 (Nominal) | | kW | 22.4 |
| | | kcal/h | 20,000 |
| | | BTU/h | 76,400 |
| | Power input | kW | 5.53 |
| | Current input | A | 9.3-8.8-8.5 |
| | EER | kW/kW | 4.05 |
| Temp. range of cooling *3 | Indoor | W.B. | 15.0~24.0°C (59~75°F) |
| | Outdoor | D.B. | -5.0~52.0°C (23~126°F) |
| Heating capacity *2 (Nominal) | | kW | 25.0 |
| | | kcal/h | 21,500 |
| | | BTU/h | 85,300 |
| | Power input | kW | 6.39 |
| | Current input | A | 10.7-10.2-9.8 |
| | COP | kW/kW | 3.91 |
| Temp. range of heating *3 | Indoor | D.B. | 15.0~27.0°C (59~81°F) |
| | Outdoor | W.B. | -20.0~15.5°C (-4~60°F) |
| Indoor unit connectable | Total capacity | | 50~150% of outdoor unit capacity |
| | Model/Quantity | | WP10~125, W10~125/1~30 |
| Sound pressure level (measured in anechoic room) *4 | | dB <A> | 59.0/59.0 |
| Sound power level (measured in anechoic room) *4 | | dB <A> | 76.0/78.0 |
| Refrigerant piping diameter | High pressure | mm (in.) | 15.88 (5/8) Brazed |
| | Low pressure | mm (in.) | 19.05 (3/4) Brazed |
| FAN | Type x Quantity | | Propeller fan x 1 |
| | Air flow rate | $m^3$/min | 170 |
| | | L/s | 2,833 |
| | | cfm | 6,003 |
| | Control, Driving mechanism | | Inverter-control, Direct-driven by motor |
| | Motor output | kW | 0.92 x 1 |
| *5 | External static press. | | 0 Pa (0 $mmH_2O$) |
| Compressor | Type | | Inverter scroll hermetic compressor |
| | Manufacture | | AC&R Works, MITSUBISHI ELECTRIC CORPORATION |
| | Starting method | | Inverter |
| | Motor output | kW | 4.6 |
| | Case heater | kW | - (- V) |
| | Lubricant | | MEL46EH |
| External finish | | | Pre-coated galvanized steel sheets (+powder coating for -BS type)<br><MUNSELL 5Y 8/1 or similar> |
| External dimension H x W x D | | mm | 1,858 (1,798 without legs) x 920 x 740 |
| | | in. | 73-3/16 (70-13/16 without legs) x 36-1/4 x 29-3/16 |
| Protection devices | High pressure protection | | High pressure sensor, High pressure switch at 4.15 MPa (601 psi) |
| | Inverter circuit (COMP./FAN) | | Over-heat protection, Over-current protection |
| | Compressor | | - |
| | Fan motor | | - |
| Refrigerant | Type x original charge | | R32 x 5.2 kg (12 lbs) |
| | Control | | HBC controller |
| Net weight | | kg (lbs) | 227 (501) |
| Heat exchanger | | | Salt-resistant cross fin & copper tube |
| HIC circuit (HIC: Heat Inter-Changer) | | | - |
| Defrosting method | | | Auto-defrost mode (Reversed refrigerant cycle, Hot gas) |
| Drawing | External | | WKL94T598 |
| | Wiring | | WKE94G769 |
| Standard attachment | Document | | Installation Manual |
| | Accessory | | - |
| Optional parts | | | Main HBC controller: CMB-WM108,1016V-AA<br>Sub HBC controller: CMB-WM108,1016V-AB |
| Remarks | | | Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.<br>Due to continuing improvement, above specifications may be subject to change without notice. |

Notes:

1.Nominal cooling conditions (subject to JIS B8615-2)
Indoor: 27°CD.B./19°CW.B. (81°FD.B./66°FW.B.), Outdoor: 35°CD.B./24°CW.B. (95°FD.B./75°FW.B.)
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
2.Nominal heating conditions (subject to JIS B8615-2)
Indoor: 20°CD.B. (68°FD.B.), Outdoor: 7°CD.B./6°CW.B. (45°FD.B./43°FW.B.)
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
3.-5°CD.B. (23°FD.B.)/-6°CW.B. (21°FW.B.) to 21°CD.B. (70°FD.B.)/15.5°CW.B. (60°FW.B.)
with cooling/heating mixed operation.
4.Cooling mode/Heating mode
5.External static pressure option is available (30 Pa, 60 Pa, 80 Pa/3.1 $mmH_2O$, 6.1 $mmH_2O$, 8.2 $mmH_2O$).
Consult your dealer about the specification when setting External static pressure option.
6.R32 is flammable, and certain restrictions apply to the installation of units.
When installing new units, moving the existing units, or changing the layout of the room, ensure that installation restrictions are observed.
For detail, refer to the section in the Databook on installation restrictions.

| 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



| Model | | | PURY-M250YNW-A1 (-BS) |
|---|---|---|---|
| Power source | | | 3-phase 4-wire 380-400-415 V 50/60 Hz |
| Cooling capacity *1 (Nominal) | | kW | 28.0 |
| | | kcal/h | 25,000 |
| | | BTU/h | 95,500 |
| | Power input | kW | 8.40 |
| | Current input | A | 14.1-13.4-12.9 |
| | EER | kW/kW | 3.33 |
| Temp. range of cooling *3 | Indoor | W.B. | 15.0~24.0°C (59~75°F) |
| | Outdoor | D.B. | -5.0~52.0°C (23~126°F) |
| Heating capacity *2 (Nominal) | | kW | 31.5 |
| | | kcal/h | 27,100 |
| | | BTU/h | 107,500 |
| | Power input | kW | 9.15 |
| | Current input | A | 15.4-14.6-14.1 |
| | COP | kW/kW | 3.44 |
| Temp. range of heating *3 | Indoor | D.B. | 15.0~27.0°C (59~81°F) |
| | Outdoor | W.B. | -20.0~15.5°C (-4~60°F) |
| Indoor unit connectable | Total capacity | | 50~150% of outdoor unit capacity |
| | Model/Quantity | | WP10~125, W10~125/1~37 |
| Sound pressure level (measured in anechoic room) *4 | | dB <A> | 60.5/61.0 |
| Sound power level (measured in anechoic room) *4 | | dB <A> | 78.5/80.0 |
| Refrigerant piping diameter | High pressure | mm (in.) | 15.88 (5/8) Brazed |
| | Low pressure | mm (in.) | 22.2 (7/8) Brazed |
| FAN | Type x Quantity | | Propeller fan x 1 |
| | Air flow rate | $m^3$/min | 185 |
| | | L/s | 3,083 |
| | | cfm | 6,532 |
| | Control, Driving mechanism | | Inverter-control, Direct-driven by motor |
| | Motor output | kW | 0.92 x 1 |
| *5 | External static press. | | 0 Pa (0 $mmH_2O$) |
| Compressor | Type | | Inverter scroll hermetic compressor |
| | Manufacture | | AC&R Works, MITSUBISHI ELECTRIC CORPORATION |
| | Starting method | | Inverter |
| | Motor output | kW | 7.0 |
| | Case heater | kW | - (- V) |
| | Lubricant | | MEL46EH |
| External finish | | | Pre-coated galvanized steel sheets (+powder coating for -BS type)<br><MUNSELL 5Y 8/1 or similar> |
| External dimension H x W x D | | mm | 1,858 (1,798 without legs) x 920 x 740 |
| | | in. | 73-3/16 (70-13/16 without legs) x 36-1/4 x 29-3/16 |
| Protection devices | High pressure protection | | High pressure sensor, High pressure switch at 4.15 MPa (601 psi) |
| | Inverter circuit (COMP./FAN) | | Over-heat protection, Over-current protection |
| | Compressor | | - |
| | Fan motor | | - |
| Refrigerant | Type x original charge | | R32 x 5.2 kg (12 lbs) |
| | Control | | HBC controller |
| Net weight | | kg (lbs) | 227 (501) |
| Heat exchanger | | | Salt-resistant cross fin & copper tube |
| HIC circuit (HIC: Heat Inter-Changer) | | | - |
| Defrosting method | | | Auto-defrost mode (Reversed refrigerant cycle, Hot gas) |
| Drawing | External | | WKL94T598 |
| | Wiring | | WKE94G769 |
| Standard attachment | Document | | Installation Manual |
| | Accessory | | - |
| Optional parts | | | Main HBC controller: CMB-WM108,1016V-AA<br>Sub HBC controller: CMB-WM108,1016V-AB |
| Remarks | | | Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.<br>Due to continuing improvement, above specifications may be subject to change without notice. |

Notes:

1.Nominal cooling conditions (subject to JIS B8615-2)
Indoor: 27°CD.B./19°CW.B. (81°FD.B./66°FW.B.), Outdoor: 35°CD.B./24°CW.B. (95°FD.B./75°FW.B.)
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
2.Nominal heating conditions (subject to JIS B8615-2)
Indoor: 20°CD.B. (68°FD.B.), Outdoor: 7°CD.B./6°CW.B. (45°FD.B./43°FW.B.)
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
3.-5°CD.B. (23°FD.B.)/-6°CW.B. (21°FW.B.) to 21°CD.B. (70°FD.B.)/15.5°CW.B. (60°FW.B.)
with cooling/heating mixed operation.
4.Cooling mode/Heating mode
5.External static pressure option is available (30 Pa, 60 Pa, 80 Pa/3.1 $mmH_2O$, 6.1 $mmH_2O$, 8.2 $mmH_2O$).
Consult your dealer about the specification when setting External static pressure option.
6.R32 is flammable, and certain restrictions apply to the installation of units.
When installing new units, moving the existing units, or changing the layout of the room, ensure that installation restrictions are observed.
For detail, refer to the section in the Databook on installation restrictions.

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



| Model | | | PURY-M300YNW-A1 (-BS) | |
|---|---|---|---|---|
| Number of HBC controller | | | Single HBC | Double HBC |
| Power source | | | 3-phase 4-wire 380-400-415 V 50/60 Hz | |
| Cooling capacity *1 (Nominal) | | kW | 33.5 | |
| | | kcal/h | 30,000 | |
| | | BTU/h | 114,300 | |
| | Power input | kW | 11.65 | 9.88 |
| | Current input | A | 19.6-18.6-18.0 | 16.6-15.8-15.2 |
| | EER | kW/kW | 2.87 | 3.39 |
| Temp. range of cooling *3 | Indoor | W.B. | 15.0~24.0°C (59~75°F) | |
| | Outdoor | D.B. | -5.0~52.0°C (23~126°F) | |
| Heating capacity *2 (Nominal) | | kW | 37.5 | |
| | | kcal/h | 32,300 | |
| | | BTU/h | 128,000 | |
| | Power input | kW | 11.00 | 10.33 |
| | Current input | A | 18.5-17.6-17.0 | 17.4-16.5-15.9 |
| | COP | kW/kW | 3.40 | 3.63 |
| Temp. range of heating *3 | Indoor | D.B. | 15.0~27.0°C (59~81°F) | |
| | Outdoor | W.B. | -20.0~15.5°C (-4~60°F) | |
| Indoor unit connectable | Total capacity | | 50~150% of outdoor unit capacity | |
| | Model/Quantity | | WP10~125, W10~125/2~45 | |
| Sound pressure level (measured in anechoic room) *4 | | dB <A> | 61.0/67.0 | |
| Sound power level (measured in anechoic room) *4 | | dB <A> | 80.0/86.5 | |
| Refrigerant piping diameter | High pressure | mm (in.) | 15.88 (5/8) Brazed | |
| | Low pressure | mm (in.) | 22.2 (7/8) Brazed | |
| FAN | Type x Quantity | | Propeller fan x 1 | |
| | Air flow rate | $m^3$/min | 240 | |
| | | L/s | 4,000 | |
| | | cfm | 8,474 | |
| | Control, Driving mechanism | | Inverter-control, Direct-driven by motor | |
| | Motor output | kW | 0.92 x 1 | |
| *5 | External static press. | | 0 Pa (0 $mmH_2O$) | |
| Compressor | Type | | Inverter scroll hermetic compressor | |
| | Manufacture | | AC&R Works, MITSUBISHI ELECTRIC CORPORATION | |
| | Starting method | | Inverter | |
| | Motor output | kW | 8.0 | |
| | Case heater | kW | - (- V) | |
| | Lubricant | | MEL46EH | |
| External finish | | | Pre-coated galvanized steel sheets (+powder coating for -BS type)<br><MUNSELL 5Y 8/1 or similar> | |
| External dimension H x W x D | | mm | 1,858 (1,798 without legs) x 920 x 740 | |
| | | in. | 73-3/16 (70-13/16 without legs) x 36-1/4 x 29-3/16 | |
| Protection devices | High pressure protection | | High pressure sensor, High pressure switch at 4.15 MPa (601 psi) | |
| | Inverter circuit (COMP./FAN) | | Over-heat protection, Over-current protection | |
| | Compressor | | - | |
| | Fan motor | | - | |
| Refrigerant | Type x original charge | | R32 x 5.2 kg (12 lbs) | |
| | Control | | HBC controller | |
| Net weight | | kg (lbs) | 227 (501) | |
| Heat exchanger | | | Salt-resistant cross fin & copper tube | |
| HIC circuit (HIC: Heat Inter-Changer) | | | - | |
| Defrosting method | | | Auto-defrost mode (Reversed refrigerant cycle, Hot gas) | |
| Drawing | External | | WKL94T598 | |
| | Wiring | | WKE94G769 | |
| Standard attachment | Document | | Installation Manual | |
| | Accessory | | - | |
| Optional parts | | | Main HBC controller: CMB-WM108,1016V-AA<br>Sub HBC controller: CMB-WM108,1016V-AB | |
| Remarks | | | Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.<br>Due to continuing improvement, above specifications may be subject to change without notice. | |

Notes:

1. Nominal cooling conditions (subject to JIS B8615-2)
   Indoor: 27°CD.B./19°CW.B. (81°FD.B./66°FW.B.), Outdoor: 35°CD.B./24°CW.B. (95°FD.B./75°FW.B.)
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
2. Nominal heating conditions (subject to JIS B8615-2)
   Indoor: 20°CD.B. (68°FD.B.), Outdoor: 7°CD.B./6°CW.B. (45°FD.B./43°FW.B.)
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
3. -5°CD.B. (23°FD.B.)/-6°CW.B. (21°FW.B.) to 21°CD.B. (70°FD.B.)/15.5°CW.B. (60°FW.B.)
   with cooling/heating mixed operation.
4. Cooling mode/Heating mode
5. External static pressure option is available (30 Pa, 60 Pa, 80 Pa/3.1 $mmH_2O$, 6.1 $mmH_2O$, 8.2 $mmH_2O$).
   Consult your dealer about the specification when setting External static pressure option.
6. R32 is flammable, and certain restrictions apply to the installation of units.
   When installing new units, moving the existing units, or changing the layout of the room, ensure that installation restrictions are observed.
   For detail, refer to the section in the Databook on installation restrictions.

| 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



| Model | | | PURY-M350YNW-A1 (-BS) | |
|---|---|---|---|---|
| Number of HBC controller | | | **Single HBC** | **Double HBC** |
| Power source | | | 3-phase 4-wire 380-400-415 V 50/60 Hz | |
| Cooling capacity *1 (Nominal) | | kW | 40.0 | |
| | | kcal/h | 35,000 | |
| | | BTU/h | 136,500 | |
| | Power input | kW | 14.93 | 12.15 |
| | Current input | A | 25.2-23.9-23.0 | 20.5-19.4-18.7 |
| | EER | kW/kW | 2.67 | 3.29 |
| Temp. range of cooling *3 | Indoor | W.B. | 15.0~24.0°C (59~75°F) | |
| | Outdoor | D.B. | -5.0~52.0°C (23~126°F) | |
| Heating capacity *2 (Nominal) | | kW | 45.0 | |
| | | kcal/h | 38,700 | |
| | | BTU/h | 153,500 | |
| | Power input | kW | 13.14 | 12.16 |
| | Current input | A | 22.1-21.0-20.3 | 20.5-19.5-18.7 |
| | COP | kW/kW | 3.42 | 3.70 |
| Temp. range of heating *3 | Indoor | D.B. | 15.0~27.0°C (59~81°F) | |
| | Outdoor | W.B. | -20.0~15.5°C (-4~60°F) | |
| Indoor unit connectable | Total capacity | | 50~150% of outdoor unit capacity | |
| | Model/Quantity | | WP10~125, W10~125/1~35 | |
| Sound pressure level (measured in anechoic room) *4 | | dB <A> | 62.5/64.0 | |
| Sound power level (measured in anechoic room) *4 | | dB <A> | 81.0/83.0 | |
| Refrigerant piping diameter | High pressure | mm (in.) | 15.88 (5/8) Brazed | |
| | Low pressure | mm (in.) | 28.58 (1-1/8) Brazed | |
| FAN | Type x Quantity | | Propeller fan x 2 | |
| | Air flow rate | $m^3$/min | 250 | |
| | | L/s | 4,167 | |
| | | cfm | 8,828 | |
| | Control, Driving mechanism | | Inverter-control, Direct-driven by motor | |
| | Motor output | kW | 0.46 x 2 | |
| *5 | External static press. | | 0 Pa (0 $mmH_2O$) | |
| Compressor | Type | | Inverter scroll hermetic compressor | |
| | Manufacture | | AC&R Works, MITSUBISHI ELECTRIC CORPORATION | |
| | Starting method | | Inverter | |
| | Motor output | kW | 9.6 | |
| | Case heater | kW | - (- V) | |
| | Lubricant | | MEL46EH | |
| External finish | | | Pre-coated galvanized steel sheets (+powder coating for -BS type)<br><MUNSELL 5Y 8/1 or similar> | |
| External dimension H x W x D | | mm | 1,858 (1,798 without legs) x 1,240 x 740 | |
| | | in. | 73-3/16 (70-13/16 without legs) x 48-7/8 x 29-3/16 | |
| Protection devices | High pressure protection | | High pressure sensor, High pressure switch at 4.15 MPa (601 psi) | |
| | Inverter circuit (COMP./FAN) | | Over-heat protection, Over-current protection | |
| | Compressor | | - | |
| | Fan motor | | - | |
| Refrigerant | Type x original charge | | R32 x 8.0 kg (18 lbs) | |
| | Control | | HBC controller | |
| Net weight | | kg (lbs) | 270 (596) | |
| Heat exchanger | | | Salt-resistant cross fin & copper tube | |
| HIC circuit (HIC: Heat Inter-Changer) | | | - | |
| Defrosting method | | | Auto-defrost mode (Reversed refrigerant cycle) | |
| Drawing | External | | WKL94T599 | |
| | Wiring | | WKE94G770 | |
| Standard attachment | Document | | Installation Manual | |
| | Accessory | | - | |
| Optional parts | | | Main HBC controller: CMB-WM108,1016V-AA<br>Sub HBC controller: CMB-WM108,1016V-AB | |
| Remarks | | | Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.<br>Due to continuing improvement, above specifications may be subject to change without notice. | |

Notes:

1.Nominal cooling conditions (subject to JIS B8615-2)
Indoor: 27°CD.B./19°CW.B. (81°FD.B./66°FW.B.), Outdoor: 35°CD.B./24°CW.B. (95°FD.B./75°FW.B.)
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
2.Nominal heating conditions (subject to JIS B8615-2)
Indoor: 20°CD.B. (68°FD.B.), Outdoor: 7°CD.B./6°CW.B. (45°FD.B./43°FW.B.)
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
3.-5°CD.B. (23°FD.B.)/-6°CW.B. (21°FW.B.) to 21°CD.B. (70°FD.B.)/15.5°CW.B. (60°FW.B.)
with cooling/heating mixed operation.
4.Cooling mode/Heating mode
5.External static pressure option is available (30 Pa, 60 Pa, 80 Pa/3.1 $mmH_2O$, 6.1 $mmH_2O$, 8.2 $mmH_2O$).
Consult your dealer about the specification when setting External static pressure option.
6.R32 is flammable, and certain restrictions apply to the installation of units.
When installing new units, moving the existing units, or changing the layout of the room, ensure that installation restrictions are observed.
For detail, refer to the section in the Databook on installation restrictions.

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.

| Model | | | PURY-M400YNW-A1 (-BS) |
|---|---|---|---|
| Power source | | | 3-phase 4-wire 380-400-415 V 50/60 Hz |
| Cooling capacity *1 (Nominal) | | kW | 45.0 |
| | | kcal/h | 40,000 |
| | | BTU/h | 153,500 |
| | Power input | kW | 15.15 |
| | Current input | A | 25.5-24.2-23.4 |
| | EER | kW/kW | 2.97 |
| Temp. range of cooling *3 | Indoor | W.B. | 15.0~24.0°C (59~75°F) |
| | Outdoor | D.B. | -5.0~52.0°C (23~126°F) |
| Heating capacity *2 (Nominal) | | kW | 50.0 |
| | | kcal/h | 45,000 |
| | | BTU/h | 170,600 |
| | Power input | kW | 14.08 |
| | Current input | A | 23.7-22.5-21.7 |
| | COP | kW/kW | 3.55 |
| Temp. range of heating *3 | Indoor | D.B. | 15.0~27.0°C (59~81°F) |
| | Outdoor | W.B. | -20.0~15.5°C (-4~60°F) |
| Indoor unit connectable | Total capacity | | 50~150% of outdoor unit capacity |
| | Model/Quantity | | WP10~125, W10~125/1~40 |
| Sound pressure level (measured in anechoic room) *4 | | dB <A> | 65.0/69.0 |
| Sound power level (measured in anechoic room) *4 | | dB <A> | 83.0/88.0 |
| Refrigerant piping diameter | High pressure | mm (in.) | 19.05 (3/4) Brazed |
| | Low pressure | mm (in.) | 28.58 (1-1/8) Brazed |
| FAN | Type x Quantity | | Propeller fan x 2 |
| | Air flow rate | $m^3$/min | 315 |
| | | L/s | 5,250 |
| | | cfm | 11,123 |
| | Control, Driving mechanism | | Inverter-control, Direct-driven by motor |
| | Motor output | kW | 0.46 x 2 |
| *5 | External static press. | | 0 Pa (0 $mmH_2O$) |
| Compressor | Type | | Inverter scroll hermetic compressor |
| | Manufacture | | AC&R Works, MITSUBISHI ELECTRIC CORPORATION |
| | Starting method | | Inverter |
| | Motor output | kW | 12.2 |
| | Case heater | kW | - (- V) |
| | Lubricant | | MEL46EH |
| External finish | | | Pre-coated galvanized steel sheets (+powder coating for -BS type)<br><MUNSELL 5Y 8/1 or similar> |
| External dimension H x W x D | | mm | 1,858 (1,798 without legs) x 1,240 x 740 |
| | | in. | 73-3/16 (70-13/16 without legs) x 48-7/8 x 29-3/16 |
| Protection devices | High pressure protection | | High pressure sensor, High pressure switch at 4.15 MPa (601 psi) |
| | Inverter circuit (COMP./FAN) | | Over-heat protection, Over-current protection |
| | Compressor | | - |
| | Fan motor | | - |
| Refrigerant | Type x original charge | | R32 x 8.0 kg (18 lbs) |
| | Control | | HBC controller |
| Net weight | | kg (lbs) | 273 (602) |
| Heat exchanger | | | Salt-resistant cross fin & copper tube |
| HIC circuit (HIC: Heat Inter-Changer) | | | - |
| Defrosting method | | | Auto-defrost mode (Reversed refrigerant cycle) |
| Drawing | External | | WKL94T599 |
| | Wiring | | WKE94G770 |
| Standard attachment | Document | | Installation Manual |
| | Accessory | | - |
| Optional parts | | | Main HBC controller: CMB-WM108,1016V-AA<br>Sub HBC controller: CMB-WM108,1016V-AB |
| Remarks | | | Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.<br>Due to continuing improvement, above specifications may be subject to change without notice. |

Notes:

1.Nominal cooling conditions (subject to JIS B8615-2)
Indoor: 27°CD.B./19°CW.B. (81°FD.B./66°FW.B.), Outdoor: 35°CD.B./24°CW.B. (95°FD.B./75°FW.B.)
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
2.Nominal heating conditions (subject to JIS B8615-2)
Indoor: 20°CD.B. (68°FD.B.), Outdoor: 7°CD.B./6°CW.B. (45°FD.B./43°FW.B.)
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
3.-5°CD.B. (23°FD.B.)/-6°CW.B. (21°FW.B.) to 21°CD.B. (70°FD.B.)/15.5°CW.B. (60°FW.B.)
with cooling/heating mixed operation.
4.Cooling mode/Heating mode
5.External static pressure option is available (30 Pa, 60 Pa, 80 Pa/3.1 $mmH_2O$, 6.1 $mmH_2O$, 8.2 $mmH_2O$).
Consult your dealer about the specification when setting External static pressure option.
6.R32 is flammable, and certain restrictions apply to the installation of units.
When installing new units, moving the existing units, or changing the layout of the room, ensure that installation restrictions are observed.
For detail, refer to the section in the Databook on installation restrictions.

| 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.

| Model | | | PURY-M450YNW-A1 (-BS) |
|---|---|---|---|
| Power source | | | 3-phase 4-wire 380-400-415 V 50/60 Hz |
| Cooling capacity *1 (Nominal) | | kW | 50.0 |
| | | kcal/h | 45,000 |
| | | BTU/h | 170,600 |
| | Power input | kW | 15.47 |
| | Current input | A | 26.1-24.8-23.9 |
| | EER | kW/kW | 3.23 |
| Temp. range of cooling *3 | Indoor | W.B. | 15.0~24.0°C (59~75°F) |
| | Outdoor | D.B. | -5.0~52.0°C (23~126°F) |
| Heating capacity *2 (Nominal) | | kW | 56.0 |
| | | kcal/h | 50,000 |
| | | BTU/h | 191,100 |
| | Power input | kW | 16.18 |
| | Current input | A | 27.3-25.9-25.0 |
| | COP | kW/kW | 3.46 |
| Temp. range of heating *3 | Indoor | D.B. | 15.0~27.0°C (59~81°F) |
| | Outdoor | W.B. | -20.0~15.5°C (-4~60°F) |
| Indoor unit connectable | Total capacity | | 50~150% of outdoor unit capacity |
| | Model/Quantity | | WP10~125, W10~125/1~45 |
| Sound pressure level (measured in anechoic room) *4 | | dB <A> | 65.5/70.0 |
| Sound power level (measured in anechoic room) *4 | | dB <A> | 83.0/89.0 |
| Refrigerant piping diameter | High pressure | mm (in.) | 19.05 (3/4) Brazed |
| | Low pressure | mm (in.) | 28.58 (1-1/8) Brazed |
| FAN | Type x Quantity | | Propeller fan x 2 |
| | Air flow rate | $m^3$/min | 317 |
| | | L/s | 5,283 |
| | | cfm | 11,193 |
| | Control, Driving mechanism | | Inverter-control, Direct-driven by motor |
| | Motor output | kW | 0.46 x 2 |
| *5 | External static press. | | 0 Pa (0 $mmH_2O$) |
| Compressor | Type | | Inverter scroll hermetic compressor |
| | Manufacture | | AC&R Works, MITSUBISHI ELECTRIC CORPORATION |
| | Starting method | | Inverter |
| | Motor output | kW | 13.1 |
| | Case heater | kW | - (- V) |
| | Lubricant | | MEL46EH |
| External finish | | | Pre-coated galvanized steel sheets (+powder coating for -BS type)<br><MUNSELL 5Y 8/1 or similar> |
| External dimension H x W x D | | mm | 1,858 (1,798 without legs) x 1,240 x 740 |
| | | in. | 73-3/16 (70-13/16 without legs) x 48-7/8 x 29-3/16 |
| Protection devices | High pressure protection | | High pressure sensor, High pressure switch at 4.15 MPa (601 psi) |
| | Inverter circuit (COMP./FAN) | | Over-heat protection, Over-current protection |
| | Compressor | | - |
| | Fan motor | | - |
| Refrigerant | Type x original charge | | R32 x 10.8 kg (24 lbs) |
| | Control | | HBC controller |
| Net weight | | kg (lbs) | 293 (646) |
| Heat exchanger | | | Salt-resistant cross fin & copper tube |
| HIC circuit (HIC: Heat Inter-Changer) | | | - |
| Defrosting method | | | Auto-defrost mode (Reversed refrigerant cycle) |
| Drawing | External | | WKL94T599 |
| | Wiring | | WKE94G770 |
| Standard attachment | Document | | Installation Manual |
| | Accessory | | - |
| Optional parts | | | Main HBC controller: CMB-WM108,1016V-AA<br>Sub HBC controller: CMB-WM108,1016V-AB |
| Remarks | | | Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.<br>Due to continuing improvement, above specifications may be subject to change without notice. |

Notes:

1.Nominal cooling conditions (subject to JIS B8615-2)
Indoor: 27°CD.B./19°CW.B. (81°FD.B./66°FW.B.), Outdoor: 35°CD.B./24°CW.B. (95°FD.B./75°FW.B.)
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
2.Nominal heating conditions (subject to JIS B8615-2)
Indoor: 20°CD.B. (68°FD.B.), Outdoor: 7°CD.B./6°CW.B. (45°FD.B./43°FW.B.)
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
3.-5°CD.B. (23°FD.B.)/-6°CW.B. (21°FW.B.) to 21°CD.B. (70°FD.B.)/15.5°CW.B. (60°FW.B.)
with cooling/heating mixed operation.
4.Cooling mode/Heating mode
5.External static pressure option is available (30 Pa, 60 Pa, 80 Pa/3.1 $mmH_2O$, 6.1 $mmH_2O$, 8.2 $mmH_2O$).
Consult your dealer about the specification when setting External static pressure option.
6.R32 is flammable, and certain restrictions apply to the installation of units.
When installing new units, moving the existing units, or changing the layout of the room, ensure that installation restrictions are observed.
For detail, refer to the section in the Databook on installation restrictions.

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.

| Model | | | PURY-M500YNW-A1 (-BS) |
|---|---|---|---|
| Power source | | | 3-phase 4-wire 380-400-415 V 50/60 Hz |
| Cooling capacity *1 (Nominal) | | kW | 56.0 |
| | | kcal/h | 50,000 |
| | | BTU/h | 191,100 |
| | Power input | kW | 22.25 |
| | Current input | A | 37.5-35.6-34.3 |
| | EER | kW/kW | 2.51 |
| Temp. range of cooling *3 | Indoor | W.B. | 15.0~24.0°C (59~75°F) |
| | Outdoor | D.B. | -5.0~52.0°C (23~126°F) |
| Heating capacity *2 (Nominal) | | kW | 63.0 |
| | | kcal/h | 54,200 |
| | | BTU/h | 215,000 |
| | Power input | kW | 18.26 |
| | Current input | A | 30.8-29.2-28.2 |
| | COP | kW/kW | 3.45 |
| Temp. range of heating *3 | Indoor | D.B. | 15.0~27.0°C (59~81°F) |
| | Outdoor | W.B. | -20.0~15.5°C (-4~60°F) |
| Indoor unit connectable | Total capacity | | 50~150% of outdoor unit capacity |
| | Model/Quantity | | WP10~125, W10~125/1~50 |
| Sound pressure level (measured in anechoic room) *4 | | dB <A> | 63.5/64.5 |
| Sound power level (measured in anechoic room) *4 | | dB <A> | 82.0/84.0 |
| Refrigerant piping diameter | High pressure | mm (in.) | 19.05 (3/4) Brazed |
| | Low pressure | mm (in.) | 28.58 (1-1/8) Brazed |
| FAN | Type x Quantity | | Propeller fan x 2 |
| | Air flow rate | $m^3$/min | 295 |
| | | L/s | 4,917 |
| | | cfm | 10,416 |
| | Control, Driving mechanism | | Inverter-control, Direct-driven by motor |
| | Motor output | kW | 0.92 x 2 |
| *5 | External static press. | | 0 Pa (0 $mmH_2O$) |
| Compressor | Type | | Inverter scroll hermetic compressor |
| | Manufacture | | AC&R Works, MITSUBISHI ELECTRIC CORPORATION |
| | Starting method | | Inverter |
| | Motor output | kW | 17.4 |
| | Case heater | kW | - (- V) |
| | Lubricant | | MEL46EH |
| External finish | | | Pre-coated galvanized steel sheets (+powder coating for -BS type)<br><MUNSELL 5Y 8/1 or similar> |
| External dimension H x W x D | | mm | 1,858 (1,798 without legs) x 1,750 x 740 |
| | | in. | 73-3/16 (70-13/16 without legs) x 68-15/16 x 29-3/16 |
| Protection devices | High pressure protection | | High pressure sensor, High pressure switch at 4.15 MPa (601 psi) |
| | Inverter circuit (COMP./FAN) | | Over-heat protection, Over-current protection |
| | Compressor | | - |
| | Fan motor | | - |
| Refrigerant | Type x original charge | | R32 x 10.8 kg (24 lbs) |
| | Control | | HBC controller |
| Net weight | | kg (lbs) | 337 (743) |
| Heat exchanger | | | Salt-resistant cross fin & copper tube |
| HIC circuit (HIC: Heat Inter-Changer) | | | - |
| Defrosting method | | | Auto-defrost mode (Reversed refrigerant cycle) |
| Drawing | External | | WKL94T600 |
| | Wiring | | WKE94G771 |
| Standard attachment | Document | | Installation Manual |
| | Accessory | | - |
| Optional parts | | | Main HBC controller: CMB-WM108,1016V-AA<br>Sub HBC controller: CMB-WM108,1016V-AB |
| Remarks | | | Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.<br>Due to continuing improvement, above specifications may be subject to change without notice. |

Notes:

1.Nominal cooling conditions (subject to JIS B8615-2)
Indoor: 27°CD.B./19°CW.B. (81°FD.B./66°FW.B.), Outdoor: 35°CD.B./24°CW.B. (95°FD.B./75°FW.B.)
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
2.Nominal heating conditions (subject to JIS B8615-2)
Indoor: 20°CD.B. (68°FD.B.), Outdoor: 7°CD.B./6°CW.B. (45°FD.B./43°FW.B.)
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
3.-5°CD.B. (23°FD.B.)/-6°CW.B. (21°FW.B.) to 21°CD.B. (70°FD.B.)/15.5°CW.B. (60°FW.B.)
with cooling/heating mixed operation.
4.Cooling mode/Heating mode
5.External static pressure option is available (30 Pa, 60 Pa, 80 Pa/3.1 $mmH_2O$, 6.1 $mmH_2O$, 8.2 $mmH_2O$).
Consult your dealer about the specification when setting External static pressure option.
6.R32 is flammable, and certain restrictions apply to the installation of units.
When installing new units, moving the existing units, or changing the layout of the room, ensure that installation restrictions are observed.
For detail, refer to the section in the Databook on installation restrictions.

| 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



| Model | | | PURY-EM200YNW-A1 (-BS) |
|---|---|---|---|
| Power source | | | 3-phase 4-wire 380-400-415 V 50/60 Hz |
| Cooling capacity *1 (Nominal) | | kW | 22.4 |
| | | kcal/h | 20,000 |
| | | BTU/h | 76,400 |
| | Power input | kW | 5.13 |
| | Current input | A | 8.6-8.2-7.9 |
| | EER | kW/kW | 4.36 |
| Temp. range of cooling *3 | Indoor | W.B. | 15.0~24.0°C (59~75°F) |
| | Outdoor | D.B. | -5.0~52.0°C (23~126°F) |
| Heating capacity *2 (Nominal) | | kW | 25.0 |
| | | kcal/h | 21,500 |
| | | BTU/h | 85,300 |
| | Power input | kW | 6.23 |
| | Current input | A | 10.5-9.9-9.6 |
| | COP | kW/kW | 4.01 |
| Temp. range of heating *3 | Indoor | D.B. | 15.0~27.0°C (59~81°F) |
| | Outdoor | W.B. | -20.0~15.5°C (-4~60°F) |
| Indoor unit connectable | Total capacity | | 50~150% of outdoor unit capacity |
| | Model/Quantity | | WP10~125, W10~125/1~30 |
| Sound pressure level (measured in anechoic room) *4 | | dB <A> | 59.0/59.0 |
| Sound power level (measured in anechoic room) *4 | | dB <A> | 76.0/78.0 |
| Refrigerant piping diameter | High pressure | mm (in.) | 15.88 (5/8) Brazed |
| | Low pressure | mm (in.) | 19.05 (3/4) Brazed |
| FAN | Type x Quantity | | Propeller fan x 1 |
| | Air flow rate | $m^3$/min | 170 |
| | | L/s | 2,833 |
| | | cfm | 6,003 |
| | Control, Driving mechanism | | Inverter-control, Direct-driven by motor |
| | Motor output | kW | 0.92 x 1 |
| *5 | External static press. | | 0 Pa (0 $mmH_2O$) |
| Compressor | Type | | Inverter scroll hermetic compressor |
| | Manufacture | | AC&R Works, MITSUBISHI ELECTRIC CORPORATION |
| | Starting method | | Inverter |
| | Motor output | kW | 4.5 |
| | Case heater | kW | - (- V) |
| | Lubricant | | MEL46EH |
| External finish | | | Pre-coated galvanized steel sheets (+powder coating for -BS type)<br><MUNSELL 5Y 8/1 or similar> |
| External dimension H x W x D | | mm | 1,858 (1,798 without legs) x 920 x 740 |
| | | in. | 73-3/16 (70-13/16 without legs) x 36-1/4 x 29-3/16 |
| Protection devices | High pressure protection | | High pressure sensor, High pressure switch at 4.15 MPa (601 psi) |
| | Inverter circuit (COMP./FAN) | | Over-heat protection, Over-current protection |
| | Compressor | | - |
| | Fan motor | | - |
| Refrigerant | Type x original charge | | R32 x 5.2 kg (12 lbs) |
| | Control | | HBC controller |
| Net weight | | kg (lbs) | 231 (510) |
| Heat exchanger | | | Salt-resistant cross fin & aluminium tube |
| HIC circuit (HIC: Heat Inter-Changer) | | | - |
| Defrosting method | | | Auto-defrost mode (Reversed refrigerant cycle, Hot gas) |
| Drawing | External | | WKL94T601 |
| | Wiring | | WKE94G769 |
| Standard attachment | Document | | Installation Manual |
| | Accessory | | - |
| Optional parts | | | Main HBC controller: CMB-WM108,1016V-AA<br>Sub HBC controller: CMB-WM108,1016V-AB |
| Remarks | | | Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.<br>Due to continuing improvement, above specifications may be subject to change without notice. |

Notes:

1.Nominal cooling conditions (subject to JIS B8615-2)
Indoor: 27°CD.B./19°CW.B. (81°FD.B./66°FW.B.), Outdoor: 35°CD.B./24°CW.B. (95°FD.B./75°FW.B.)
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
2.Nominal heating conditions (subject to JIS B8615-2)
Indoor: 20°CD.B. (68°FD.B.), Outdoor: 7°CD.B./6°CW.B. (45°FD.B./43°FW.B.)
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
3.-5°CD.B. (23°FD.B.)/-6°CW.B. (21°FW.B.) to 21°CD.B. (70°FD.B.)/15.5°CW.B. (60°FW.B.)
with cooling/heating mixed operation.
4.Cooling mode/Heating mode
5.External static pressure option is available (30 Pa, 60 Pa, 80 Pa/3.1 $mmH_2O$, 6.1 $mmH_2O$, 8.2 $mmH_2O$).
Consult your dealer about the specification when setting External static pressure option.
6.R32 is flammable, and certain restrictions apply to the installation of units.
When installing new units, moving the existing units, or changing the layout of the room, ensure that installation restrictions are observed.
For detail, refer to the section in the Databook on installation restrictions.

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.

| Model | | | PURY-EM250YNW-A1 (-BS) |
|---|---|---|---|
| Power source | | | 3-phase 4-wire 380-400-415 V 50/60 Hz |
| Cooling capacity *1 (Nominal) | | kW | 28.0 |
| | | kcal/h | 25,000 |
| | | BTU/h | 95,500 |
| | Power input | kW | 7.69 |
| | Current input | A | 12.9-12.3-11.8 |
| | EER | kW/kW | 3.64 |
| Temp. range of cooling *3 | Indoor | W.B. | 15.0~24.0°C (59~75°F) |
| | Outdoor | D.B. | -5.0~52.0°C (23~126°F) |
| Heating capacity *2 (Nominal) | | kW | 31.5 |
| | | kcal/h | 27,100 |
| | | BTU/h | 107,500 |
| | Power input | kW | 8.84 |
| | Current input | A | 14.9-14.1-13.6 |
| | COP | kW/kW | 3.56 |
| Temp. range of heating *3 | Indoor | D.B. | 15.0~27.0°C (59~81°F) |
| | Outdoor | W.B. | -20.0~15.5°C (-4~60°F) |
| Indoor unit connectable | Total capacity | | 50~150% of outdoor unit capacity |
| | Model/Quantity | | WP10~125, W10~125/1~37 |
| Sound pressure level (measured in anechoic room) *4 | | dB <A> | 60.5/61.0 |
| Sound power level (measured in anechoic room) *4 | | dB <A> | 78.5/80.0 |
| Refrigerant piping diameter | High pressure | mm (in.) | 15.88 (5/8) Brazed |
| | Low pressure | mm (in.) | 22.2 (7/8) Brazed |
| FAN | Type x Quantity | | Propeller fan x 1 |
| | Air flow rate | $m^3$/min | 185 |
| | | L/s | 3,083 |
| | | cfm | 6,532 |
| | Control, Driving mechanism | | Inverter-control, Direct-driven by motor |
| | Motor output | kW | 0.92 x 1 |
| *5 | External static press. | | 0 Pa (0 $mmH_2O$) |
| Compressor | Type | | Inverter scroll hermetic compressor |
| | Manufacture | | AC&R Works, MITSUBISHI ELECTRIC CORPORATION |
| | Starting method | | Inverter |
| | Motor output | kW | 6.7 |
| | Case heater | kW | - (- V) |
| | Lubricant | | MEL46EH |
| External finish | | | Pre-coated galvanized steel sheets (+powder coating for -BS type)<br><MUNSELL 5Y 8/1 or similar> |
| External dimension H x W x D | | mm | 1,858 (1,798 without legs) x 920 x 740 |
| | | in. | 73-3/16 (70-13/16 without legs) x 36-1/4 x 29-3/16 |
| Protection devices | High pressure protection | | High pressure sensor, High pressure switch at 4.15 MPa (601 psi) |
| | Inverter circuit (COMP./FAN) | | Over-heat protection, Over-current protection |
| | Compressor | | - |
| | Fan motor | | - |
| Refrigerant | Type x original charge | | R32 x 5.2 kg (12 lbs) |
| | Control | | HBC controller |
| Net weight | | kg (lbs) | 231 (510) |
| Heat exchanger | | | Salt-resistant cross fin & aluminium tube |
| HIC circuit (HIC: Heat Inter-Changer) | | | - |
| Defrosting method | | | Auto-defrost mode (Reversed refrigerant cycle, Hot gas) |
| Drawing | External | | WKL94T601 |
| | Wiring | | WKE94G769 |
| Standard attachment | Document | | Installation Manual |
| | Accessory | | - |
| Optional parts | | | Main HBC controller: CMB-WM108,1016V-AA<br>Sub HBC controller: CMB-WM108,1016V-AB |
| Remarks | | | Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.<br>Due to continuing improvement, above specifications may be subject to change without notice. |

Notes:

1.Nominal cooling conditions (subject to JIS B8615-2)
Indoor: 27°CD.B./19°CW.B. (81°FD.B./66°FW.B.), Outdoor: 35°CD.B./24°CW.B. (95°FD.B./75°FW.B.)
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
2.Nominal heating conditions (subject to JIS B8615-2)
Indoor: 20°CD.B. (68°FD.B.), Outdoor: 7°CD.B./6°CW.B. (45°FD.B./43°FW.B.)
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
3.-5°CD.B. (23°FD.B.)/-6°CW.B. (21°FW.B.) to 21°CD.B. (70°FD.B.)/15.5°CW.B. (60°FW.B.)
with cooling/heating mixed operation.
4.Cooling mode/Heating mode
5.External static pressure option is available (30 Pa, 60 Pa, 80 Pa/3.1 $mmH_2O$, 6.1 $mmH_2O$, 8.2 $mmH_2O$).
Consult your dealer about the specification when setting External static pressure option.
6.R32 is flammable, and certain restrictions apply to the installation of units.
When installing new units, moving the existing units, or changing the layout of the room, ensure that installation restrictions are observed.
For detail, refer to the section in the Databook on installation restrictions.

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.

| Model | | | PURY-EM300YNW-A1 (-BS) | |
|---|---|---|---|---|
| Number of HBC controller | | | Single HBC | Double HBC |
| Power source | | | 3-phase 4-wire 380-400-415 V 50/60 Hz | |
| Cooling capacity *1 | | kW | 33.5 | |
| (Nominal) | | kcal/h | 30,000 | |
| | | BTU/h | 114,300 | |
| | Power input | kW | 10.03 | 8.52 |
| | Current input | A | 16.9-16.0-15.5 | 14.3-13.6-13.1 |
| | EER | kW/kW | 3.33 | 3.93 |
| Temp. range of | Indoor | W.B. | 15.0~24.0°C (59~75°F) | |
| cooling *3 | Outdoor | D.B. | -5.0~52.0°C (23~126°F) | |
| Heating capacity *2 | | kW | 37.5 | |
| (Nominal) | | kcal/h | 32,300 | |
| | | BTU/h | 128,000 | |
| | Power input | kW | 10.46 | 9.93 |
| | Current input | A | 17.6-16.7-16.1 | 16.7-15.9-15.3 |
| | COP | kW/kW | 3.58 | 3.77 |
| Temp. range of | Indoor | D.B. | 15.0~27.0°C (59~81°F) | |
| heating *3 | Outdoor | W.B. | -20.0~15.5°C (-4~60°F) | |
| Indoor unit | Total capacity | | 50~150% of outdoor unit capacity | |
| connectable | Model/Quantity | | WP10~125, W10~125/2~45 | |
| Sound pressure level (measured in anechoic room) *4 | | dB <A> | 61.0/67.0 | |
| Sound power level (measured in anechoic room) *4 | | dB <A> | 80.0/86.5 | |
| Refrigerant | High pressure | mm (in.) | 15.88 (5/8) Brazed | |
| piping diameter | Low pressure | mm (in.) | 22.2 (7/8) Brazed | |
| FAN | Type x Quantity | | Propeller fan x 1 | |
| | Air flow rate | $m^3$/min | 240 | |
| | | L/s | 4,000 | |
| | | cfm | 8,474 | |
| | Control, Driving mechanism | | Inverter-control, Direct-driven by motor | |
| | Motor output | kW | 0.92 x 1 | |
| *5 | External static press. | | 0 Pa (0 $mmH_2O$) | |
| Compressor | Type | | Inverter scroll hermetic compressor | |
| | Manufacture | | AC&R Works, MITSUBISHI ELECTRIC CORPORATION | |
| | Starting method | | Inverter | |
| | Motor output | kW | 7.7 | |
| | Case heater | kW | - (- V) | |
| | Lubricant | | MEL46EH | |
| External finish | | | Pre-coated galvanized steel sheets (+powder coating for -BS type)<br><MUNSELL 5Y 8/1 or similar> | |
| External dimension H x W x D | | mm | 1,858 (1,798 without legs) x 920 x 740 | |
| | | in. | 73-3/16 (70-13/16 without legs) x 36-1/4 x 29-3/16 | |
| Protection devices | High pressure protection | | High pressure sensor, High pressure switch at 4.15 MPa (601 psi) | |
| | Inverter circuit (COMP./FAN) | | Over-heat protection, Over-current protection | |
| | Compressor | | - | |
| | Fan motor | | - | |
| Refrigerant | Type x original charge | | R32 x 5.2 kg (12 lbs) | |
| | Control | | HBC controller | |
| Net weight | | kg (lbs) | 231 (510) | |
| Heat exchanger | | | Salt-resistant cross fin & aluminium tube | |
| HIC circuit (HIC: Heat Inter-Changer) | | | - | |
| Defrosting method | | | Auto-defrost mode (Reversed refrigerant cycle, Hot gas) | |
| Drawing | External | | WKL94T601 | |
| | Wiring | | WKE94G769 | |
| Standard attachment | Document | | Installation Manual | |
| | Accessory | | - | |
| Optional parts | | | Main HBC controller: CMB-WM108,1016V-AA<br>Sub HBC controller: CMB-WM108,1016V-AB | |
| Remarks | | | Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.<br>Due to continuing improvement, above specifications may be subject to change without notice. | |

Notes:

1.Nominal cooling conditions (subject to JIS B8615-2)
Indoor: 27°CD.B./19°CW.B. (81°FD.B./66°FW.B.), Outdoor: 35°CD.B./24°CW.B. (95°FD.B./75°FW.B.)
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
2.Nominal heating conditions (subject to JIS B8615-2)
Indoor: 20°CD.B. (68°FD.B.), Outdoor: 7°CD.B./6°CW.B. (45°FD.B./43°FW.B.)
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
3.-5°CD.B. (23°FD.B.)/-6°CW.B. (21°FW.B.) to 21°CD.B. (70°FD.B.)/15.5°CW.B. (60°FW.B.)
with cooling/heating mixed operation.
4.Cooling mode/Heating mode
5.External static pressure option is available (30 Pa, 60 Pa, 80 Pa/3.1 $mmH_2O$, 6.1 $mmH_2O$, 8.2 $mmH_2O$).
Consult your dealer about the specification when setting External static pressure option.
6.R32 is flammable, and certain restrictions apply to the installation of units.
When installing new units, moving the existing units, or changing the layout of the room, ensure that installation restrictions are observed.
For detail, refer to the section in the Databook on installation restrictions.

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.

| Model | | | PURY-EM350YNW-A1 (-BS) | |
|---|---|---|---|---|
| Number of HBC controller | | | Single HBC | Double HBC |
| Power source | | | 3-phase 4-wire 380-400-415 V 50/60 Hz | |
| Cooling capacity *1 (Nominal) | | kW | 40.0 | |
| | | kcal/h | 35,000 | |
| | | BTU/h | 136,500 | |
| | Power input | kW | 13.91 | 11.33 |
| | Current input | A | 23.4-22.3-21.5 | 19.1-18.1-17.5 |
| | EER | kW/kW | 2.87 | 3.53 |
| Temp. range of cooling *3 | Indoor | W.B. | 15.0~24.0°C (59~75°F) | |
| | Outdoor | D.B. | -5.0~52.0°C (23~126°F) | |
| Heating capacity *2 (Nominal) | | kW | 45.0 | |
| | | kcal/h | 38,700 | |
| | | BTU/h | 153,500 | |
| | Power input | kW | 13.10 | 12.16 |
| | Current input | A | 22.1-21.0-20.2 | 20.5-19.5-18.7 |
| | COP | kW/kW | 3.43 | 3.70 |
| Temp. range of heating *3 | Indoor | D.B. | 15.0~27.0°C (59~81°F) | |
| | Outdoor | W.B. | -20.0~15.5°C (-4~60°F) | |
| Indoor unit connectable | Total capacity | | 50~150% of outdoor unit capacity | |
| | Model/Quantity | | WP10~125, W10~125/1~35 | |
| Sound pressure level (measured in anechoic room) *4 | | dB <A> | 62.5/64.0 | |
| Sound power level (measured in anechoic room) *4 | | dB <A> | 81.0/83.0 | |
| Refrigerant piping diameter | High pressure | mm (in.) | 15.88 (5/8) Brazed | |
| | Low pressure | mm (in.) | 28.58 (1-1/8) Brazed | |
| FAN | Type x Quantity | | Propeller fan x 2 | |
| | Air flow rate | $m^3$/min | 250 | |
| | | L/s | 4,167 | |
| | | cfm | 8,828 | |
| | Control, Driving mechanism | | Inverter-control, Direct-driven by motor | |
| | Motor output | kW | 0.46 x 2 | |
| *5 | External static press. | | 0 Pa (0 $mmH_2O$) | |
| Compressor | Type | | Inverter scroll hermetic compressor | |
| | Manufacture | | AC&R Works, MITSUBISHI ELECTRIC CORPORATION | |
| | Starting method | | Inverter | |
| | Motor output | kW | 9.6 | |
| | Case heater | kW | - (- V) | |
| | Lubricant | | MEL46EH | |
| External finish | | | Pre-coated galvanized steel sheets (+powder coating for -BS type)<br><MUNSELL 5Y 8/1 or similar> | |
| External dimension H x W x D | | mm | 1,858 (1,798 without legs) x 1,240 x 740 | |
| | | in. | 73-3/16 (70-13/16 without legs) x 48-7/8 x 29-3/16 | |
| Protection devices | High pressure protection | | High pressure sensor, High pressure switch at 4.15 MPa (601 psi) | |
| | Inverter circuit (COMP./FAN) | | Over-heat protection, Over-current protection | |
| | Compressor | | - | |
| | Fan motor | | - | |
| Refrigerant | Type x original charge | | R32 x 8.0 kg (18 lbs) | |
| | Control | | HBC controller | |
| Net weight | | kg (lbs) | 276 (609) | |
| Heat exchanger | | | Salt-resistant cross fin & aluminium tube | |
| HIC circuit (HIC: Heat Inter-Changer) | | | - | |
| Defrosting method | | | Auto-defrost mode (Reversed refrigerant cycle, Hot gas) | |
| Drawing | External | | WKL94T602 | |
| | Wiring | | WKE94G770 | |
| Standard attachment | Document | | Installation Manual | |
| | Accessory | | - | |
| Optional parts | | | Main HBC controller: CMB-WM108,1016V-AA<br>Sub HBC controller: CMB-WM108,1016V-AB | |
| Remarks | | | Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.<br>Due to continuing improvement, above specifications may be subject to change without notice. | |

Notes:

1.Nominal cooling conditions (subject to JIS B8615-2)
Indoor: 27°CD.B./19°CW.B. (81°FD.B./66°FW.B.), Outdoor: 35°CD.B./24°CW.B. (95°FD.B./75°FW.B.)
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
2.Nominal heating conditions (subject to JIS B8615-2)
Indoor: 20°CD.B. (68°FD.B.), Outdoor: 7°CD.B./6°CW.B. (45°FD.B./43°FW.B.)
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
3.-5°CD.B. (23°FD.B.)/-6°CW.B. (21°FW.B.) to 21°CD.B. (70°FD.B.)/15.5°CW.B. (60°FW.B.)
with cooling/heating mixed operation.
4.Cooling mode/Heating mode
5.External static pressure option is available (30 Pa, 60 Pa, 80 Pa/3.1 $mmH_2O$, 6.1 $mmH_2O$, 8.2 $mmH_2O$).
Consult your dealer about the specification when setting External static pressure option.
6.R32 is flammable, and certain restrictions apply to the installation of units.
When installing new units, moving the existing units, or changing the layout of the room, ensure that installation restrictions are observed.
For detail, refer to the section in the Databook on installation restrictions.

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.

| Model | | | PURY-EM400YNW-A1 (-BS) |
|---|---|---|---|
| Power source | | | 3-phase 4-wire 380-400-415 V 50/60 Hz |
| Cooling capacity *1 (Nominal) | | kW | 45.0 |
| | | kcal/h | 40,000 |
| | | BTU/h | 153,500 |
| | Power input | kW | 13.84 |
| | Current input | A | 23.3-22.1-21.3 |
| | EER | kW/kW | 3.25 |
| Temp. range of cooling *3 | Indoor | W.B. | 15.0~24.0°C (59~75°F) |
| | Outdoor | D.B. | -5.0~52.0°C (23~126°F) |
| Heating capacity *2 (Nominal) | | kW | 50.0 |
| | | kcal/h | 45,000 |
| | | BTU/h | 170,600 |
| | Power input | kW | 13.88 |
| | Current input | A | 23.4-22.2-21.4 |
| | COP | kW/kW | 3.60 |
| Temp. range of heating *3 | Indoor | D.B. | 15.0~27.0°C (59~81°F) |
| | Outdoor | W.B. | -20.0~15.5°C (-4~60°F) |
| Indoor unit connectable | Total capacity | | 50~150% of outdoor unit capacity |
| | Model/Quantity | | WP10~125, W10~125/1~40 |
| Sound pressure level (measured in anechoic room) *4 | | dB <A> | 65.0/69.0 |
| Sound power level (measured in anechoic room) *4 | | dB <A> | 83.0/88.0 |
| Refrigerant piping diameter | High pressure | mm (in.) | 19.05 (3/4) Brazed |
| | Low pressure | mm (in.) | 28.58 (1-1/8) Brazed |
| FAN | Type x Quantity | | Propeller fan x 2 |
| | Air flow rate | $m^3$/min | 315 |
| | | L/s | 5,250 |
| | | cfm | 11,123 |
| | Control, Driving mechanism | | Inverter-control, Direct-driven by motor |
| | Motor output | kW | 0.46 x 2 |
| *5 | External static press. | | 0 Pa (0 $mmH_2O$) |
| Compressor | Type | | Inverter scroll hermetic compressor |
| | Manufacture | | AC&R Works, MITSUBISHI ELECTRIC CORPORATION |
| | Starting method | | Inverter |
| | Motor output | kW | 11.1 |
| | Case heater | kW | - (- V) |
| | Lubricant | | MEL46EH |
| External finish | | | Pre-coated galvanized steel sheets (+powder coating for -BS type)<br><MUNSELL 5Y 8/1 or similar> |
| External dimension H x W x D | | mm | 1,858 (1,798 without legs) x 1,240 x 740 |
| | | in. | 73-3/16 (70-13/16 without legs) x 48-7/8 x 29-3/16 |
| Protection devices | High pressure protection | | High pressure sensor, High pressure switch at 4.15 MPa (601 psi) |
| | Inverter circuit (COMP./FAN) | | Over-heat protection, Over-current protection |
| | Compressor | | - |
| | Fan motor | | - |
| Refrigerant | Type x original charge | | R32 x 8.0 kg (18 lbs) |
| | Control | | HBC controller |
| Net weight | | kg (lbs) | 280 (618) |
| Heat exchanger | | | Salt-resistant cross fin & aluminium tube |
| HIC circuit (HIC: Heat Inter-Changer) | | | - |
| Defrosting method | | | Auto-defrost mode (Reversed refrigerant cycle) |
| Drawing | External | | WKL94T602 |
| | Wiring | | WKE94G770 |
| Standard attachment | Document | | Installation Manual |
| | Accessory | | - |
| Optional parts | | | Main HBC controller: CMB-WM108,1016V-AA<br>Sub HBC controller: CMB-WM108,1016V-AB |
| Remarks | | | Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.<br>Due to continuing improvement, above specifications may be subject to change without notice. |

Notes:

1.Nominal cooling conditions (subject to JIS B8615-2)
Indoor: 27°CD.B./19°CW.B. (81°FD.B./66°FW.B.), Outdoor: 35°CD.B./24°CW.B. (95°FD.B./75°FW.B.)
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
2.Nominal heating conditions (subject to JIS B8615-2)
Indoor: 20°CD.B. (68°FD.B.), Outdoor: 7°CD.B./6°CW.B. (45°FD.B./43°FW.B.)
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
3.-5°CD.B. (23°FD.B.)/-6°CW.B. (21°FW.B.) to 21°CD.B. (70°FD.B.)/15.5°CW.B. (60°FW.B.)
with cooling/heating mixed operation.
4.Cooling mode/Heating mode
5.External static pressure option is available (30 Pa, 60 Pa, 80 Pa/3.1 $mmH_2O$, 6.1 $mmH_2O$, 8.2 $mmH_2O$).
Consult your dealer about the specification when setting External static pressure option.
6.R32 is flammable, and certain restrictions apply to the installation of units.
When installing new units, moving the existing units, or changing the layout of the room, ensure that installation restrictions are observed.
For detail, refer to the section in the Databook on installation restrictions.

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.

| Model | | | PURY-EM450YNW-A1 (-BS) |
|---|---|---|---|
| Power source | | | 3-phase 4-wire 380-400-415 V 50/60 Hz |
| Cooling capacity *1 (Nominal) | | kW | 50.0 |
| | | kcal/h | 45,000 |
| | | BTU/h | 170,600 |
| | Power input | kW | 15.24 |
| | Current input | A | 25.7-24.4-23.5 |
| | EER | kW/kW | 3.28 |
| Temp. range of cooling *3 | Indoor | W.B. | 15.0~24.0°C (59~75°F) |
| | Outdoor | D.B. | -5.0~52.0°C (23~126°F) |
| Heating capacity *2 (Nominal) | | kW | 56.0 |
| | | kcal/h | 50,000 |
| | | BTU/h | 191,100 |
| | Power input | kW | 15.77 |
| | Current input | A | 26.6-25.2-24.3 |
| | COP | kW/kW | 3.55 |
| Temp. range of heating *3 | Indoor | D.B. | 15.0~27.0°C (59~81°F) |
| | Outdoor | W.B. | -20.0~15.5°C (-4~60°F) |
| Indoor unit connectable | Total capacity | | 50~150% of outdoor unit capacity |
| | Model/Quantity | | WP10~125, W10~125/1~45 |
| Sound pressure level (measured in anechoic room) *4 | | dB <A> | 65.5/70.0 |
| Sound power level (measured in anechoic room) *4 | | dB <A> | 83.0/89.0 |
| Refrigerant piping diameter | High pressure | mm (in.) | 19.05 (3/4) Brazed |
| | Low pressure | mm (in.) | 28.58 (1-1/8) Brazed |
| FAN | Type x Quantity | | Propeller fan x 2 |
| | Air flow rate | $m^3$/min | 315 |
| | | L/s | 5,250 |
| | | cfm | 11,123 |
| | Control, Driving mechanism | | Inverter-control, Direct-driven by motor |
| | Motor output | kW | 0.46 x 2 |
| *5 | External static press. | | 0 Pa (0 $mmH_2O$) |
| Compressor | Type | | Inverter scroll hermetic compressor |
| | Manufacture | | AC&R Works, MITSUBISHI ELECTRIC CORPORATION |
| | Starting method | | Inverter |
| | Motor output | kW | 12.7 |
| | Case heater | kW | - (- V) |
| | Lubricant | | MEL46EH |
| External finish | | | Pre-coated galvanized steel sheets (+powder coating for -BS type)<br><MUNSELL 5Y 8/1 or similar> |
| External dimension H x W x D | | mm | 1,858 (1,798 without legs) x 1,240 x 740 |
| | | in. | 73-3/16 (70-13/16 without legs) x 48-7/8 x 29-3/16 |
| Protection devices | High pressure protection | | High pressure sensor, High pressure switch at 4.15 MPa (601 psi) |
| | Inverter circuit (COMP./FAN) | | Over-heat protection, Over-current protection |
| | Compressor | | - |
| | Fan motor | | - |
| Refrigerant | Type x original charge | | R32 x 10.8 kg (24 lbs) |
| | Control | | HBC controller |
| Net weight | | kg (lbs) | 305 (673) |
| Heat exchanger | | | Salt-resistant cross fin & aluminium tube |
| HIC circuit (HIC: Heat Inter-Changer) | | | - |
| Defrosting method | | | Auto-defrost mode (Reversed refrigerant cycle) |
| Drawing | External | | WKL94T602 |
| | Wiring | | WKE94G770 |
| Standard attachment | Document | | Installation Manual |
| | Accessory | | - |
| Optional parts | | | Main HBC controller: CMB-WM108,1016V-AA<br>Sub HBC controller: CMB-WM108,1016V-AB |
| Remarks | | | Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.<br>Due to continuing improvement, above specifications may be subject to change without notice. |

Notes:

1.Nominal cooling conditions (subject to JIS B8615-2)
Indoor: 27°CD.B./19°CW.B. (81°FD.B./66°FW.B.), Outdoor: 35°CD.B./24°CW.B. (95°FD.B./75°FW.B.)
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
2.Nominal heating conditions (subject to JIS B8615-2)
Indoor: 20°CD.B. (68°FD.B.), Outdoor: 7°CD.B./6°CW.B. (45°FD.B./43°FW.B.)
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
3.-5°CD.B. (23°FD.B.)/-6°CW.B. (21°FW.B.) to 21°CD.B. (70°FD.B.)/15.5°CW.B. (60°FW.B.)
with cooling/heating mixed operation.
4.Cooling mode/Heating mode
5.External static pressure option is available (30 Pa, 60 Pa, 80 Pa/3.1 $mmH_2O$, 6.1 $mmH_2O$, 8.2 $mmH_2O$).
Consult your dealer about the specification when setting External static pressure option.
6.R32 is flammable, and certain restrictions apply to the installation of units.
When installing new units, moving the existing units, or changing the layout of the room, ensure that installation restrictions are observed.
For detail, refer to the section in the Databook on installation restrictions.

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.

| Model | | | PURY-EM500YNW-A1 (-BS) |
|---|---|---|---|
| Power source | | | 3-phase 4-wire 380-400-415 V 50/60 Hz |
| Cooling capacity *1 (Nominal) | | kW | 56.0 |
| | | kcal/h | 50,000 |
| | | BTU/h | 191,100 |
| | Power input | kW | 18.06 |
| | Current input | A | 30.4-28.9-27.9 |
| | EER | kW/kW | 3.10 |
| Temp. range of cooling *3 | Indoor | W.B. | 15.0~24.0°C (59~75°F) |
| | Outdoor | D.B. | -5.0~52.0°C (23~126°F) |
| Heating capacity *2 (Nominal) | | kW | 63.0 |
| | | kcal/h | 54,200 |
| | | BTU/h | 215,000 |
| | Power input | kW | 17.45 |
| | Current input | A | 29.4-27.9-26.9 |
| | COP | kW/kW | 3.61 |
| Temp. range of heating *3 | Indoor | D.B. | 15.0~27.0°C (59~81°F) |
| | Outdoor | W.B. | -20.0~15.5°C (-4~60°F) |
| Indoor unit connectable | Total capacity | | 50~150% of outdoor unit capacity |
| | Model/Quantity | | WP10~125, W10~125/1~50 |
| Sound pressure level (measured in anechoic room) *4 | | dB <A> | 63.5/64.5 |
| Sound power level (measured in anechoic room) *4 | | dB <A> | 82.0/84.0 |
| Refrigerant piping diameter | High pressure | mm (in.) | 19.05 (3/4) Brazed |
| | Low pressure | mm (in.) | 28.58 (1-1/8) Brazed |
| FAN | Type x Quantity | | Propeller fan x 2 |
| | Air flow rate | $m^3$/min | 295 |
| | | L/s | 4,917 |
| | | cfm | 10,416 |
| | Control, Driving mechanism | | Inverter-control, Direct-driven by motor |
| | Motor output | kW | 0.92 x 2 |
| *5 | External static press. | | 0 Pa (0 $mmH_2O$) |
| Compressor | Type | | Inverter scroll hermetic compressor |
| | Manufacture | | AC&R Works, MITSUBISHI ELECTRIC CORPORATION |
| | Starting method | | Inverter |
| | Motor output | kW | 13.8 |
| | Case heater | kW | - (- V) |
| | Lubricant | | MEL46EH |
| External finish | | | Pre-coated galvanized steel sheets (+powder coating for -BS type)<br><MUNSELL 5Y 8/1 or similar> |
| External dimension H x W x D | | mm | 1,858 (1,798 without legs) x 1,750 x 740 |
| | | in. | 73-3/16 (70-13/16 without legs) x 68-15/16 x 29-3/16 |
| Protection devices | High pressure protection | | High pressure sensor, High pressure switch at 4.15 MPa (601 psi) |
| | Inverter circuit (COMP./FAN) | | Over-heat protection, Over-current protection |
| | Compressor | | - |
| | Fan motor | | - |
| Refrigerant | Type x original charge | | R32 x 10.8 kg (24 lbs) |
| | Control | | HBC controller |
| Net weight | | kg (lbs) | 348 (768) |
| Heat exchanger | | | Salt-resistant cross fin & aluminium tube |
| HIC circuit (HIC: Heat Inter-Changer) | | | - |
| Defrosting method | | | Auto-defrost mode (Reversed refrigerant cycle) |
| Drawing | External | | WKL94T603 |
| | Wiring | | WKE94G771 |
| Standard attachment | Document | | Installation Manual |
| | Accessory | | - |
| Optional parts | | | Main HBC controller: CMB-WM108,1016V-AA<br>Sub HBC controller: CMB-WM108,1016V-AB |
| Remarks | | | Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.<br>Due to continuing improvement, above specifications may be subject to change without notice. |

Notes:

1.Nominal cooling conditions (subject to JIS B8615-2)
Indoor: 27°CD.B./19°CW.B. (81°FD.B./66°FW.B.), Outdoor: 35°CD.B./24°CW.B. (95°FD.B./75°FW.B.)
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
2.Nominal heating conditions (subject to JIS B8615-2)
Indoor: 20°CD.B. (68°FD.B.), Outdoor: 7°CD.B./6°CW.B. (45°FD.B./43°FW.B.)
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
3.-5°CD.B. (23°FD.B.)/-6°CW.B. (21°FW.B.) to 21°CD.B. (70°FD.B.)/15.5°CW.B. (60°FW.B.)
with cooling/heating mixed operation.
4.Cooling mode/Heating mode
5.External static pressure option is available (30 Pa, 60 Pa, 80 Pa/3.1 $mmH_2O$, 6.1 $mmH_2O$, 8.2 $mmH_2O$).
Consult your dealer about the specification when setting External static pressure option.
6.R32 is flammable, and certain restrictions apply to the installation of units.
When installing new units, moving the existing units, or changing the layout of the room, ensure that installation restrictions are observed.
For detail, refer to the section in the Databook on installation restrictions.

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.

## PURY-M200, 250, 300YNW-A1(-BS)

Unit: mm

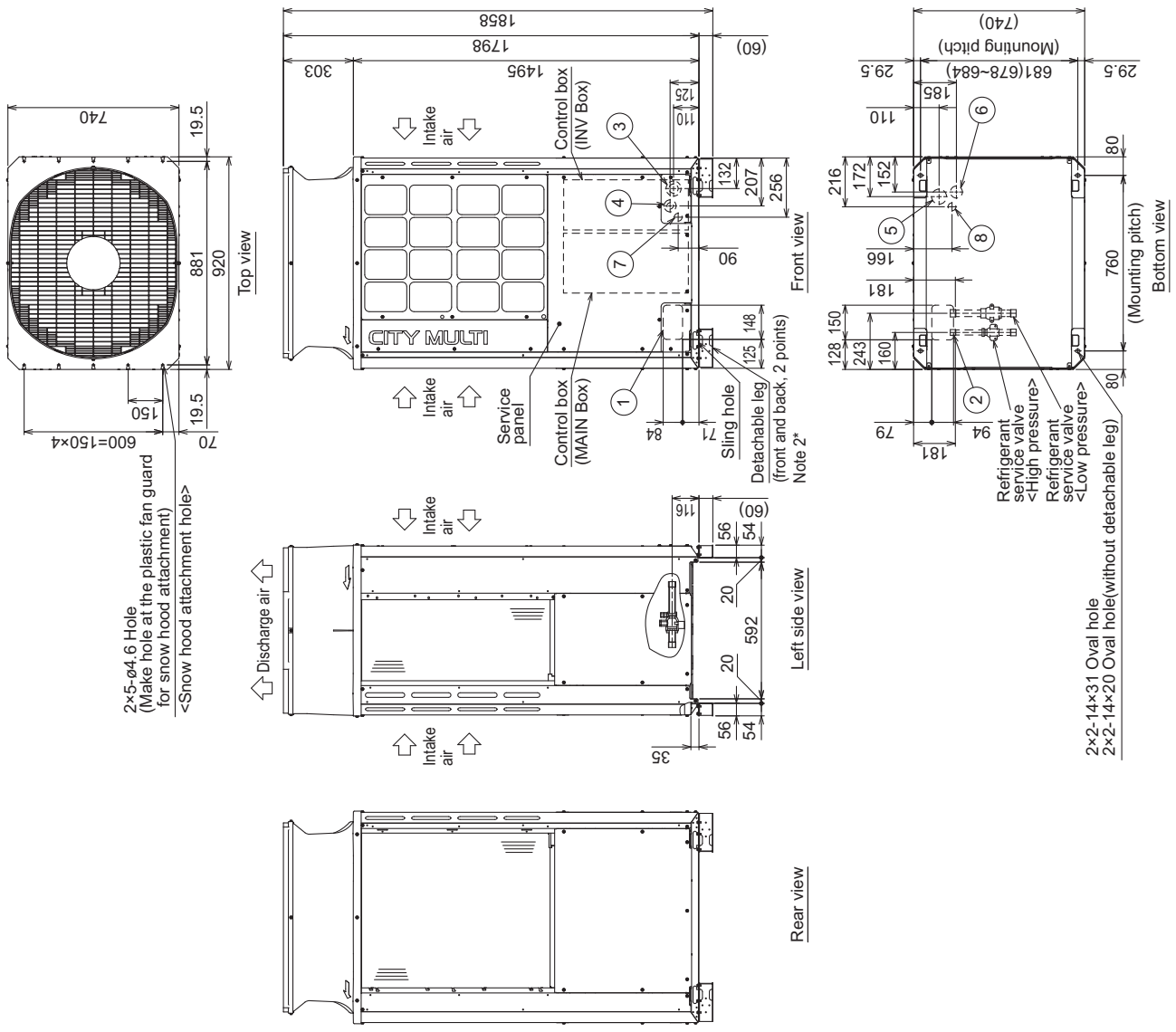
Note 1.Please refer to the next page for information regarding necessary spacing around the unit and foundation work.
2.The detachable leg can be removed at site.
3.At brazing of pipes, wrap the refrigerant service valve with wet cloth and keep the temperature of refrigerant service valve under 120°C.
4.This unit has restrictions for the safety, so refer to SAFETY HANDLING FOR R32 or the Installation Manual.

Connecting pipe specifications

| Model | Diameter | | | |
|---|---|---|---|---|
| | Refrigerant pipe | | Service valve | |
| | High pressure | Low pressure | High pressure | Low pressure |
| M200 | ø15.88 Brazed *1 | ø19.05 Brazed *1 | ø22.2 | ø28.58 |
| M250 | | ø22.2 Brazed *1 | | |
| M300 | | | | |

*1 Connect the refrigerant pipe to the service valve according to the Installation Manual.

| NO. | Usage | | Specifications |
|---|---|---|---|
| ① | For pipes | Front through hole | 148 × 84 Knockout hole |
| ② | | Bottom through hole | 150 × 94 Knockout hole |
| ③ | For wires | Front through hole | ø65 or ø40 Knockout hole |
| ④ | | Front through hole | ø52 or ø27 Knockout hole |
| ⑤ | | Bottom through hole | ø65 Knockout hole |
| ⑥ | | Bottom through hole | ø52 Knockout hole |
| ⑦ | For transmission cables | Front through hole | ø34 Knockout hole |
| ⑧ | | Bottom through hole | ø34 Knockout hole |

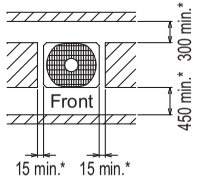


## 1. Required space around the unit

### ●In case of single installation

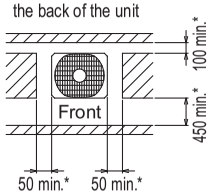
① Secure enough space around the unit as shown in the figure below.

· With a space of at least 300mm to the wall on the back of the unit




<Top view>

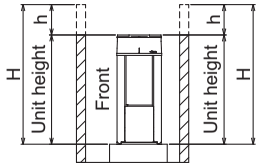
· With a space of at least 100mm to the wall on the back of the unit




<Top view>

<Unit:mm>

② When the height of the walls on the front, back or on the sides<H> exceeds the wall height limit as defined below add the height that exceeds the height limit <h> to the figures that are marked with an asterisk.




<Side view>

<Wall height limit> Front :Up to the unit height
Back :Up to the unit height
Side :Up to the unit height

## 2. Foundation work

① Take into consideration the surface strength, water drainage route, piping route, and wiring route when preparing the installation site.
<Note that the drain water comes out of the unit during operation.>

② Build the foundation in such way that the corner of the installation leg is securely supported as shown in the right figure.(Fig.A,B)
When using a rubber isolating cushion, please ensure it is large enough to cover the entire width of each of the unit's legs.

③ The protrusion length of the anchor bolt must not exceed 30mm.(Fig.A,B)

④ Use four fixing plates as shown in the right figure <field supply required> when using post-installed anchor bolts.(Fig.C,D)

⑤ To prevent small animals and water and snow from entering the unit and damaging its parts, close the gap around the edges of through holes for pipes and wires with filler plates <field supply required>.

⑥ When the pipes or cables are routed at the bottom of the unit, make sure that the through hole at the base of the unit does not get blocked with the installation base.

⑦ Refer to the Installation Manual when installing units on an installation base.

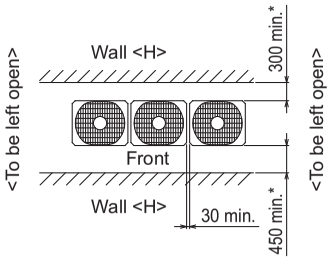
### ●In case of collective installation

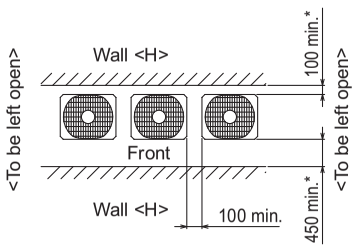
① When multiple units are installed adjacent to each other, secure enough space to allow for air circulation and walkway between groups of units as shown in the figures below.

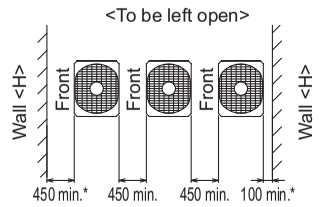
② At least two sides must be left open.

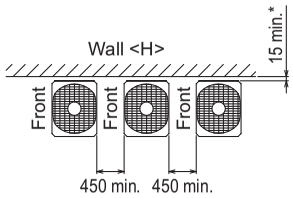
③ As with the single installation, add the height that exceeds the height limit<h> to the figures that are marked with an asterisk.

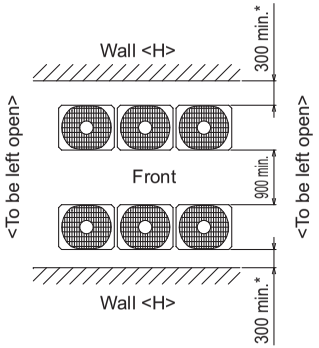
④ If there is a wall at both the front and the rear of the unit, install up to six units consecutively in the side direction and provide a space of 1000mm or more as inlet space/ passage space for each six units.

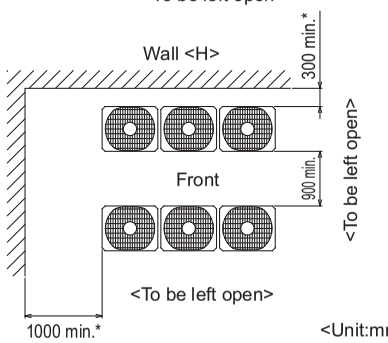
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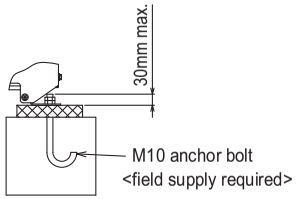



Fig.A (without detachable legs)

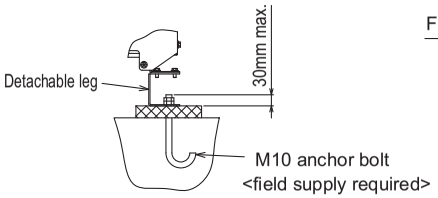



Fig.B (with detachable legs)

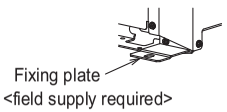



Fig.C (without detachable legs)

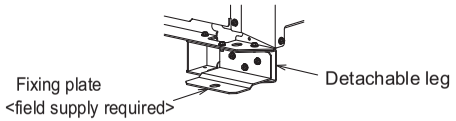



Fig.D (with detachable legs)

Unit: mm

# PURY-M350,400,450YNW-A1(-BS)

Unit: mm

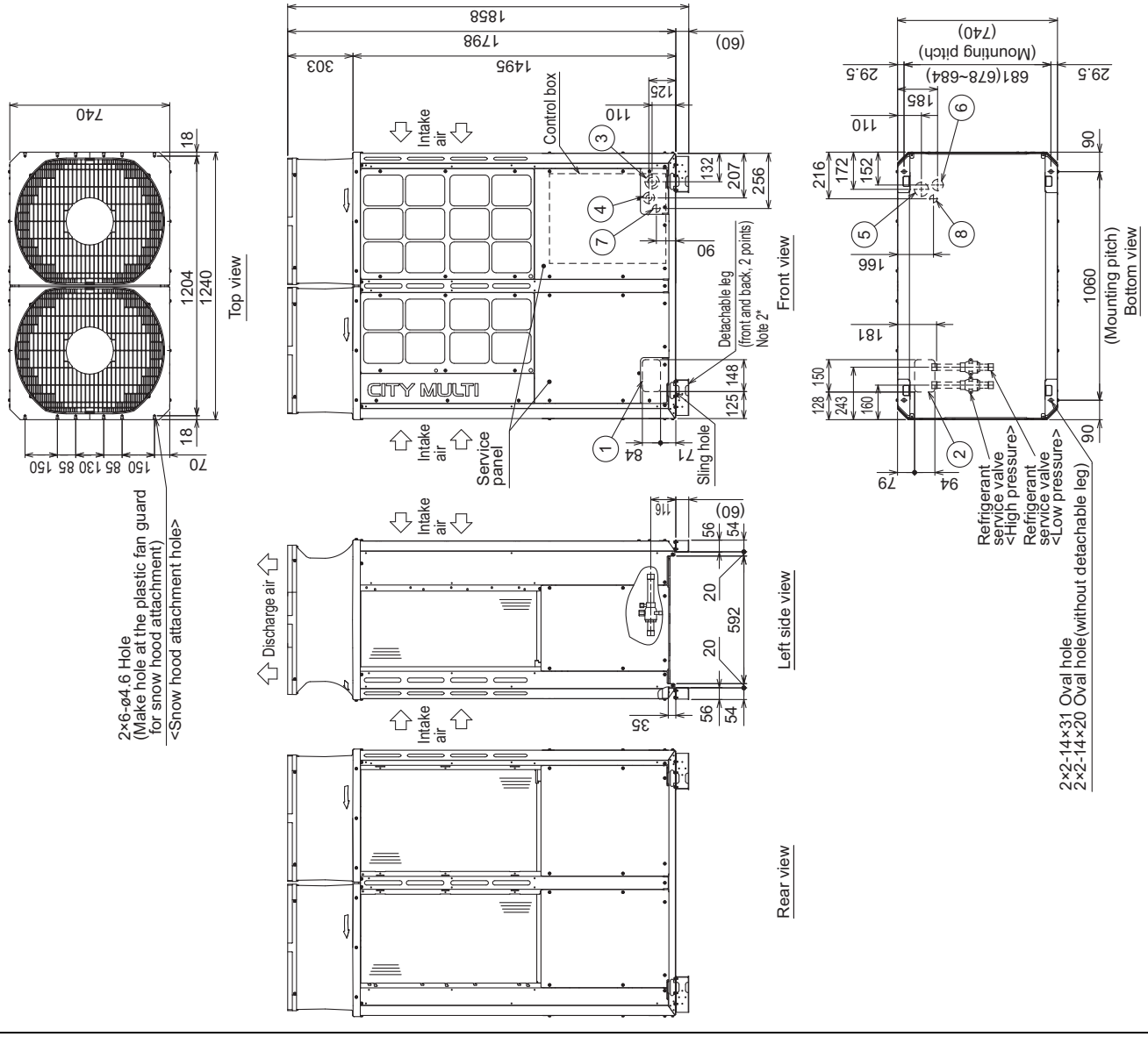
Note 1.Please refer to the next page for information regarding necessary spacing around the unit and foundation work.
2.The detachable leg can be removed at site.
3.At brazing of pipes, wrap the refrigerant service valve with wet cloth and keep the temperature of refrigerant service valve under 120°C.
4.This unit has restrictions for the safety, so refer to SAFETY HANDLING FOR R32 or the Installation Manual.

Connecting pipe specifications

| Model | Diameter | | | |
|---|---|---|---|---|
| | Refrigerant pipe | | Service valve | |
| | High pressure | Low pressure | High pressure | Low pressure |
| M350 | ø15.88 Brazed *1 | ø28.58 Brazed | ø28.58 | ø28.58 |
| M400 | ø19.05 Brazed *1 | | | |
| M450 | | | | |

*1 Connect the refrigerant pipe to the service valve according to the Installation Manual.

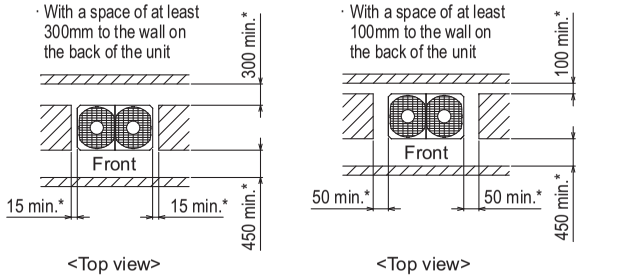
| NO. | Usage | | Specifications |
|---|---|---|---|
| ① | For pipes | Front through hole | 148 × 84 Knockout hole |
| ② | | Bottom through hole | 150 × 94 Knockout hole |
| ③ | For wires | Front through hole | ø65 or ø40 Knockout hole |
| ④ | | Front through hole | ø52 or ø27 Knockout hole |
| ⑤ | | Bottom through hole | ø65 Knockout hole |
| ⑥ | | Bottom through hole | ø52 Knockout hole |
| ⑦ | For transmission cables | Front through hole | ø34 Knockout hole |
| ⑧ | | Bottom through hole | ø34 Knockout hole |



## 1. Required space around the unit

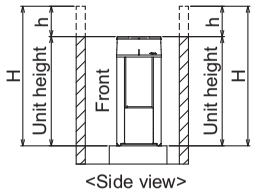
### ●In case of single installation

① Secure enough space around the unit as shown in the figure below.




<Unit:mm>

② When the height of the walls on the front, back or on the sides<H> exceeds the wall height limit as defined below add the height that exceeds the height limit <h> to the figures that are marked with an asterisk.




<Wall height limit> Front :Up to the unit height
Back :Up to the unit height
Side :Up to the unit height

## 2. Foundation work

① Take into consideration the surface strength, water drainage route, piping route, and wiring route when preparing the installation site.
<Note that the drain water comes out of the unit during operation.>

② Build the foundation in such way that the corner of the installation leg is securely supported as shown in the right figure.(Fig.A,B)
When using a rubber isolating cushion, please ensure it is large enough to cover the entire width of each of the unit's legs.

③ The protrusion length of the anchor bolt must not exceed 30mm.(Fig.A,B)

④ Use four fixing plates as shown in the right figure <field supply required> when using post-installed anchor bolts.(Fig.C,D)

⑤ To prevent small animals and water and snow from entering the unit and damaging its parts, close the gap around the edges of through holes for pipes and wires with filler plates <field supply required>.

⑥ When the pipes or cables are routed at the bottom of the unit, make sure that the through hole at the base of the unit does not get blocked with the installation base.

⑦ Refer to the Installation Manual when installing units on an installation base.

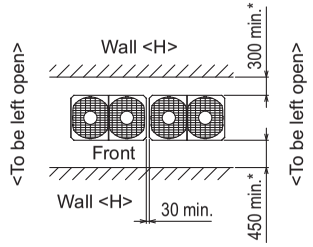
### ●In case of collective installation

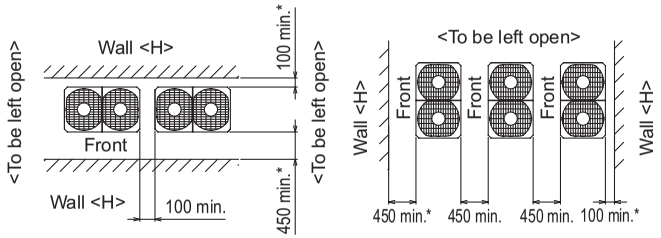
① When multiple units are installed adjacent to each other, secure enough space to allow for air circulation and walkway between groups of units as shown in the figures below.

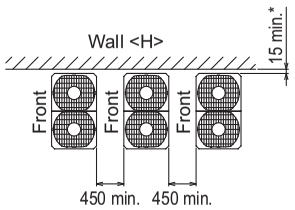
② At least two sides must be left open.

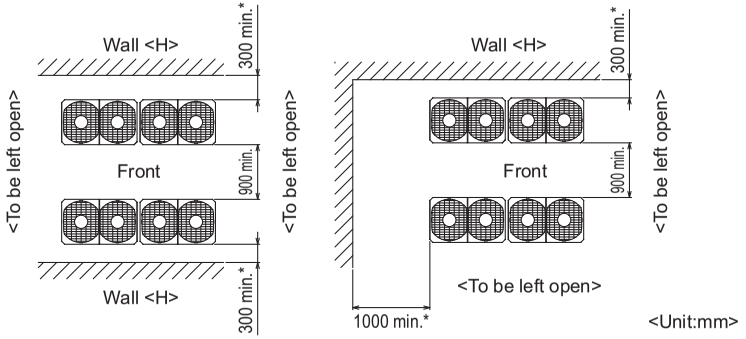
③ As with the single installation, add the height that exceeds the height limit<h> to the figures that are marked with an asterisk.

④ If there is a wall at both the front and the rear of the unit, install up to six units consecutively in the side direction and provide a space of 1000mm or more as inlet space/ passage space for each six units.

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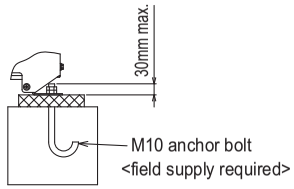



Fig.A (without detachable legs)

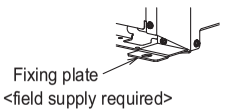



Fig.C (without detachable legs)

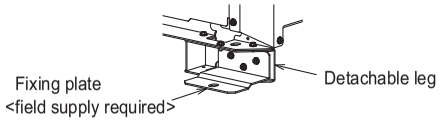



Fig.D (with detachable legs)

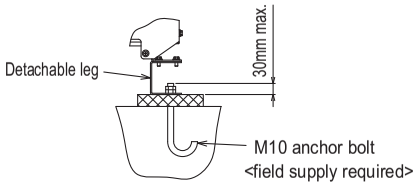



Fig.B (with detachable legs)

Unit: mm

## PURY-M500YNW-A1(-BS)

Unit: mm

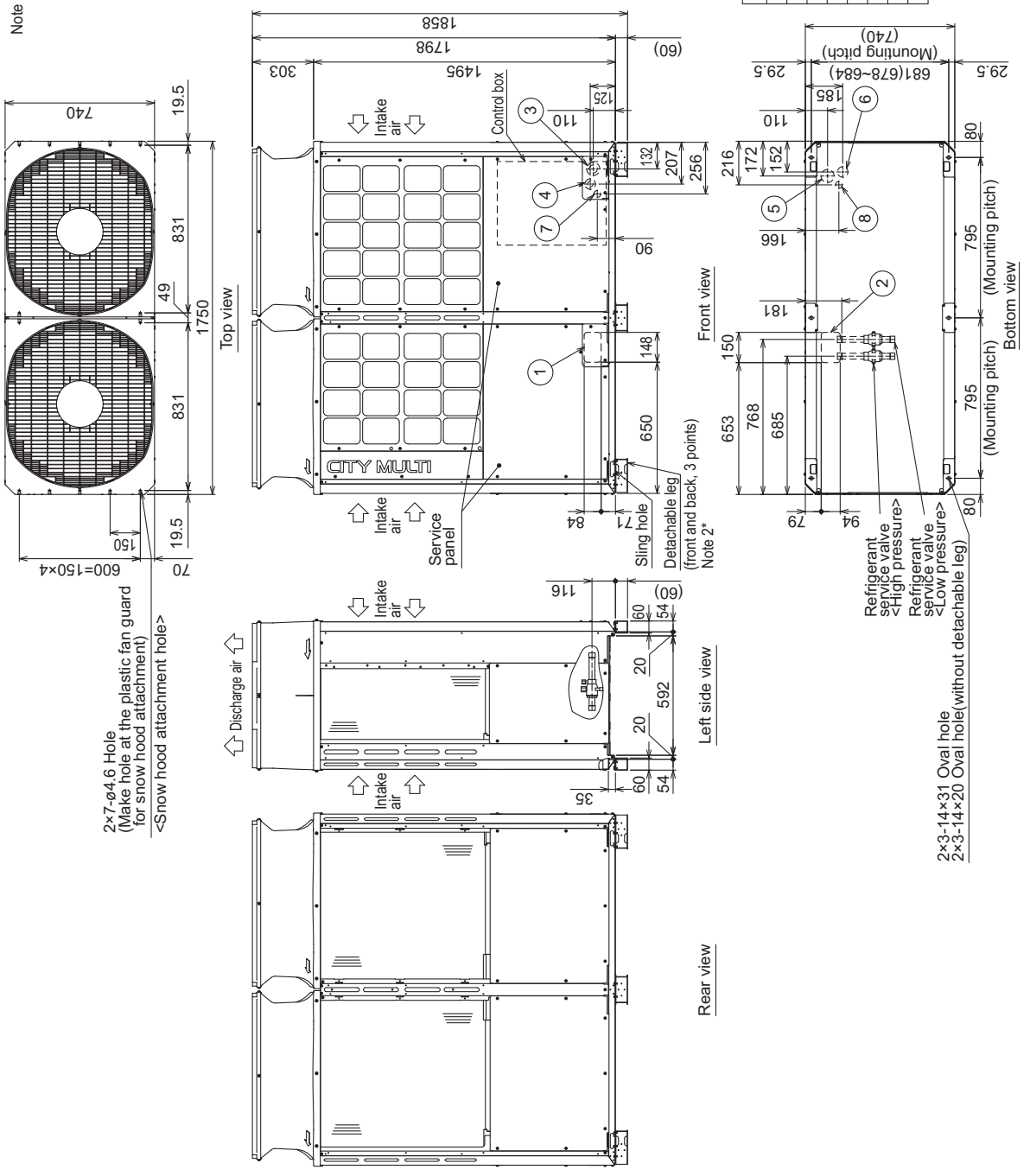
Note 1.Please refer to the next page for information regarding necessary spacing around the unit and foundation work.
2.The detachable leg can be removed at site.
3.At brazing of pipes, wrap the refrigerant service valve with wet cloth and keep the temperature of refrigerant service valve under 120°C.
4.This unit has restrictions for the safety, so refer to SAFETY HANDLING FOR R32 or the Installation Manual.

Connecting pipe specifications

| Model | Diameter | | | |
|---|---|---|---|---|
| | Refrigerant pipe | | Service valve | |
| | High pressure | Low pressure | High pressure | Low pressure |
| M500 | ø19.05 Brazed *1 | ø28.58 Brazed | ø28.58 | ø28.58 |

*1 Connect the refrigerant pipe to the service valve according to the Installation Manual.

| NO. | Usage | | Specifications |
|---|---|---|---|
| ① | For pipes | Front through hole | 148 × 84 Knockout hole |
| ② | | Bottom through hole | 150 × 94 Knockout hole |
| ③ | For wires | Front through hole | ø65 or ø40 Knockout hole |
| ④ | | Front through hole | ø52 or ø27 Knockout hole |
| ⑤ | | Bottom through hole | ø65 Knockout hole |
| ⑥ | | Bottom through hole | ø52 Knockout hole |
| ⑦ | For transmission cables | Front through hole | ø34 Knockout hole |
| ⑧ | | Bottom through hole | ø34 Knockout hole |

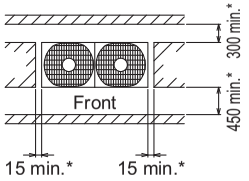


## 1. Required space around the unit

### ●In case of single installation

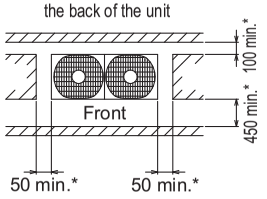
① Secure enough space around the unit as shown in the figure below.

· With a space of at least 300mm to the wall on the back of the unit




<Top view>

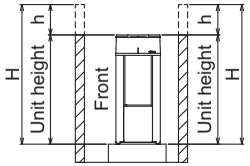
· With a space of at least 100mm to the wall on the back of the unit




<Top view>

<Unit:mm>

② When the height of the walls on the front, back or on the sides<H> exceeds the wall height limit as defined below add the height that exceeds the height limit <h> to the figures that are marked with an asterisk.




<Side view>

<Wall height limit> Front :Up to the unit height
Back :Up to the unit height
Side :Up to the unit height

## 2. Foundation work

① Take into consideration the surface strength, water drainage route, piping route, and wiring route when preparing the installation site.
<Note that the drain water comes out of the unit during operation.>

② Build the foundation in such way that the corner of the installation leg is securely supported as shown in the right figure.(Fig.A,B)
When using a rubber isolating cushion, please ensure it is large enough to cover the entire width of each of the unit's legs.

③ The protrusion length of the anchor bolt must not exceed 30mm.(Fig.A,B)

④ Use four fixing plates as shown in the right figure <field supply required> when using post-installed anchor bolts.(Fig.C,D)

⑤ To prevent small animals and water and snow from entering the unit and damaging its parts, close the gap around the edges of through holes for pipes and wires with filler plates <field supply required>.

⑥ When the pipes or cables are routed at the bottom of the unit, make sure that the through hole at the base of the unit does not get blocked with the installation base.

⑦ Refer to the Installation Manual when installing units on an installation base.

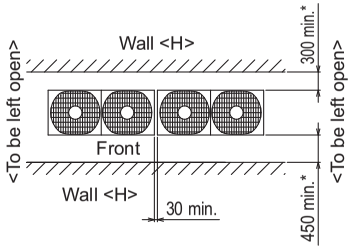
### ●In case of collective installation

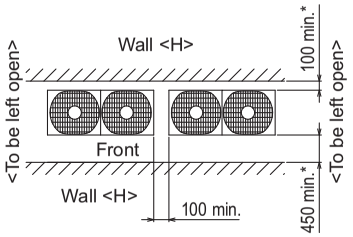
① When multiple units are installed adjacent to each other, secure enough space to allow for air circulation and walkway between groups of units as shown in the figures below.

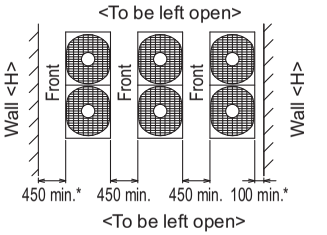
② At least two sides must be left open.

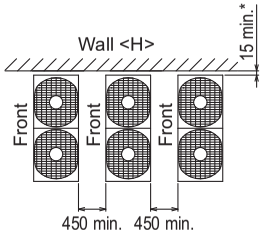
③ As with the single installation, add the height that exceeds the height limit<h> to the figures that are marked with an asterisk.

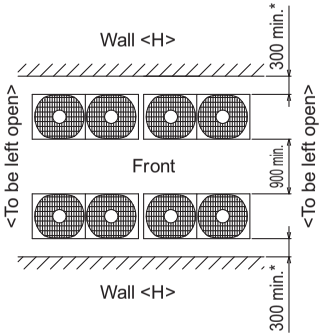
④ If there is a wall at both the front and the rear of the unit, install up to three units consecutively in the side direction and provide a space of 1000mm or more as inlet space/ passage space for each three units.

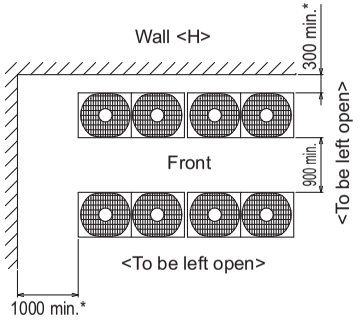
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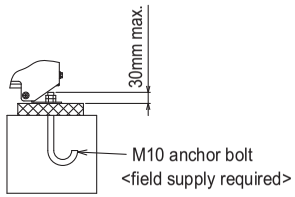



Fig.A (without detachable legs)

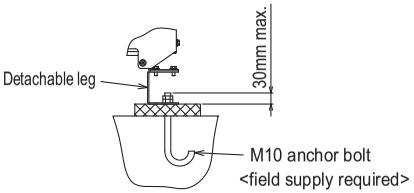



Fig.B (with detachable legs)


Fig.C (without detachable legs)

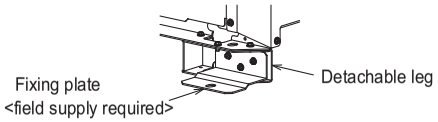



Fig.D (with detachable legs)

## PURY-EM200, 250, 300YNW-A1(-BS)

Unit: mm

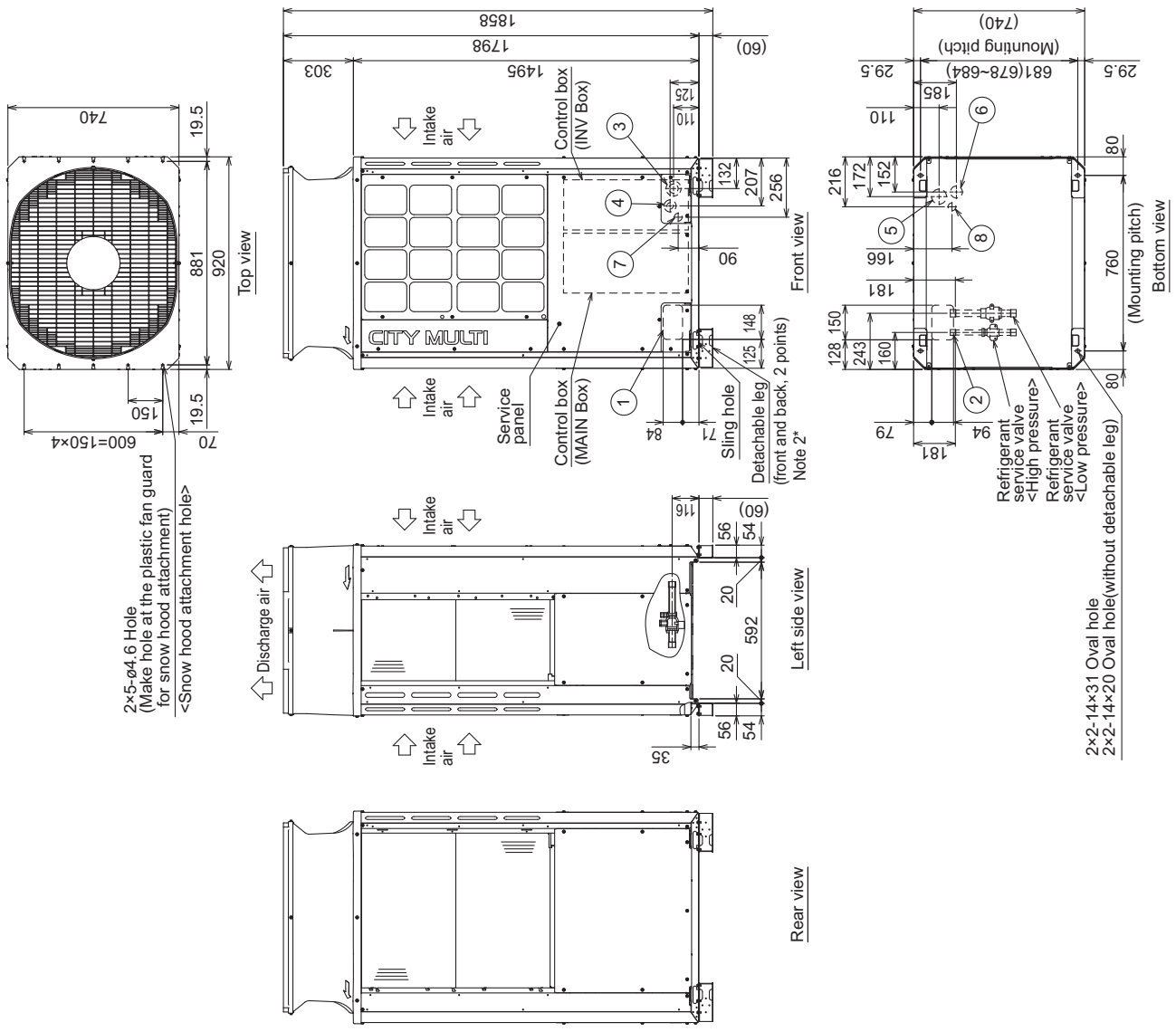
Note 1.Please refer to the next page for information regarding necessary spacing around the unit and foundation work.
2.The detachable leg can be removed at site.
3.At brazing of pipes, wrap the refrigerant service valve with wet cloth and keep the temperature of refrigerant service valve under 120°C.
4.This unit has restrictions for the safety, so refer to SAFETY HANDLING FOR R32 or the Installation Manual.

Connecting pipe specifications

| Model | Diameter | | | |
|---|---|---|---|---|
| | Refrigerant pipe | | Service valve | |
| | High pressure | Low pressure | High pressure | Low pressure |
| EM200 | ø15.88 Brazed *1 | ø19.05 Brazed *1 | ø22.2 | ø28.58 |
| EM250 | | ø22.2 Brazed *1 | | |
| EM300 | | | | |

*1 Connect the refrigerant pipe to the service valve according to the Installation Manual.

| NO. | Usage | | Specifications |
|---|---|---|---|
| ① | For pipes | Front through hole | 148 × 84 Knockout hole |
| ② | | Bottom through hole | 150 × 94 Knockout hole |
| ③ | For wires | Front through hole | ø65 or ø40 Knockout hole |
| ④ | | Front through hole | ø52 or ø27 Knockout hole |
| ⑤ | | Bottom through hole | ø65 Knockout hole |
| ⑥ | | Bottom through hole | ø52 Knockout hole |
| ⑦ | For transmission cables | Front through hole | ø34 Knockout hole |
| ⑧ | | Bottom through hole | ø34 Knockout hole |

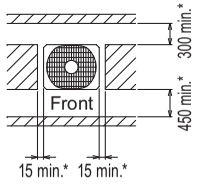


## 1. Required space around the unit

### ●In case of single installation

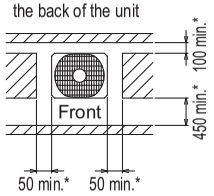
① Secure enough space around the unit as shown in the figure below.

· With a space of at least 300mm to the wall on the back of the unit




<Top view>

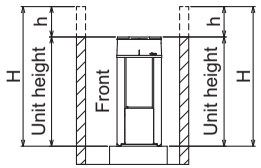
· With a space of at least 100mm to the wall on the back of the unit




<Top view>

<Unit:mm>

② When the height of the walls on the front, back or on the sides<H> exceeds the wall height limit as defined below add the height that exceeds the height limit <h> to the figures that are marked with an asterisk.

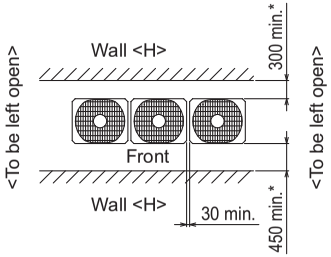


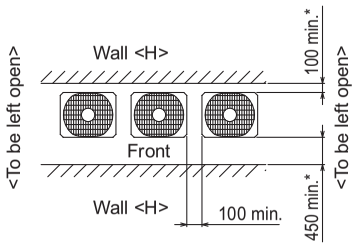

<Side view>

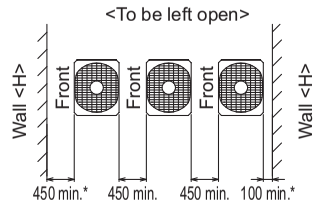
<Wall height limit> Front :Up to the unit height
Back :Up to the unit height
Side :Up to the unit height

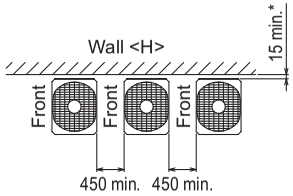
### ●In case of collective installation

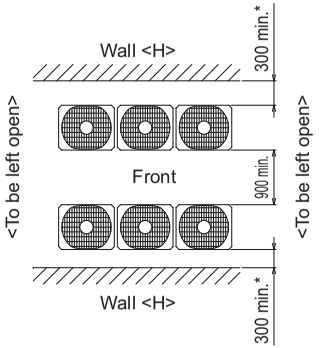
① When multiple units are installed adjacent to each other, secure enough space to allow for air circulation and walkway between groups of units as shown in the figures below.
② At least two sides must be left open.
③ As with the single installation, add the height that exceeds the height limit<h> to the figures that are marked with an asterisk.
④ If there is a wall at both the front and the rear of the unit, install up to six units consecutively in the side direction and provide a space of 1000mm or more as inlet space/ passage space for each six units.

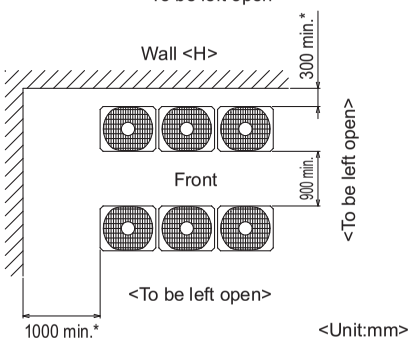



<Unit:mm>

## 2. Foundation work

① Take into consideration the surface strength, water drainage route, piping route, and wiring route when preparing the installation site.
<Note that the drain water comes out of the unit during operation.>
② Build the foundation in such way that the corner of the installation leg is securely supported as shown in the right figure.(Fig.A,B)
When using a rubber isolating cushion, please ensure it is large enough to cover the entire width of each of the unit's legs.
③ The protrusion length of the anchor bolt must not exceed 30mm.(Fig.A,B)
④ Use four fixing plates as shown in the right figure <field supply required> when using post-installed anchor bolts.(Fig.C,D)
⑤ To prevent small animals and water and snow from entering the unit and damaging its parts, close the gap around the edges of through holes for pipes and wires with filler plates <field supply required>.
⑥ When the pipes or cables are routed at the bottom of the unit, make sure that the through hole at the base of the unit does not get blocked with the installation base.
⑦ Refer to the Installation Manual when installing units on an installation base.

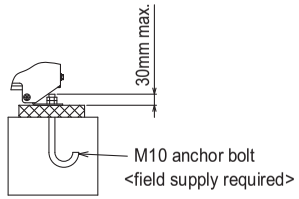



Fig.A (without detachable legs)

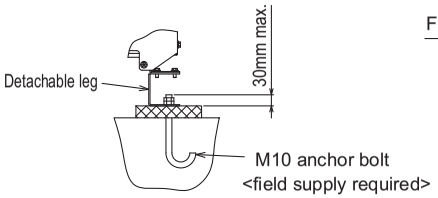



Fig.B (with detachable legs)

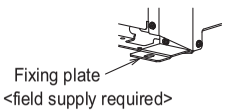



Fig.C (without detachable legs)

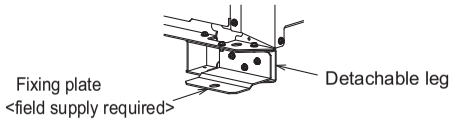



Fig.D (with detachable legs)

Unit: mm

# PURY-EM350,400,450YNW-A1(-BS)

Unit: mm

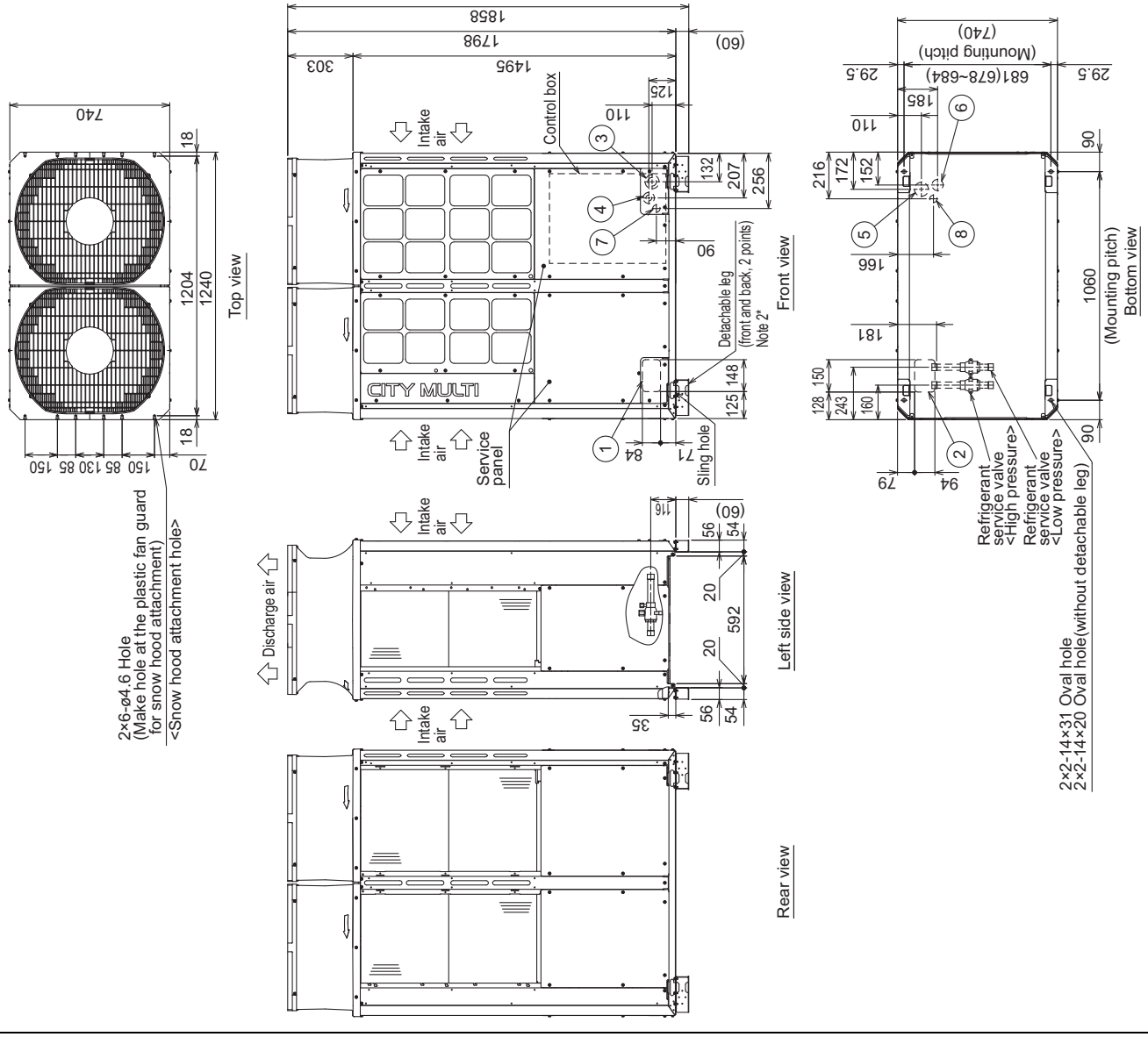
Note 1.Please refer to the next page for information regarding necessary spacing around the unit and foundation work.
2.The detachable leg can be removed at site.
3.At brazing of pipes, wrap the refrigerant service valve with wet cloth and keep the temperature of refrigerant service valve under 120°C.
4.This unit has restrictions for the safety, so refer to SAFETY HANDLING FOR R32 or the Installation Manual.

Connecting pipe specifications

| Model | Diameter | | | |
|---|---|---|---|---|
| | Refrigerant pipe | | Service valve | |
| | High pressure | Low pressure | High pressure | Low pressure |
| EM350 | ø15.88 Brazed *1 | ø28.58 Brazed | ø28.58 | ø28.58 |
| EM400 | ø19.05 Brazed *1 | | | |
| EM450 | | | | |

*1 Connect the refrigerant pipe to the service valve according to the Installation Manual.

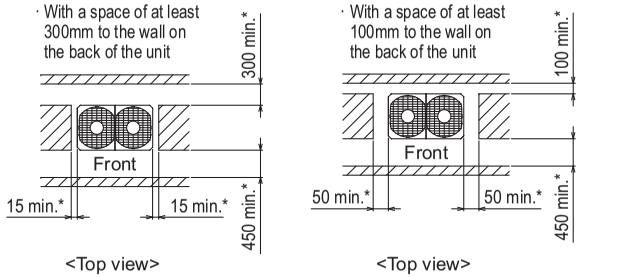
| NO. | Usage | Specifications |
|---|---|---|
| ① | For pipes | Front through hole: 148 × 84 Knockout hole |
| ② | | Bottom through hole: 150 × 94 Knockout hole |
| ③ | For wires | Front through hole: ø65 or ø40 Knockout hole |
| ④ | | Front through hole: ø52 or ø27 Knockout hole |
| ⑤ | | Bottom through hole: ø65 Knockout hole |
| ⑥ | | Bottom through hole: ø52 Knockout hole |
| ⑦ | For transmission cables | Front through hole: ø34 Knockout hole |
| ⑧ | | Bottom through hole: ø34 Knockout hole |



## 1. Required space around the unit

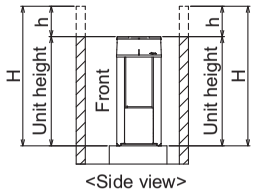
### ●In case of single installation

① Secure enough space around the unit as shown in the figure below.




<Unit:mm>

② When the height of the walls on the front, back or on the sides<H> exceeds the wall height limit as defined below add the height that exceeds the height limit <h> to the figures that are marked with an asterisk.




<Wall height limit> Front :Up to the unit height
Back :Up to the unit height
Side :Up to the unit height

## 2. Foundation work

① Take into consideration the surface strength, water drainage route, piping route, and wiring route when preparing the installation site.
<Note that the drain water comes out of the unit during operation.>

② Build the foundation in such way that the corner of the installation leg is securely supported as shown in the right figure.(Fig.A,B)
When using a rubber isolating cushion, please ensure it is large enough to cover the entire width of each of the unit's legs.

③ The protrusion length of the anchor bolt must not exceed 30mm.(Fig.A,B)

④ Use four fixing plates as shown in the right figure <field supply required> when using post-installed anchor bolts.(Fig.C,D)

⑤ To prevent small animals and water and snow from entering the unit and damaging its parts, close the gap around the edges of through holes for pipes and wires with filler plates <field supply required>.

⑥ When the pipes or cables are routed at the bottom of the unit, make sure that the through hole at the base of the unit does not get blocked with the installation base.

⑦ Refer to the Installation Manual when installing units on an installation base.

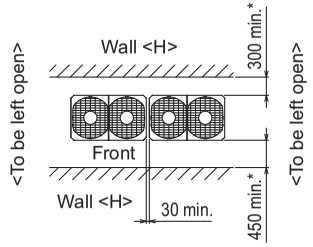
### ●In case of collective installation

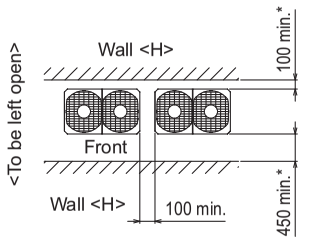
① When multiple units are installed adjacent to each other, secure enough space to allow for air circulation and walkway between groups of units as shown in the figures below.

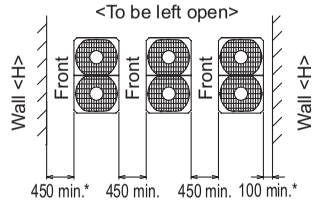
② At least two sides must be left open.

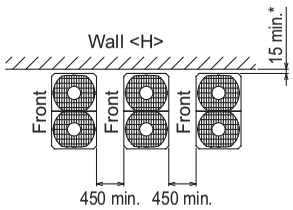
③ As with the single installation, add the height that exceeds the height limit<h> to the figures that are marked with an asterisk.

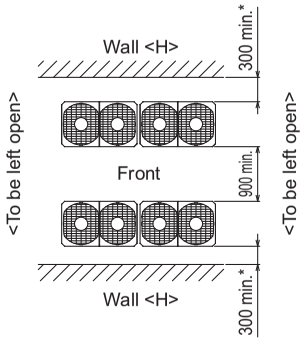
④ If there is a wall at both the front and the rear of the unit, install up to six units consecutively in the side direction and provide a space of 1000mm or more as inlet space/ passage space for each six units.

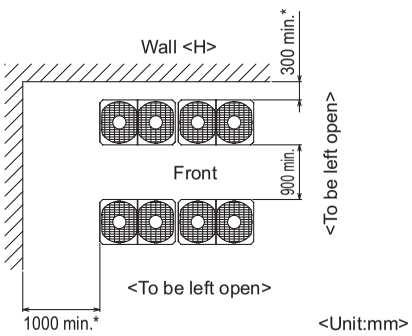



<Unit:mm>

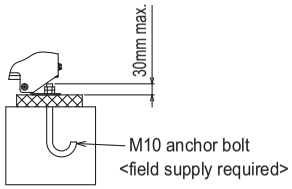



Fig.A (without detachable legs)

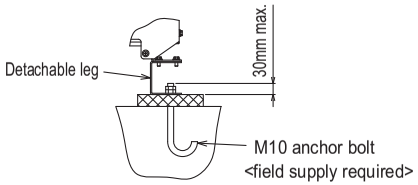



Fig.B (with detachable legs)

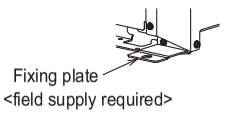



Fig.C (without detachable legs)

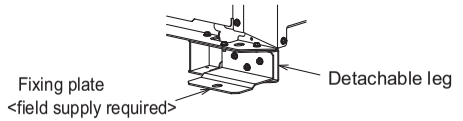



Fig.D (with detachable legs)

Unit: mm

## PURY-EM500YNW-A1(-BS)

Unit: mm

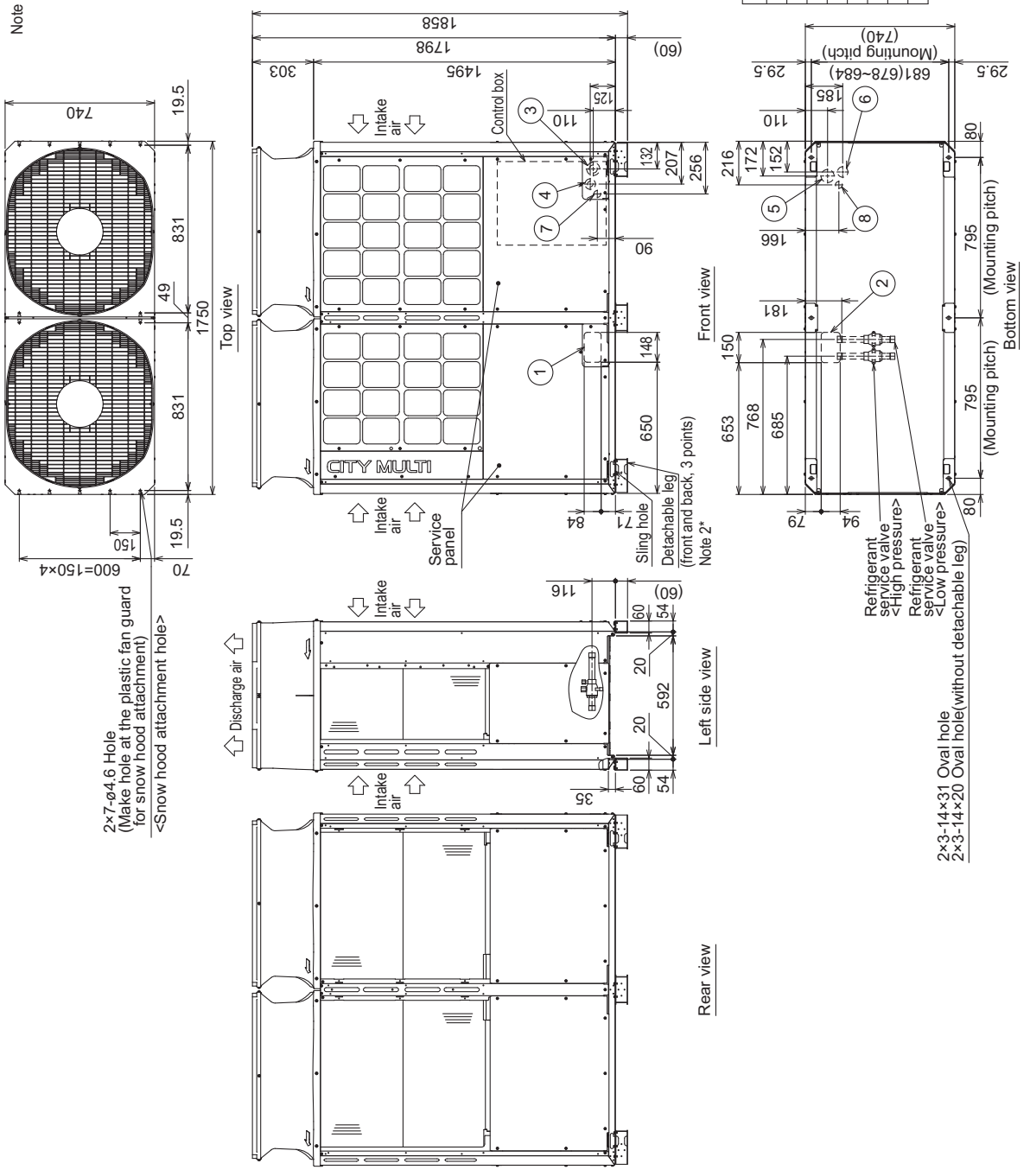
Note 1.Please refer to the next page for information regarding necessary spacing around the unit and foundation work.
2.The detachable leg can be removed at site.
3.At brazing of pipes, wrap the refrigerant service valve with wet cloth and keep the temperature of refrigerant service valve under 120°C.
4.This unit has restrictions for the safety, so refer to SAFETY HANDLING FOR R32 or the Installation Manual.

Connecting pipe specifications

| Model | Diameter | | | |
|---|---|---|---|---|
| | Refrigerant pipe | | Service valve | |
| | High pressure | Low pressure | High pressure | Low pressure |
| EM500 | ø19.05 Brazed *1 | ø28.58 Brazed | ø28.58 | ø28.58 |

*1 Connect the refrigerant pipe to the service valve according to the Installation Manual.

| NO. | Usage | | Specifications |
|---|---|---|---|
| ① | For pipes | Front through hole | 148 × 84 Knockout hole |
| ② | | Bottom through hole | 150 × 94 Knockout hole |
| ③ | For wires | Front through hole | ø65 or ø40 Knockout hole |
| ④ | | Front through hole | ø52 or ø27 Knockout hole |
| ⑤ | | Bottom through hole | ø65 Knockout hole |
| ⑥ | | Bottom through hole | ø52 Knockout hole |
| ⑦ | For transmission cables | Front through hole | ø34 Knockout hole |
| ⑧ | | Bottom through hole | ø34 Knockout hole |

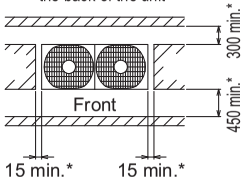


## 1. Required space around the unit

### ●In case of single installation

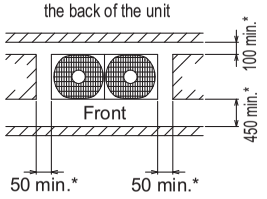
① Secure enough space around the unit as shown in the figure below.

· With a space of at least 300mm to the wall on the back of the unit




<Top view>

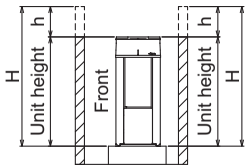
· With a space of at least 100mm to the wall on the back of the unit




<Top view>

<Unit:mm>

② When the height of the walls on the front, back or on the sides<H> exceeds the wall height limit as defined below add the height that exceeds the height limit <h> to the figures that are marked with an asterisk.




<Side view>

<Wall height limit> Front :Up to the unit height
Back :Up to the unit height
Side :Up to the unit height

## 2. Foundation work

① Take into consideration the surface strength, water drainage route, piping route, and wiring route when preparing the installation site.
<Note that the drain water comes out of the unit during operation.>

② Build the foundation in such way that the corner of the installation leg is securely supported as shown in the right figure.(Fig.A,B)
When using a rubber isolating cushion, please ensure it is large enough to cover the entire width of each of the unit's legs.

③ The protrusion length of the anchor bolt must not exceed 30mm.(Fig.A,B)

④ Use four fixing plates as shown in the right figure <field supply required> when using post-installed anchor bolts.(Fig.C,D)

⑤ To prevent small animals and water and snow from entering the unit and damaging its parts, close the gap around the edges of through holes for pipes and wires with filler plates <field supply required>.

⑥ When the pipes or cables are routed at the bottom of the unit, make sure that the through hole at the base of the unit does not get blocked with the installation base.

⑦ Refer to the Installation Manual when installing units on an installation base.

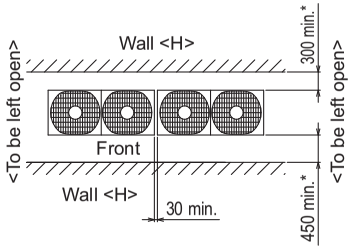
### ●In case of collective installation

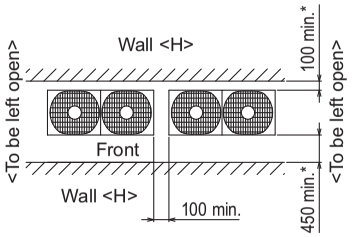
① When multiple units are installed adjacent to each other, secure enough space to allow for air circulation and walkway between groups of units as shown in the figures below.

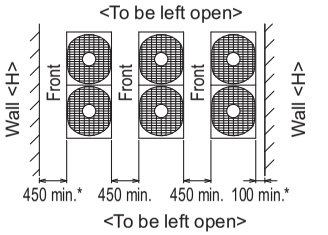
② At least two sides must be left open.

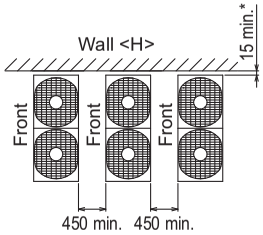
③ As with the single installation, add the height that exceeds the height limit<h> to the figures that are marked with an asterisk.

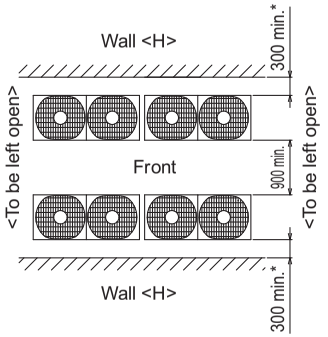
④ If there is a wall at both the front and the rear of the unit, install up to three units consecutively in the side direction and provide a space of 1000mm or more as inlet space/ passage space for each three units.

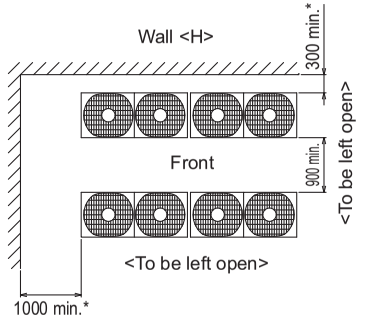



<Unit:mm>

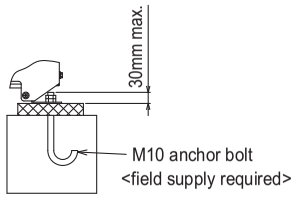



Fig.A (without detachable legs)


Fig.C (without detachable legs)

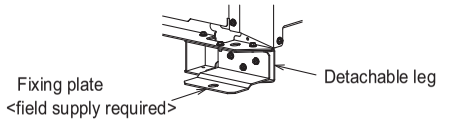



Fig.D (with detachable legs)

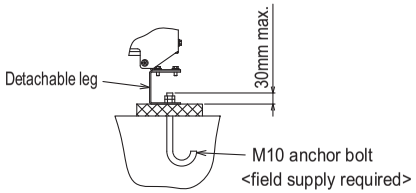
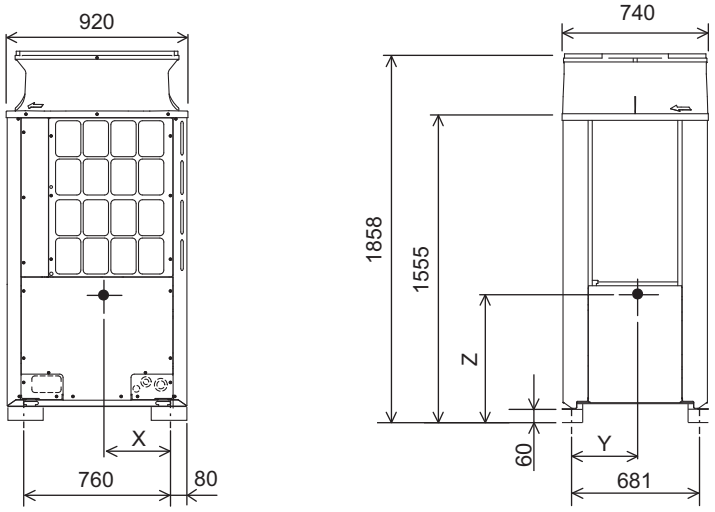



Fig.B (with detachable legs)

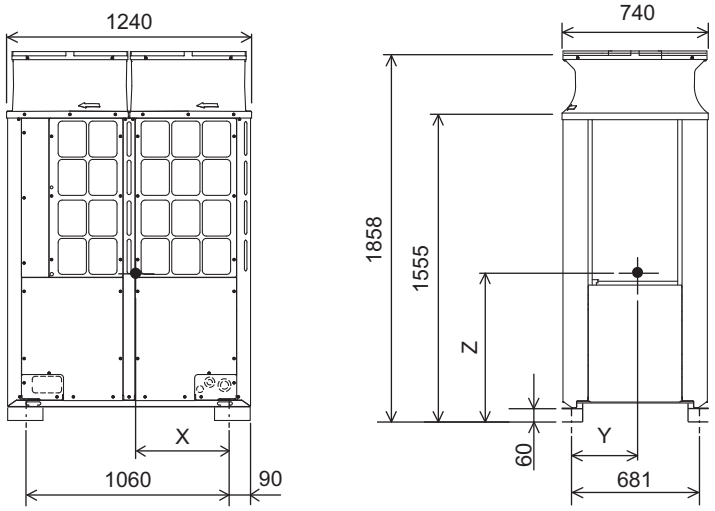
## PURY-M200, 250, 300YNW-A1 (-BS)




Unit: mm

| Model | X | Y | Z |
|---|---|---|---|
| PURY-M200YNW-A1(-BS) | 357 | 338 | 664 |
| PURY-M250YNW-A1(-BS) | 357 | 338 | 664 |
| PURY-M300YNW-A1(-BS) | 357 | 338 | 664 |

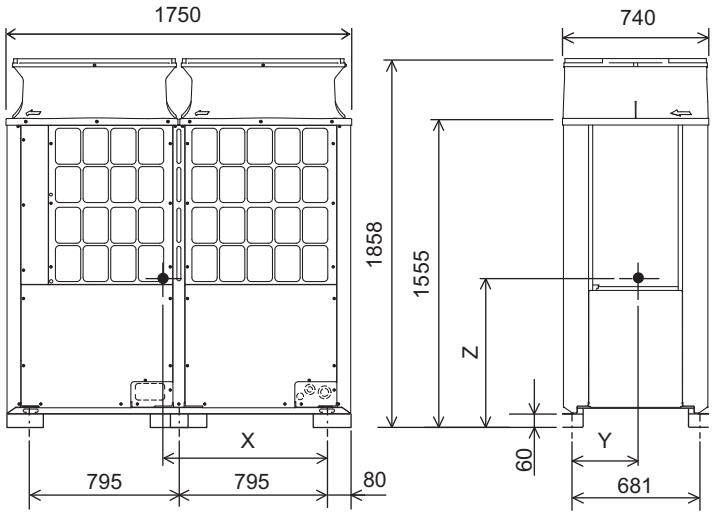
## PURY-M350, 400, 450YNW-A1 (-BS)




Unit: mm

| Model | X | Y | Z |
|---|---|---|---|
| PURY-M350YNW-A1(-BS) | 502 | 344 | 714 |
| PURY-M400YNW-A1(-BS) | 502 | 344 | 714 |
| PURY-M450YNW-A1(-BS) | 501 | 345 | 741 |

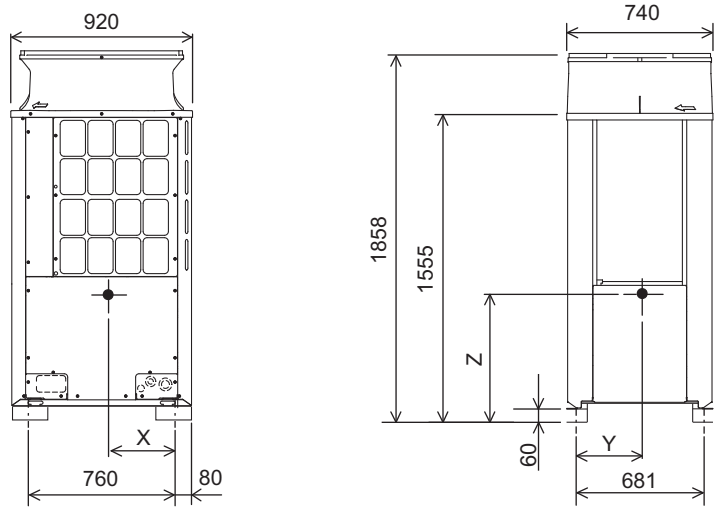
## PURY-M500YNW-A1 (-BS)




Unit: mm

| Model | X | Y | Z |
|---|---|---|---|
| PURY-M500YNW-A1(-BS) | 871 | 305 | 720 |

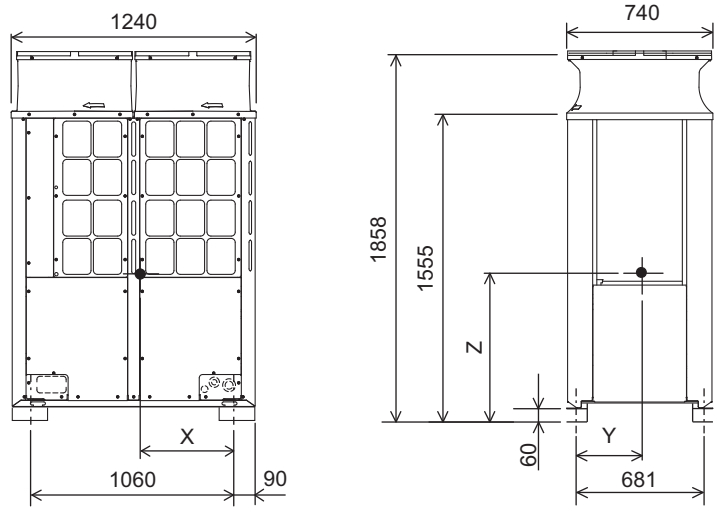
## PURY-EM200, 250, 300YNW-A1 (-BS)




Unit: mm

| Model | X | Y | Z |
|---|---|---|---|
| PURY-EM200YNW-A1(-BS) | 355 | 339 | 678 |
| PURY-EM250YNW-A1(-BS) | 355 | 339 | 678 |
| PURY-EM300YNW-A1(-BS) | 355 | 339 | 678 |

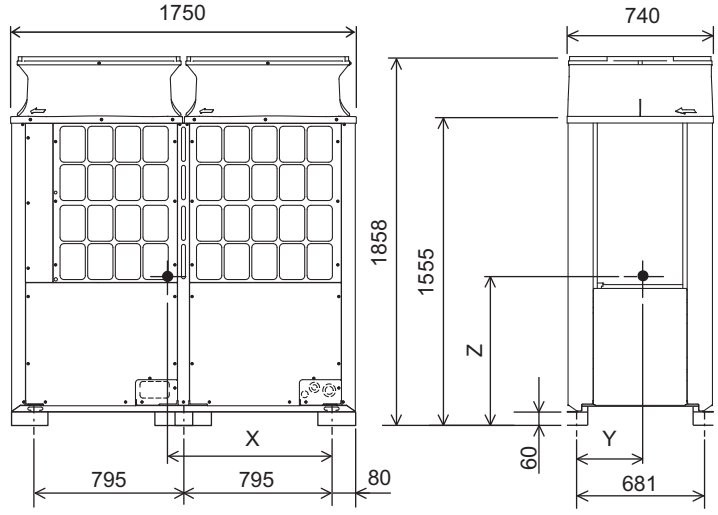
## PURY-EM350, 400, 450YNW-A1 (-BS)




Unit: mm

| Model | X | Y | Z |
|---|---|---|---|
| PURY-EM350YNW-A1(-BS) | 501 | 344 | 729 |
| PURY-EM400YNW-A1(-BS) | 502 | 346 | 727 |
| PURY-EM450YNW-A1(-BS) | 503 | 346 | 755 |

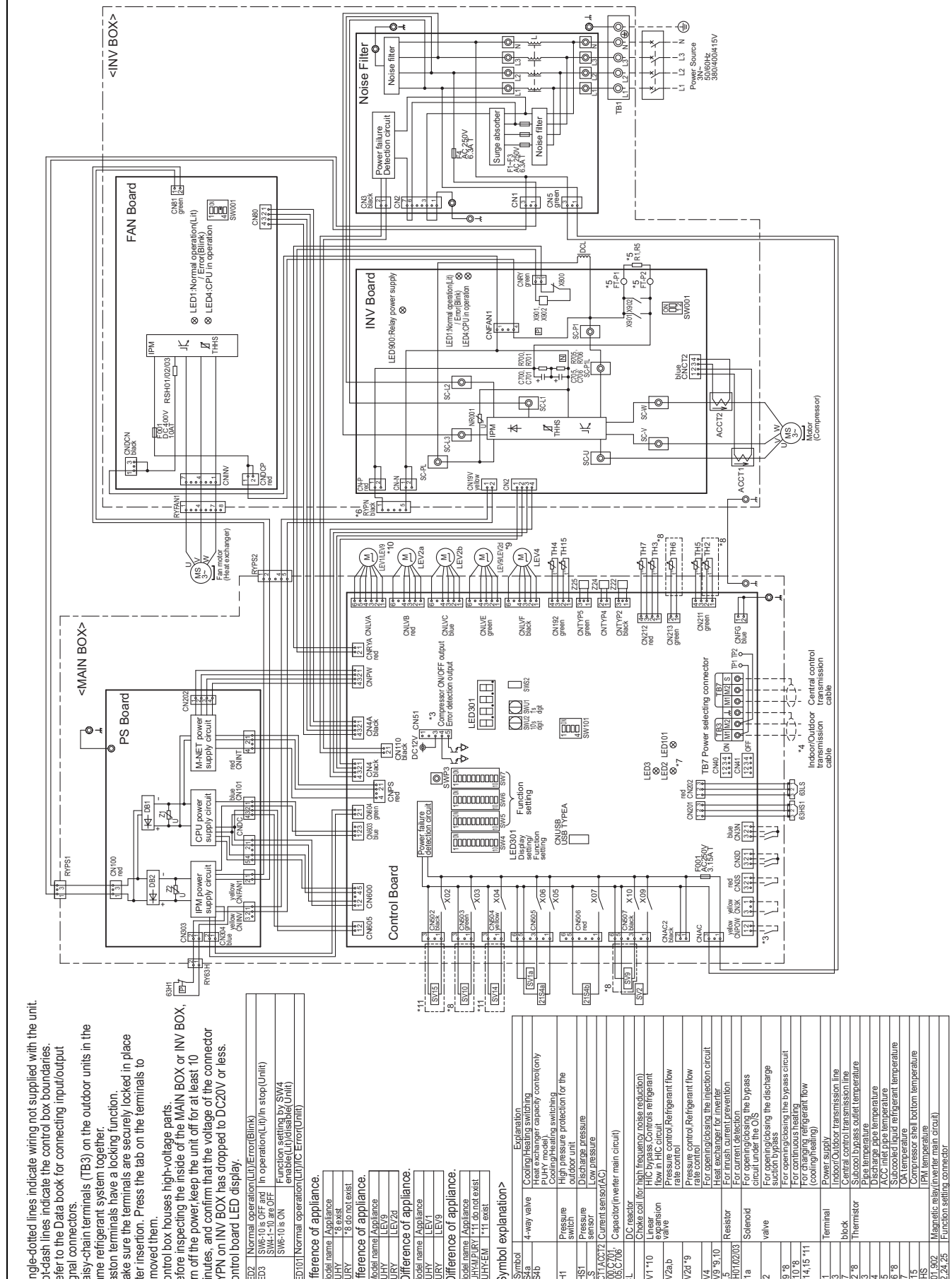
## PURY-EM500YNW-A1 (-BS)




Unit: mm

| Model | X | Y | Z |
|---|---|---|---|
| PURY-EM500YNW-A1(-BS) | 867 | 307 | 730 |

# PURY-(E)M200, 250, 300YNW-A1(-BS)




*1.Single-dotted lines indicate wiring not supplied with the unit.
*2.Dot-dash lines indicate the control box boundaries.
*3.Refer to the Data book for connecting input/output signal connectors.
*4.Daisy-chain terminals (TB3) on the outdoor units in the same refrigerant system together.
*5.Faston terminals have a locking function.
Make sure the terminals are securely locked in place after insertion. Press the tab on the terminals to removed them.
*6.Control box houses high-voltage parts.
Before inspecting the inside of the MAIN BOX or INV BOX, turn off the power,keep the unit off for at least 10 minutes, and confirm that the voltage of the connector RYPN on INV BOX has dropped to DC20V or less.
*7.Control board LED display.

| | | |
|---|---|---|
| LED2 | Normal operation(Lit)/Error(Blink) | |
| LED3 | SW6-10 is OFF and SW44-10 are OFF. | In operation(Lit)/In stop(Unit) |
| | SW6-10 is ON | Function setting by SW4 enable(Lit)/disable(Unit) |
| LED101 | Normal operation(Lit)/IC Error(Unit) | |

*8.Difference of appliance.

| Model name | Appliance |
|---|---|
| PUHY | *8 exist |
| PURY | *8 do not exist |

*9.Difference of appliance.

| Model name | Appliance |
|---|---|
| PUHY | LEV9 |
| PURY | LEV2d |

*10.Difference of appliance.

| Model name | Appliance |
|---|---|
| PUHY | LEV1 |
| PURY | LEV9 |

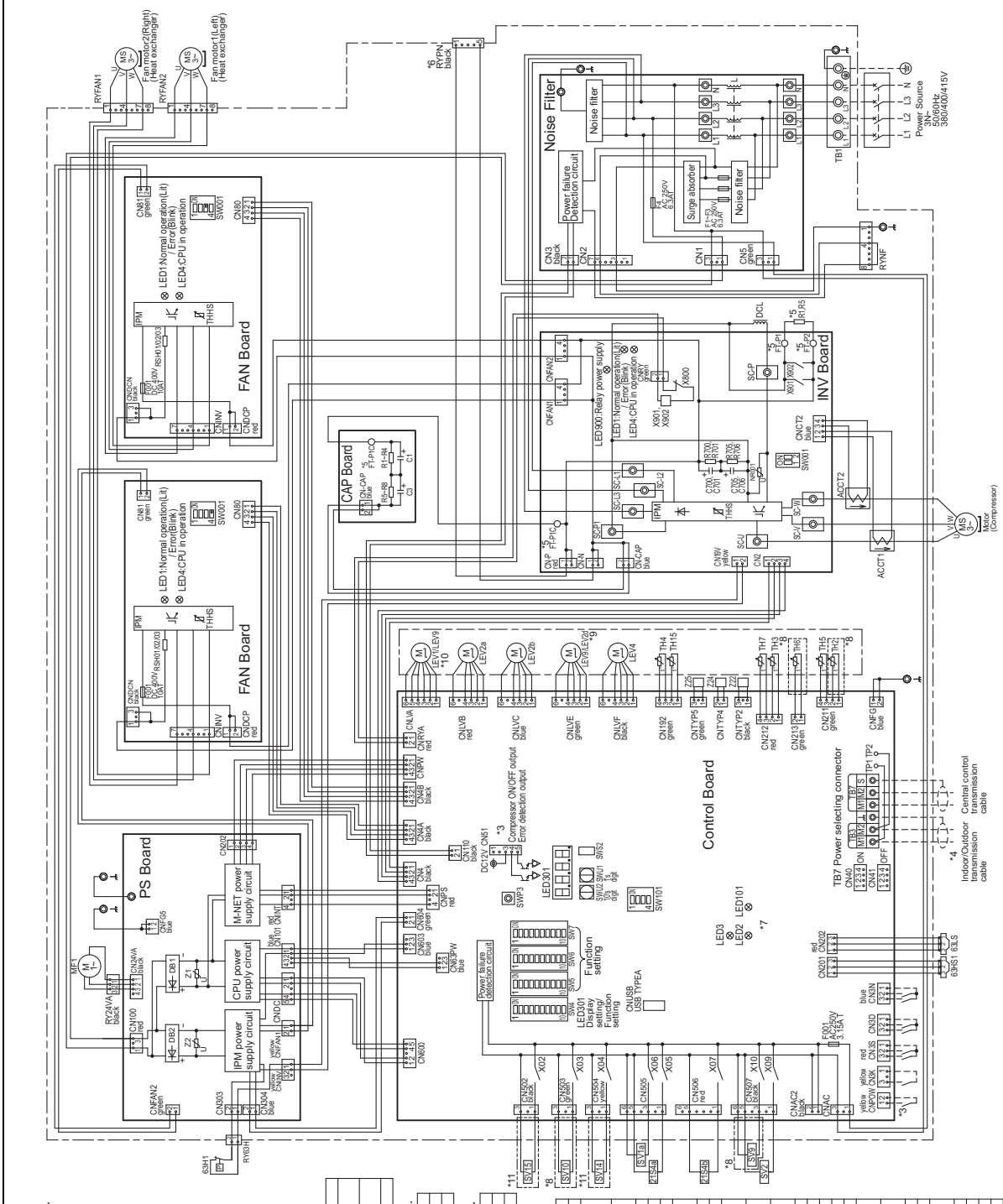
*11.Difference of appliance.

| Model name | Appliance |
|---|---|
| PUHY,M,PURY | *11 do not exist |
| PUHY-EM | *11 exist |

<Symbol explanation>

| Symbol | Explanation | |
|---|---|---|
| 21S4a | 4-way valve | Cooling/Heating switching |
| 21S4b | | Heat exchanger capacity control(only PUHY model) |
| 63H1 | Pressure switch | Cooling/Heating switching<br>High pressure protection for the outdoor unit |
| 63HS1 | Pressure sensor | Discharge pressure |
| 63LS | | Low pressure |
| ACCT1,ACCT2 | Current sensor(AC) | |
| C700,C701 C705,C706 | Capacitor(inverter main circuit) | |
| DCL | DC reactor | |
| L | Choke coil (for high frequency noise reduction) | |
| LEV1 *10 | Linear expansion valve | HIC bypass,Controls refrigerant flow in HIC circuit |
| LEV2a,b | | Pressure control,Refrigerant flow rate control |
| LEV2d *9 | | Pressure control,Refrigerant flow rate control<br>For opening/closing the injection circuit |
| LEV4 | | For opening/closing the bypass circuit |
| LEV9 *9,10 | | Heat exchanger for inverter |
| R1,5 | Resistor | For inrush current prevention |
| RSH01/02/03 | | For current detection |
| SV1a | Solenoid valve | For opening/closing the bypass circuit under the O/S |
| SV2 | | For opening/closing the discharge suction bypass |
| SV9 *8 | | For opening/closing the bypass circuit |
| SV10 *8 | | For continuous heating |
| SV14,15 *11 | | For control of refrigerant flow (cooling/heating) |
| TB1 | Terminal | Power supply |
| TB3 | block | Indoor/Outdoor transmission line |
| TB7 *8 | | Central control transmission line |
| TH2 *8 | Thermistor | Subcool bypass outlet temperature |
| TH3 | | Pipe temperature |
| TH4 | | Discharge pipe temperature |
| TH5 | | ACC inlet pipe temperature |
| TH6 *8 | | Subcooled liquid refrigerant temperature |
| TH7 | | OA temperature |
| TH15 | | Compressor shell bottom temperature |
| THHS | | PIM temperature |
| X901,902 | Magnetic relay(inverter main circuit) | |
| Z22,24,25 | Function setting connector | |

# PURY-(E)M350, 400, 450YNW-A1(-BS)




*1.Single-dotted lines indicate wiring not supplied with the unit.
*2.Dot-dash lines indicate the control box boundaries.
*3.Refer to the Data book for connecting input/output signal connectors.
*4.Daisy-chain terminals (TB3) on the outdoor units in the same refrigerant system together.
*5.Faston terminals have a locking function.
Make sure the terminals are securely locked in place after insertion. Press the tab on the terminals to removed them.
*6.Control box houses high-voltage parts.
Before inspecting the inside of the control box,turn off the power,keep the unit off for at least 10 minutes, and confirm that the voltage of the connector RYPN has dropped to DC20V or less.
*7.Control board LED display.

| | | |
|---|---|---|
| LED2 | Normal operation(Lit)/Error(Blink) | |
| LED3 | SW6-10 is OFF and SW4-1~10 are OFF | In operation(Lit)/In stop(Unit) |
| | SW6-10 is ON | Function setting by SW4 |
| | | enable(Lit)/disable(Unit) |
| LED101 | Normal operation(Lit)/IC Error(Unit) | |

*8.Difference of appliance.

| Model name | Appliance |
|---|---|
| PUHY | *8 exist |
| PURY | *8 do not exist |

*9.Difference of appliance.

| Model name | Appliance |
|---|---|
| PUHY | LEV9 |
| PURY | LEV2d |

*10.Difference of appliance.

| Model name | Appliance |
|---|---|
| PUHY | LEV1 |
| PURY | LEV9 |

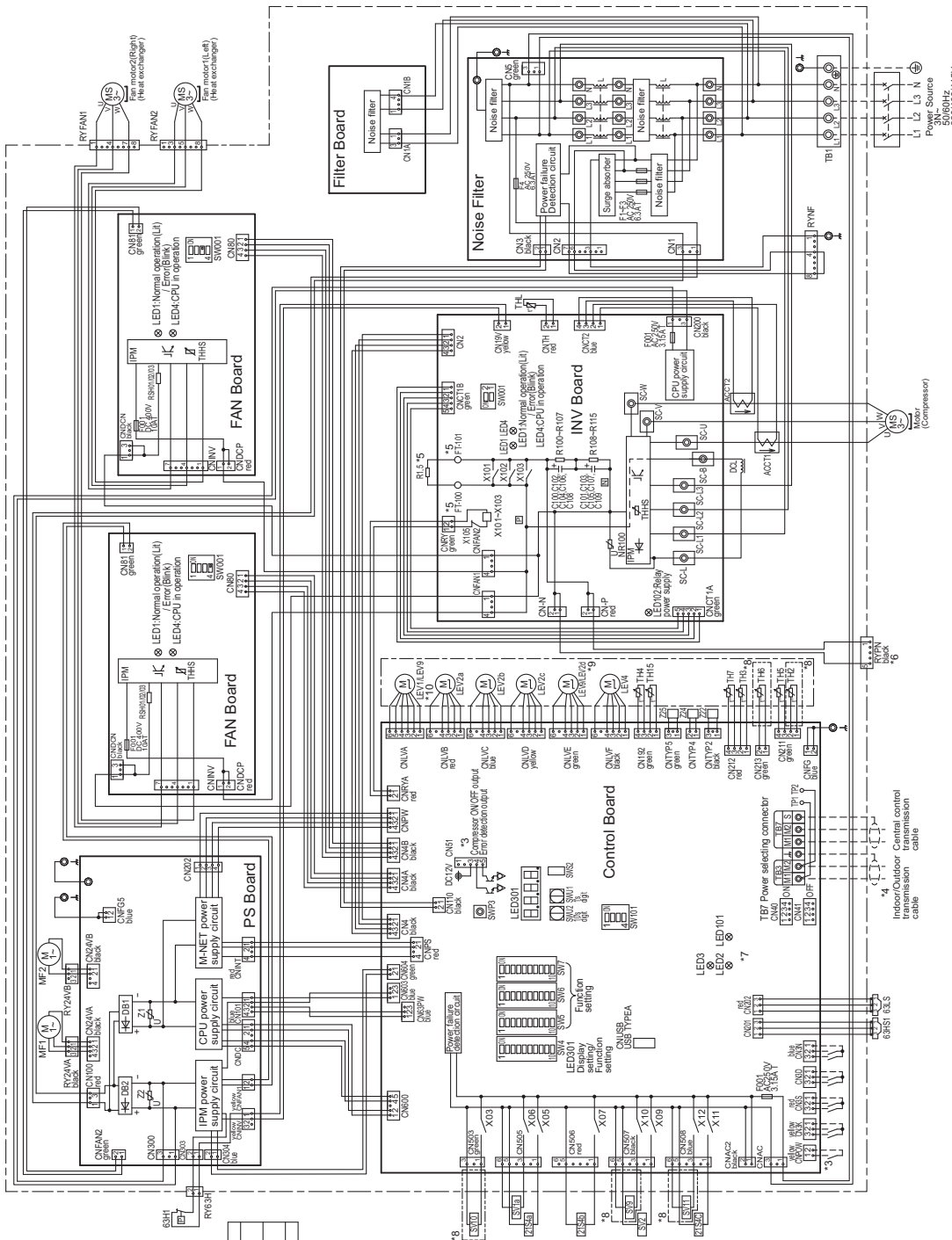
*11.Difference of appliance.

| Model name | Appliance |
|---|---|
| PUHY-M,PURY | *11:do not exist |
| PUHY-EM | *11 exist |

<Symbol explanation>

| Symbol | | Explanation |
|---|---|---|
| 21S4a | 4-way valve | Cooling/Heating switching |
| 21S4b | | Heat exchanger capacity control(only PUHY model) |
| | | Cooling/Heating switching |
| 63H1 | Pressure switch | High pressure protection for the outdoor unit |
| 63HS1 | Pressure sensor | Discharge pressure |
| 63LS | | Low pressure |
| ACCT1,ACCT2 | Current sensor(AC) | |
| C1,3,700,701, 705,706 | Capacitor (inverter main circuit) | |
| DCL | DC reactor | |
| L | Choke coil (for high frequency noise reduction) | |
| LEV1 *10 | Linear expansion valve | HIC bypass,Controls refrigerant flow in HIC circuit |
| LEV2a,b | | Pressure control,Refrigerant flow rate control |
| LEV2d *9 | | Pressure control,Refrigerant flow rate control |
| LEV4 | | For opening/closing the injection circuit |
| LEV9 *9,10 | | Heat exchanger for inverter |
| MF1 | Fan motor | (for cooling in control box) |
| R1,5 | Resistor | For inush current prevention |
| RSH01/02/03 | | For current detection |
| SV1a | Solenoid valve | For opening/closing the bypass circuit under the O/S |
| SV2 | | For opening/closing the discharge suction bypass |
| SV9 *8 | | For opening/closing the bypass circuit |
| SV10 *8 | | For continuous heating |
| SV14,15 *11 | | For changing refrigerant flow (cooling/heating) |
| TB1 | Terminal block | Power supply |
| TB3 | | Indoor/Outdoor transmission line |
| TB7 | | Central control transmission line |
| TH2 *8 | Thermistor | Subcool bypass outlet temperature |
| TH3 | | Pipe temperature |
| TH4 | | Discharge pipe temperature |
| TH5 | | ACC inlet pipe temperature |
| TH6 *8 | | Subcooled liquid refrigerant temperature |
| TH7 | | OA temperature |
| TH15 | | Compressor shell bottom temperature |
| THHS | | IPM temperature |
| X901,X902 | Magnetic relay(inverter main circuit) | |
| Z22,24,25 | Function setting connector | |

# PURY-(E)M500YNW-A1(-BS)




*1.Single-dotted lines indicate wiring not supplied with the unit.
*2.Dot-dash lines indicate the control box boundaries.
*3.Refer to the Data book for connecting input/output signal connectors.
*4.Daisy-chain terminals (TB3) on the outdoor units in the same refrigerant system together.
*5.Faston terminals have a locking function.
Make sure the terminals are securely locked in place after insertion. Press the tab on the terminals to removed them.
*6.Control box houses high-voltage parts.
Before inspecting the inside of the control box,turn off the power,keep the unit off for at least 10 minutes, and confirm that the voltage of the connector RYPN has dropped to DC20V or less.
*7.Control board LED display.

| | | |
|---|---|---|
| LED2 | Normal operation(Lit)/Error(Blink) | |
| LED3 | SW6-10 is OFF and SW4-1~10 are OFF | In operation(Lit)/In stop(Unit) |
| | SW6-10 is ON | Function setting by SW4 enable(Lit)/disable(Unit) |
| LED101 | Normal operation(Lit)/IC Error(Unit) | |

*8.Difference of appliance.

| Model name | Appliance |
|---|---|
| PUHY | *8 exist |
| PURY | *8 do not exist |

*9.Difference of appliance.

| Model name | Appliance |
|---|---|
| PUHY | LEV9 |
| PURY | LEV2d |

*10.Difference of appliance.

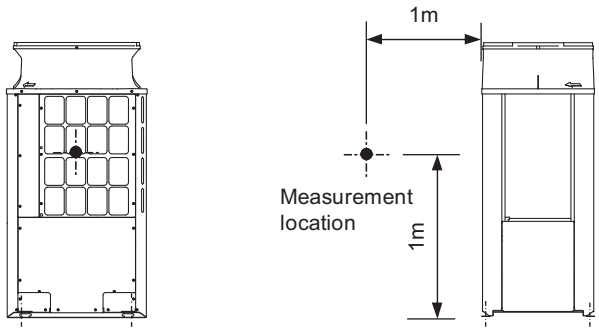
| Model name | Appliance |
|---|---|
| PUHY | LEV1 |
| PURY | LEV9 |

<Symbol explanation>

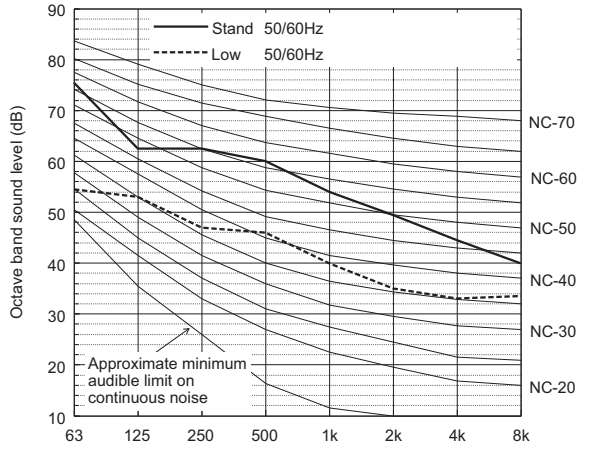
| Symbol | | Explanation |
|---|---|---|
| 21S4a | 4-way valve | Cooling/Heating switching |
| 21S4b,c | | Heat exchanger capacity control(only PUHY model) |
| | | Cooling/heating switching |
| 63H1 | Pressure switch | High pressure protection for the outdoor unit |
| 63HS1 | Pressure sensor | Discharge pressure |
| 63LS | | Low pressure |
| ACCT1,ACCT2 | Current sensor(AC) | |
| C100~C109 | Capacitor (inverter main circuit) | |
| DCL | DC reactor | |
| L | Choke coil (for high frequency noise reduction) | |
| LEV1 *10 | Linear expansion valve | HIC bypass,Controls refrigerant flow in HIC circuit |
| LEV2a,b,c | | Pressure control,Refrigerant flow rate control |
| LEV2d *9 | | Pressure control,Refrigerant flow rate control |
| LEV4 | | For opening/closing the injection circuit |
| LEV9 *9,10 | | Heat exchanger for inverter |
| MF1,2 | Fan motor(for cooling in control box) | |
| R1,5 | Resistor | For inrush current prevention |
| RSH01/02/03 | | For current detection |
| SV1a | Solenoid valve | For opening/closing the bypass circuit under the O/S |
| SV2 | | For opening/closing the discharge suction bypass |
| SV9 *8 | | For opening/closing the bypass circuit |
| SV10,11 *8 | | For continuous heating |
| TB1 | Terminal block | Power supply |
| TB3 | | Indoor/Outdoor transmission line |
| TB7 | | Central control transmission line |
| TH2 *8 | Thermistor | Subcool bypass outlet temperature |
| TH3 | | Pipe temperature |
| TH4 | | Discharge pipe temperature |
| TH5 | | ACC inlet pipe temperature |
| TH6 *8 | | Subcooled liquid refrigerant temperature |
| TH7 | | OA temperature |
| TH15 | | Compressor shell bottom temperature |
| THHS | | IPM temperature |
| X101~X103 | Magnetic relay(inverter main circuit) | |
| Z22,24,25 | Function setting connector | |

## 5-1. Sound levels in cooling mode

**Measurement condition**
**PURY-M200, 250, 300YNW-A1(-BS)**



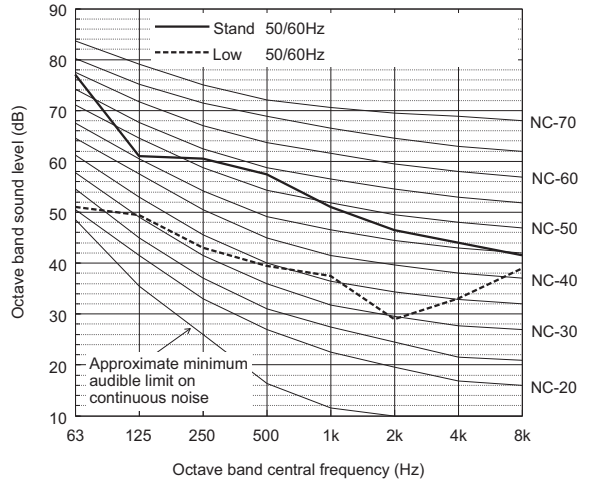

**Sound level of PURY-M300YNW-A1(-BS)**




| | | 63 | 125 | 250 | 500 | 1k | 2k | 4k | 8k | dB(A) |
|---|---|---|---|---|---|---|---|---|---|---|
| Standard | 50/60Hz | 75.5 | 62.5 | 62.5 | 60.0 | 54.0 | 49.5 | 44.5 | 40.0 | 61.0 |
| Low noise mode | 50/60Hz | 54.5 | 53.0 | 47.0 | 46.0 | 40.0 | 35.0 | 33.0 | 33.5 | 47.0 |

When Low noise mode is set,the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

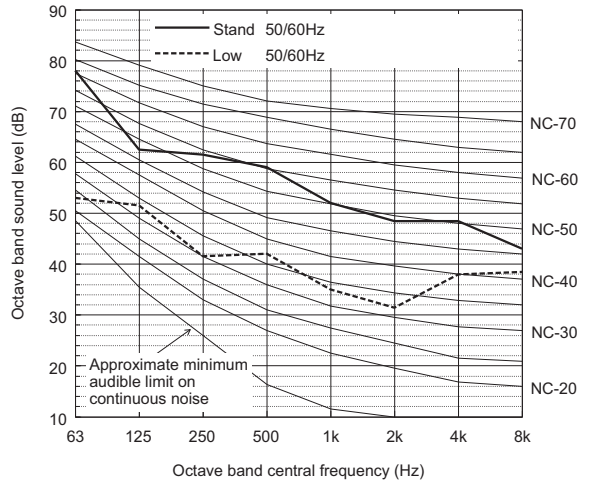
**Sound level of PURY-M200YNW-A1(-BS)**




| | | 63 | 125 | 250 | 500 | 1k | 2k | 4k | 8k | dB(A) |
|---|---|---|---|---|---|---|---|---|---|---|
| Standard Cooling | 50/60Hz | 77.0 | 61.0 | 60.5 | 57.5 | 51.0 | 46.5 | 44.0 | 41.5 | 59.0 |
| Low noise mode | 50/60Hz | 51.0 | 49.5 | 43.0 | 39.5 | 37.5 | 29.0 | 33.0 | 39.0 | 44.0 |

When Low noise mode is set,the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

**Sound level of PURY-M250YNW-A1(-BS)**

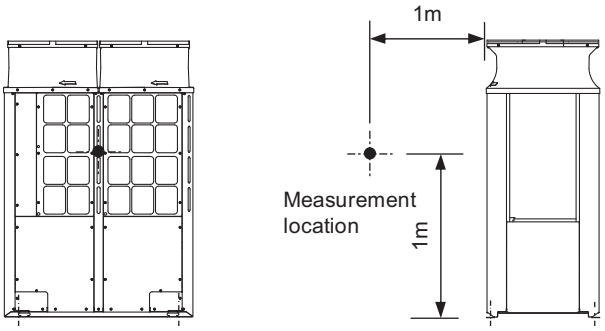



| | | 63 | 125 | 250 | 500 | 1k | 2k | 4k | 8k | dB(A) |
|---|---|---|---|---|---|---|---|---|---|---|
| Standard Cooling | 50/60Hz | 78.0 | 62.5 | 61.5 | 59.0 | 52.0 | 48.5 | 48.5 | 43.0 | 60.5 |
| Low noise mode | 50/60Hz | 53.0 | 51.5 | 41.5 | 42.0 | 35.0 | 31.5 | 38.0 | 38.5 | 45.0 |

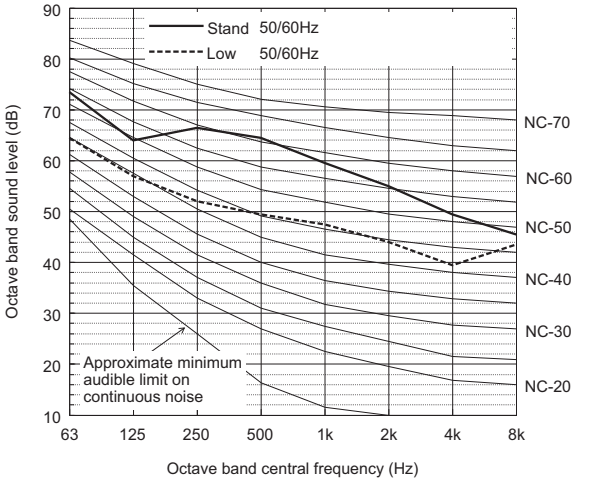
When Low noise mode is set,the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

- Depending on the operation conditions, the unit generates noise caused by valve actuation, refrigerant flow, and pressure changes when operating normally. Please consider to avoid location where quietness is required.
  For HBC controller, it is recommended to be installed in places such as ceilings of corridor, rest rooms and plant rooms.

**Measurement condition**
**PURY-M350, 400, 450YNW-A1(-BS)**



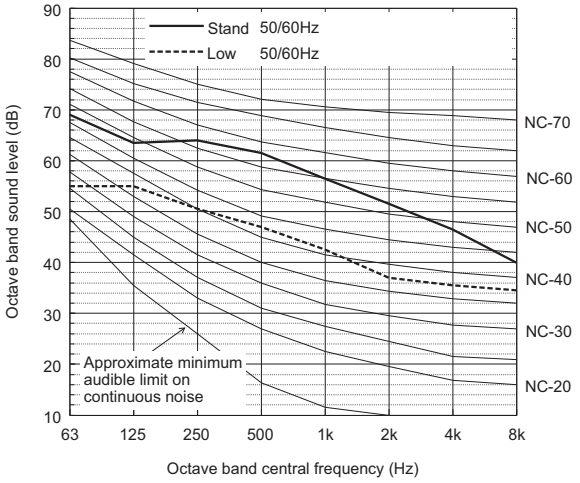

**Sound level of PURY-M450YNW-A1(-BS)**




| | | 63 | 125 | 250 | 500 | 1k | 2k | 4k | 8k | dB(A) |
|---|---|---|---|---|---|---|---|---|---|---|
| Standard | 50/60Hz | 73.5 | 64.0 | 66.5 | 64.5 | 59.5 | 55.0 | 49.5 | 45.5 | 65.5 |
| Low noise mode | 50/60Hz | 64.5 | 57.0 | 52.0 | 49.5 | 47.5 | 44.0 | 39.5 | 43.5 | 53.0 |

When Low noise mode is set,the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

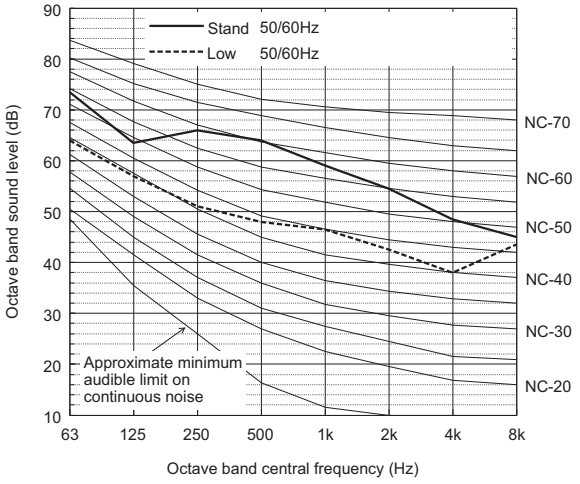
**Sound level of PURY-M350YNW-A1(-BS)**




| | | 63 | 125 | 250 | 500 | 1k | 2k | 4k | 8k | dB(A) |
|---|---|---|---|---|---|---|---|---|---|---|
| Standard | 50/60Hz | 69.0 | 63.5 | 64.0 | 61.5 | 56.5 | 51.5 | 46.5 | 40.0 | 62.5 |
| Low noise mode | 50/60Hz | 55.0 | 55.0 | 50.5 | 47.0 | 42.5 | 37.0 | 35.5 | 34.5 | 49.0 |

When Low noise mode is set,the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

**Sound level of PURY-M400YNW-A1(-BS)**

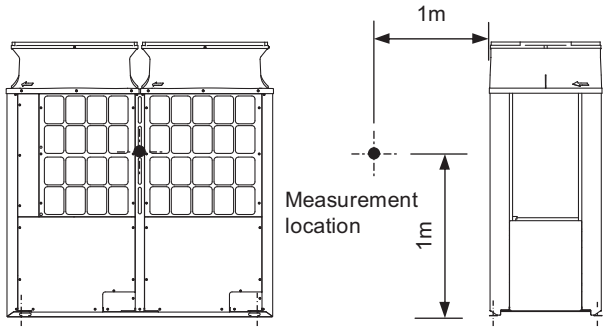



| | | 63 | 125 | 250 | 500 | 1k | 2k | 4k | 8k | dB(A) |
|---|---|---|---|---|---|---|---|---|---|---|
| Standard | 50/60Hz | 73.5 | 63.5 | 66.0 | 64.0 | 59.0 | 54.5 | 48.5 | 45.0 | 65.0 |
| Low noise mode | 50/60Hz | 64.0 | 57.0 | 51.0 | 48.0 | 46.5 | 42.5 | 38.0 | 43.5 | 52.0 |

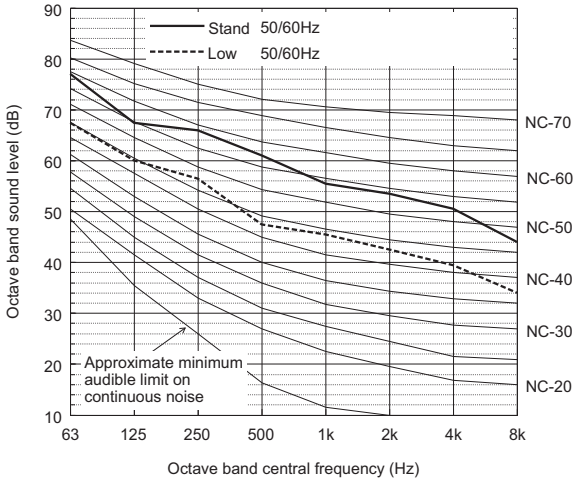
When Low noise mode is set,the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

- Depending on the operation conditions, the unit generates noise caused by valve actuation, refrigerant flow, and pressure changes when operating normally. Please consider to avoid location where quietness is required.
  For HBC controller, it is recommended to be installed in places such as ceilings of corridor, rest rooms and plant rooms.

**Measurement condition**
**PURY-M500YNW-A1(-BS)**




**Sound level of PURY-M500YNW-A1(-BS)**

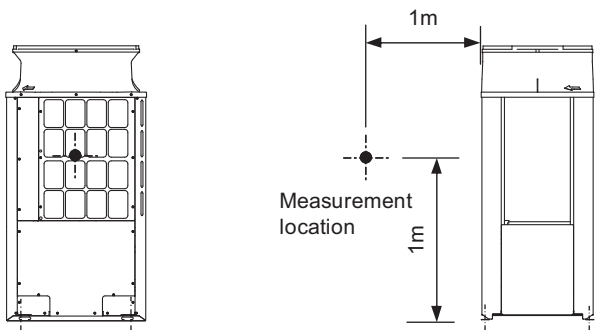



| | | 63 | 125 | 250 | 500 | 1k | 2k | 4k | 8k | dB(A) |
|---|---|---|---|---|---|---|---|---|---|---|
| Standard | 50/60Hz | 77.0 | 67.5 | 66.0 | 61.0 | 55.5 | 53.5 | 50.5 | 44.0 | 63.5 |
| Low noise mode | 50/60Hz | 67.5 | 60.0 | 56.5 | 47.5 | 45.5 | 42.5 | 39.5 | 34.0 | 53.0 |

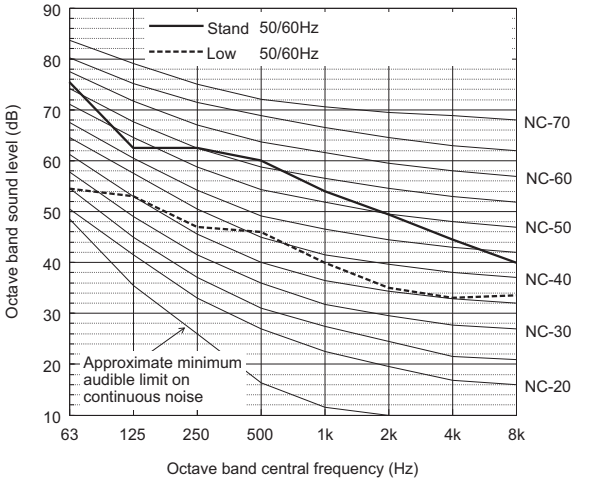
When Low noise mode is set,the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

♦Depending on the operation conditions, the unit generates noise caused by valve actuation, refrigerant flow, and pressure changes when operating normally. Please consider to avoid location where quietness is required.
For HBC controller, it is recommended to be installed in places such as ceilings of corridor, rest rooms and plant rooms.

**Measurement condition**
**PURY-EM200, 250, 300YNW-A1(-BS)**



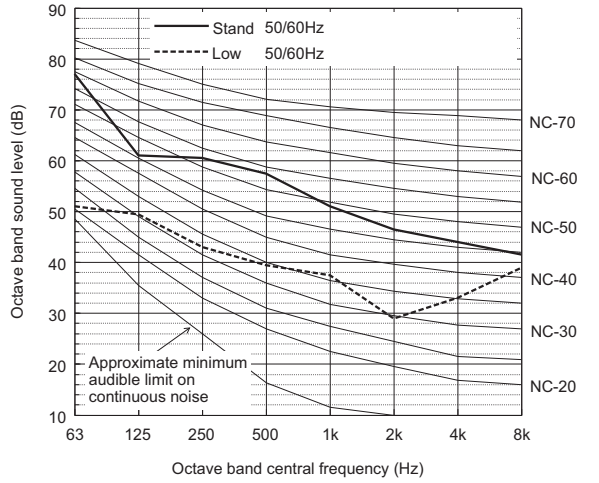

**Sound level of PURY-EM300YNW-A1(-BS)**




| | | 63 | 125 | 250 | 500 | 1k | 2k | 4k | 8k | dB(A) |
|---|---|---|---|---|---|---|---|---|---|---|
| Standard Cooling | 50/60Hz | 75.5 | 62.5 | 62.5 | 60.0 | 54.0 | 49.5 | 44.5 | 40.0 | 61.0 |
| Low noise mode | 50/60Hz | 54.5 | 53.0 | 47.0 | 46.0 | 40.0 | 35.0 | 33.0 | 33.5 | 47.0 |

When Low noise mode is set,the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

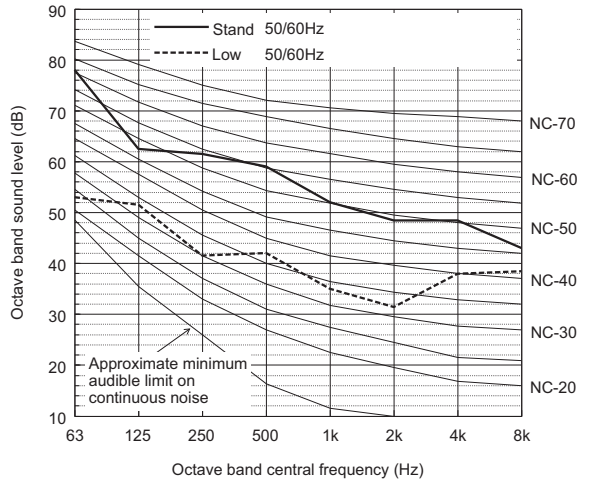
**Sound level of PURY-EM200YNW-A1(-BS)**




| | | 63 | 125 | 250 | 500 | 1k | 2k | 4k | 8k | dB(A) |
|---|---|---|---|---|---|---|---|---|---|---|
| Standard | 50/60Hz | 77.0 | 61.0 | 60.5 | 57.5 | 51.0 | 46.5 | 44.0 | 41.5 | 59.0 |
| Low noise mode | 50/60Hz | 51.0 | 49.5 | 43.0 | 39.5 | 37.5 | 29.0 | 33.0 | 39.0 | 44.0 |

When Low noise mode is set,the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

**Sound level of PURY-EM250YNW-A1(-BS)**

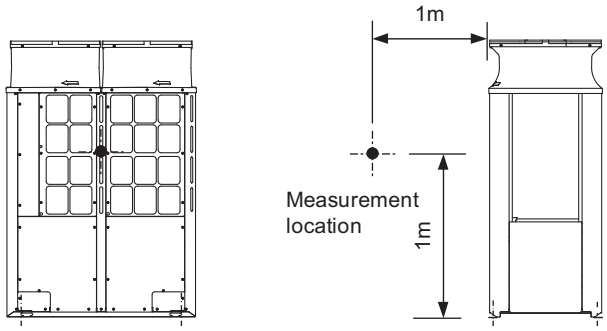



| | | 63 | 125 | 250 | 500 | 1k | 2k | 4k | 8k | dB(A) |
|---|---|---|---|---|---|---|---|---|---|---|
| Standard | 50/60Hz | 78.0 | 62.5 | 61.5 | 59.0 | 52.0 | 48.5 | 48.5 | 43.0 | 60.5 |
| Low noise mode | 50/60Hz | 53.0 | 51.5 | 41.5 | 42.0 | 35.0 | 31.5 | 38.0 | 38.5 | 45.0 |

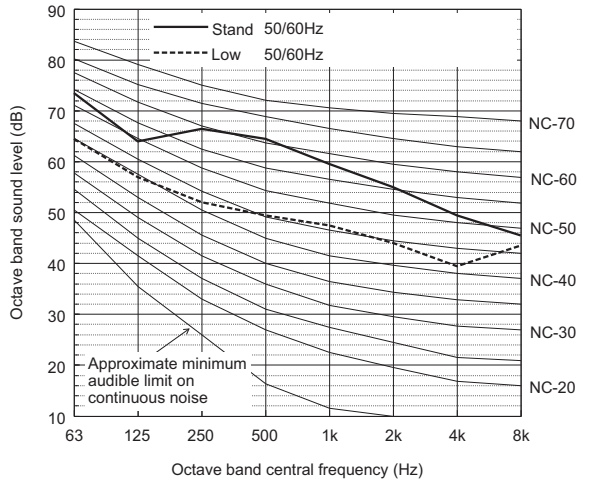
When Low noise mode is set,the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

- Depending on the operation conditions, the unit generates noise caused by valve actuation, refrigerant flow, and pressure changes when operating normally. Please consider to avoid location where quietness is required.
  For HBC controller, it is recommended to be installed in places such as ceilings of corridor, rest rooms and plant rooms.

**Measurement condition**
**PURY-EM350, 400, 450YNW-A1(-BS)**



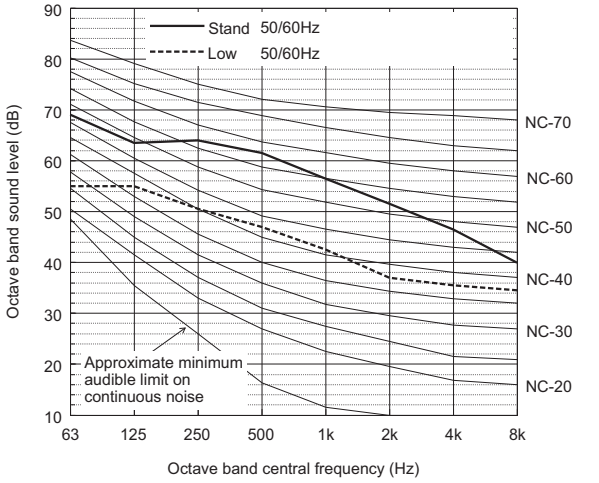

**Sound level of PURY-EM450YNW-A1(-BS)**




| | | 63 | 125 | 250 | 500 | 1k | 2k | 4k | 8k | dB(A) |
|---|---|---|---|---|---|---|---|---|---|---|
| Standard Cooling | 50/60Hz | 73.5 | 64.0 | 66.5 | 64.5 | 59.5 | 55.0 | 49.5 | 45.5 | 65.5 |
| Low noise mode | 50/60Hz | 64.5 | 57.0 | 52.0 | 49.5 | 47.5 | 44.0 | 39.5 | 43.5 | 53.0 |

When Low noise mode is set,the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

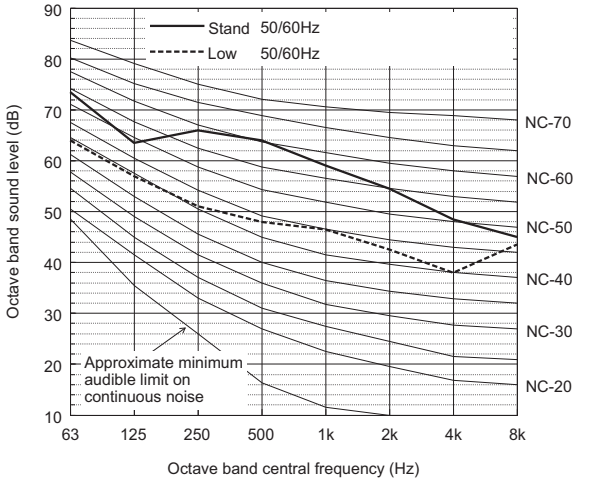
**Sound level of PURY-EM350YNW-A1(-BS)**




| | | 63 | 125 | 250 | 500 | 1k | 2k | 4k | 8k | dB(A) |
|---|---|---|---|---|---|---|---|---|---|---|
| Standard Cooling | 50/60Hz | 69.0 | 63.5 | 64.0 | 61.5 | 56.5 | 51.5 | 46.5 | 40.0 | 62.5 |
| Low noise mode | 50/60Hz | 55.0 | 55.0 | 50.5 | 47.0 | 42.5 | 37.0 | 35.5 | 34.5 | 49.0 |

When Low noise mode is set,the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

**Sound level of PURY-EM400YNW-A1(-BS)**

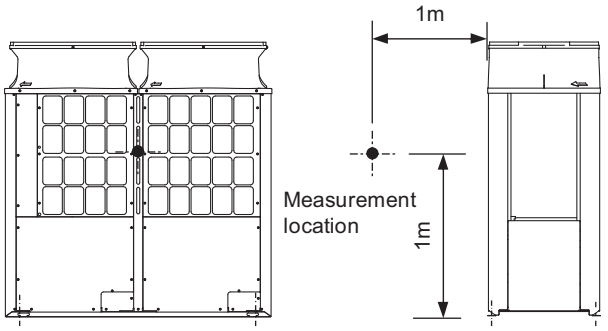



| | | 63 | 125 | 250 | 500 | 1k | 2k | 4k | 8k | dB(A) |
|---|---|---|---|---|---|---|---|---|---|---|
| Standard Cooling | 50/60Hz | 73.5 | 63.5 | 66.0 | 64.0 | 59.0 | 54.5 | 48.5 | 45.0 | 65.0 |
| Low noise mode | 50/60Hz | 64.0 | 57.0 | 51.0 | 48.0 | 46.5 | 42.5 | 38.0 | 43.5 | 52.0 |

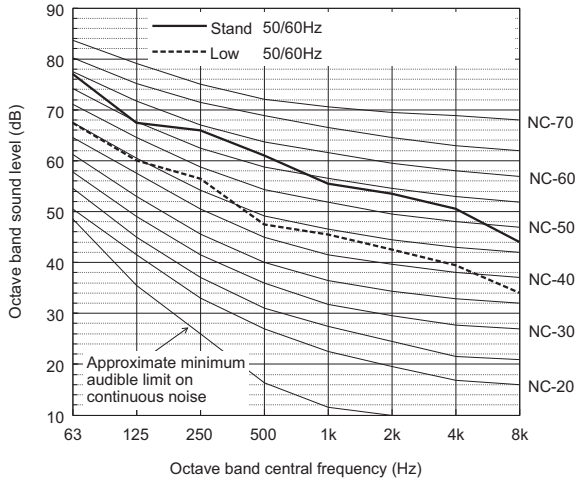
When Low noise mode is set,the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

♦Depending on the operation conditions, the unit generates noise caused by valve actuation, refrigerant flow, and pressure changes when operating normally. Please consider to avoid location where quietness is required.
For HBC controller, it is recommended to be installed in places such as ceilings of corridor, rest rooms and plant rooms.

**Measurement condition**
**PURY-EM500YNW-A1(-BS)**




**Sound level of PURY-EM500YNW-A1(-BS)**



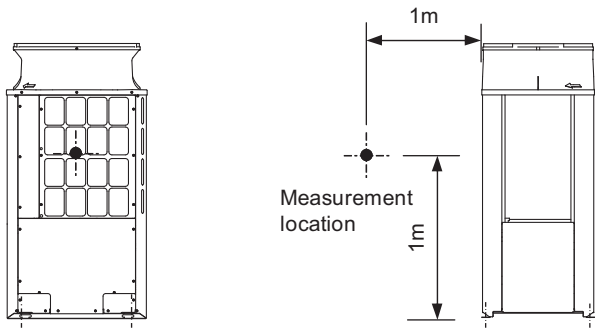

| | | 63 | 125 | 250 | 500 | 1k | 2k | 4k | 8k | dB(A) |
|---|---|---|---|---|---|---|---|---|---|---|
| Standard Cooling | 50/60Hz | 77.0 | 67.5 | 66.0 | 61.0 | 55.5 | 53.5 | 50.5 | 44.0 | 63.5 |
| Low noise mode | 50/60Hz | 67.5 | 60.0 | 56.5 | 47.5 | 45.5 | 42.5 | 39.5 | 34.0 | 53.0 |

When Low noise mode is set,the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

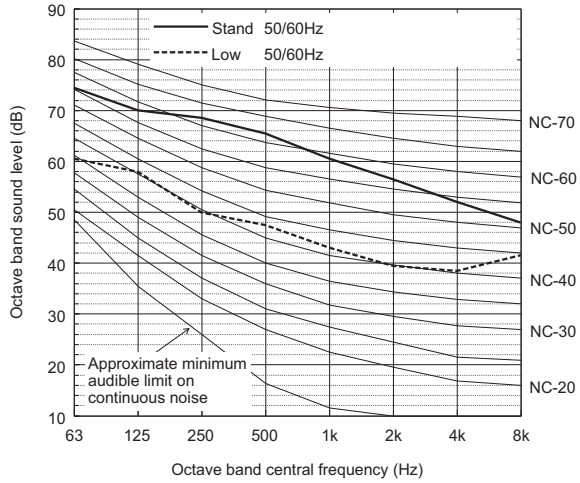
- Depending on the operation conditions, the unit generates noise caused by valve actuation, refrigerant flow, and pressure changes when operating normally. Please consider to avoid location where quietness is required.
  For HBC controller, it is recommended to be installed in places such as ceilings of corridor, rest rooms and plant rooms.

## 5-2. Sound levels in heating mode

**Measurement condition**
**PURY-M200, 250, 300YNW-A1(-BS)**



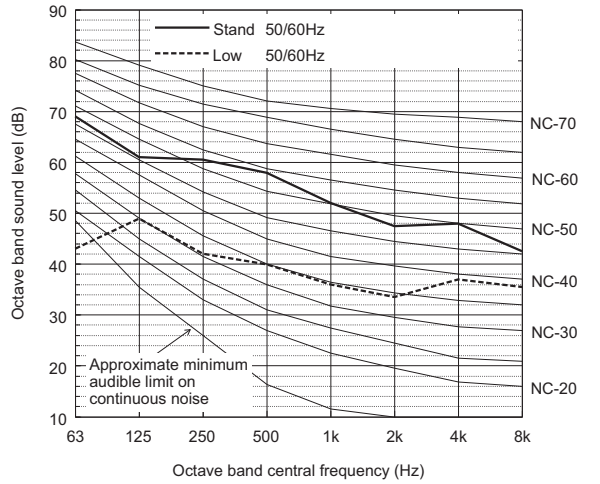

**Sound level of PURY-M300YNW-A1(-BS)**




| | | 63 | 125 | 250 | 500 | 1k | 2k | 4k | 8k | dB(A) |
|---|---|---|---|---|---|---|---|---|---|---|
| Standard Heating | 50/60Hz | 74.5 | 70.0 | 68.5 | 65.5 | 60.5 | 56.5 | 52.0 | 48.0 | 67.0 |
| Low noise mode | 50/60Hz | 60.5 | 58.0 | 50.0 | 47.5 | 43.0 | 39.5 | 38.5 | 41.5 | 50.5 |

When Low noise mode is set,the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

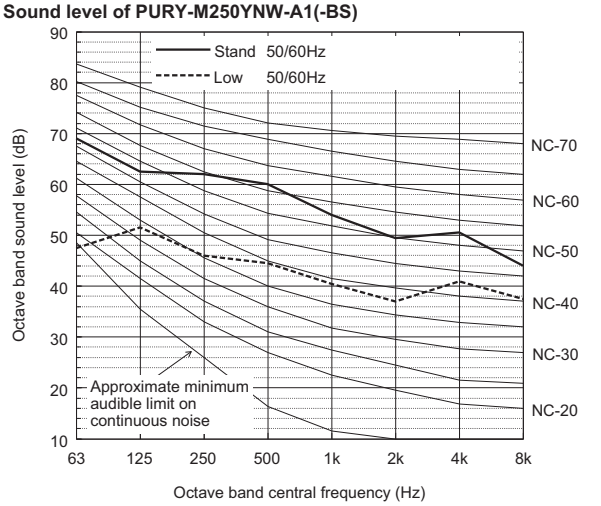
**Sound level of PURY-M200YNW-A1(-BS)**




| | | 63 | 125 | 250 | 500 | 1k | 2k | 4k | 8k | dB(A) |
|---|---|---|---|---|---|---|---|---|---|---|
| Standard Heating | 50/60Hz | 69.0 | 61.0 | 60.5 | 58.0 | 52.0 | 47.5 | 48.0 | 42.5 | 59.0 |
| Low noise mode | 50/60Hz | 43.0 | 49.0 | 42.0 | 40.0 | 36.0 | 33.5 | 37.0 | 35.5 | 44.0 |

When Low noise mode is set,the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

**Sound level of PURY-M250YNW-A1(-BS)**

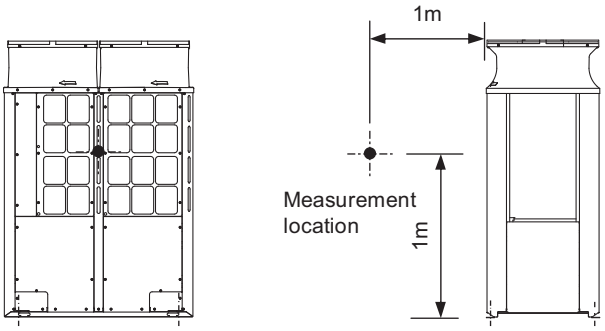



| | | 63 | 125 | 250 | 500 | 1k | 2k | 4k | 8k | dB(A) |
|---|---|---|---|---|---|---|---|---|---|---|
| Standard Heating | 50/60Hz | 69.0 | 62.5 | 62.0 | 60.0 | 54.0 | 49.5 | 50.5 | 44.0 | 61.0 |
| Low noise mode | 50/60Hz | 47.5 | 51.5 | 46.0 | 44.5 | 40.5 | 37.0 | 41.0 | 37.5 | 48.0 |

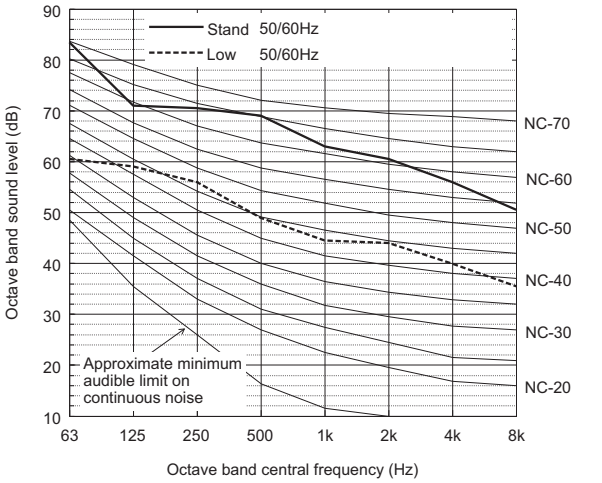
When Low noise mode is set,the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

♦Depending on the operation conditions, the unit generates noise caused by valve actuation, refrigerant flow, and pressure changes when operating normally. Please consider to avoid location where quietness is required.
For HBC controller, it is recommended to be installed in places such as ceilings of corridor, rest rooms and plant rooms.

**Measurement condition**
**PURY-M350, 400, 450YNW-A1(-BS)**



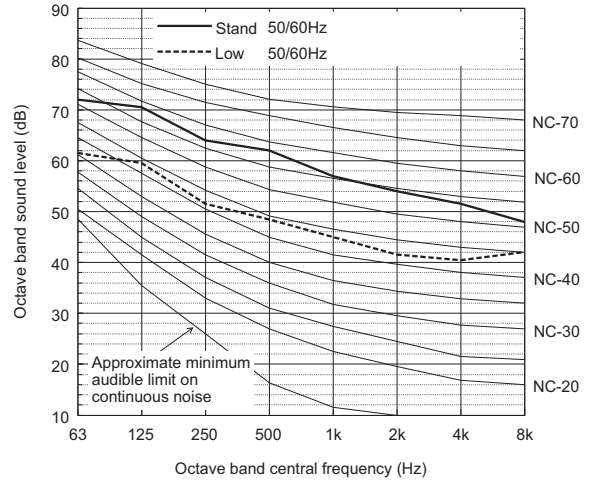

**Sound level of PURY-M450YNW-A1(-BS)**




| | | 63 | 125 | 250 | 500 | 1k | 2k | 4k | 8k | dB(A) |
|---|---|---|---|---|---|---|---|---|---|---|
| Standard Heating | 50/60Hz | 83.5 | 71.0 | 70.5 | 69.0 | 63.0 | 60.5 | 56.0 | 50.5 | 70.0 |
| Low noise mode | 50/60Hz | 60.5 | 59.0 | 56.0 | 49.0 | 44.5 | 44.0 | 40.0 | 35.5 | 53.0 |

When Low noise mode is set,the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

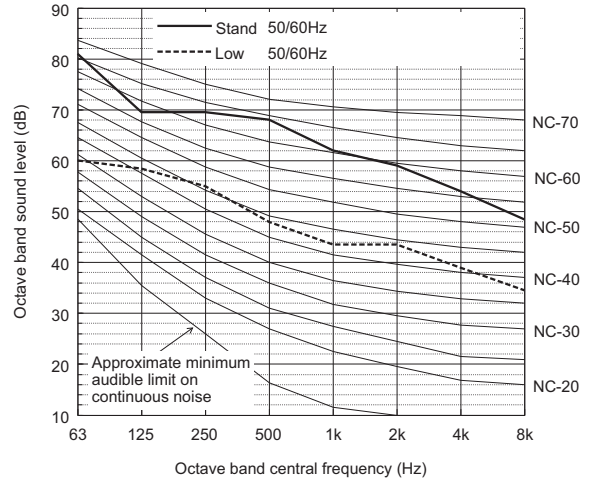
**Sound level of PURY-M350YNW-A1(-BS)**




| | | 63 | 125 | 250 | 500 | 1k | 2k | 4k | 8k | dB(A) |
|---|---|---|---|---|---|---|---|---|---|---|
| Standard Heating | 50/60Hz | 72.0 | 70.5 | 64.0 | 62.0 | 57.0 | 54.0 | 51.5 | 48.0 | 64.0 |
| Low noise mode | 50/60Hz | 61.5 | 59.5 | 51.5 | 48.5 | 45.0 | 41.5 | 40.5 | 42.0 | 52.0 |

When Low noise mode is set,the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

**Sound level of PURY-M400YNW-A1(-BS)**

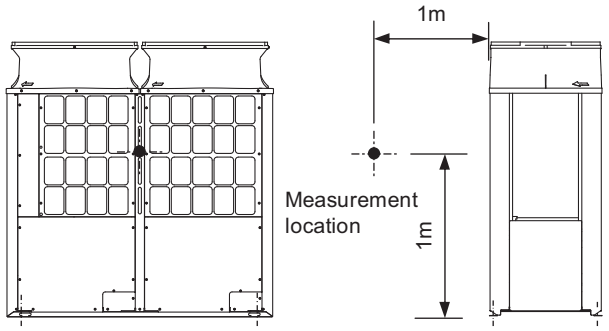



| | | 63 | 125 | 250 | 500 | 1k | 2k | 4k | 8k | dB(A) |
|---|---|---|---|---|---|---|---|---|---|---|
| Standard Heating | 50/60Hz | 81.0 | 69.5 | 69.5 | 68.0 | 62.0 | 59.0 | 54.0 | 48.5 | 69.0 |
| Low noise mode | 50/60Hz | 60.0 | 58.5 | 55.0 | 48.0 | 43.5 | 43.5 | 39.0 | 34.5 | 52.0 |

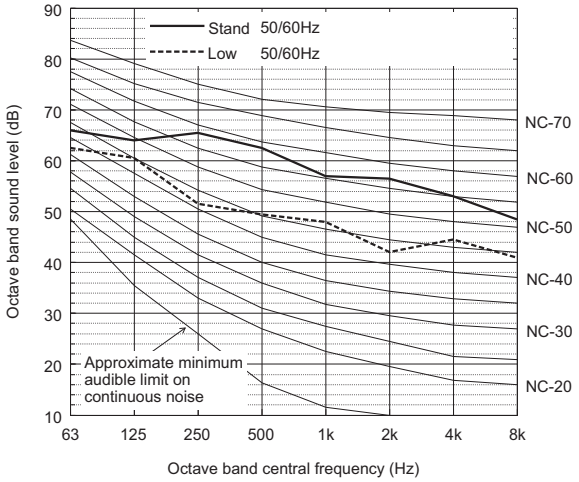
When Low noise mode is set,the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

- Depending on the operation conditions, the unit generates noise caused by valve actuation, refrigerant flow, and pressure changes when operating normally. Please consider to avoid location where quietness is required.
  For HBC controller, it is recommended to be installed in places such as ceilings of corridor, rest rooms and plant rooms.

**Measurement condition**
**PURY-M500YNW-A1(-BS)**




**Sound level of PURY-M500YNW-A1(-BS)**

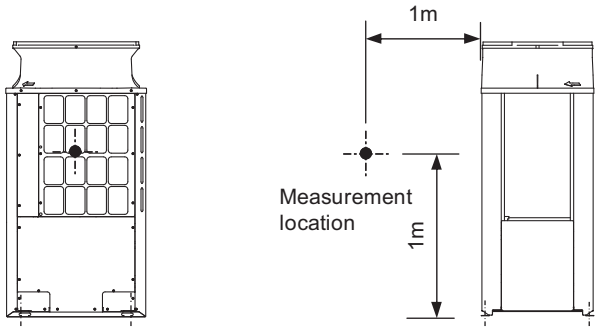



| | | 63 | 125 | 250 | 500 | 1k | 2k | 4k | 8k | dB(A) |
|---|---|---|---|---|---|---|---|---|---|---|
| Standard Heating | 50/60Hz | 66.0 | 64.0 | 65.5 | 62.5 | 57.0 | 56.5 | 53.0 | 48.5 | 64.5 |
| Low noise mode | 50/60Hz | 62.5 | 60.5 | 51.5 | 49.5 | 48.0 | 42.0 | 44.5 | 41.0 | 53.5 |

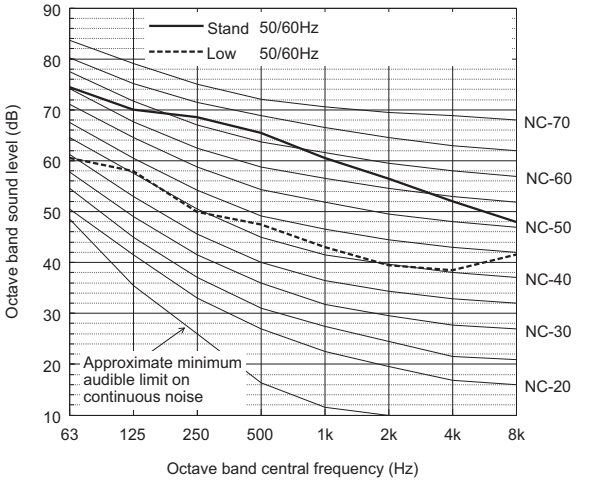
When Low noise mode is set,the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

- Depending on the operation conditions, the unit generates noise caused by valve actuation, refrigerant flow, and pressure changes when operating normally. Please consider to avoid location where quietness is required.
  For HBC controller, it is recommended to be installed in places such as ceilings of corridor, rest rooms and plant rooms.

**Measurement condition**
**PURY-EM200, 250, 300YNW-A1(-BS)**



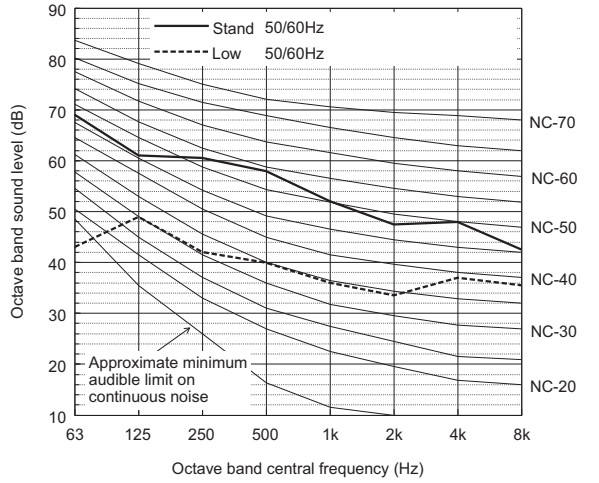

**Sound level of PURY-EM300YNW-A1(-BS)**




| | | 63 | 125 | 250 | 500 | 1k | 2k | 4k | 8k | dB(A) |
|---|---|---|---|---|---|---|---|---|---|---|
| Standard Heating | 50/60Hz | 74.5 | 70.0 | 68.5 | 65.5 | 60.5 | 56.5 | 52.0 | 48.0 | 67.0 |
| Low noise mode | 50/60Hz | 60.5 | 58.0 | 50.0 | 47.5 | 43.0 | 39.5 | 38.5 | 41.5 | 50.5 |

When Low noise mode is set,the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

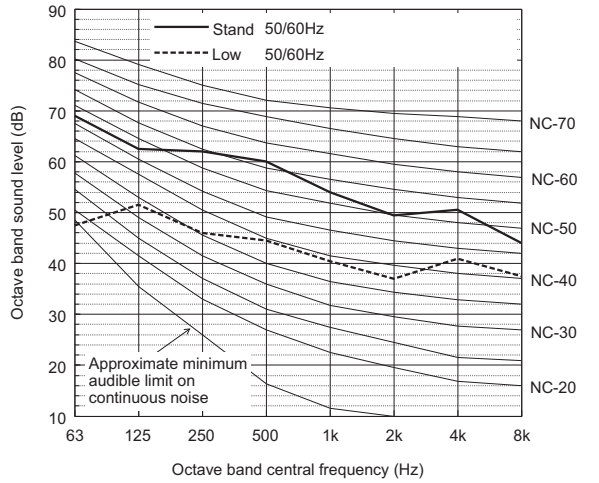
**Sound level of PURY-EM200YNW-A1(-BS)**




| | | 63 | 125 | 250 | 500 | 1k | 2k | 4k | 8k | dB(A) |
|---|---|---|---|---|---|---|---|---|---|---|
| Standard Heating | 50/60Hz | 69.0 | 61.0 | 60.5 | 58.0 | 52.0 | 47.5 | 48.0 | 42.5 | 59.0 |
| Low noise mode | 50/60Hz | 43.0 | 49.0 | 42.0 | 40.0 | 36.0 | 33.5 | 37.0 | 35.5 | 44.0 |

When Low noise mode is set,the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

**Sound level of PURY-EM250YNW-A1(-BS)**

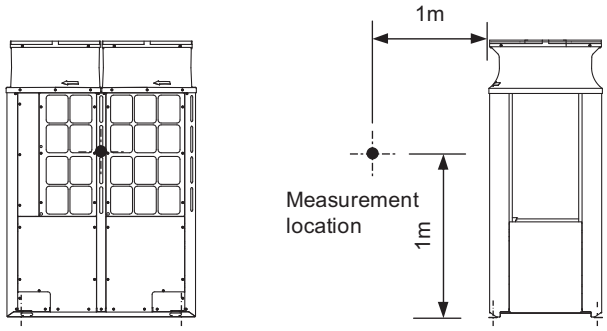



| | | 63 | 125 | 250 | 500 | 1k | 2k | 4k | 8k | dB(A) |
|---|---|---|---|---|---|---|---|---|---|---|
| Standard Heating | 50/60Hz | 69.0 | 62.5 | 62.0 | 60.0 | 54.0 | 49.5 | 50.5 | 44.0 | 61.0 |
| Low noise mode | 50/60Hz | 47.5 | 51.5 | 46.0 | 44.5 | 40.5 | 37.0 | 41.0 | 37.5 | 48.0 |

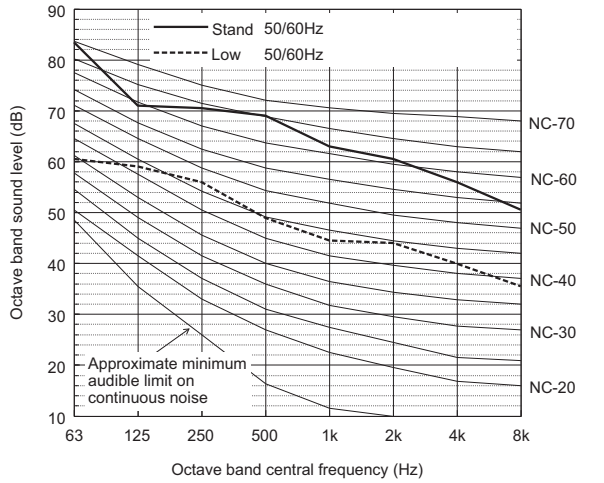
When Low noise mode is set,the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

- Depending on the operation conditions, the unit generates noise caused by valve actuation, refrigerant flow, and pressure changes when operating normally. Please consider to avoid location where quietness is required.
  For HBC controller, it is recommended to be installed in places such as ceilings of corridor, rest rooms and plant rooms.

**Measurement condition**
**PURY-EM350, 400, 450YNW-A1(-BS)**



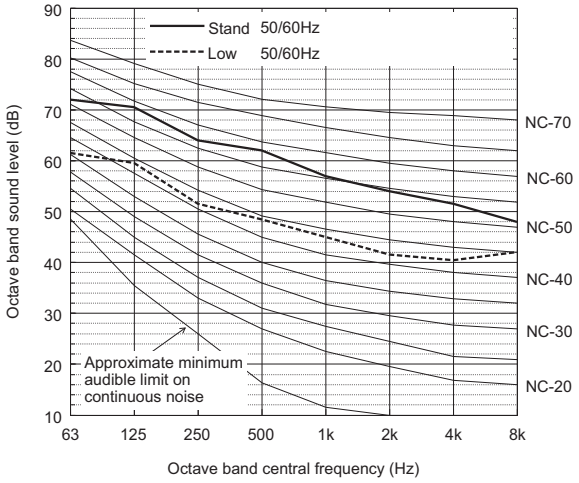

**Sound level of PURY-EM450YNW-A1(-BS)**




| | | 63 | 125 | 250 | 500 | 1k | 2k | 4k | 8k | dB(A) |
|---|---|---|---|---|---|---|---|---|---|---|
| Standard Heating | 50/60Hz | 83.5 | 71.0 | 70.5 | 69.0 | 63.0 | 60.5 | 56.0 | 50.5 | 70.0 |
| Low noise mode | 50/60Hz | 60.5 | 59.0 | 56.0 | 49.0 | 44.5 | 44.0 | 40.0 | 35.5 | 53.0 |

When Low noise mode is set,the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

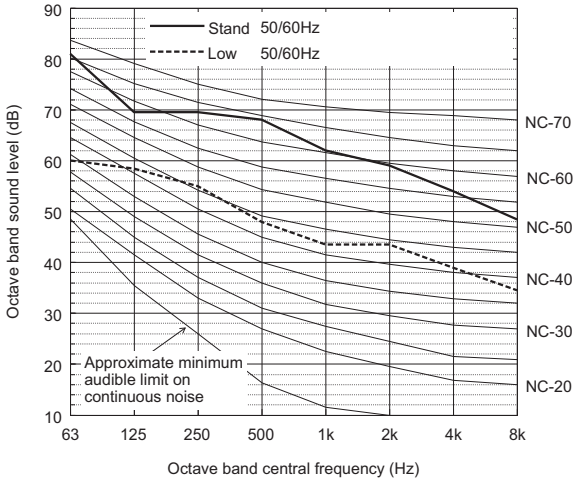
**Sound level of PURY-EM350YNW-A1(-BS)**




| | | 63 | 125 | 250 | 500 | 1k | 2k | 4k | 8k | dB(A) |
|---|---|---|---|---|---|---|---|---|---|---|
| Standard Heating | 50/60Hz | 72.0 | 70.5 | 64.0 | 62.0 | 57.0 | 54.0 | 51.5 | 48.0 | 64.0 |
| Low noise mode | 50/60Hz | 61.5 | 59.5 | 51.5 | 48.5 | 45.0 | 41.5 | 40.5 | 42.0 | 52.0 |

When Low noise mode is set,the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

**Sound level of PURY-EM400YNW-A1(-BS)**

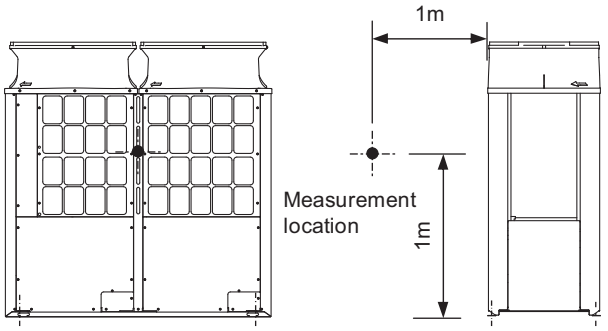



| | | 63 | 125 | 250 | 500 | 1k | 2k | 4k | 8k | dB(A) |
|---|---|---|---|---|---|---|---|---|---|---|
| Standard Heating | 50/60Hz | 81.0 | 69.5 | 69.5 | 68.0 | 62.0 | 59.0 | 54.0 | 48.5 | 69.0 |
| Low noise mode | 50/60Hz | 60.0 | 58.5 | 55.0 | 48.0 | 43.5 | 43.5 | 39.0 | 34.5 | 52.0 |

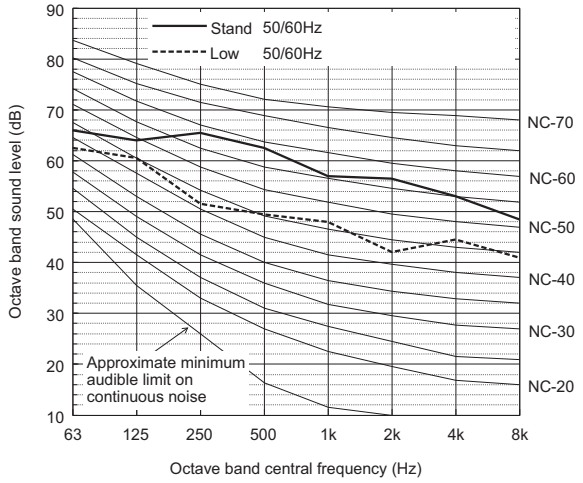
When Low noise mode is set,the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

♦Depending on the operation conditions, the unit generates noise caused by valve actuation, refrigerant flow, and pressure changes when operating normally. Please consider to avoid location where quietness is required.
For HBC controller, it is recommended to be installed in places such as ceilings of corridor, rest rooms and plant rooms.

**Measurement condition**
**PURY-EM500YNW-A1(-BS)**




**Sound level of PURY-EM500YNW-A1(-BS)**




| | | 63 | 125 | 250 | 500 | 1k | 2k | 4k | 8k | dB(A) |
|---|---|---|---|---|---|---|---|---|---|---|
| Standard Heating | 50/60Hz | 66.0 | 64.0 | 65.5 | 62.5 | 57.0 | 56.5 | 53.0 | 48.5 | 64.5 |
| Low noise mode | 50/60Hz | 62.5 | 60.5 | 51.5 | 49.5 | 48.0 | 42.0 | 44.5 | 41.0 | 53.5 |

When Low noise mode is set,the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

- Depending on the operation conditions, the unit generates noise caused by valve actuation, refrigerant flow, and pressure changes when operating normally. Please consider to avoid location where quietness is required.
  For HBC controller, it is recommended to be installed in places such as ceilings of corridor, rest rooms and plant rooms.

## [PURY-M200-500YNW, PURY-EM200-500YNW]

Measurement condition

Measurement frequency: 1 Hz-80 Hz

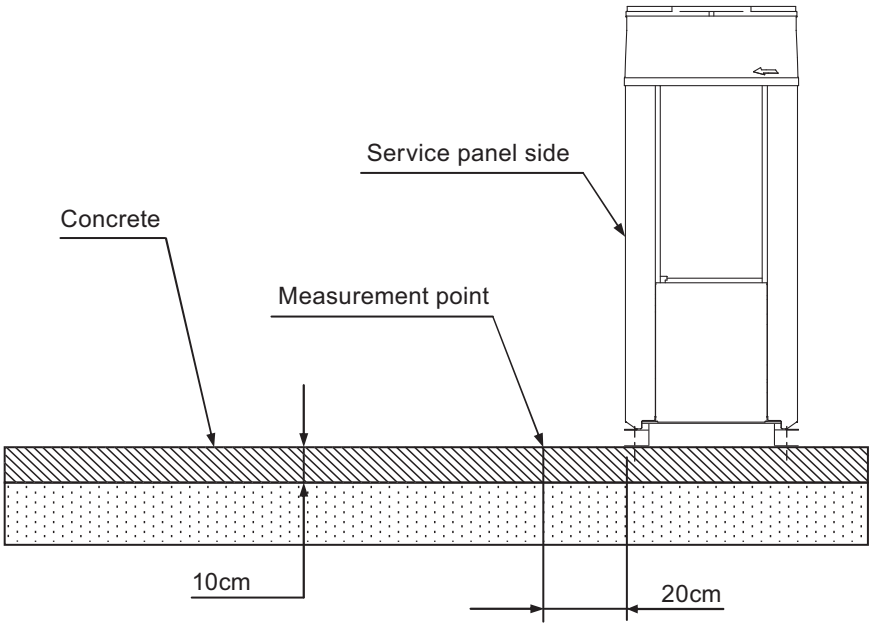
Measurement point: Ground surface 20 cm away from the unit leg

Installation condition: Direct installation on the concrete floor

Power source: 3-phase 4-wire 380-400-415 V 50/60 Hz

Operation condition: JIS condition (cooling, heating)

Measurement device: Vibration level meter for vibration pollution VM-1220C (JIS-compliant product)

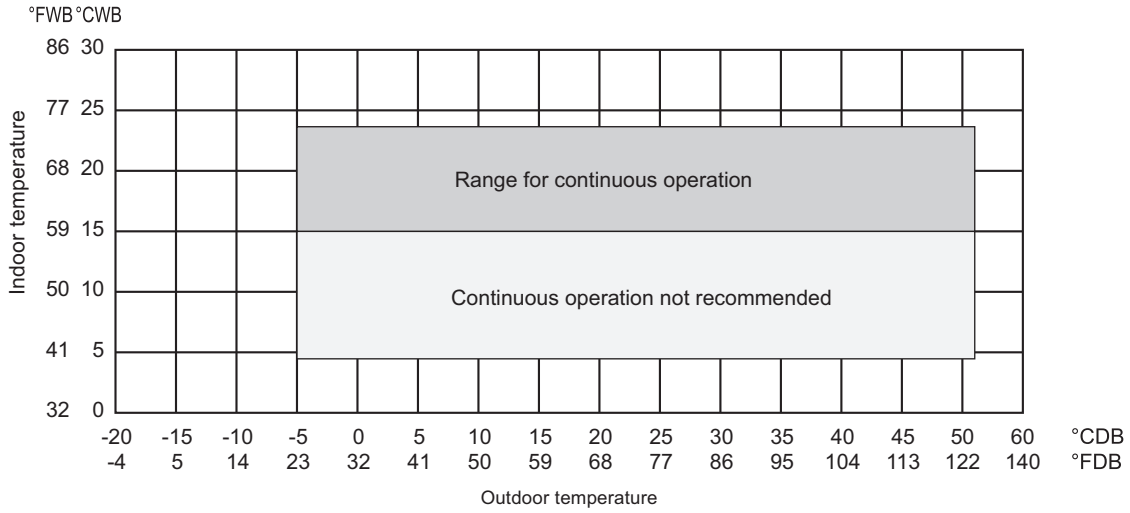



Vibration level

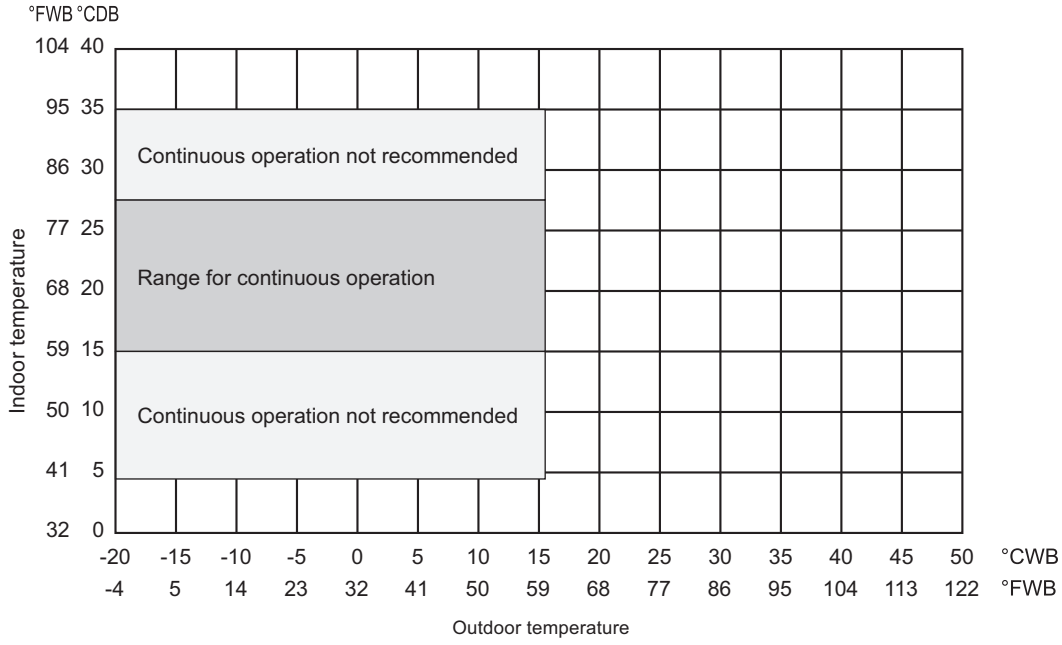
| Model | Vibration level (dB) |
|---|---|
| PURY-M200YNW-A1 (-BS) | 45 |
| PURY-M250YNW-A1 (-BS) | 46 |
| PURY-M300YNW-A1 (-BS) | 47 |
| PURY-M350YNW-A1 (-BS) | 47 |
| PURY-M400YNW-A1 (-BS) | 47 |
| PURY-M450YNW-A1 (-BS) | 47 |
| PURY-M500YNW-A1 (-BS) | 48 |
| PURY-EM200YNW-A1 (-BS) | 45 |
| PURY-EM250YNW-A1 (-BS) | 46 |
| PURY-EM300YNW-A1 (-BS) | 47 |
| PURY-EM350YNW-A1 (-BS) | 47 |
| PURY-EM400YNW-A1 (-BS) | 47 |
| PURY-EM450YNW-A1 (-BS) | 47 |
| PURY-EM500YNW-A1 (-BS) | 48 |

* Vibration level varies depending on the conditions of actual installation site.

• **Cooling only**




• **Heating only**




• **Combination of cooling/heating operation (Cooling main or Heating main)**

| Outdoor temperature | Indoor temperature | |
|---|---|---|
| | Cooling | Heating |
| -10 to 21˚CDB (14 to 70˚FDB) | —— | 15 to 27˚CDB (59 to 81˚FDB) |
| -11 to 15.5˚CWB (12.2 to 60˚FWB) | 15 to 24˚CWB (59 to 75˚FWB) | —— |

Section 8-1.
Shows an example of how to select the indoor and outdoor units according to the required heating/cooling load.

Section 8-2. through 8-5.
Show the actual correction data of indoor and outdoor units.

## 8-1. Correction by temperature

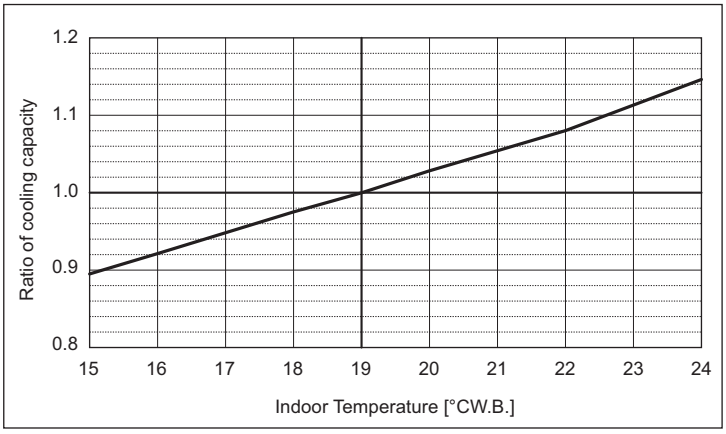
HYBRID CITY MULTI could have varied capacity at different designing temperature. Using the nominal cooling/heating capacity value and the ratio below, the capacity can be observed at various temperature.

| PURY- | | M200YNW-A1 | M250YNW-A1 |
|---|---|---|---|
| Nominal Cooling Capacity | kW | 22.4 | 28.0 |
| | BTU/h | 76,400 | 95,500 |
| Input | kW | 5.53 | 8.40 |

| PURY- | | EM200YNW-A1 | EM250YNW-A1 |
|---|---|---|---|
| Nominal Cooling Capacity | kW | 22.4 | 28.0 |
| | BTU/h | 76,400 | 95,500 |
| Input | kW | 5.13 | 7.69 |

### Indoor unit temperature correction

To be used to correct indoor unit capacity only

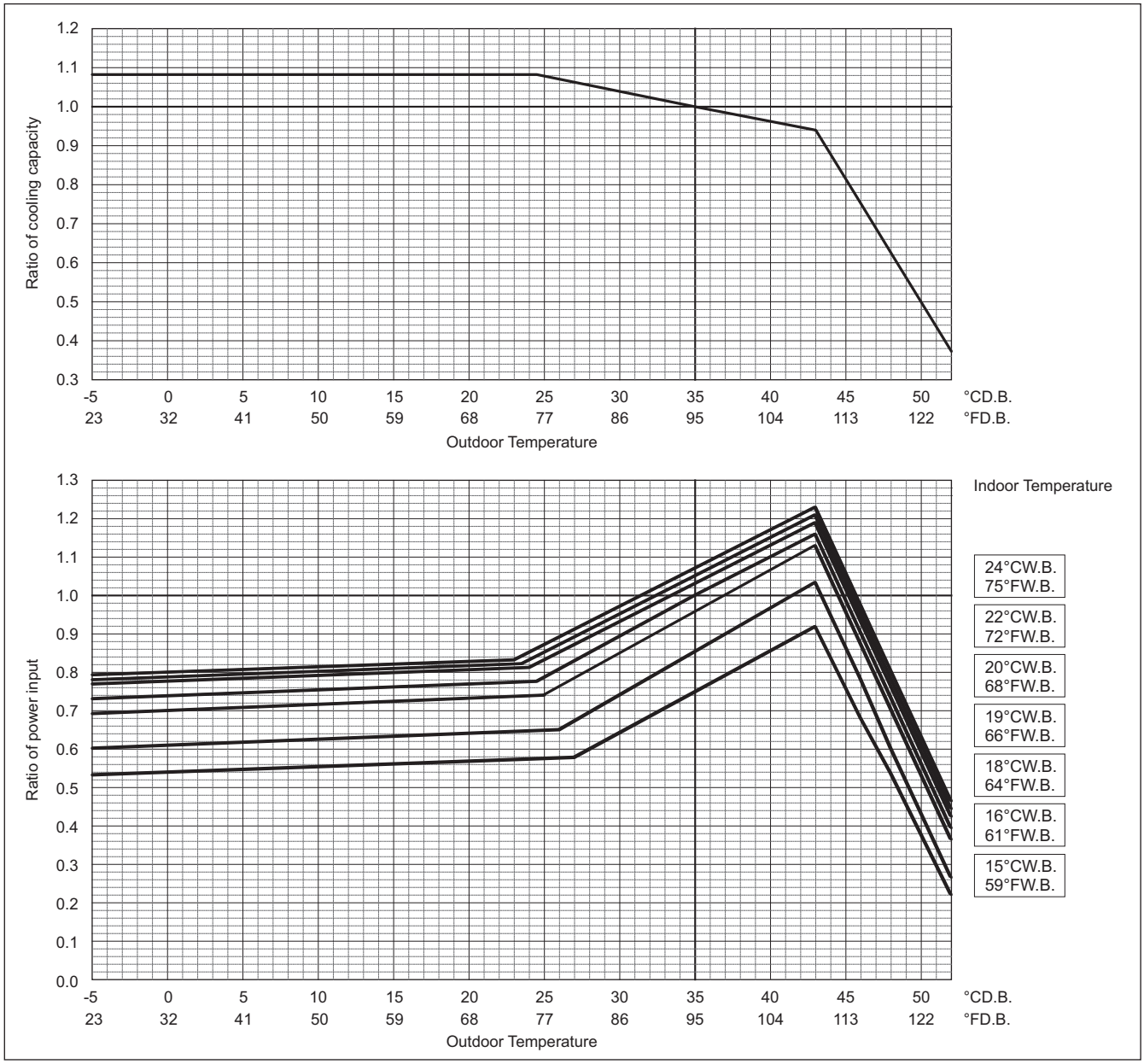



### Outdoor unit temperature correction

To be used to correct outdoor unit only

Outdoor unit capacity is NOT affected by the indoor temperature.

Outdoor unit power input is affected by the indoor and outdoor temperatures. Please consult the sales office for details.

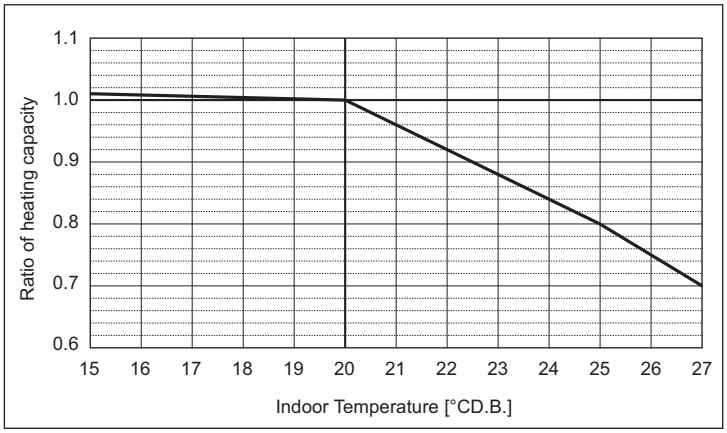


| PURY- | | M200YNW-A1 | M250YNW-A1 |
|---|---|---|---|
| Nominal Heating Capacity | kW | 25.0 | 31.5 |
| | BTU/h | 85,300 | 107,500 |
| Input | kW | 6.39 | 9.15 |

| PURY- | | EM200YNW-A1 | EM250YNW-A1 |
|---|---|---|---|
| Nominal Heating Capacity | kW | 25.0 | 31.5 |
| | BTU/h | 85,300 | 107,500 |
| Input | kW | 6.23 | 8.84 |

## Indoor unit temperature correction

To be used to correct indoor unit capacity only

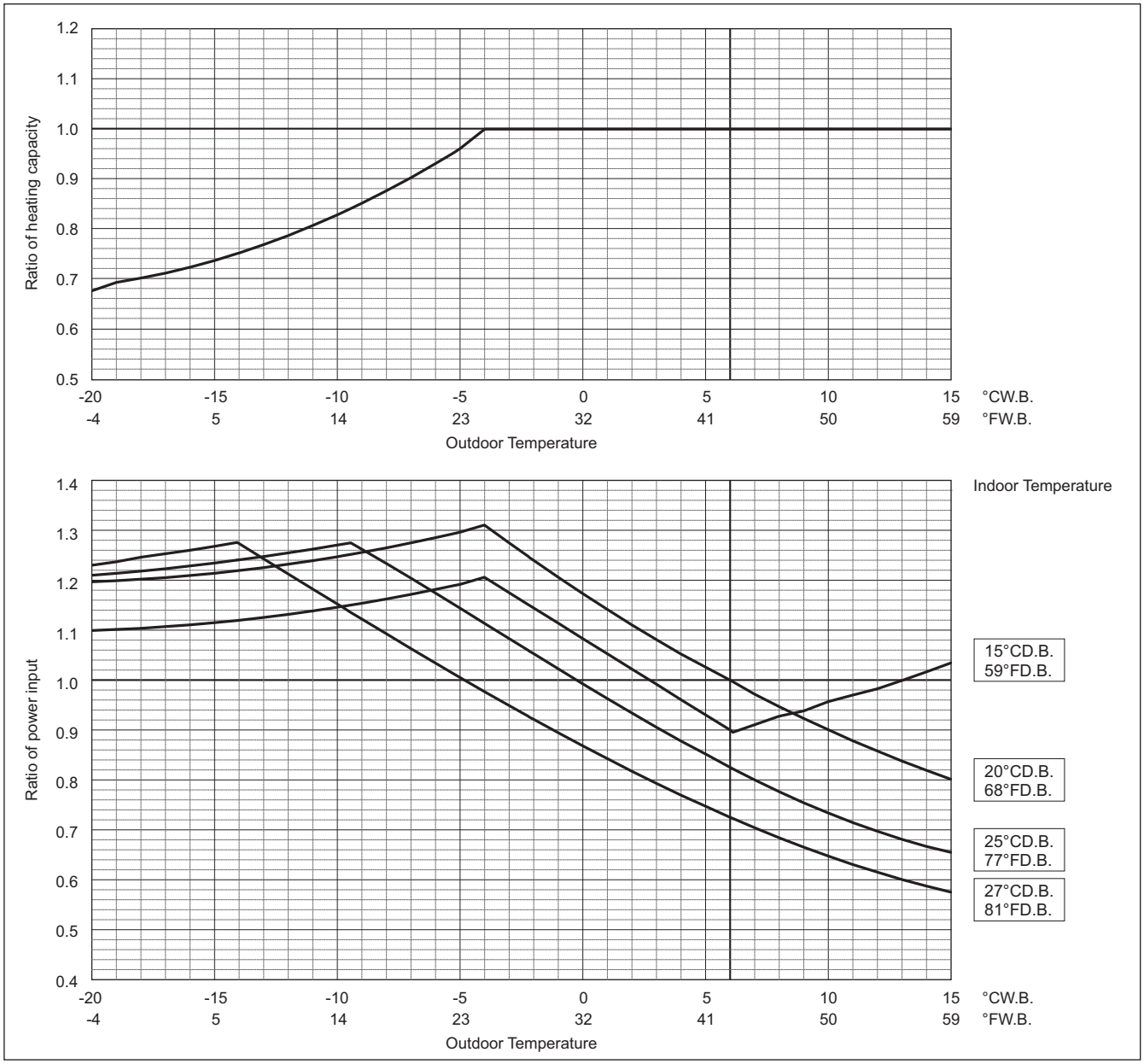



## Outdoor unit temperature correction

To be used to correct outdoor unit only

Outdoor unit capacity is NOT affected by the indoor temperature.

Outdoor unit power input is affected by the indoor and outdoor temperatures. Please consult the sales office for details.

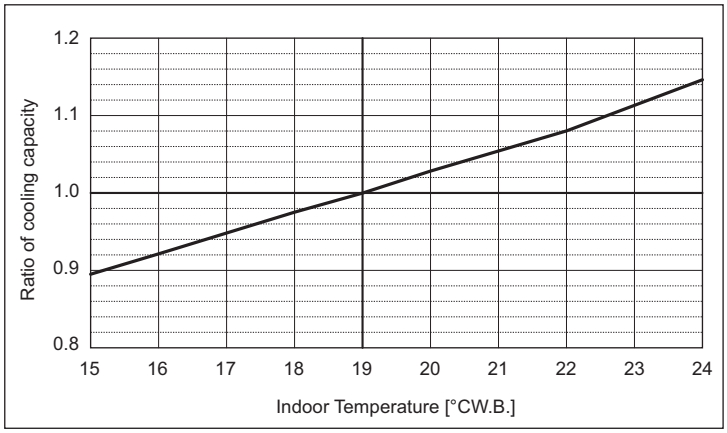


| PURY- | | M300YNW-A1 | M350YNW-A1 |
|---|---|---|---|
| Nominal Cooling Capacity | kW | 33.5 | 40.0 |
| | BTU/h | 114,300 | 136,500 |
| Input | kW | 9.88 | 12.15 |

| PURY- | | EM300YNW-A1 | EM350YNW-A1 |
|---|---|---|---|
| Nominal Cooling Capacity | kW | 33.5 | 40.0 |
| | BTU/h | 114,300 | 136,500 |
| Input | kW | 8.52 | 11.33 |

## Indoor unit temperature correction

To be used to correct indoor unit capacity only

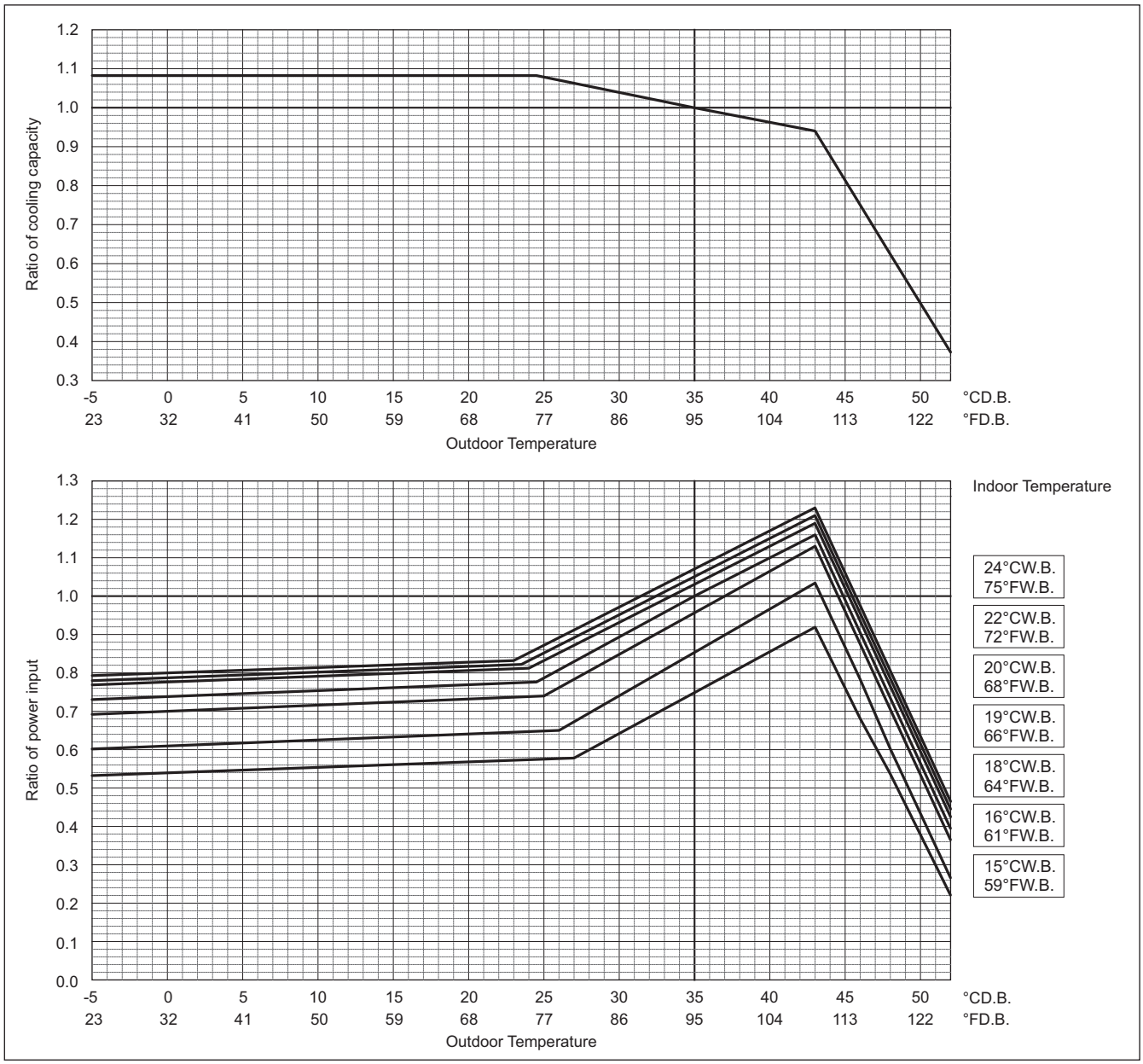



## Outdoor unit temperature correction

To be used to correct outdoor unit only

Outdoor unit capacity is NOT affected by the indoor temperature.

Outdoor unit power input is affected by the indoor and outdoor temperatures. Please consult the sales office for details.

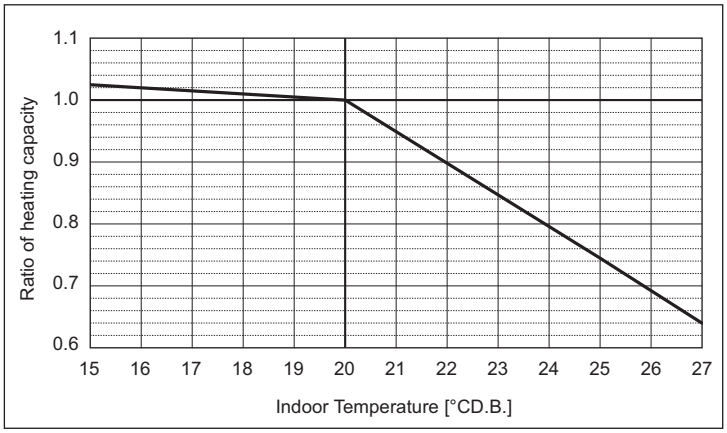


| PURY- | | M300YNW-A1 | M350YNW-A1 |
|---|---|---|---|
| Nominal Heating Capacity | kW | 37.5 | 45.0 |
| | BTU/h | 128,000 | 153,500 |
| Input | kW | 10.33 | 12.16 |

| PURY- | | EM300YNW-A1 | EM350YNW-A1 |
|---|---|---|---|
| Nominal Heating Capacity | kW | 37.5 | 45.0 |
| | BTU/h | 128,000 | 153,500 |
| Input | kW | 9.93 | 12.16 |

## Indoor unit temperature correction

To be used to correct indoor unit capacity only

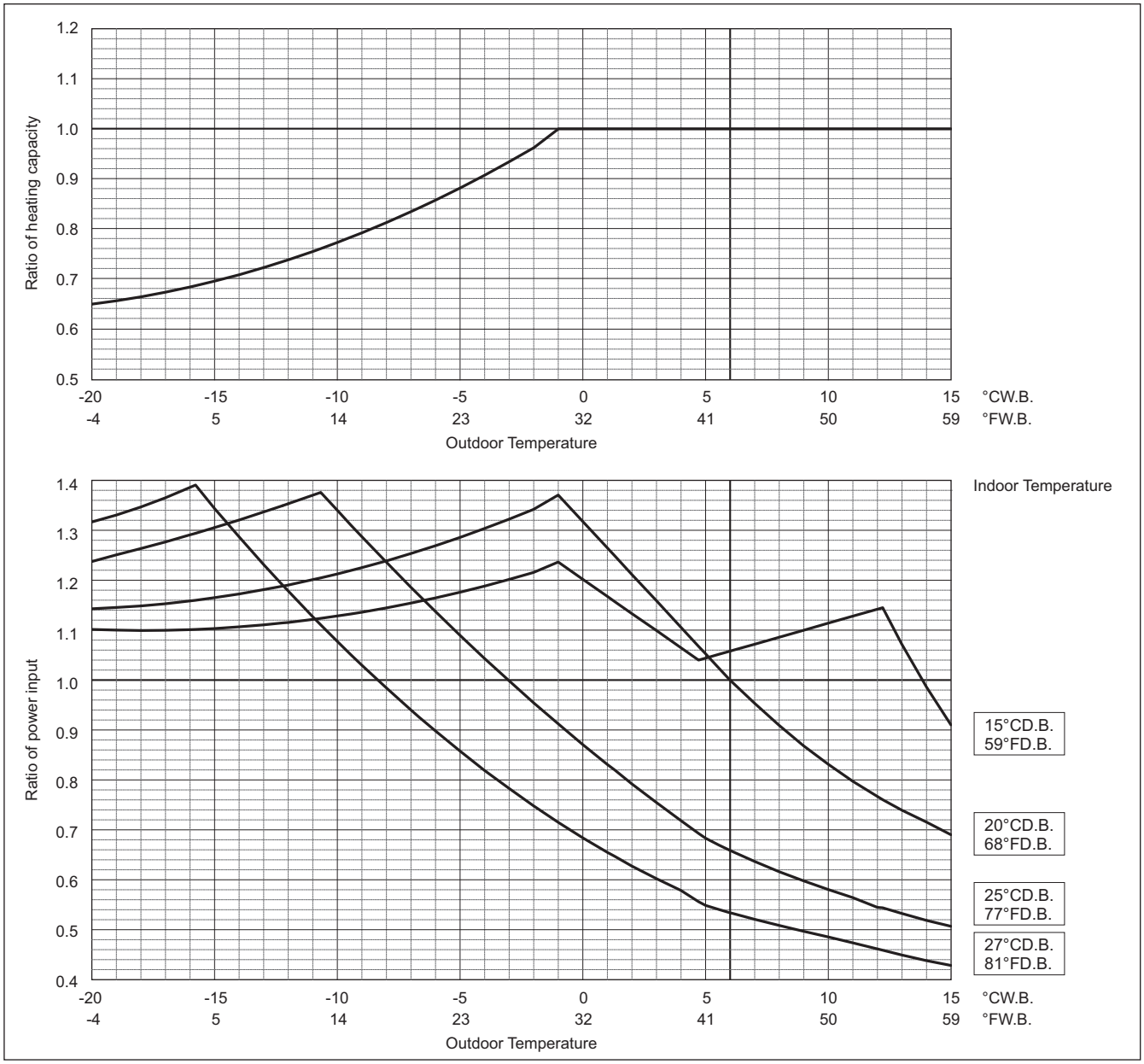



## Outdoor unit temperature correction

To be used to correct outdoor unit only

Outdoor unit capacity is NOT affected by the indoor temperature.

Outdoor unit power input is affected by the indoor and outdoor temperatures. Please consult the sales office for details.

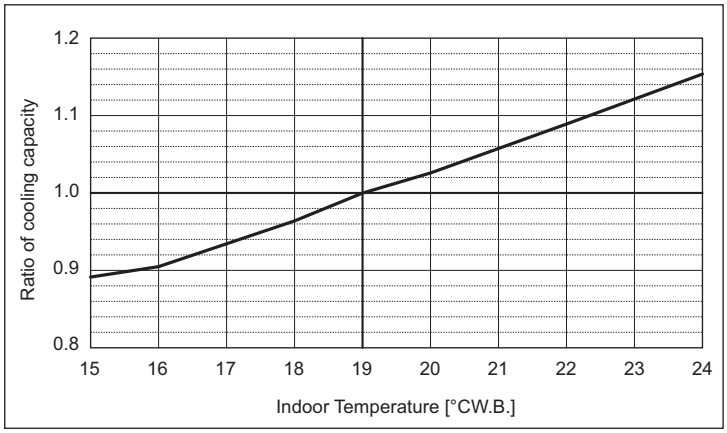


| PURY- | | M400YNW-A1 | M450YNW-A1 | M500YNW-A1 |
|---|---|---|---|---|
| Nominal Cooling Capacity | kW | 45.0 | 50.0 | 56.0 |
| | BTU/h | 153,500 | 170,600 | 191,100 |
| Input | kW | 15.15 | 15.47 | 22.25 |

| PURY- | | EM400YNW-A1 | EM450YNW-A1 | EM500YNW-A1 |
|---|---|---|---|---|
| Nominal Cooling Capacity | kW | 45.0 | 50.0 | 56.0 |
| | BTU/h | 153,500 | 170,600 | 191,100 |
| Input | kW | 13.84 | 15.24 | 18.06 |

## Indoor unit temperature correction

To be used to correct indoor unit capacity only

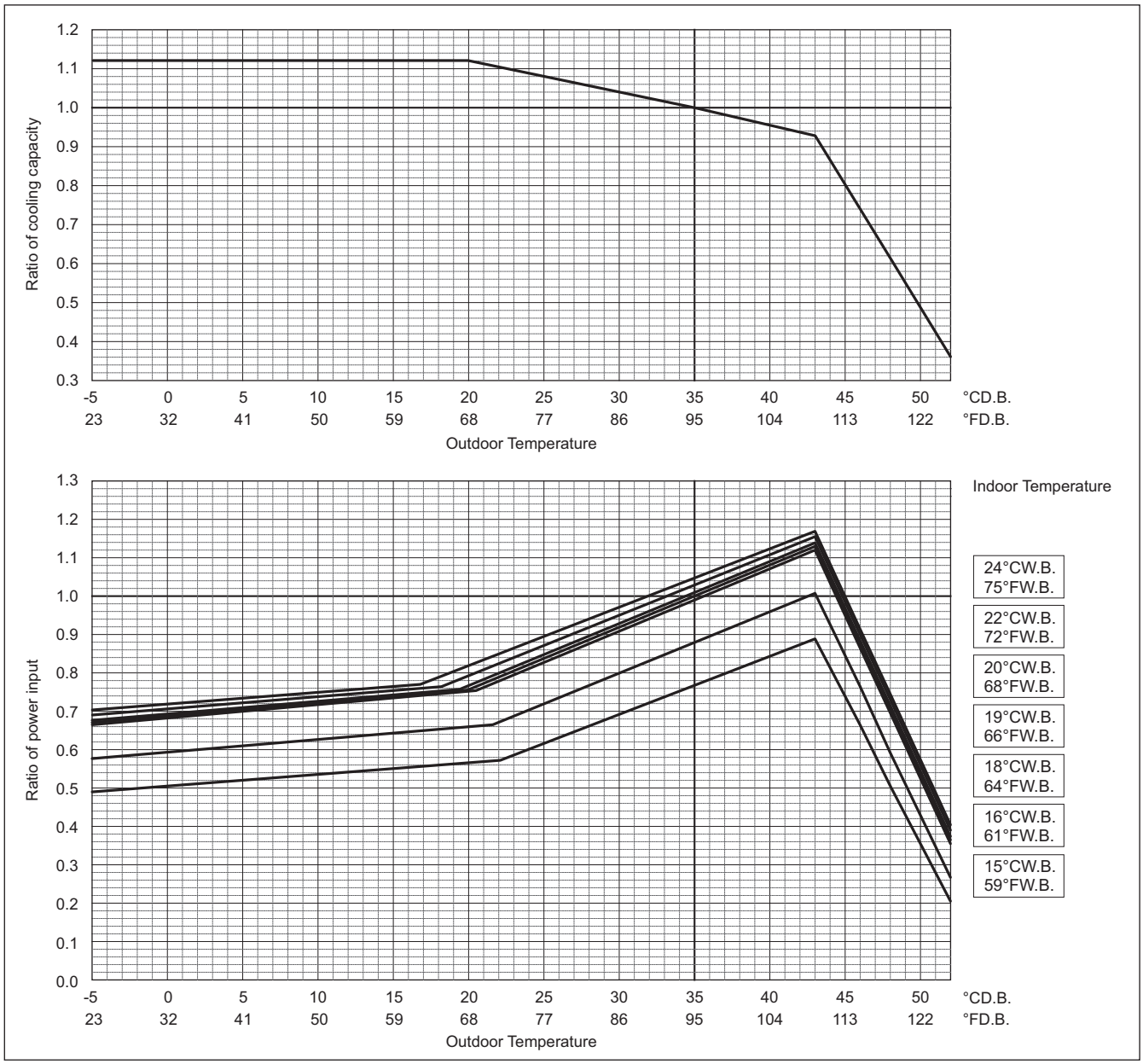



## Outdoor unit temperature correction

To be used to correct outdoor unit only

Outdoor unit capacity is NOT affected by the indoor temperature.

Outdoor unit power input is affected by the indoor and outdoor temperatures. Please consult the sales office for details.

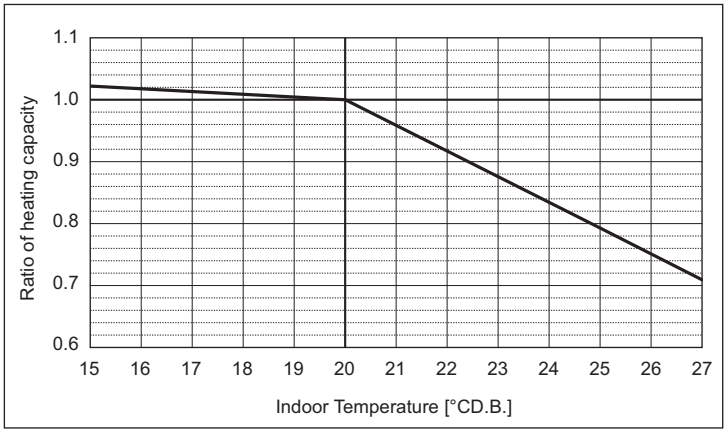


| PURY- | | M400YNW-A1 | M450YNW-A1 | M500YNW-A1 |
|---|---|---|---|---|
| Nominal Heating Capacity | kW | 50.0 | 56.0 | 63.0 |
| | BTU/h | 170,600 | 191,100 | 215,000 |
| Input | kW | 14.08 | 16.18 | 18.26 |

| PURY- | | EM400YNW-A1 | EM450YNW-A1 | EM500YNW-A1 |
|---|---|---|---|---|
| Nominal Heating Capacity | kW | 50.0 | 56.0 | 63.0 |
| | BTU/h | 170,600 | 191,100 | 215,000 |
| Input | kW | 13.88 | 15.77 | 17.45 |

## Indoor unit temperature correction

To be used to correct indoor unit capacity only

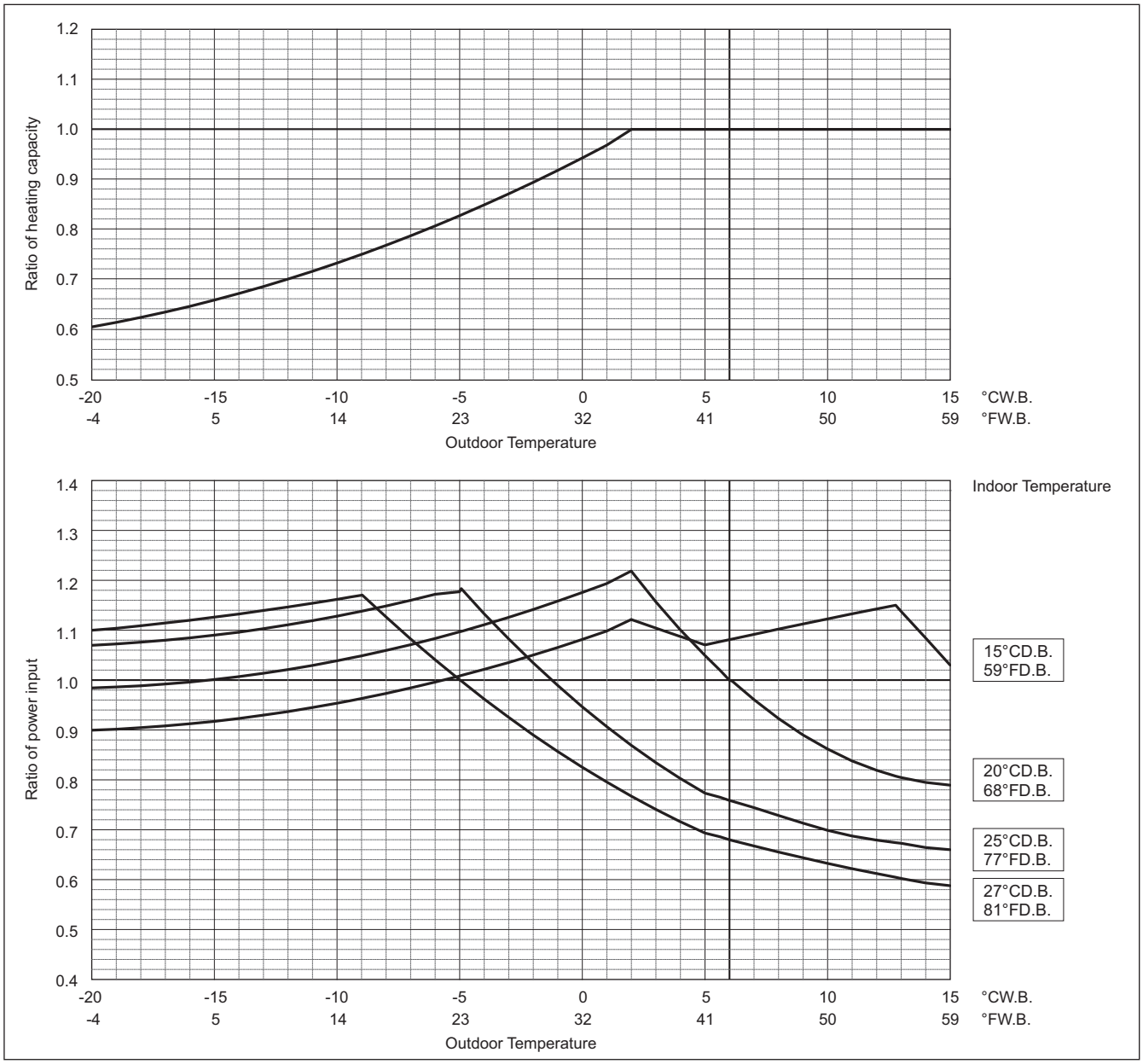



## Outdoor unit temperature correction

To be used to correct outdoor unit only

Outdoor unit capacity is NOT affected by the indoor temperature.

Outdoor unit power input is affected by the indoor and outdoor temperatures. Please consult the sales office for details.



**Correction by temperature (COP Priority Mode)**

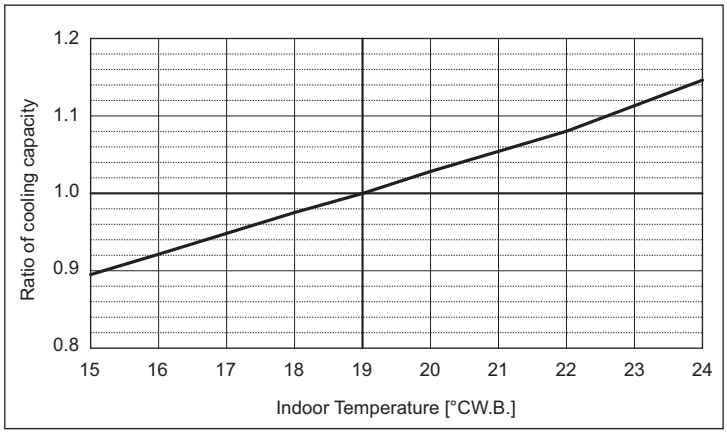
HYBRID CITY MULTI could have various capacities at different designing temperatures. Using the nominal cooling/heating capacity values and the ratios below, the capacity can be found for various temperatures.
To select COP priority mode, SW4 (935) must be set to ON.

| PURY- | | M200YNW-A1 | M250YNW-A1 |
|---|---|---|---|
| Nominal Cooling Capacity | kW | 22.4 | 28.0 |
| | BTU/h | 76,400 | 95,500 |
| Input | kW | 5.53 | 8.40 |

| PURY- | | EM200YNW-A1 | EM250YNW-A1 |
|---|---|---|---|
| Nominal Cooling Capacity | kW | 22.4 | 28.0 |
| | BTU/h | 76,400 | 95,500 |
| Input | kW | 5.13 | 7.69 |

## Indoor unit temperature correction

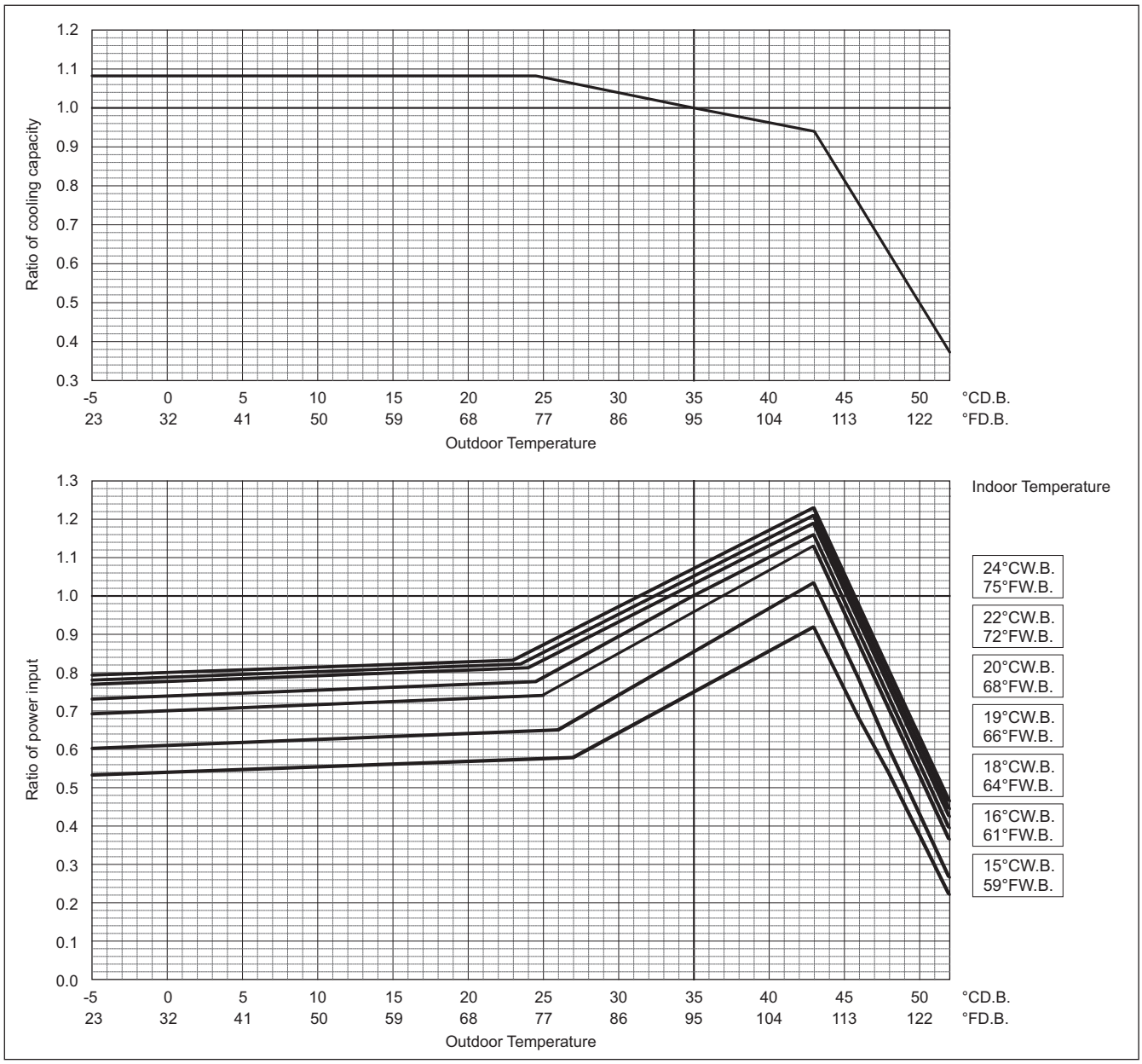
To be used to correct indoor unit capacity only




## Outdoor unit temperature correction

To be used to correct outdoor unit only

Outdoor unit capacity is NOT affected by the indoor temperature.
Outdoor unit power input is affected by the indoor and outdoor temperatures. Please consult the sales office for details.



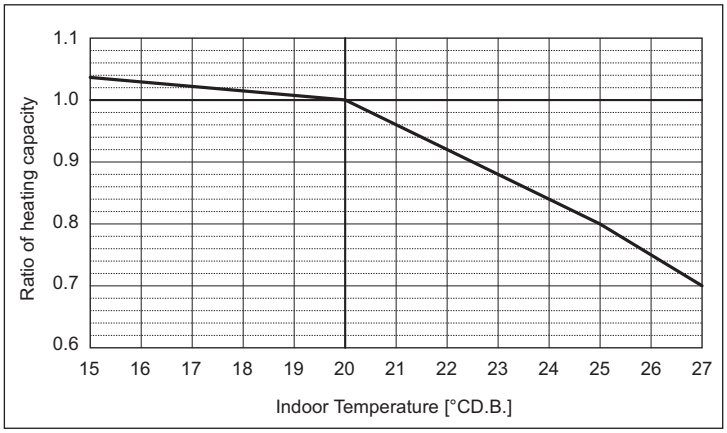
COP Priority Mode

| PURY- | | M200YNW-A1 | M250YNW-A1 |
|---|---|---|---|
| Nominal Heating Capacity | kW | 25.0 | 31.5 |
| | BTU/h | 85,300 | 107,500 |
| Input | kW | 6.39 | 9.15 |

| PURY- | | EM200YNW-A1 | EM250YNW-A1 |
|---|---|---|---|
| Nominal Heating Capacity | kW | 25.0 | 31.5 |
| | BTU/h | 85,300 | 107,500 |
| Input | kW | 6.23 | 8.84 |

## Indoor unit temperature correction

To be used to correct indoor unit capacity only

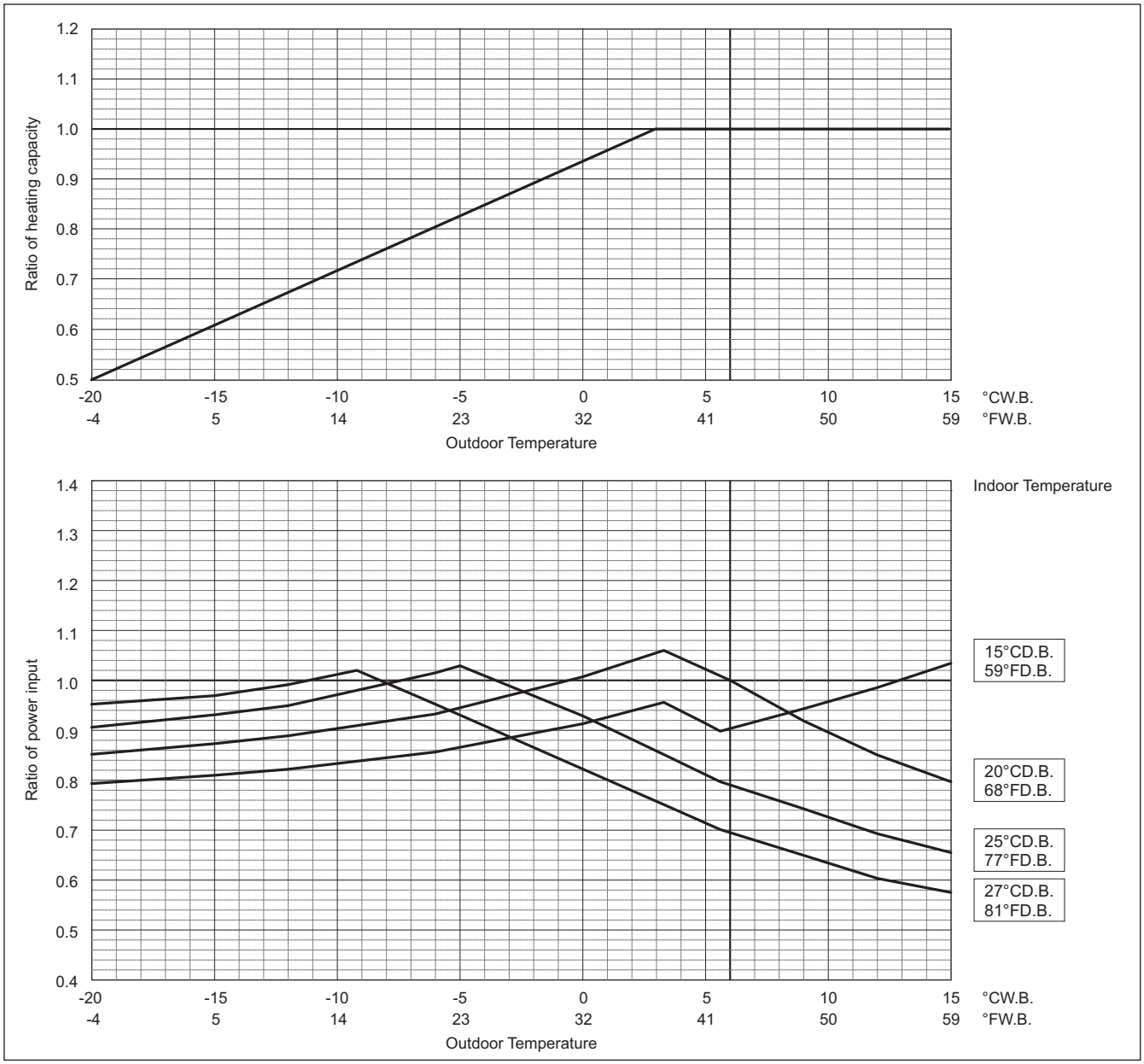



## Outdoor unit temperature correction

To be used to correct outdoor unit only

Outdoor unit capacity is NOT affected by the indoor temperature.

Outdoor unit power input is affected by the indoor and outdoor temperatures. Please consult the sales office for details.

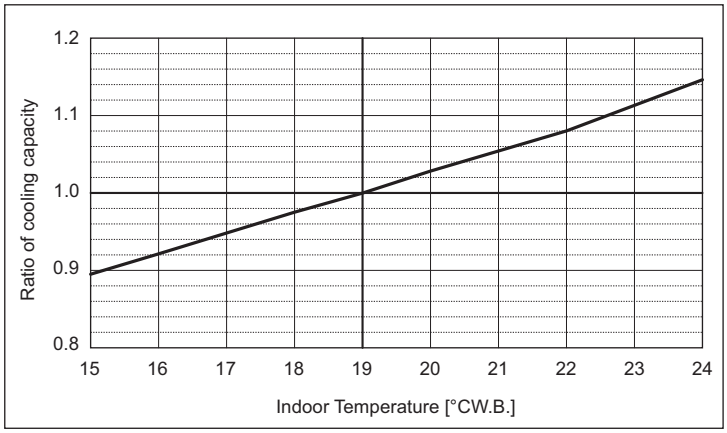


| PURY- | | M300YNW-A1 | M350YNW-A1 |
|---|---|---|---|
| Nominal Cooling Capacity | kW | 33.5 | 40.0 |
| | BTU/h | 114,300 | 136,500 |
| Input | kW | 9.88 | 12.15 |

| PURY- | | EM300YNW-A1 | EM350YNW-A1 |
|---|---|---|---|
| Nominal Cooling Capacity | kW | 33.5 | 40.0 |
| | BTU/h | 114,300 | 136,500 |
| Input | kW | 8.52 | 11.33 |

## Indoor unit temperature correction

To be used to correct indoor unit capacity only

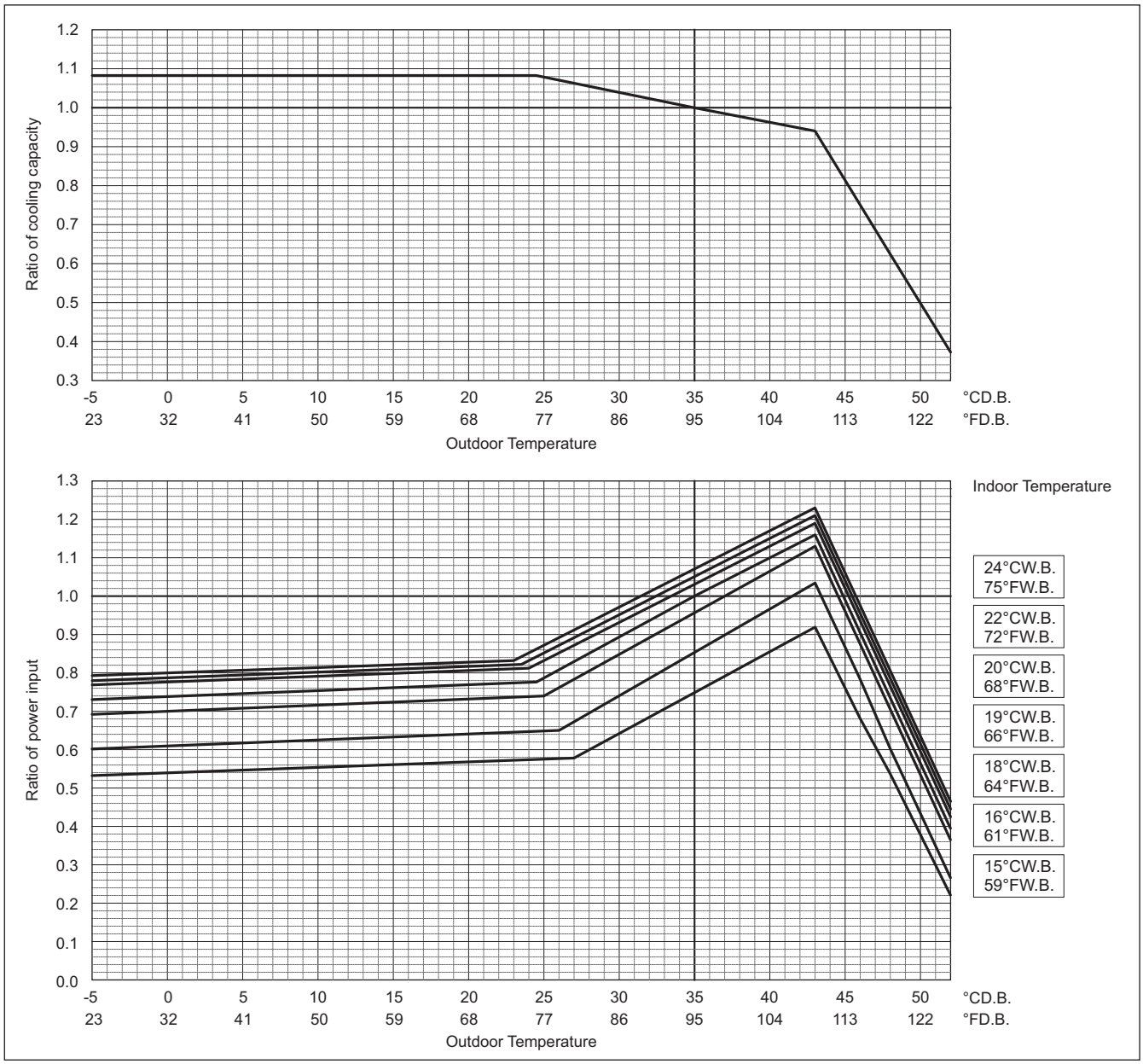



## Outdoor unit temperature correction

To be used to correct outdoor unit only

Outdoor unit capacity is NOT affected by the indoor temperature.

Outdoor unit power input is affected by the indoor and outdoor temperatures. Please consult the sales office for details.



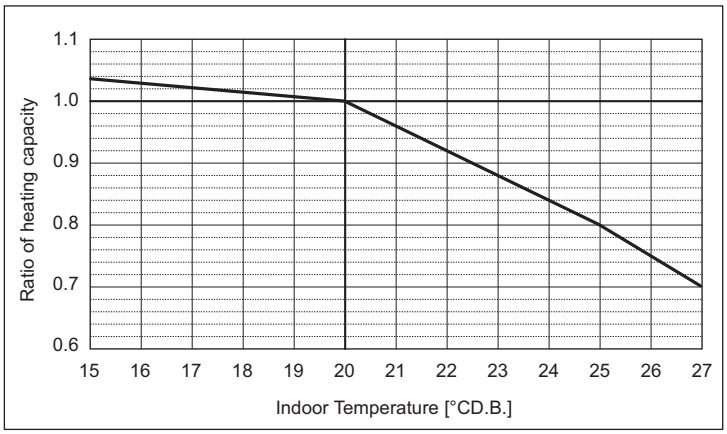
COP Priority Mode

| PURY- | | M300YNW-A1 | M350YNW-A1 |
|---|---|---|---|
| Nominal Heating Capacity | kW | 37.5 | 45.0 |
| | BTU/h | 128,000 | 153,500 |
| Input | kW | 10.33 | 12.16 |

| PURY- | | EM300YNW-A1 | EM350YNW-A1 |
|---|---|---|---|
| Nominal Heating Capacity | kW | 37.5 | 45.0 |
| | BTU/h | 128,000 | 153,500 |
| Input | kW | 9.93 | 12.16 |

## Indoor unit temperature correction

To be used to correct indoor unit capacity only

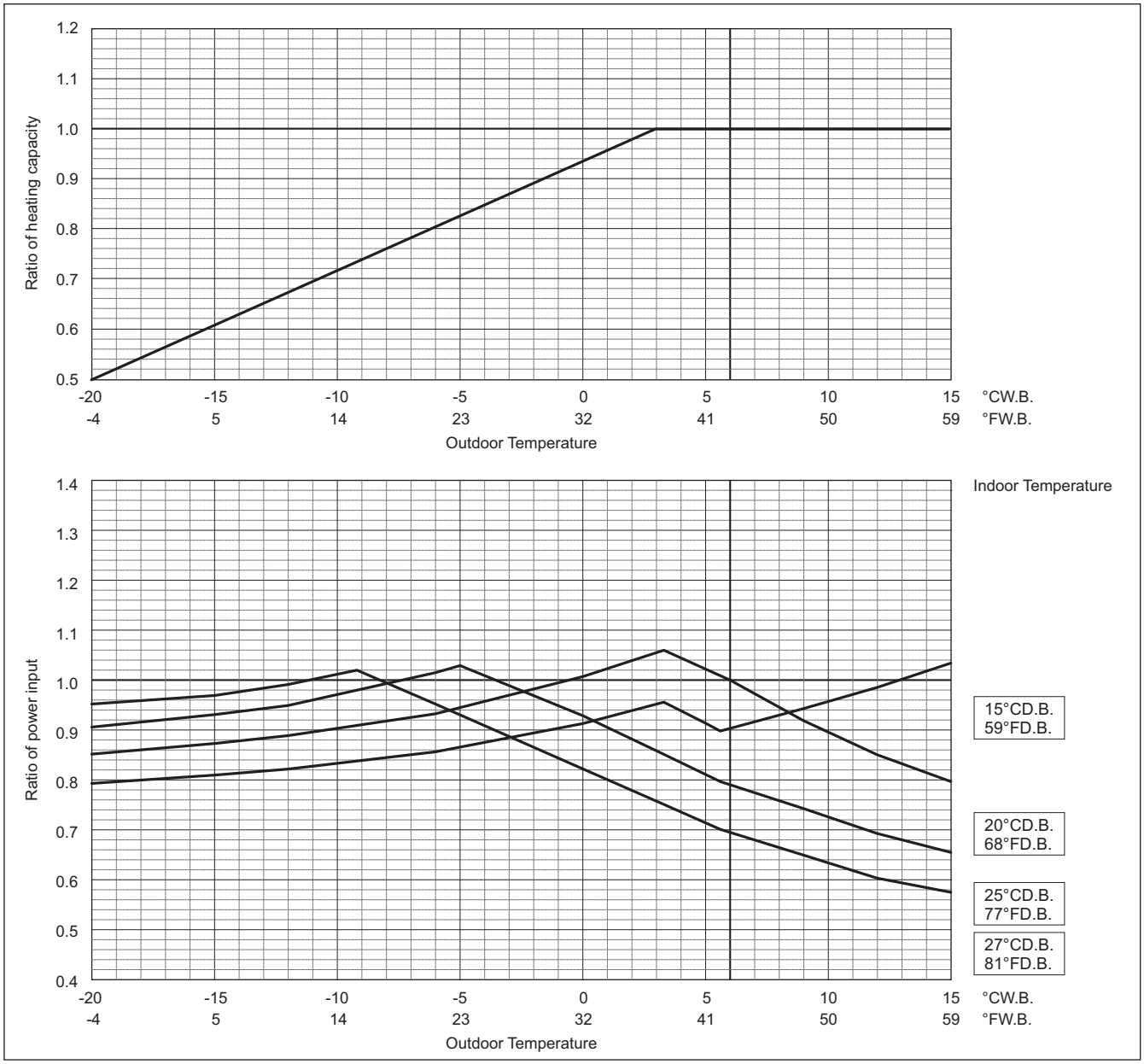



## Outdoor unit temperature correction

To be used to correct outdoor unit only

Outdoor unit capacity is NOT affected by the indoor temperature.

Outdoor unit power input is affected by the indoor and outdoor temperatures. Please consult the sales office for details.

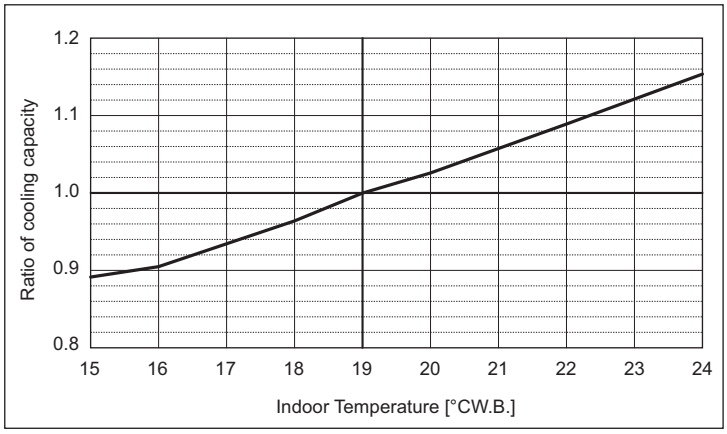


| PURY- | | M400YNW-A1 | M450YNW-A1 | M500YNW-A1 |
|---|---|---|---|---|
| Nominal Cooling Capacity | kW | 45.0 | 50.0 | 56.0 |
| | BTU/h | 153,500 | 170,600 | 191,100 |
| Input | kW | 15.15 | 15.47 | 22.25 |

| PURY- | | EM400YNW-A1 | EM450YNW-A1 | EM500YNW-A1 |
|---|---|---|---|---|
| Nominal Cooling Capacity | kW | 45.0 | 50.0 | 56.0 |
| | BTU/h | 153,500 | 170,600 | 191,100 |
| Input | kW | 13.84 | 15.24 | 18.06 |

## Indoor unit temperature correction

To be used to correct indoor unit capacity only

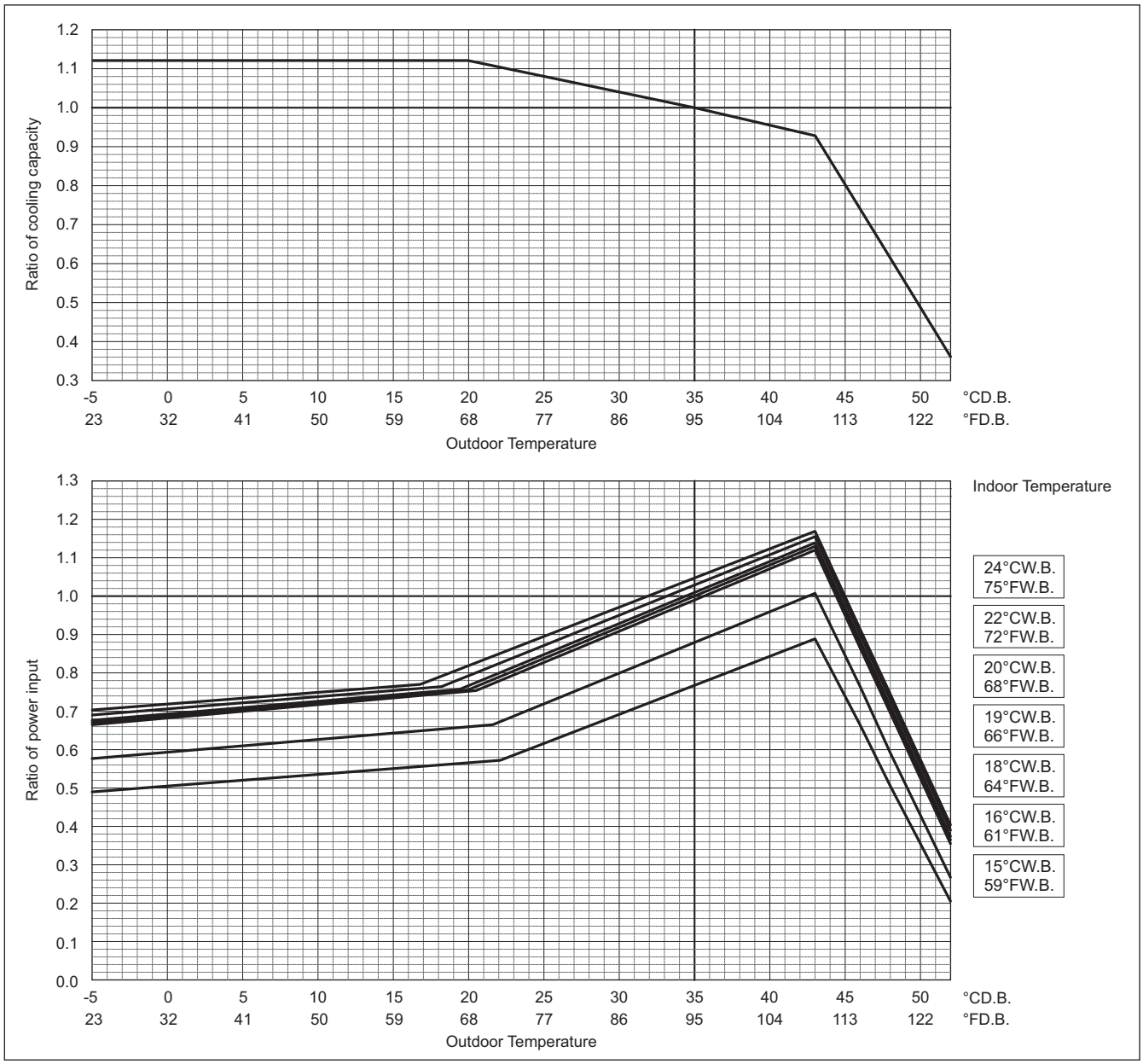



## Outdoor unit temperature correction

To be used to correct outdoor unit only

Outdoor unit capacity is NOT affected by the indoor temperature.

Outdoor unit power input is affected by the indoor and outdoor temperatures. Please consult the sales office for details.



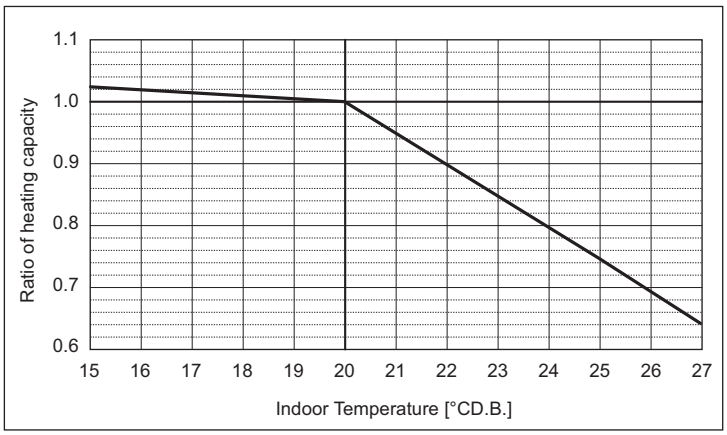
COP Priority Mode

| PURY- | | M400YNW-A1 | M450YNW-A1 | M500YNW-A1 |
|---|---|---|---|---|
| Nominal Heating Capacity | kW | 50.0 | 56.0 | 63.0 |
| | BTU/h | 170,600 | 191,100 | 215,000 |
| Input | kW | 14.08 | 16.18 | 18.26 |

| PURY- | | EM400YNW-A1 | EM450YNW-A1 | EM500YNW-A1 |
|---|---|---|---|---|
| Nominal Heating Capacity | kW | 50.0 | 56.0 | 63.0 |
| | BTU/h | 170,600 | 191,100 | 215,000 |
| Input | kW | 13.88 | 15.77 | 17.45 |

## Indoor unit temperature correction

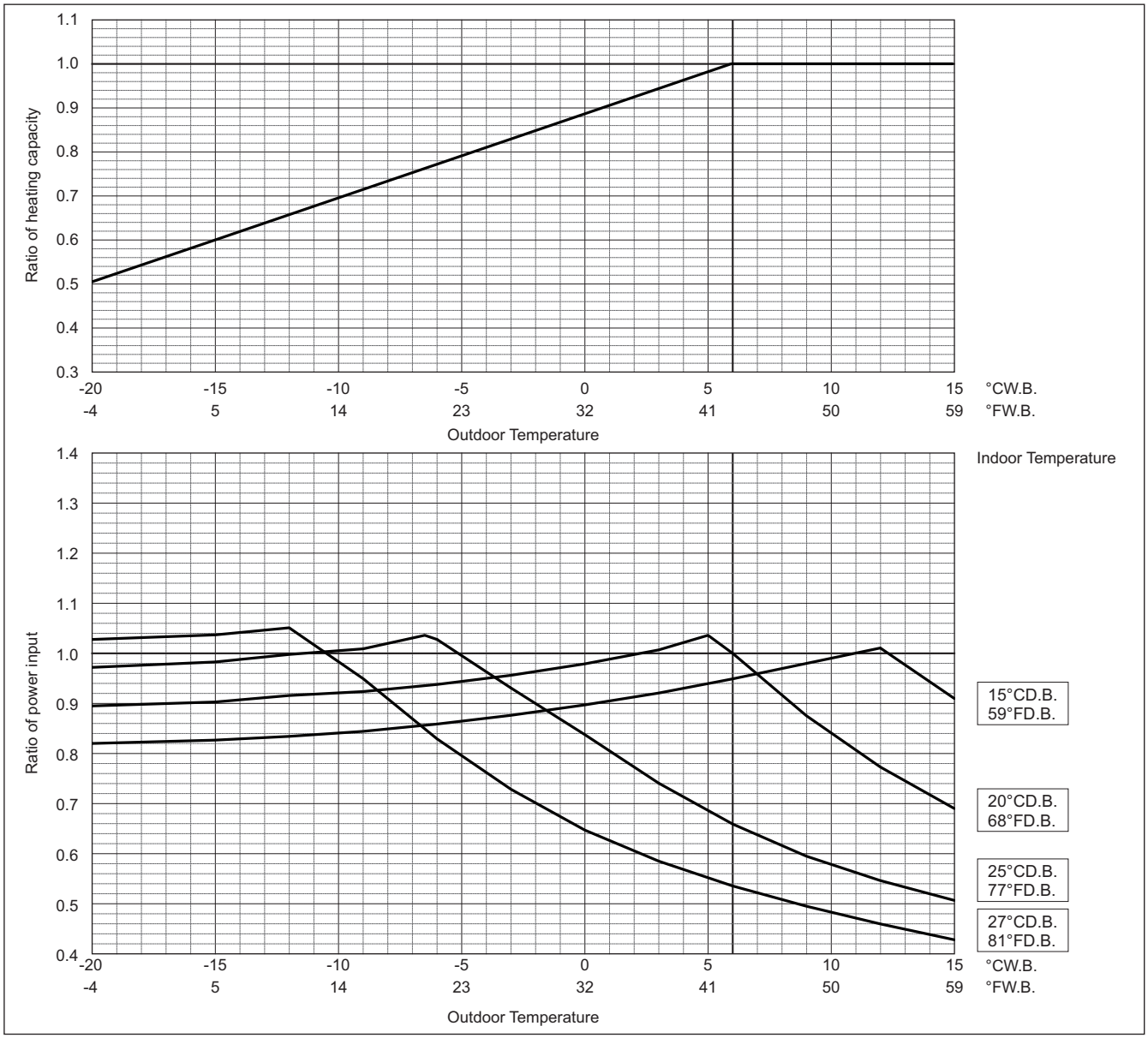
To be used to correct indoor unit capacity only




## Outdoor unit temperature correction

To be used to correct outdoor unit only

Outdoor unit capacity is NOT affected by the indoor temperature.
Outdoor unit power input is affected by the indoor and outdoor temperatures. Please consult the sales office for details.



## 8-2. Correction by total indoor

HYBRID CITY MULTI system has different capacities and inputs when many combinations of indoor units with different total capacities are connected. Using following tables, the maximum capacity can be found to ensure the system is installed with enough capacity for a particular application.

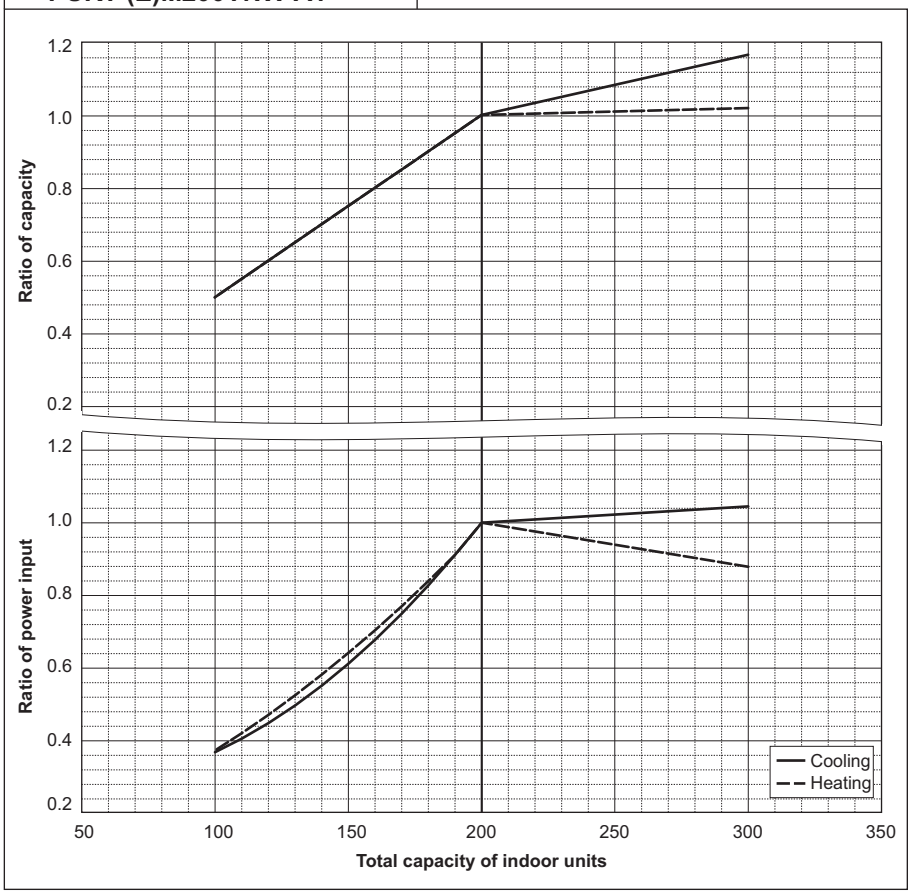
| PURY-M200YNW-A1 | | |
|---|---|---|
| Nominal Cooling Capacity | kW | 22.4 |
| | BTU/h | 76,400 |
| Input | kW | 5.53 |

| PURY-M200YNW-A1 | | |
|---|---|---|
| Nominal Heating Capacity | kW | 25.0 |
| | BTU/h | 85,300 |
| Input | kW | 6.39 |

| PURY-EM200YNW-A1 | | |
|---|---|---|
| Nominal Cooling Capacity | kW | 22.4 |
| | BTU/h | 76,400 |
| Input | kW | 5.13 |

| PURY-EM200YNW-A1 | | |
|---|---|---|
| Nominal Heating Capacity | kW | 25.0 |
| | BTU/h | 85,300 |
| Input | kW | 6.23 |

**PURY-(E)M200YNW-A1**



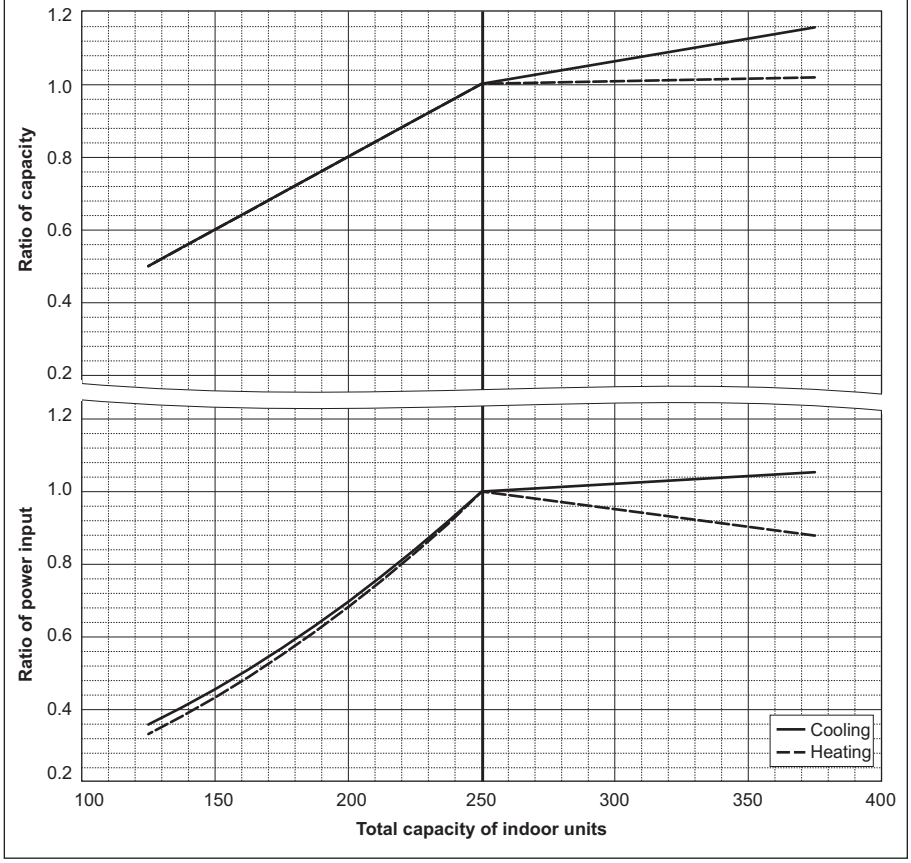

| PURY-M250YNW-A1 | | |
|---|---|---|
| Nominal Cooling Capacity | kW | 28.0 |
| | BTU/h | 95,500 |
| Input | kW | 8.40 |

| PURY-M250YNW-A1 | | |
|---|---|---|
| Nominal Heating Capacity | kW | 31.5 |
| | BTU/h | 107,500 |
| Input | kW | 9.15 |

| PURY-EM250YNW-A1 | | |
|---|---|---|
| Nominal Cooling Capacity | kW | 28.0 |
| | BTU/h | 95,500 |
| Input | kW | 7.69 |

| PURY-EM250YNW-A1 | | |
|---|---|---|
| Nominal Heating Capacity | kW | 31.5 |
| | BTU/h | 107,500 |
| Input | kW | 8.84 |

**PURY-(E)M250YNW-A1**



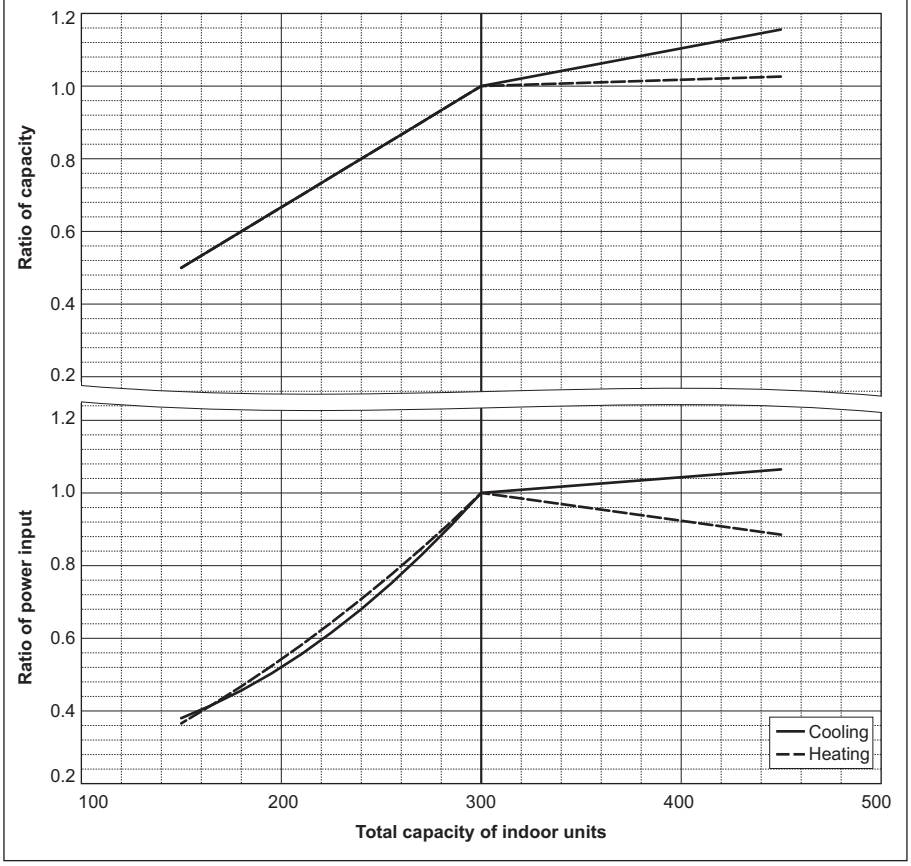
| PURY-M300YNW-A1 | | |
|---|---|---|
| Nominal Cooling Capacity | kW | 33.5 |
| | BTU/h | 114,300 |
| Input | kW | 9.88 |

| PURY-M300YNW-A1 | | |
|---|---|---|
| Nominal Heating Capacity | kW | 37.5 |
| | BTU/h | 128,000 |
| Input | kW | 10.33 |

| PURY-EM300YNW-A1 | | |
|---|---|---|
| Nominal Cooling Capacity | kW | 33.5 |
| | BTU/h | 114,300 |
| Input | kW | 8.52 |

| PURY-EM300YNW-A1 | | |
|---|---|---|
| Nominal Heating Capacity | kW | 37.5 |
| | BTU/h | 128,000 |
| Input | kW | 9.93 |

**PURY-(E)M300YNW-A1**



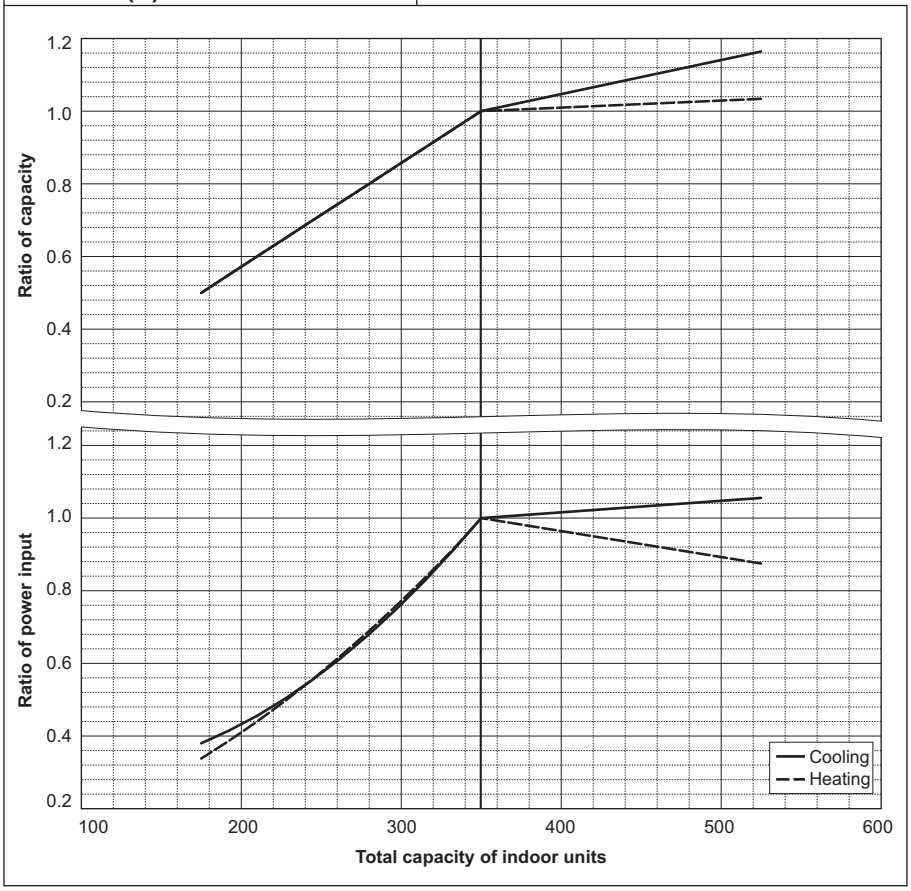

| PURY-M350YNW-A1 | | |
|---|---|---|
| Nominal Cooling Capacity | kW | 40.0 |
| | BTU/h | 136,500 |
| Input | kW | 12.15 |

| PURY-M350YNW-A1 | | |
|---|---|---|
| Nominal Heating Capacity | kW | 45.0 |
| | BTU/h | 153,500 |
| Input | kW | 12.16 |

| PURY-EM350YNW-A1 | | |
|---|---|---|
| Nominal Cooling Capacity | kW | 40.0 |
| | BTU/h | 136,500 |
| Input | kW | 11.33 |

| PURY-EM350YNW-A1 | | |
|---|---|---|
| Nominal Heating Capacity | kW | 45.0 |
| | BTU/h | 153,500 |
| Input | kW | 12.16 |

**PURY-(E)M350YNW-A1**



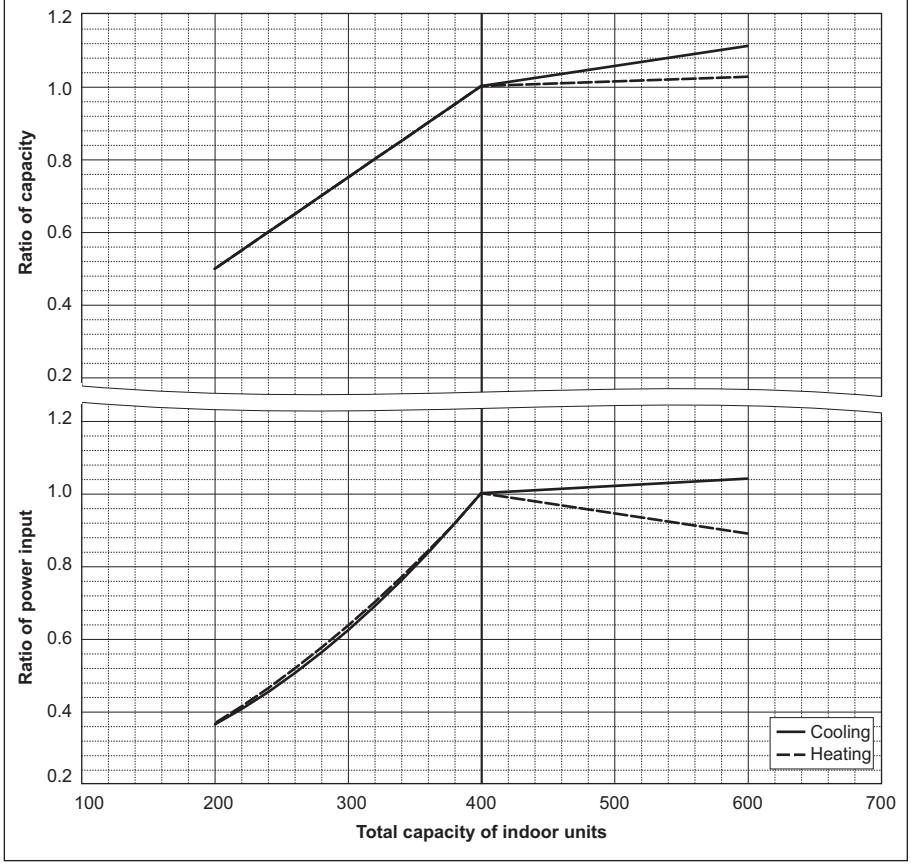
| PURY-M400YNW-A1 | | |
|---|---|---|
| Nominal Cooling Capacity | kW | 45.0 |
| | BTU/h | 153,500 |
| Input | kW | 15.15 |

| PURY-M400YNW-A1 | | |
|---|---|---|
| Nominal Heating Capacity | kW | 50.0 |
| | BTU/h | 170,600 |
| Input | kW | 14.08 |

| PURY-EM400YNW-A1 | | |
|---|---|---|
| Nominal Cooling Capacity | kW | 45.0 |
| | BTU/h | 153,500 |
| Input | kW | 13.84 |

| PURY-EM400YNW-A1 | | |
|---|---|---|
| Nominal Heating Capacity | kW | 50.0 |
| | BTU/h | 170,600 |
| Input | kW | 13.88 |

**PURY-(E)M400YNW-A1**



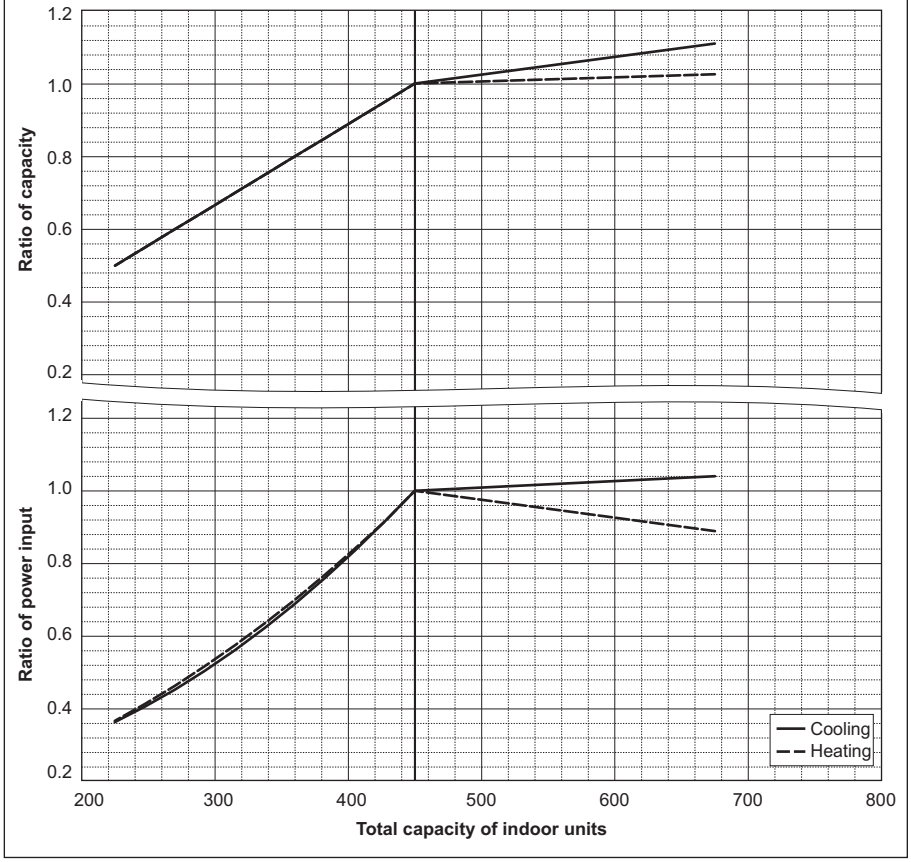

| PURY-M450YNW-A1 | | |
|---|---|---|
| Nominal Cooling Capacity | kW | 50.0 |
| | BTU/h | 170,600 |
| Input | kW | 15.47 |

| PURY-M450YNW-A1 | | |
|---|---|---|
| Nominal Heating Capacity | kW | 56.0 |
| | BTU/h | 191,100 |
| Input | kW | 16.18 |

| PURY-EM450YNW-A1 | | |
|---|---|---|
| Nominal Cooling Capacity | kW | 50.0 |
| | BTU/h | 170,600 |
| Input | kW | 15.24 |

| PURY-EM450YNW-A1 | | |
|---|---|---|
| Nominal Heating Capacity | kW | 56.0 |
| | BTU/h | 191,100 |
| Input | kW | 15.77 |

**PURY-(E)M450YNW-A1**



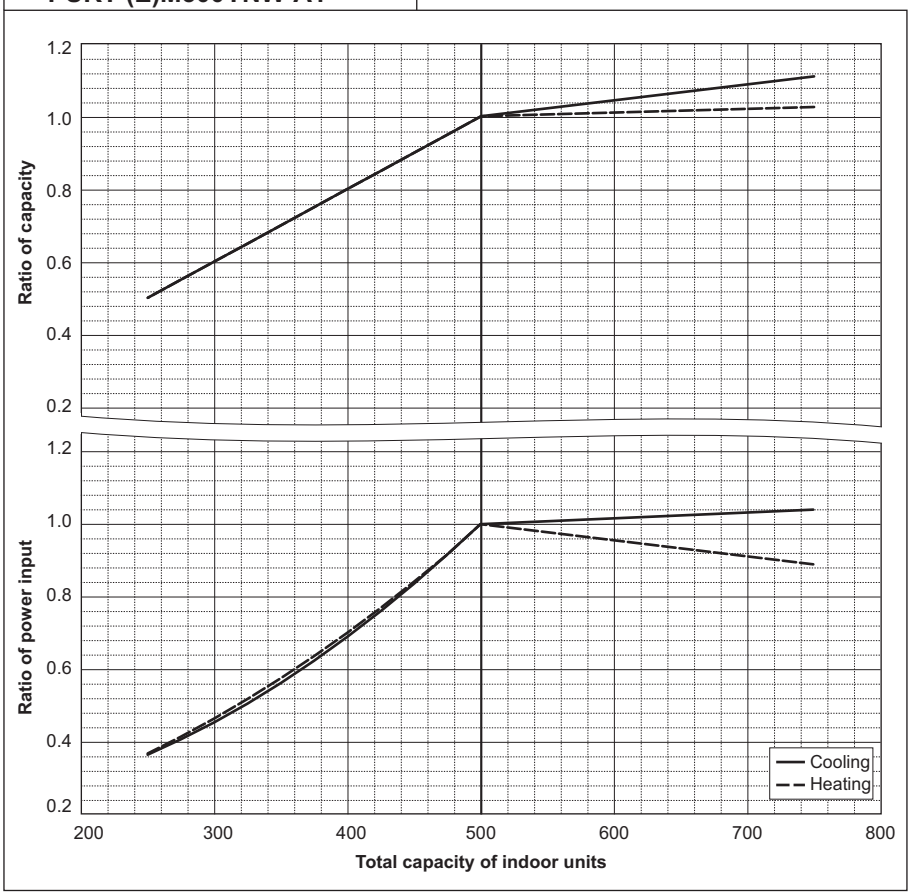
| PURY-M500YNW-A1 | | |
|---|---|---|
| Nominal Cooling Capacity | kW | 56.0 |
| | BTU/h | 191,100 |
| Input | kW | 22.25 |

| PURY-M500YNW-A1 | | |
|---|---|---|
| Nominal Heating Capacity | kW | 63.0 |
| | BTU/h | 215,000 |
| Input | kW | 18.26 |

| PURY-EM500YNW-A1 | | |
|---|---|---|
| Nominal Cooling Capacity | kW | 56.0 |
| | BTU/h | 191,100 |
| Input | kW | 18.06 |

| PURY-EM500YNW-A1 | | |
|---|---|---|
| Nominal Heating Capacity | kW | 63.0 |
| | BTU/h | 215,000 |
| Input | kW | 17.45 |

**PURY-(E)M500YNW-A1**

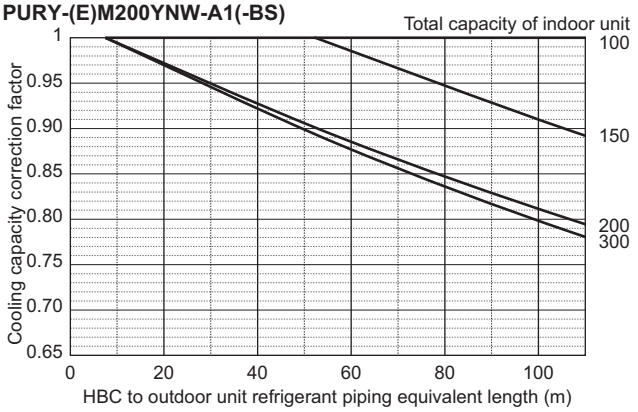


## 8-3. Correction by piping length

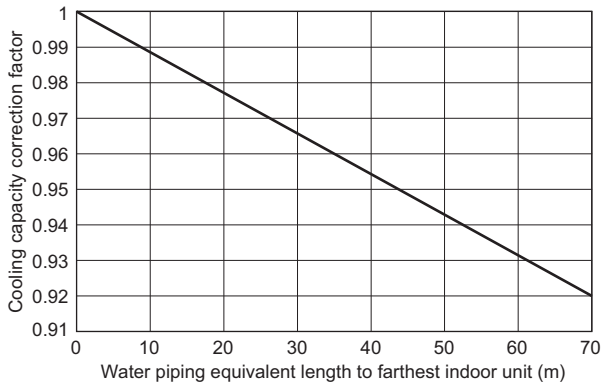
A decrease in cooling/heating capacity will occur due to piping length increase. Using the following correction factors according to the equivalent length of the piping shown at 8-3-1 and 8-3-2 the capacity can be calculated. 8-3-3 shows how to obtain the equivalent length of piping. Refrigerant piping and water piping have separate correction factors.

### 8-3-1. Cooling capacity correction

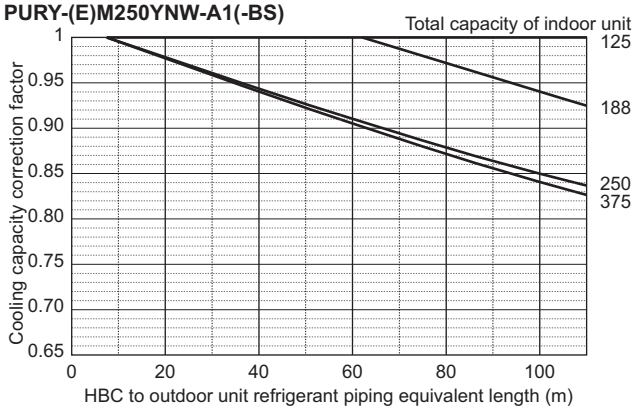
**PURY-(E)M200YNW-A1(-BS)**



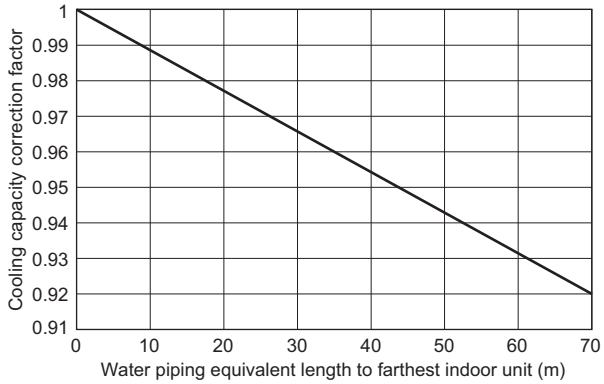

**PURY-(E)M200YNW-A1(-BS)**



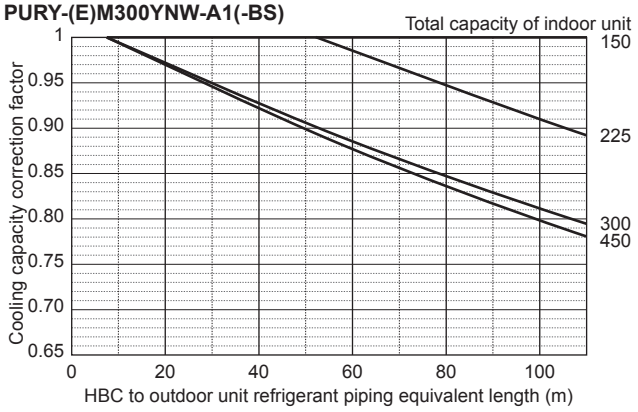

**PURY-(E)M250YNW-A1(-BS)**



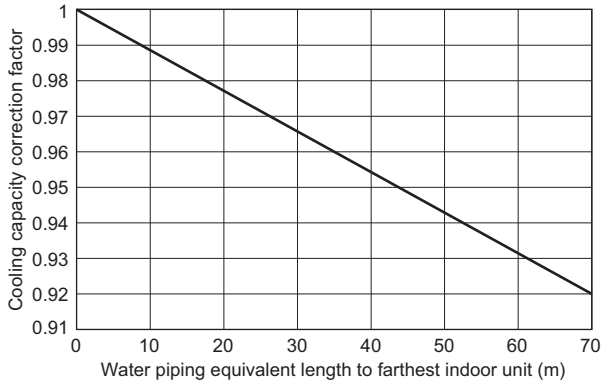

**PURY-(E)M250YNW-A1(-BS)**



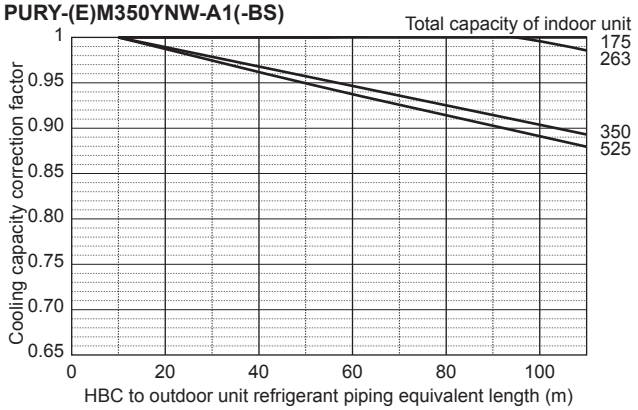

**PURY-(E)M300YNW-A1(-BS)**



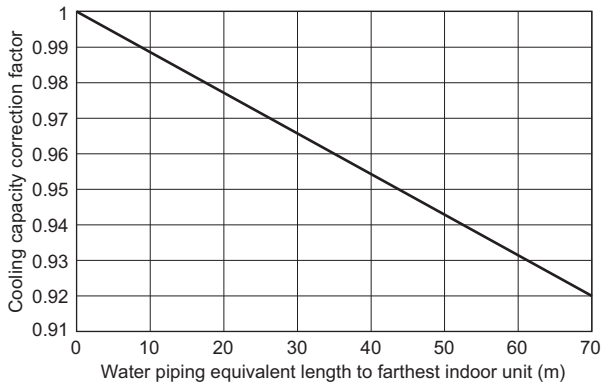

**PURY-(E)M300YNW-A1(-BS)**



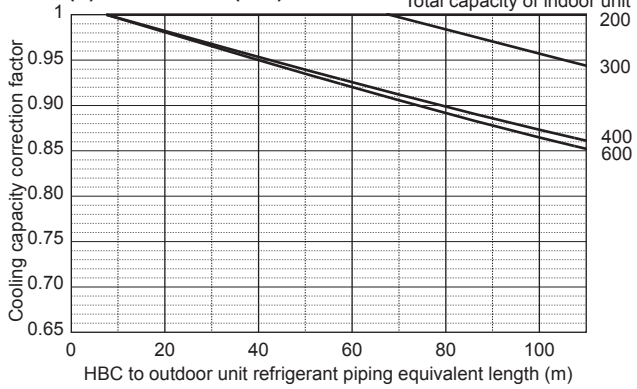

**PURY-(E)M350YNW-A1(-BS)**



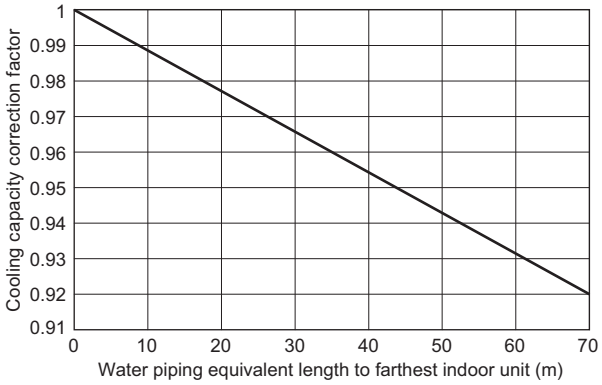

**PURY-(E)M350YNW-A1(-BS)**



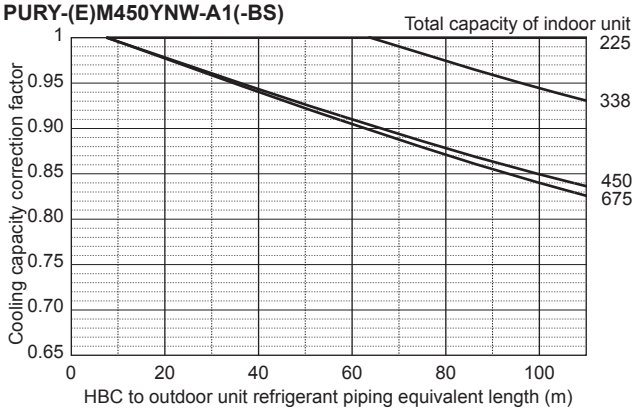
**PURY-(E)M400YNW-A1(-BS)**



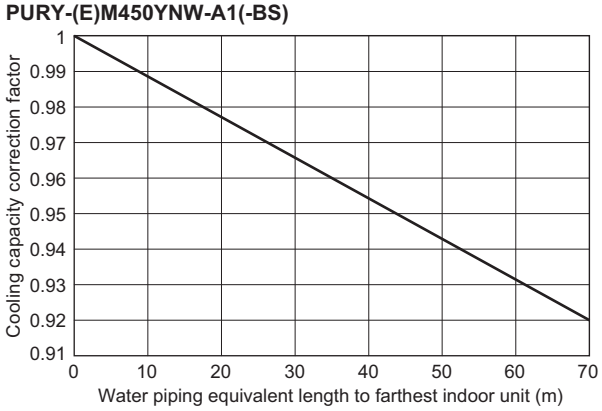

**PURY-(E)M400YNW-A1(-BS)**



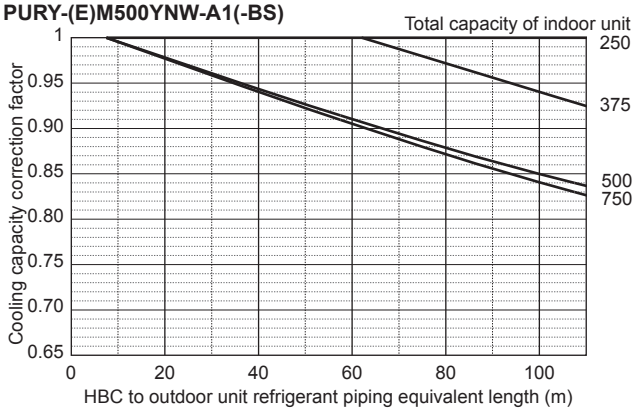

**PURY-(E)M450YNW-A1(-BS)**



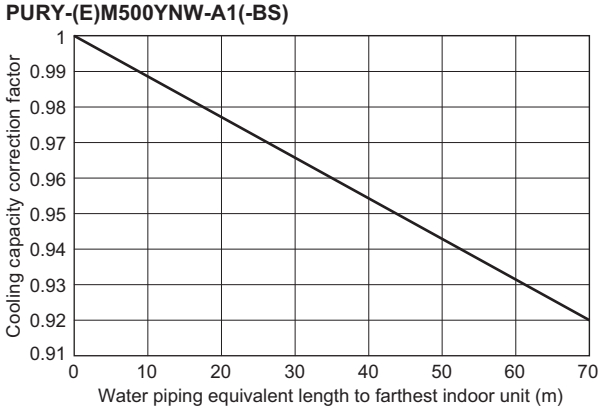

**PURY-(E)M450YNW-A1(-BS)**




**PURY-(E)M500YNW-A1(-BS)**

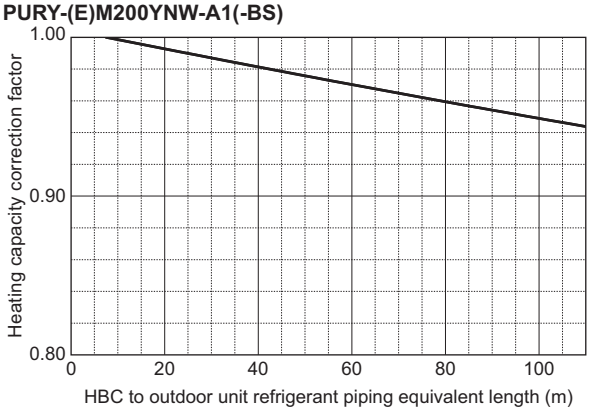



**PURY-(E)M500YNW-A1(-BS)**

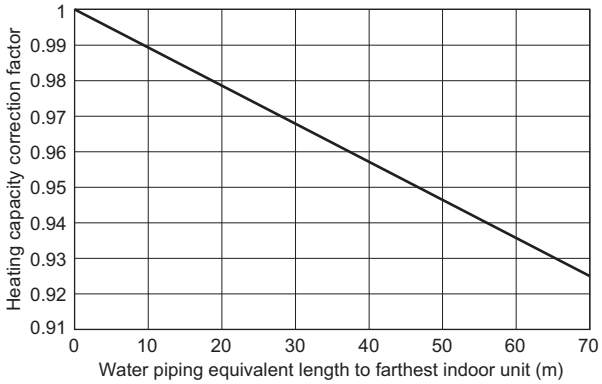


## 8-3-2. Heating capacity correction

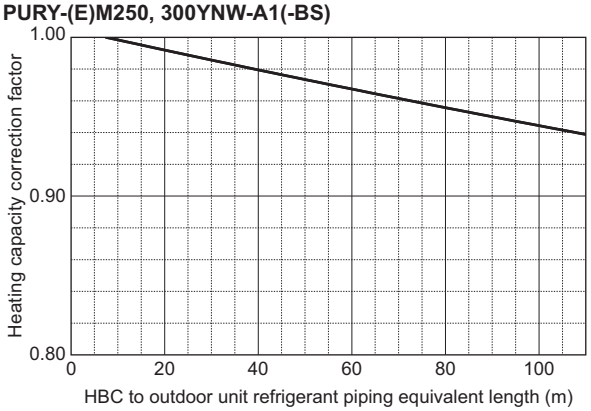
**PURY-(E)M200YNW-A1(-BS)**



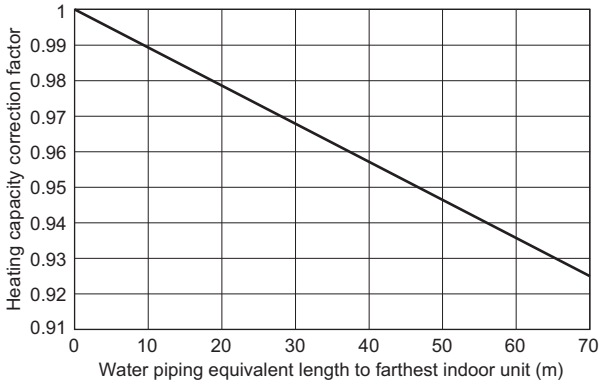

**PURY-(E)M200YNW-A1(-BS)**



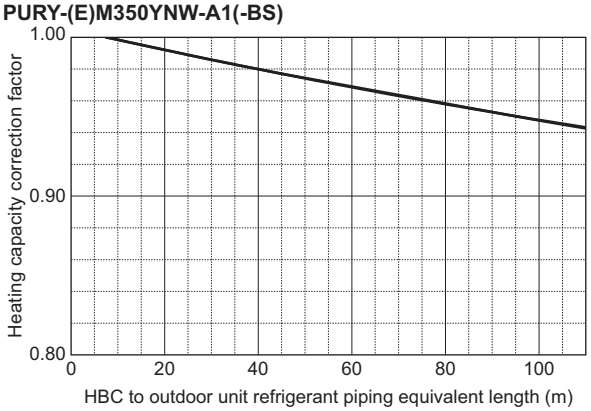

**PURY-(E)M250, 300YNW-A1(-BS)**



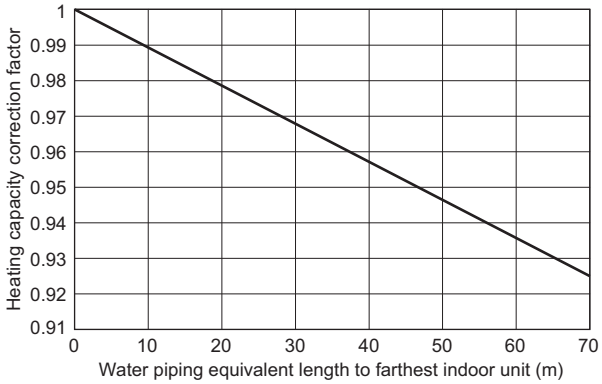

**PURY-(E)M250, 300YNW-A1(-BS)**



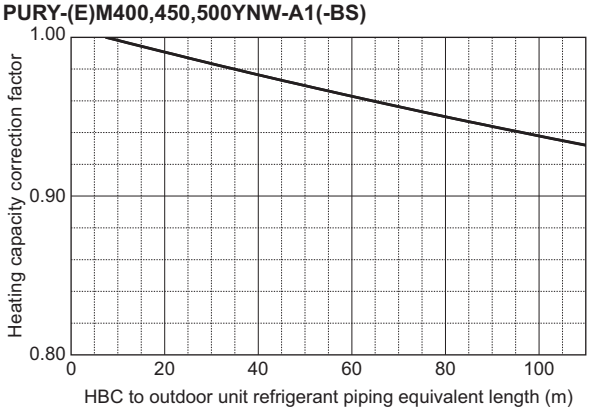

**PURY-(E)M350YNW-A1(-BS)**



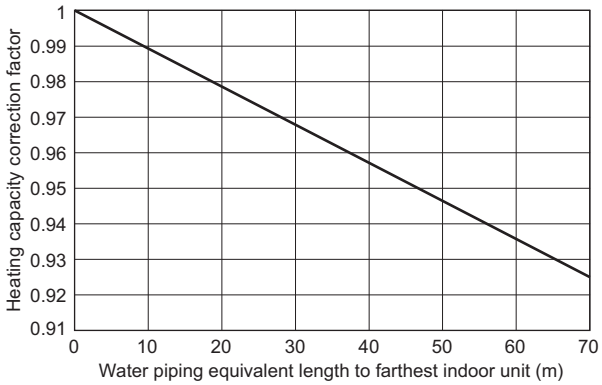

**PURY-(E)M350YNW-A1(-BS)**




**PURY-(E)M400,450,500YNW-A1(-BS)**




**PURY-(E)M400,450,500YNW-A1(-BS)**



### 8-3-3. How to obtain the equivalent piping length

**Refrigerant pipe**

**1. PURY-(E)M200YNW-A1(-BS)**

Equivalent length = (Actual piping length to the farthest indoor unit) + (0.35 × number of bends in the piping) [m]

**2. PURY-(E)M250, 300YNW-A1(-BS)**

Equivalent length = (Actual piping length to the farthest indoor unit) + (0.42 × number of bends in the piping) [m]

**3. PURY-(E)M350YNW-A1(-BS)**

Equivalent length = (Actual piping length to the farthest indoor unit) + (0.47 × number of bends in the piping) [m]

**4. PURY-(E)M400, 450, 500YNW-A1(-BS)**

Equivalent length = (Actual piping length to the farthest indoor unit) + (0.50 × number of bends in the piping) [m]

**Water pipe**

Equivalent length = (Actual piping length to the farthest indoor unit) + (0.55 × number of bends in the piping) [m]

## 8-4. Correction at frost and defrost

Due to frost at the outdoor heat exchanger and the automatic defrost operation, the heating capacity of the outdoor unit can be calculated by multiplying the correction factor shown in the table below.

Table of correction factor at frost and defrost

| **Outdoor inlet air temp. °CWB** | 6 | 4 | 2 | 1 | 0 | -2 | -4 | -6 | -8 | -10 | -20 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Outdoor inlet air temp. °FWB** | 43 | 39 | 36 | 34 | 32 | 28 | 25 | 21 | 18 | 14 | -4 |
| PURY-(E)M200YNW-A1(-BS) | 1.00 | 0.95 | 0.84 | 0.83 | 0.83 | 0.87 | 0.90 | 0.95 | 0.95 | 0.95 | 0.95 |
| PURY-(E)M250YNW-A1(-BS) | 1.00 | 0.95 | 0.84 | 0.83 | 0.83 | 0.87 | 0.90 | 0.95 | 0.95 | 0.95 | 0.95 |
| PURY-(E)M300YNW-A1(-BS) | 1.00 | 0.93 | 0.82 | 0.80 | 0.82 | 0.86 | 0.90 | 0.90 | 0.95 | 0.95 | 0.95 |
| PURY-(E)M350YNW-A1(-BS) | 1.00 | 0.93 | 0.85 | 0.83 | 0.84 | 0.86 | 0.90 | 0.90 | 0.95 | 0.95 | 0.95 |
| PURY-(E)M400YNW-A1(-BS) | 1.00 | 0.95 | 0.90 | 0.87 | 0.88 | 0.89 | 0.90 | 0.95 | 0.95 | 0.95 | 0.95 |
| PURY-(E)M450YNW-A1(-BS) | 1.00 | 0.98 | 0.89 | 0.87 | 0.89 | 0.90 | 0.92 | 0.95 | 0.95 | 0.95 | 0.95 |
| PURY-(E)M500YNW-A1(-BS) | 1.00 | 0.98 | 0.89 | 0.86 | 0.89 | 0.90 | 0.92 | 0.95 | 0.95 | 0.95 | 0.95 |

## 8-5. Correction by antifreeze solution concentration

In HYBRID CITY MULTI system, antifreeze solution should be used to prevent the system from freezing. Refer to the following graphs for the capacity correction by antifreeze solution. Refer to 8-5-1 for antifreeze solution concentration, 8-5-2 and 8-5-3 for capacity correction by antifreeze solution concentration.

### 8-5-1. Antifreeze solution concentration

Use propylene glycol solution for antifreeze.
Refer to the following graph to estimate the antifreeze solution concentration required for freeze protection.
DipSW setting (SW5-4 and 5-5) is required in HBC unit depending on the antifreeze solution concentration.
Refer the table A for the setting.

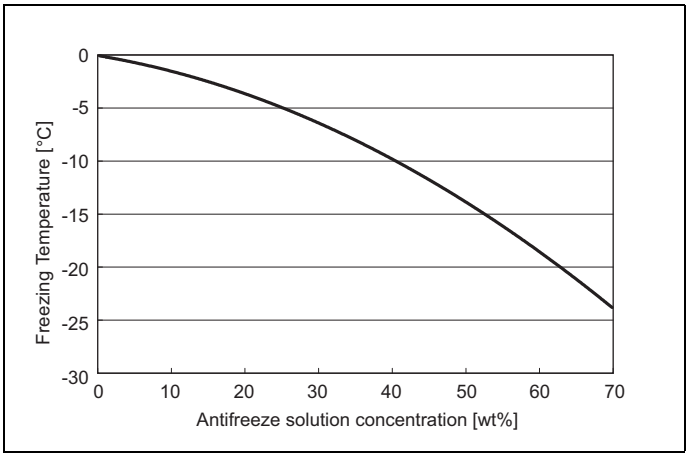
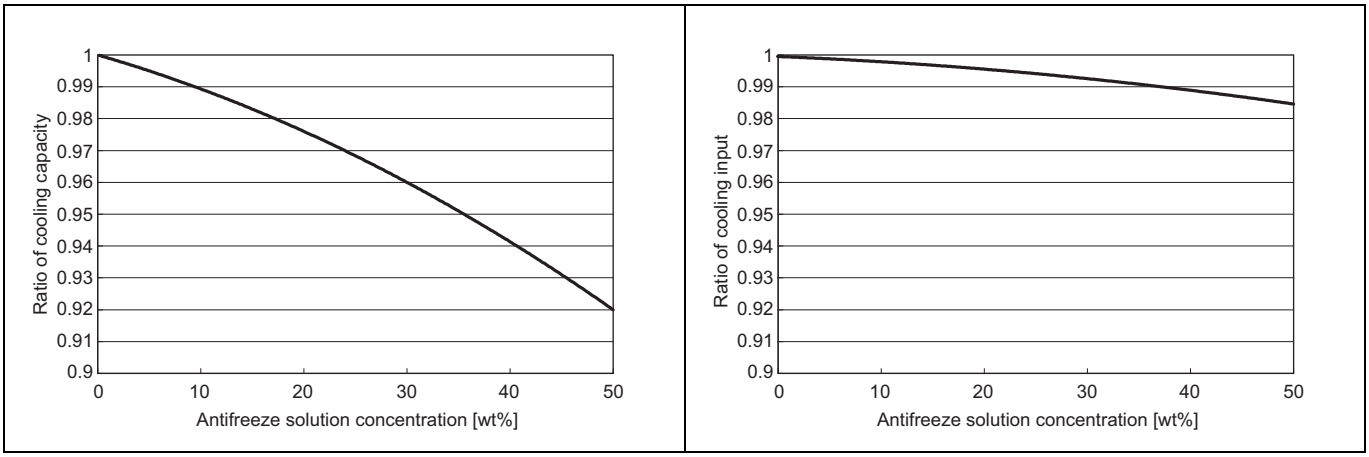


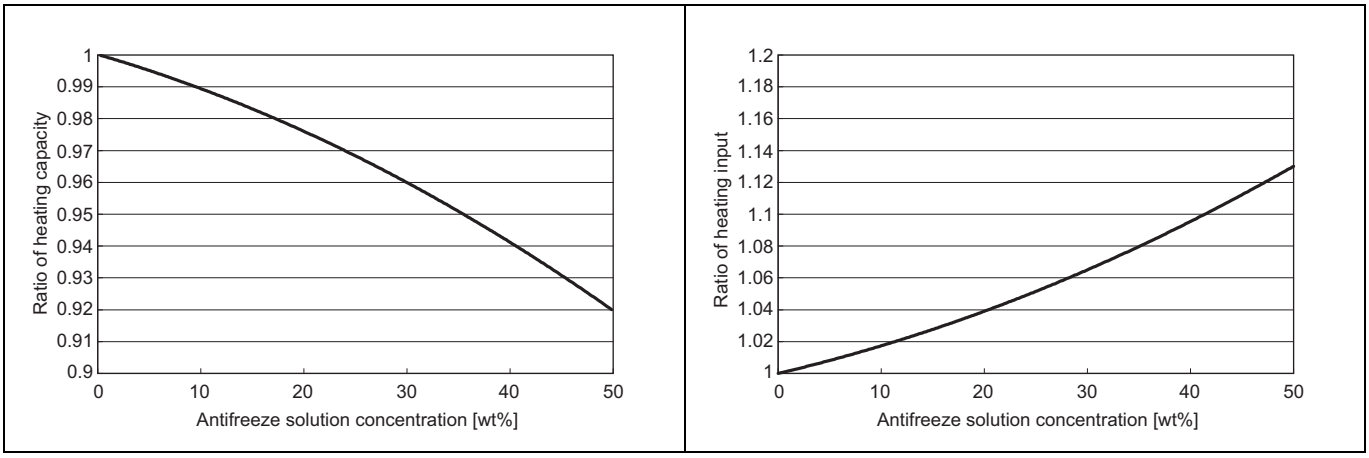

Table A

| Brine concentration [%] | | 0 to 29% | 30 to 49% | 50 to 59% | 60 to 70% |
|---|---|---|---|---|---|
| DipSW5-4 | | OFF | OFF | ON | ON |
| DipSW5-5 | | OFF | ON | OFF | ON |
| 7seg LED | LD2 | OFF | OFF | 1 | 1 |
| | LD3 | OFF | 1 | OFF | 1 |

### 8-5-2. Capacity correction by antifreeze solution concentration (cooling)




### 8-5-3. Capacity correction by antifreeze solution concentration (heating)



## 9-1. Power supply for Outdoor unit

### 9-1-1. Electrical characteristics of the outdoor unit in cooling mode

Symbols: MCA: Max Circuit Amps
RLA: Rated Load Amps SC: Starting Current

| PURY-M-YNW-A1 | Unit Combination | Units | | | Power supply | Compressor | | FAN | RLA (A) (50/60Hz) | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Hz | Volts | Voltage range | MCA (A) | Output (kW) | SC (A) | Output (kW) | Cooling | Heating |
| PURY-M200YNW-A1(-BS) | - | 50/60 | 380 400 415 | Max:456V Min:342V | 16.1 | 4.6 | 8 | 0.92 | 9.3/8.8/8.5 | 10.7/10.2/9.8 |
| PURY-M250YNW-A1(-BS) | - | | | | 22.5 | 7.0 | 8 | 0.92 | 14.1/13.4/12.9 | 15.4/14.6/14.1 |
| PURY-M300YNW-A1(-BS) | - | | | | 25.6 | 8.0 | 8 | 0.92 | 16.6/15.8/15.2 | 17.4/16.5/15.9 |
| PURY-M350YNW-A1(-BS) | - | | | | 31.6 | 9.6 | 8 | 0.46+0.46 | 20.5/19.4/18.7 | 20.5/19.5/18.7 |
| PURY-M400YNW-A1(-BS) | - | | | | 39.3 | 12.2 | 8 | 0.46+0.46 | 25.5/24.2/23.4 | 23.7/22.5/21.7 |
| PURY-M450YNW-A1(-BS) | - | | | | 40.2 | 13.1 | 8 | 0.46+0.46 | 26.1/24.8/23.9 | 27.3/25.9/25.0 |
| PURY-M500YNW-A1(-BS) | - | | | | 56.6 | 17.4 | 8 | 0.92+0.92 | 37.5/35.6/34.3 | 30.8/29.2/28.2 |

| PURY-EM-YNW-A1 | Unit Combination | Units | | | Power supply | Compressor | | FAN | RLA (A) (50/60Hz) | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Hz | Volts | Voltage range | MCA (A) | Output (kW) | SC (A) | Output (kW) | Cooling | Heating |
| PURY-EM200YNW-A1(-BS) | - | 50/60 | 380 400 415 | Max:456V Min:342V | 16.1 | 4.5 | 8 | 0.92 | 8.6/8.2/7.9 | 10.5/9.9/9.6 |
| PURY-EM250YNW-A1(-BS) | - | | | | 21.8 | 6.7 | 8 | 0.92 | 12.9/12.3/11.8 | 14.9/14.1/13.6 |
| PURY-EM300YNW-A1(-BS) | - | | | | 23.9 | 7.7 | 8 | 0.92 | 14.3/13.6/13.1 | 16.7/15.9/15.3 |
| PURY-EM350YNW-A1(-BS) | - | | | | 30.0 | 9.6 | 8 | 0.46+0.46 | 19.1/18.1/17.5 | 20.5/19.5/18.7 |
| PURY-EM400YNW-A1(-BS) | - | | | | 35.9 | 11.1 | 8 | 0.46+0.46 | 23.3/22.1/21.3 | 23.4/22.2/21.4 |
| PURY-EM450YNW-A1(-BS) | - | | | | 36.9 | 12.7 | 8 | 0.46+0.46 | 25.7/24.4/23.5 | 26.6/25.2/24.3 |
| PURY-EM500YNW-A1(-BS) | - | | | | 46.9 | 13.8 | 8 | 0.92+0.92 | 30.4/28.9/27.9 | 29.4/27.9/26.9 |

## 9-2. Power cable specifications

**Thickness of wire for main power supply, capacities of the switch and system impedance**

| | Model | Minimum wire thickness ($mm^2$) | | | Ground-fault interrupter *1 | Local switch (A) | | Breaker for wiring (A) (Non-fuse breaker) | Max. Permissive System Impedance |
|---|---|---|---|---|---|---|---|---|---|
| | | Main cable | Branch | Ground | | Capacity | Fuse | | |
| Outdoor unit | PURY-(E)M200YNW-A1 | 4.0 | - | 4.0 | 30A 100mA 0.1sec. or less | 25 | 25 | 30 | *2 |
| | PURY-(E)M250YNW-A1 | 4.0 | - | 4.0 | 30A 100mA 0.1sec. or less | 32 | 32 | 30 | *2 |
| | PURY-(E)M300YNW-A1 | 4.0 | - | 4.0 | 30A 100mA 0.1sec. or less | 32 | 32 | 30 | *2 |
| | PURY-(E)M350YNW-A1 | 6.0 | - | 6.0 | 40A 100mA 0.1sec. or less | 40 | 40 | 40 | 0.26Ω |
| | PURY-(E)M400YNW-A1 | 10.0 | - | 10.0 | 60A 100mA 0.1sec. or less | 63 | 63 | 60 | 0.20Ω |
| | PURY-(E)M450YNW-A1 | 10.0 | - | 10.0 | 60A 100mA 0.1sec. or less | 63 | 63 | 60 | 0.19Ω |
| | PURY-(E)M500YNW-A1 | 10.0 | - | 10.0 | 60A 100mA 0.1sec. or less | 63 | 63 | 60 | 0.16Ω |
| Total operating current of the indoor unit | F0 = 20A or less *3 | 1.5 | 1.5 | 1.5 | Current sensitivity *4 | 16 | 16 | 20 | (apply to IEC61000-3-3) |
| | F0 = 30A or less *3 | 2.5 | 2.5 | 2.5 | Current sensitivity *4 | 25 | 25 | 30 | (apply to IEC61000-3-3) |
| | F0 = 40A or less *3 | 4.0 | 4.0 | 4.0 | Current sensitivity *4 | 32 | 32 | 40 | (apply to IEC61000-3-3) |

*1 The Ground-fault interrupter should support Inverter circuit. The Ground-fault interrupter should combine using of local switch or wiring breaker.

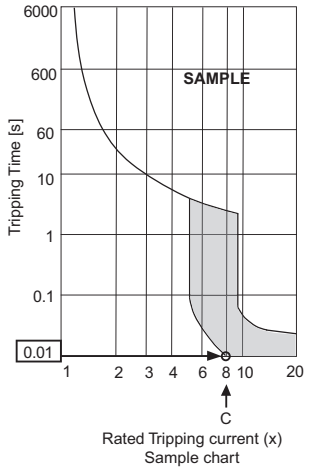
*2 Meet technical requirements of IEC61000-3-3

*3 Please take the larger of F1 or F2 as the value for F0.
F1 = Total operating maximum current of the indoor units × 1.2
F2 = {V1 × (Quantity of Type1)/C} + {V1 × (Quantity of Type2)/C} + {V1 × (Quantity of Type3)/C} + {V1 × (Quantity of Type4)/C}

| Indoor unit | | V1 | V2 |
|---|---|---|---|
| Type1 | PEFY-VMS, PFFY-VLRMM | 18.6 | 2.4 |
| Type2 | PEFY-VMA | 38 | 1.6 |
| Type3 | PLFY-VBM | 19.8 | 2.4 |
| Type4 | PLFY-VFM | 17.1 | 2.4 |

C: Multiple of tripping current at tripping time 0.01s
Please pick up "C" from the tripping characteristic of the breaker.

<Example of "F2" calculation>
*Condition PEFY-VMS × 4 + PEFY-VMA × 1, C = 8 (refer to right sample chart)
F2 = 18.6 × 4/8 + 38 × 1/8
= 14.05
→16 A breaker (Tripping current = 8 × 16 A at 0.01s)



Sample chart

*4 Current sensitivity is calculated using the following formula.
G1 = (V2 × Quantity of Type1) + (V2 × Quantity of Type2) + (V2 × Quantity of Type3) + (V2 × Quantity of Type4)

| G1 | Current sensitivity |
|---|---|
| 30 or less | 30 mA 0.1sec or less |
| 100 or less | 100 mA 0.1sec or less |

| Wire thickness | V3 |
|---|---|
| 1.5 $mm^2$ | 48 |
| 2.5 $mm^2$ | 56 |
| 4.0 $mm^2$ | 66 |

1. Use dedicated power supplies for the outdoor unit and indoor unit. Ensure OC and OS are wired individually.
2. Bear in mind ambient conditions (ambient temperature, direct sunlight, rain water, etc.) when proceeding with the wiring and connections.
3. The wire size is the minimum value for metal conduit wiring. If the voltage drops, use a wire that is one rank thicker in diameter. Make sure the power-supply voltage does not drop more than 10%. Make sure that the voltage imbalance between the phases is 2% or less.
4. Specific wiring requirements should adhere to the wiring regulations of the region.
5. Power supply cords of parts of appliances for outdoor use shall not be lighter than polychloroprene sheathed flexible cord (design 60245 IEC57). For example, use wiring such as YZW.
6. A switch with at least 3 mm contact separation in each pole shall be provided when the Air Conditioner is installed.

### ⚠WARNING

- Be sure to use specified wires for connections and ensure no external force is imparted to terminal connections. If connections are not fixed firmly, heating or fire may result.
- Be sure to use the appropriate type of overcurrent protection switch. Note that generated overcurrent may include some amount of direct current.

### ⚠CAUTION

- The breakers for current leakage should support Inverter circuit. (e.g. Mitsubishi Electric's NV-S-Series or equivalent). If no earth leakage breaker is installed, it may cause an electric shock.
- Breakers for current leakage should combine using of switch.
- Do not use anything other than a breaker with the correct capacity. Using a breaker of too large capacity may cause malfunction or fire.
- If a large electric current flows due to malfunction or faulty wiring, earth-leakage breakers on the unit side and on the upstream side of the power supply system may both operate. Depending on the importance of the system, separate the power supply system or take protective coordination of breakers.

**Note**

- This device is intended for the connection to a power supply system with a maximum permissible system impedance shown in the above table at the interface point (power service box) of the user's supply.
- The user must ensure that this device is connected only to a power supply system which fulfils the requirement above. If necessary, the user can ask the public power supply company for the system impedance at the interface point.
- This equipment complies with IEC 61000-3-12 provided that the short-circuit power Ssc is greater than or equal to Ssc (*2) at the interface point between the user's supply and the public system. It is the responsibility of the installer or user of the equipment to ensure, by consultation with the distribution network operator if necessary, that the equipment is connected only to a supply with a short-circuit power Ssc greater than or equal to Ssc (*2).

Ssc(*2)

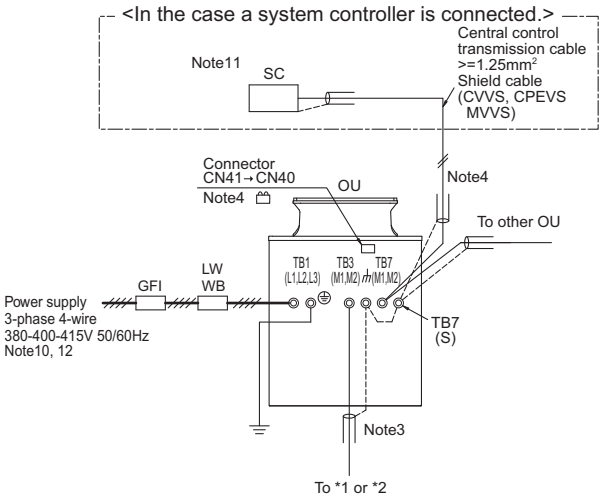
| Model | Ssc (MVA) |
|---|---|
| PURY-M200YNW-A1 | 1.25 |
| PURY-M250YNW-A1 | 1.38 |
| PURY-M300YNW-A1 | 1.76 |
| PURY-M350YNW-A1 | 2.14 |
| PURY-M400YNW-A1 | 2.72 |
| PURY-M450YNW-A1 | 2.88 |
| PURY-M500YNW-A1 | 3.35 |

| Model | Ssc (MVA) |
|---|---|
| PURY-EM200YNW-A1 | 1.25 |
| PURY-EM250YNW-A1 | 1.32 |
| PURY-EM300YNW-A1 | 1.58 |
| PURY-EM350YNW-A1 | 1.89 |
| PURY-EM400YNW-A1 | 2.38 |
| PURY-EM450YNW-A1 | 2.69 |
| PURY-EM500YNW-A1 | 3.13 |

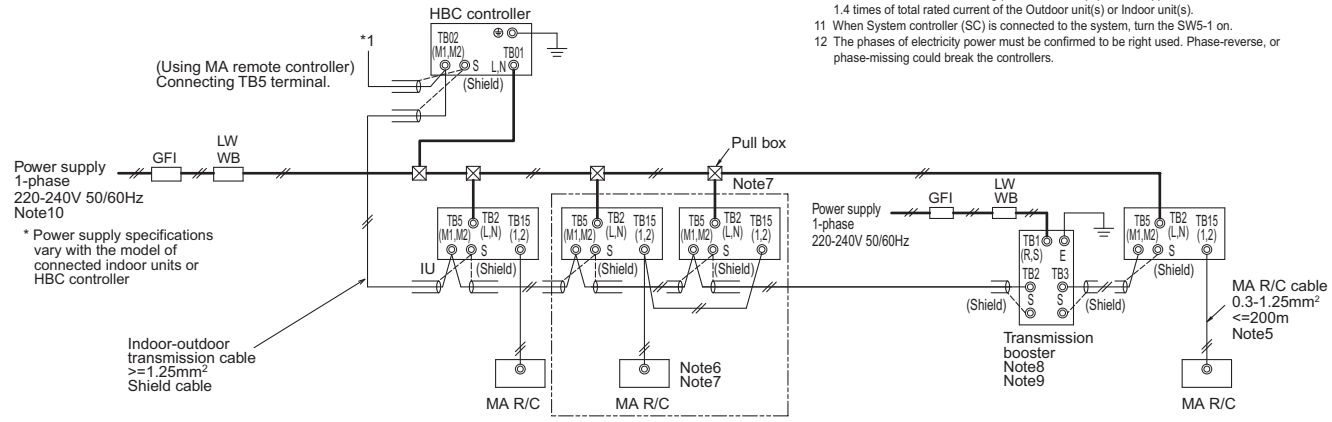
## 9-3. Power supply examples

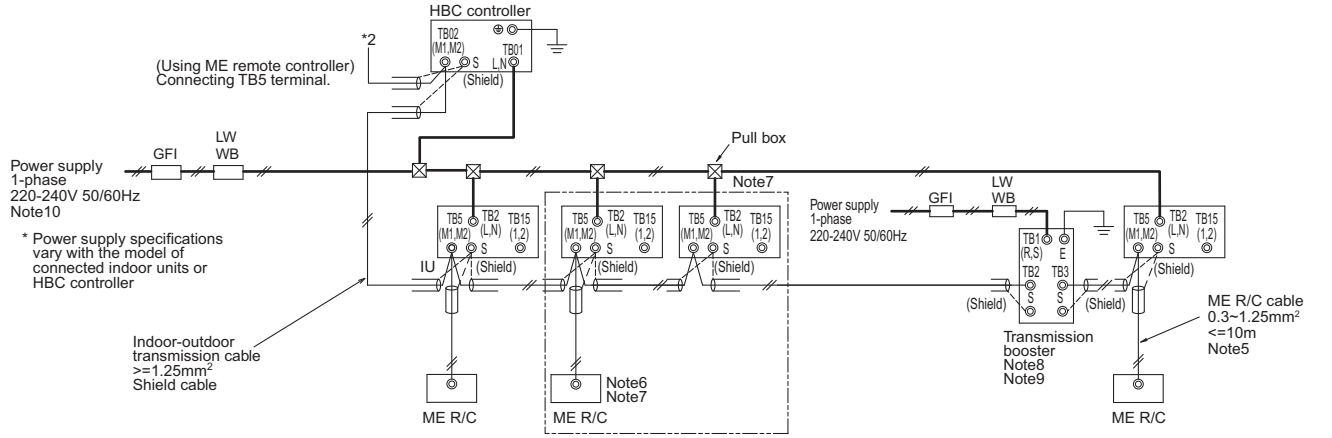
The local standards and/or regulations is applicable at a higher priority.

PURY-(E)M200, 250, 300, 350, 400, 450, 500YNW-A1




Note:
1 The transmission cable is not-polarity double-wire.
2 Symbol ◎ means a screw terminal for wiring.
3 The shield wire of transmission cable should be connected to the grounding terminal at Outdoor unit. All shield wire of M-Net transmission cable among Indoor units should be connected to the S terminal at Indoor unit or all shield wire should be connected together. The broken line at the scheme means shield wire.
4 When the Outdoor unit connected with system controller, power-supply to TB7 of the outdoor unit(s) is needed. The connector change from CN41 to CN40 at one of the outdoor units will enable the outdoor unit to supply power to TB7, or an extra power supplying unit PAC-SC51KUA should be used. The transmission cable (above 1.25mm², shielded, CVVS/CPEVS/MVVS) among Outdoor units and system controllers is called central control transmission cable. The shield wire of the central control transmission cable must be grounded at the Outdoor unit whose CN41 is changed to CN40. When the power supplying unit PAC-SC51KUA is used, connect the shielded cable to the ground terminal on the PAC-SC51KUA.
5 MA R/C transmission cable (0.3-1.25mm²) must be less than 200m in length, while ME R/C transmission cable (0.3-1.25mm²) must be less than 10m in length. But transmission cable to the ME R/C can be extend using a M-NET cable (>=1.25mm²) when the length is counted in the M-Net length.
6 MA remote controller and ME remote controller should not be grouped together. When a PAR-CT01MA or PAR-3X MA-Series (X indicates 1, 2…) is connected to a group, no other MA remote controllers can be connected to the same group.
7 If using 1 or 2 (main/sub) MA remote controller to control more than 1 Indoor unit, use MA transmission cable to connect all the TB15 terminals of the Indoor units. It is called "Grouping".
If using 1 or 2 (main/sub) ME remote controller control more than 1 indoor unit, set address to Indoor unit and ME remote controller. For the method, refer to 10-1. "Address setting".
8 Indoor board consumes power from TB3.
9 If Transmission booster is needed, be sure to connect the shield wires to the both sides to the booster.
10 The critical current for choosing power source equipment is approximate 1.4 times of total rated current of the Outdoor unit(s) or Indoor unit(s).
11 When System controller (SC) is connected to the system, turn the SW5-1 on.
12 The phases of electricity power must be confirmed to be right used. Phase-reverse, or phase-missing could break the controllers.



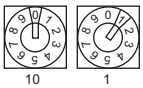
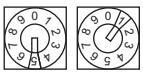
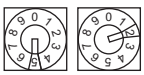
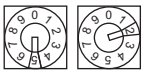
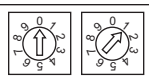
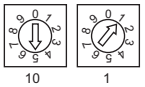
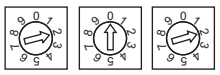
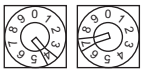
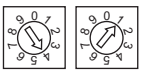
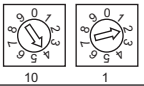
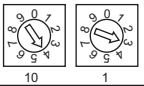
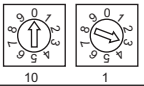
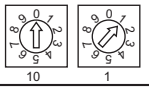

| Symbol | |
|---|---|
| GFI | Ground-fault interrupter |
| LW | Local switch |
| BKC | Breaker capacity |
| OCP | Over-current protector |
| WB | Wiring breaker |
| NFB | Non-fuse breaker |
| OU | Outdoor unit |
| IU | Indoor unit |
| SC | System controller |
| MA R/C | MA remote controller |
| ME R/C | ME remote controller |

| Model | Ground-fault interrupter *1, *2, *4 | Local switch BKC <A> | Local switch OCP*3, *4 <A> | Wiring breaker *4 (NFB) <A> | Minimum Wire thickness Power wire <mm²> | Minimum Wire thickness Earth wire <mm²> |
|---|---|---|---|---|---|---|
| PURY-(E)M200YNW-A1 | 30A 100mA 0.1sec. or less | 25 | 25 | 30 | 4 | 4 |
| PURY-(E)M250YNW-A1 | 30A 100mA 0.1sec. or less | 32 | 32 | 30 | 4 | 4 |
| PURY-(E)M300YNW-A1 | 30A 100mA 0.1sec. or less | 32 | 32 | 30 | 4 | 4 |
| PURY-(E)M350YNW-A1 | 40A 100mA 0.1sec. or less | 40 | 40 | 40 | 6 | 6 |
| PURY-(E)M400YNW-A1 | 60A 100mA 0.1sec. or less | 63 | 63 | 60 | 10 | 10 |
| PURY-(E)M450YNW-A1 | 60A 100mA 0.1sec. or less | 63 | 63 | 60 | 10 | 10 |
| PURY-(E)M500YNW-A1 | 60A 100mA 0.1sec. or less | 63 | 63 | 60 | 10 | 10 |

*1 The Ground-fault interrupter should support Inverter circuit. (e.g. Mitsubishi Electric's NV-S-Series or equivalent).
*2 Ground-fault interrupter should combine using of local switch or wiring breaker.
*3 It shows data for B-type fuse of the breaker for current leakage.
*4 If a large electric current flows due to malfunction or faulty wiring, earth-leakage breakers on the unit side and on the centralized controller side may both operate.
Depending on the importance of the system, separate the power supply system or take protective coordination of breakers.

## 10-1. Address setting

### 10-1-1. Rule of setting address

| Unit | | Address setting | Example | Note |
|---|---|---|---|---|
| Indoor unit | | 01 ~ 50 |   | Use the most recent address within the same group of indoor units. |
| Outdoor unit | | 51 ~ 99, 100 (Note1) |   | The smallest address of indoor unit in same refrigerant system + 50<br>Assign sequential address numbers to the outdoor units in one refrigerant circuit system. OC, OS1 and OS2 are automatically detected. (Note 2)<br>* Please reset one of them to an address between 51 and 99 when two addresses overlap.<br>* The address automatically becomes "100" if it is set as "01~ 50" |
| Hydro unit | | 52 ~ 99, 100 |   | The address of the smallest address of outdoor unit connected to the hydro unit +50<br>* Please reset one of them to an address between 52 and 99 when two addresses overlap.<br>* The address automatically becomes "100" if it is set as "01~ 50" |
| HBC controller | | 52 ~ 99, 100 |   | The address of the smallest address of indoor unit connected to the HBC controller +50<br>* Please reset one of them to an address between 52 and 99 when two addresses overlap.<br>* The address automatically becomes "100" if it is set as "01~ 50" |
| Local remote controller | ME Remote controller (Main) | 101 ~ 150 | 1 Fixed   | The smallest address of indoor unit in the group + 100<br>* The place of "100" is fixed to "1" |
| | ME Remote controller (Sub) | 151 ~ 199, 200 | 1 Fixed   | The address of main remote controller + 50<br>* The address automatically becomes "200" if it is set as "00" |
| System controller | ON/OFF remote controller | 201 ~ 250 |   | The smallest group No. to be managed + 200<br>* The smallest group No. to be managed is changeable. |
| | AE-200E/AE-50E<br>AG-150A<br>EW-50E<br>AT-50B | 000, 201 ~ 250 | 0,2 0~5 0~9  | * AT-50B cannot be set to "000". |
| | PAC-YG50ECA | 000, 201 ~ 250 | 0,2 0~5 0~9  | * Settings are made on the initial screen of AG-150A. |
| | BAC-HD150 | 000, 201 ~ 250 | 0,2 0~5 0~9  | * Settings are made with setting tool of BM ADAPTER. |
| | LMAP04-E | 201 ~ 250 | 2 Fixed   | |
| PI, AI, DIDO | PAC-YG60MCA | 01 ~ 50 |   | |
| | PAC-YG63MCA | 01 ~ 50 |   | |
| | PAC-YG66DCA | 01 ~ 50 |   | |
| Lossnay, OA processing unit | | 01 ~ 50 |   | After setting the addresses of all the indoor units, assign an arbitrary address. |
| PAC-IF01AHC | | 201 ~ 250 | 2 Fixed   | |

Note1: To set the address to "100", set it to "50"
Note2: Outdoor units OC, OS1 and OS2 in one refrigerant circuit system are automatically detected. OC, OS1 and OS2 are ranked in descending order of capacity. If units are the same capacity, they are ranked in ascending order of their address.

## 11-1. R32 Piping material

Refrigerant pipe for HYBRID CITY MULTI shall be made of phosphorus deoxidized copper, and has two types.
A. Type-O: Soft copper pipe (annealed copper pipe), can be easily bent with human's hand.
B. Type-1/2H pipe: Hard copper pipe (Straight pipe), being stronger than Type-O pipe of the same radical thickness.

The maximum operation pressure of R32 air conditioner is 4.30 MPa [623psi]. The refrigerant piping should ensure the safety under the maximum operation pressure. MITSUBISHI ELECTRIC recommends pipe size as Table 1, or You shall follow the local industrial standard. Pipes of radical thickness 0.7mm or less shall not be used.

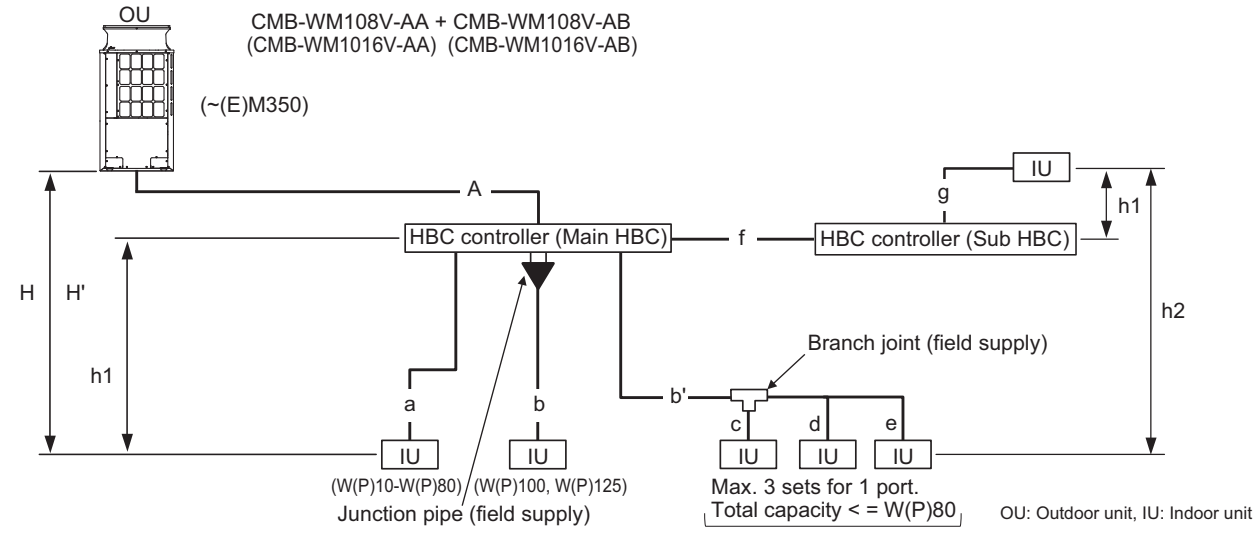
Table 1. Copper pipe size and radial thickness for R32 HYBRID CITY MULTI.

| Size (mm) | Size (inch) | Radial thickness (mm) | Radial thickness (mil) | Pipe type |
|---|---|---|---|---|
| ø6.35 | ø1/4" | 0.8 | [32] | Type-O |
| ø9.52 | ø3/8" | 0.8 | [32] | Type-O |
| ø12.7 | ø1/2" | 0.8 | [32] | Type-O |
| ø15.88 | ø5/8" | 1.0 | [40] | Type-O |
| ø19.05 | ø3/4" | 1.2 | [48] | Type-O |
| ø19.05 | ø3/4" | 1.0 | [40] | Type-1/2H or H |
| ø22.2 | ø7/8" | 1.0 | [40] | Type-1/2H or H |
| ø25.4 | ø1" | 1.0 | [40] | Type-1/2H or H |
| ø28.58 | ø1-1/8" | 1.0 | [40] | Type-1/2H or H |
| ø31.75 | ø1-1/4" | 1.1 | [44] | Type-1/2H or H |
| ø34.93 | ø1-3/8" | 1.2 | [48] | Type-1/2H or H |
| ø41.28 | ø1-5/8" | 1.4 | [56] | Type-1/2H or H |

* For pipe sized ø19.05 (3/4") for R32 air conditioner, choice of pipe type is up to you.
* The figures in the radial thickness column are based on the Japanese standards and provided only as a reference. Use pipes that meet the local standards.

## 11-2. Piping Design

### 11-2-1. Restrictions on pipe length




OU: Outdoor unit, IU: Indoor unit

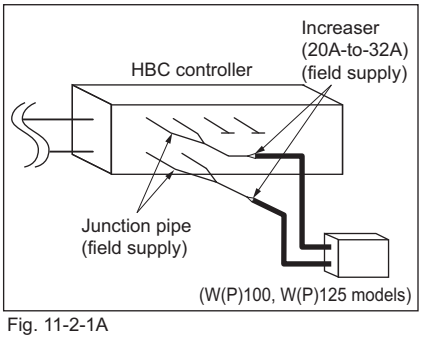
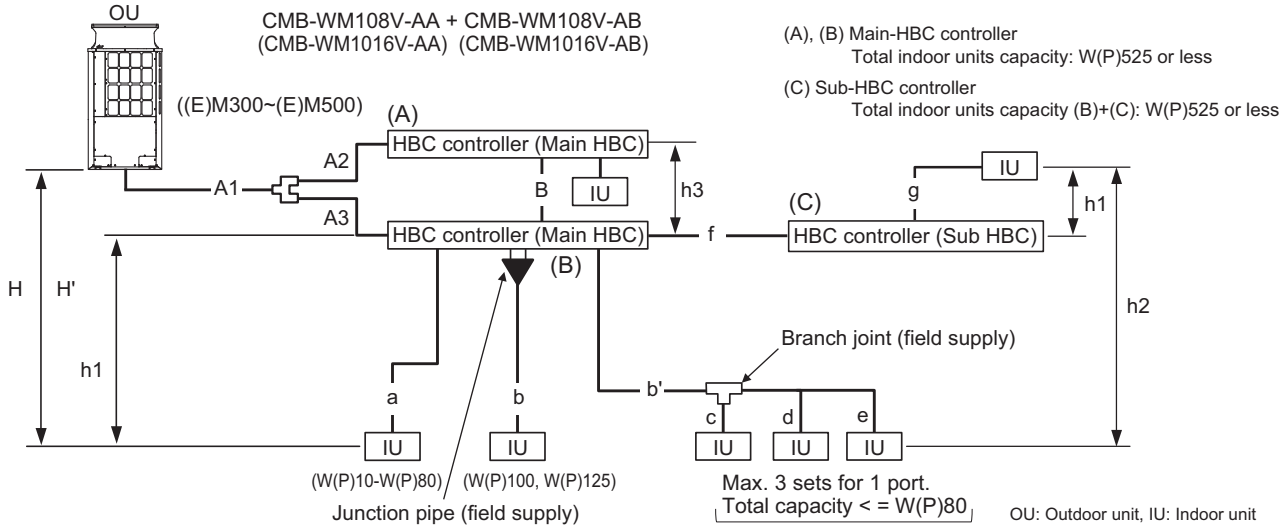



Fig. 11-2-1A

(Unit: m)

| | Item | | Piping portion | Allowable value |
|---|---|---|---|---|
| Pipe Lengths | Between outdoor unit and HBC controller (refrigerant pipework) | | A | 110 or less |
| | Water pipework between indoor units and HBC controller | | f + g | 60 or less |
| Difference of elevation | Between HBC and outdoor units | Outdoor unit above HBC | H | 50 or less*1 |
| | | Outdoor unit below HBC | H' | 40 or less*2 |
| | Between indoor units and HBC controller | | h1 | 15(10) or less*3 |
| | Between indoor units | | h2 | 15(10) or less*3 |

*1. 90 m is available depending on the model and installation conditions. For more detailed information, contact your local distributor.
*2. 60 m is available depending on the model and installation conditions. For more detailed information, contact your local distributor.
*3. Values in ( ) are applied when indoor total capacity exceeds 130% of outdoor unit capacity




(A), (B) Main-HBC controller
Total indoor units capacity: W(P)525 or less

(C) Sub-HBC controller
Total indoor units capacity (B)+(C): W(P)525 or less

OU: Outdoor unit, IU: Indoor unit

(Unit: m)

| | Item | | Piping portion | Allowable value |
|---|---|---|---|---|
| Pipe Lengths | Between outdoor unit and HBC controller (refrigerant pipework) | | A1 + A2 + A3 | 110 or less |
| | Water pipework between indoor units and HBC controller | | f + g | 60 or less |
| | Between HBC controllers | | B | 40 or less |
| Difference of elevation | Between HBC and outdoor units | Outdoor unit above HBC | H | 50 or less*1 |
| | | Outdoor unit below HBC | H' | 40 or less*2 |
| | Between indoor units and HBC controller | | h1 | 15(10) or less*3 |
| | Between indoor units | | h2 | 15(10) or less*3 |
| | Between HBC controllers | | h3 | 15(10) or less*3 |

*1. 90 m is available depending on the model and installation conditions. For more detailed information, contact your local distributor.
*2. 60 m is available depending on the model and installation conditions. For more detailed information, contact your local distributor.
*3. Values in ( ) are applied when indoor total capacity exceeds 130% of outdoor unit capacity

♦Indoor units with valves (W-type) and indoor units without valves (WP-type) may not coexist in the same system.

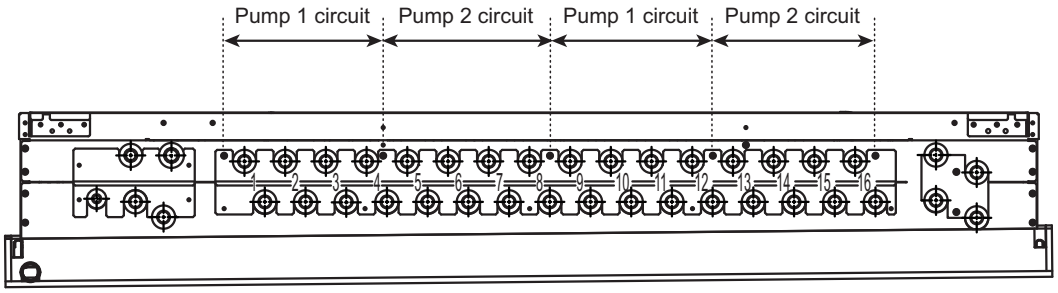



Fig. 11-2-1B

**Note: 1**

To connect multiple indoor units to a port

- Maximum total capacity of connected indoor units: W(P)80 or below
- Maximum number of connectable indoor units: 3 units
- Branch joints are field-supplied.
  All the indoor units that are connected to the same port must be in the same group and Thermo-ON/OFF operation simultaneously. For all the indoor units in the group, the room temperature needs to be monitored via the connected remote controller.
- When connecting a W(P)71 through 125 model of indoor unit to an HBC controller, the pipes connecting the unit to the same set of HBC controller ports cannot be branched out to connect additional units.
- When connecting multiple indoor units including a W(P)63 unit to the same set of HBC ports, use a size 32A pipe in the section indicated as "b' and c" and connect the W(P)63 unit to the pipe indicated as "c" in the figure.
  To the branch joint to which a W(P)63 is connected, either a W(P)10 or a W(P)15 unit is connectable.

**Note: 2**

Connecting W(P)100 or 125 indoor units to an HBC controller

- When connecting W(P)100 or 125 indoor units to an HBC controller, connect each unit to two sets of two ports on the HBC controller, using two Junction pipes (Y-joints). (See Fig. 11-2-1A.)
- Connect an increaser (20A-to-32A) to the merged side of each junction pipe. (See Fig. 11-2-1A.)
- When connecting junction pipes to HBC ports, the branched sides of the junction pipes cannot be connected to combinations of ports "4 and 5," "8 and 9," or "12 and 13." (See Fig. 11-2-1B.)
- When connecting a W(P)100 or a 125 model of indoor unit to an HBC controller, the pipes connecting the unit to the same set of HBC controller ports cannot be branched out to connect additional units.

**Note: 3**

Maximum connectable capacity of indoor units to HBC

- HBC has two pumps. Each pump can accommodate the capacity of indoor units equivalent to W(P)175.
  Make sure that the total capacity of the indoor units connected to "ports 1 through 4 and 9 through 12" or "5 through 8 and 13 through 16" will not exceed W(P)175. (See Fig. 11-2-1B.)

## 1. Refrigerant and water pipe size

### (1) Refrigerant pipe between outdoor unit and HBC controller (Part A, A1, A2, and A3)

**Use of one HBC controller**

| Unit model | | HBC controller | | |
|---|---|---|---|---|
| | | Model name | High pressure side | Low pressure side |
| Outdoor unit side | PURY-(E)M200 | CMB-WM108V-AA<br>CMB-WM1016V-AA | ø15.88 (Brazed) | ø19.05 (Brazed) |
| | PURY-(E)M250 | | | ø22.2 (Brazed) |
| | PURY-(E)M300 | | | |
| | PURY-(E)M350 | | | ø28.58 (Brazed) |

**Use of two HBC controllers**

| Unit model | | HBC controller | | | | |
|---|---|---|---|---|---|---|
| | | Model name | Between outdoor unit and twinning pipe | | Between twinning pipe and HBC | |
| | | | High pressure side | Low pressure side | High pressure side | Low pressure side |
| Outdoor unit side | PURY-(E)M300 | CMB-WM108V-AA<br>CMB-WM1016V-AA | ø15.88 (Brazed) | ø22.2 (Brazed) | ø15.88 (Brazed) for each HBC controller | ø19.05 (Brazed) for each HBC controller |
| | PURY-(E)M350 | | | ø28.58 (Brazed) | | |
| | PURY-(E)M400 | | ø19.05 (Brazed) | | | ø22.2 (Brazed) for each HBC controller |
| | PURY-(E)M450 | | | | | |
| | PURY-(E)M500 | | | | | |

### (2) Water pipe between HBC controller and indoor units (Sections a, b, c, d, e, and g)

| Indoor unit | Inlet pipe size | Outlet pipe size |
|---|---|---|
| W(P)10 - W(P)50 | 20A | 20A |
| W(P)63 - W(P)125 | 32A | 32A |

***The diameter of HBC ports is 20A.**
**20A-to-32A increasers are required to connect the models of indoor units between W(P)63 and W(P)125 to HBC controller ports.**

### (3) Water pipe between HBC controller and Sub-HBC

| | Inlet pipe size | Outlet pipe size |
|---|---|---|
| Cold-water side | 20A | 20A |
| Hot-water side | 20A | 20A |

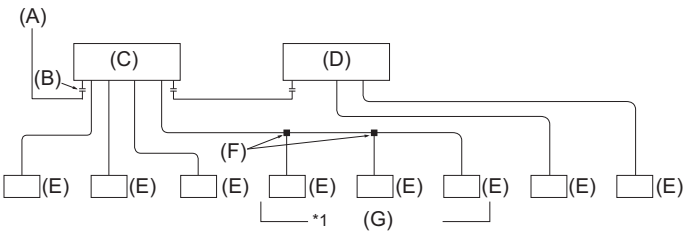
### (4) Refrigerant pipe between HBC controller and HBC controller

Unit: mm [inch]

| |
|---|
| ø15.88 [5/8" ] (Brazed connection) |

## 2. Connecting the HBC controller

### (1) Size of the pipe that fits the standard HBC controller ports




(A) To outdoor unit
(B) End connection (brazing)
(C) Main-HBC controller
(D) Sub-HBC controller
(E) Indoor unit
(F) Twinning pipe (field supply)
(G) Up to three units for 1 branch hole; total capacity: below 80 (but same in cooling/heating mode)

**Note: 1**

To connect multiple indoor units to a port

- Maximum total capacity of connected indoor units: W(P)80 or below
- Maximum number of connectable indoor units: 3 units
- Branch joints are field-supplied.
  All the indoor units that are connected to the same port must be in the same group and Thermo-ON/OFF operation simultaneously. For all the indoor units in the group, the room temperature needs to be monitored via the connected remote controller.
- When connecting a W(P)71 through 125 model of indoor unit to an HBC controller, the pipes connecting the unit to the same set of HBC controller ports cannot be branched out to connect additional units.
- When connecting multiple indoor units including a W(P)63 unit to the same set of HBC ports, use a size 32A pipe in the section indicated as "b' and c" and connect the W(P)63 unit to the pipe indicated as "c" in the figure.
  (See page 74.)

**Note: 2**

Connecting W(P)100 or 125 indoor units to an HBC controller

- When connecting W(P)100 or 125 indoor units to an HBC controller, connect each unit to two sets of two ports on the HBC controller, using two Junction pipes (Y-joints). (See Fig. 11-2-1A.)
- Connect an increaser (20A-to-32A) to the merged side of each junction pipe. (See Fig. 11-2-1A.)
- When connecting junction pipes to HBC ports, the branched sides of the junction pipes cannot be connected to combinations of ports "4 and 5," "8 and 9," or "12 and 13." (See Fig. 11-2-1B.)
- When connecting a W(P)100 or a 125 model of indoor unit to an HBC controller, the pipes connecting the unit to the same set of HBC controller ports cannot be branched out to connect additional units.

**Note: 3**

Maximum connectable capacity of indoor units to HBC

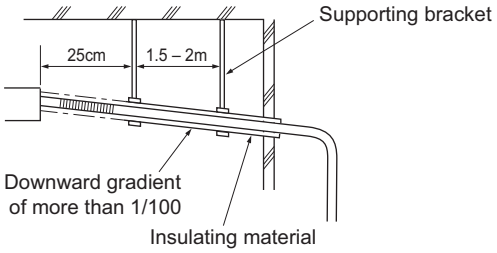
- HBC has two pumps. Each pump can accommodate the capacity of indoor units equivalent to W(P)175.
  Make sure that the total capacity of the indoor units connected to "ports 1 through 4 and 9 through 12" or "5 through 8 and 13 through 16" will not exceed W(P)175. (See Fig. 11-2-1B.)

## 11-2-2. Drain piping work

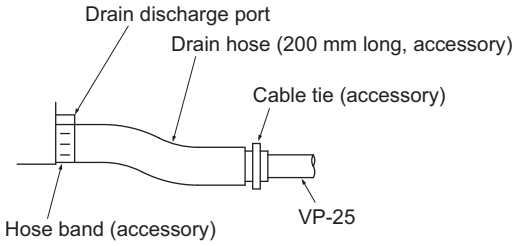
**1. Drain piping work**

- Ensure that the drain piping is sloped downward (sloped gradient of more than 1/100) toward the discharge side. If it is impossible to take any downward pitch, use an optionally available drain pump to obtain a downward pitch of more than 1/100.
- Ensure that any horizontal drain piping sections that are longer than 20 m are supported with metal brackets to prevent it from bending, warping, or vibrating.
- Connect the supplied drain hose to the discharge port on the unit. Use hardvinyl chloride pipes VP-25 (ø32) for drain piping (2). Tighten the supplied drain hose onto the discharge port using the supplied hose band. (For this, do not use any adhesive because the drain hose will need to be removed for servicing at a later date.)
- Do not use any odor trap around the discharge port.

1

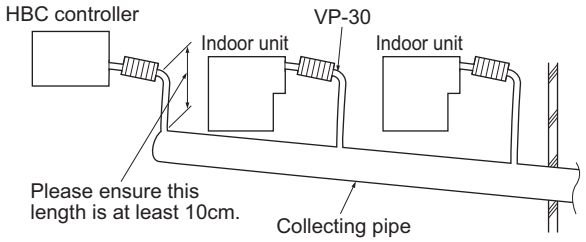



2




- As shown in 3, install a collecting pipe about 10 cm below the drain ports and give it a downward pitch of more than 1/100. This collecting pipe should be of VP-30.
- Set the end of drain piping in a place without any risk of odor generation.
- Do not put the end of the drain piping into any drain where ionic gases are generated.
- Drain piping may be installed in any direction. However, please be sure to observe the above instructions.

3




**2. Discharge test**

After completing drain piping work, open the HBC controller panel, and test drain discharge using a small amount of water. Also, check to see that there is no water leakage from the connections.

**3. Insulating drain pipes**

Provide sufficient insulation to the drain pipes just as for refrigerant pipes.

### ⚠CAUTION

Be sure to provide drain piping with heat insulation in order to prevent excess condensation. Without drain piping, water may leak from the unit causing damage to your property.

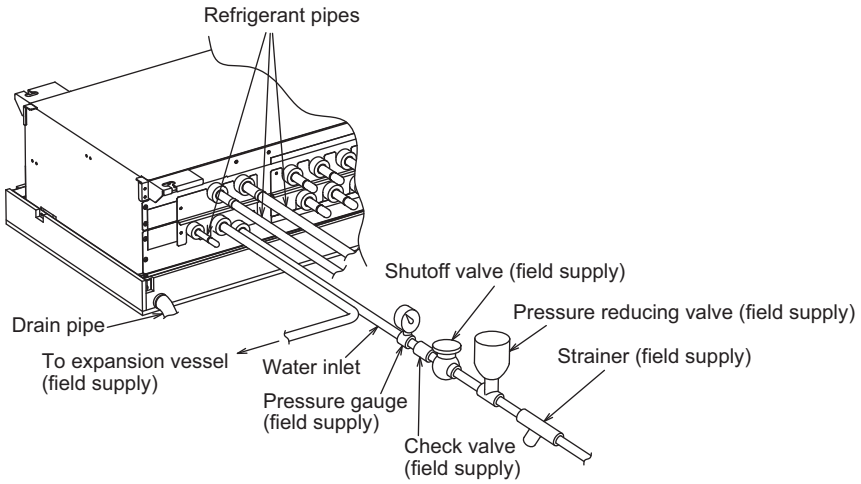
## 11-2-3. Connecting water pipe work

Please observe the following precautions during installation.

**11-2-3-1 Important notes on water pipework installation**

- The design pressure of the HBC water system is 0.6MPa.
- Use water pipe-work with a design pressure of at least 1.0MPa.
- When performing a water leak check, please do not allow the water pressure to go above 0.3MPa.
- Please connect the water pipework of each indoor unit to the correct port on the HBC. Failure to do so will result in incorrect running.
- Please list the indoor units on the naming plate in the HBC unit with addresses and end connection numbers.
- If the number of indoor units are less than the number of ports on the HBC, the unused ports must be capped. Without a cap, water will leak.
- Use the reverse-return method to insure proper pipe resistance to each unit.
- Provide some joints and valves around inlet/outlet of each unit for easy maintenance, checkup, and replacement.
- Install a suitable air vent on the water pipe. After flowing water through the pipe, vent any excess air.
- Secure the pipes with metal fittings, positioning them in locations to protect pipes against breakage and bending.
- Do not confuse the water intake and outlet piping. (Error code 5102 will appear on the remote controller if a test run is performed with the pipe-work installed incorrectly (inlet connected to outlet and vice versa).)
- This unit doesn't include a heater to prevent freezing within the pipe work. If the system is stopped for an extended period during low ambient conditions, drain the water out.
- The unused knockout holes should be closed and the refrigerant pipes, water pipes, power source and transmission wires access holes should be filled with putty.
- Install water pipe so that the water flow rate will be maintained.
- Wrap sealing tape as follows.
  1. Wrap the joint with sealing tape following the direction of the threads (clockwise), do not wrap the tape over the edge.
  2. Overlap the sealing tape by two-thirds to three-fourths of its width on each turn. Press the tape with your fingers so that it is tight against each thread.
  3. Do not wrap the 1.5th through 2nd farthest threads away from the pipe end.
- Hold the pipe on the unit side in place with a spanner when installing the pipes or strainer. Tighten screws to a torque of 40 N·m.
- If there is a risk of freezing, take precautions to prevent this happening.
- When connecting the HBC unit water piping and on site water piping, apply liquid sealing material for water piping over the sealing tape before connection.
- Please use copper or plastic pipes for the water circuit. Do not use steel or stainless steel pipework. Furthermore, when using copper pipe-work, use a non-oxidative brazing method. Oxidation of the pipe-work will reduce the pump life.

**Example of heat source unit installation (using left piping)**



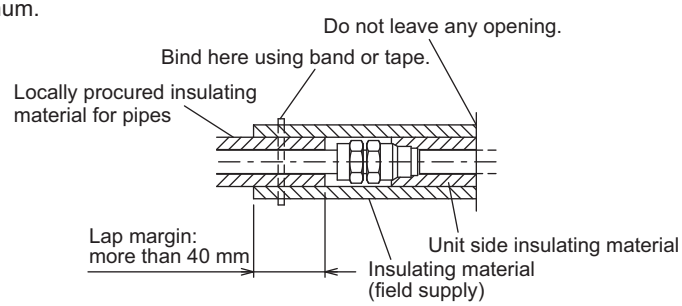

HBC controller sample installation (*1)

*1. Connect the pipes to the water pipes according to the local regulations.

- **The HBC system must be serviced at least once a year.**

**11-2-3-2 Water pipe insulation**

1. Connect the water pipes of each indoor unit to the same (correct) end connection numbers as indicated on the indoor unit connection section of each HBC controller. If connected to wrong end connection numbers, there will be no normal operation.
2. List indoor unit model names in the name plate on the HBC controller control box (for identification purposes), and HBC controller end connection numbers and address numbers in the name plate on the indoor unit side.
   Seal unused end connections using cover caps (field supply, dezincification resistant brass (DZR) or bronze only). Not replacing the rubber end caps will lead to water leakage.
3. Be sure to add insulation work to water piping by covering water pipework separately with enough thickness heat-resistant polyethylene, so that no gap is observed in the joint between indoor unit and insulating material, and insulating materials themselves. When insulation work is insufficient, there is a possibility of condensation, etc. Pay special attention to insulation work in the ceiling plenum.




- Insulation materials for the pipes to be added on site must meet the following specifications:

| | |
|---|---|
| HBC controller -indoor unit | 20 mm or more |

- This specification is based on copper for water piping. When using plastic pipework, choose a thickness based on the plastic pipe performance.
- Installation of pipes in a high-temperature high-humidity environment, such as the top floor of a building, may require the use of insulation materials thicker than the ones specified in the chart above.
- When certain specifications presented by the client must be met, ensure that they also meet the specifications on the chart above.

4. Expansion vessel
- Install an expansion tank to accommodate expanded water.

Expansion vessel selection criteria:

- The water containment volume of the HBC, the indoor units, and pipe work.

System configuration example
(Refer to the DATA BOOK of the relevant unit for details.)

(Unit: L)

| Unit model | Water volume |
|---|---|
| CMB-WM108V-AA | 10 |
| CMB-WM1016V-AA | 13 |
| CMB-WM108V-AB | 5 |
| CMB-WM1016V-AB | 9 |
| PEFY-WP10VMS1-E | 0.4 |
| PEFY-WP15VMS1-E | 0.7 |
| PEFY-WP20VMS1-E | 0.9 |
| PEFY-WP25VMS1-E | |
| PEFY-WP32VMS1-E | 1.0 |
| PEFY-WP40VMS1-E | |
| PEFY-WP50VMS1-E | 1.7 |
| PEFY-WP20VMA-E | 0.7 |
| PEFY-WP25VMA-E | 1.0 |
| PEFY-WP32VMA-E | |
| PEFY-WP40VMA-E | 1.8 |
| PEFY-WP50VMA-E | |
| PEFY-WP63VMA-E | 2.0 |
| PEFY-WP71VMA-E | 2.6 |
| PEFY-WP80VMA-E | |
| PEFY-WP100VMA-E | |
| PEFY-WP125VMA-E | 3.0 |
| PLFY-WP32VBM-E | 1.5 |
| PLFY-WP40VBM-E | |
| PLFY-WP50VBM-E | |
| PLFY-WP10VFM-E | 0.5 |
| PLFY-WP15VFM-E | |
| PLFY-WP20VFM-E | 0.9 |
| PLFY-WP25VFM-E | |
| PLFY-WP32VFM-E | |

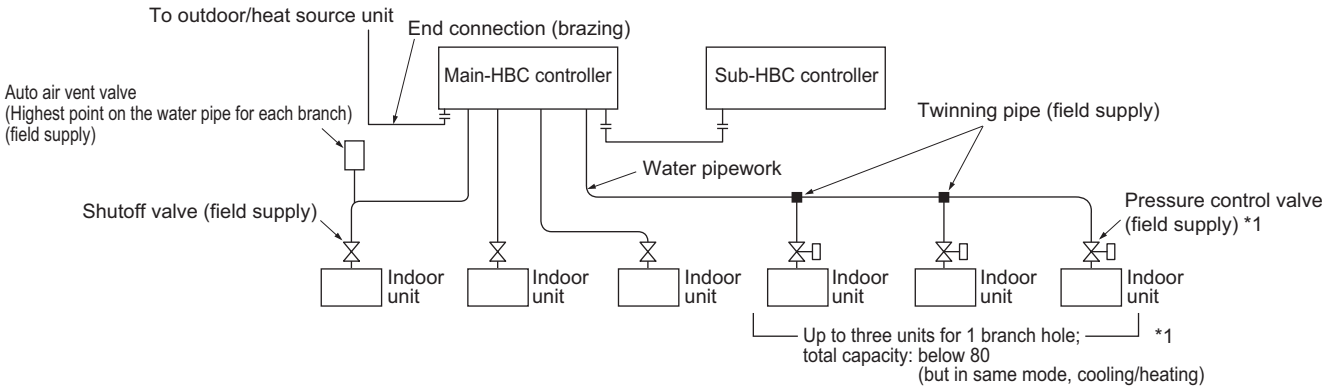
(Unit: L)

| Unit model | Water volume |
|---|---|
| PFFY-WP20VLRMM-E | 0.9 |
| PFFY-WP25VLRMM-E | 1.3 |
| PFFY-WP32VLRMM-E | |
| PFFY-WP40VLRMM-E | 1.5 |
| PFFY-WP50VLRMM-E | |

- The maximum water temperature is 60°C.
- The minimum water temperature is 5°C.
- The circuit protection valve set pressure is 370-490kPa.
- The circulation pump head pressure is 0.24MPa.

5. Leakproof the water pipework, valves and drain pipework. Leakproof all the way to, and include pipe ends so that condensation cannot enter the insulated pipework.
6. Apply caulking around the ends of the insulation to prevent condensation getting between the pipework and insulation.
7. Add a drain valve so that the unit and pipework can be drained.
8. Ensure there are no gaps in the pipework insulation. Insulate the pipework right up to the unit.
9. Ensure that the gradient of the drain pan pipework is such that discharge can only flow out.
10. HBC water pipe connection sizes and pipe sizes.

| | Connection size | | Pipe size | |
|---|---|---|---|---|
| | Water inlet | Water outlet | Water out | Water return |
| Indoor unit (W(P)10-W(P)50) | Rc 3/4 screw | Rc 3/4 screw | I.D. 20 mm | I.D. 20 mm |
| Indoor unit (W(P)63-W(P)125) | Rc 1-1/4 screw | Rc 1-1/4 screw | I.D. 35 mm | I.D. 35 mm |




**Note: 1**

To connect multiple indoor units to a port

- Maximum total capacity of connected indoor units: W(P)80 or below
- Maximum number of connectable indoor units: 3 units
- Branch joints are field-supplied.
  All the indoor units that are connected to the same port must be in the same group and Thermo-ON/OFF operation simultaneously. For all the indoor units in the group, the room temperature needs to be monitored via the connected remote controller.
- When connecting a W(P)71 through 125 model of indoor unit to an HBC controller, the pipes connecting the unit to the same set of HBC controller ports cannot be branched out to connect additional units.
- When connecting multiple indoor units including a W(P)63 unit to the same set of HBC ports, use a size 32A pipe in the section indicated as "b' and c" and connect the W(P)63 unit to the pipe indicated as "c" in the figure. (See page 74.)
- Pressure control valves are required for the WP-type indoor units only, and not for the W-type indoor units.

**Note: 2**

Connecting W(P)100 or 125 indoor units to an HBC controller

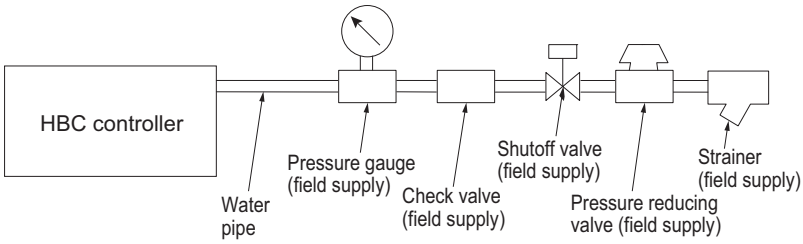
- When connecting W(P)100 or 125 indoor units to an HBC controller, connect each unit to two sets of two ports on the HBC controller, using two Junction pipes (Y-joints). (See Fig. 11-2-1A.)
- Connect an increaser (20A-to-32A) to the merged side of each junction pipe. (See Fig. 11-2-1A.)
- When connecting junction pipes to HBC ports, the branched sides of the junction pipes cannot be connected to combinations of ports "4 and 5," "8 and 9," or "12 and 13." (See Fig. 11-2-1B.)
- When connecting a W(P)100 or a 125 model of indoor unit to an HBC controller, the pipes connecting the unit to the same set of HBC controller ports cannot be branched out to connect additional units.

**Note: 3**

Maximum connectable capacity of indoor units to HBC

- HBC has two pumps. Each pump can accommodate the capacity of indoor units equivalent to W(P)175.
  Make sure that the total capacity of the indoor units connected to "ports 1 through 4 and 9 through 12" or "5 through 8 and 13 through 16" will not exceed W(P)175. (See Fig. 11-2-1B.)

11. Please refer to the figure below when connecting the water supply.




12. Use formula 0.1 ≤ 0.01 + 0.01 × A ≤ 0.16 for the supply pressure range to be used.
    (A: Head pressure (m) between the HBC and the highest indoor unit)
    If the supply pressure is greater than 0.16 MPa, use a pressure reducing valve to keep the pressure within the range.
    If the head pressure is unknown, set it to 0.16 MPa.
13. Install a shut off valve and strainer in a place that is easy to operate and makes maintenance work easy.
14. Apply insulation to the indoor unit pipework, strainer, shut off valve, and pressure reducing valve.
15. Please do not use a corrosion inhibitor in the water system.
16. When installing the HBC unit in an environment which may drop below 0°C, please add antifreeze (Propylene Glycol only) to the circulating water. For the brine selection, refer to 8-5. "Correction by antifreeze solution concentration".

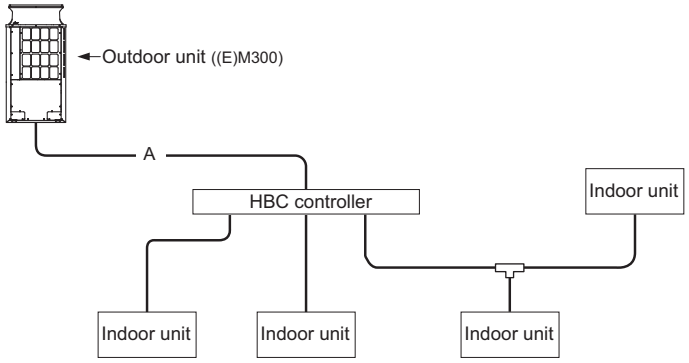
#### 11-2-3-3 Water treatment and quality control

To preserve water quality, use the closed type of water circuit. When the circulating water quality is poor, the water heat exchanger can develop scale, leading to a reduction in heat-exchange power and possible corrosion. Pay careful attention to water processing and water quality control when installing the water circulation system.

- Removing of foreign objects or impurities within the pipes.
  During installation, make sure that foreign objects, such as welding fragments, sealant particles, or rust, do not enter the pipes.
- Water Quality Processing
  Depending on the quality of the cold-temperature water used in the airconditioner, the copper piping of the heat exchanger may corrode. Regular water quality processing is recommended. If a water supply tank is installed, keep air contact to a minimum, and keep the level of dissolved oxygen in the water no higher than 1mg/ℓ.

## 11-3. Refrigerant charging calculation

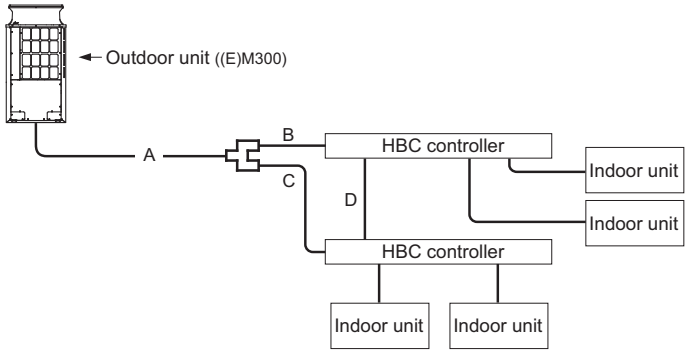
### Example




### ■ Sample calculation

Indoor 1: 50 A: ø15.88 42 m
2: 50
3: 50
4: 40
Outdoor M250

The total length of each liquid line is as follows:
ø15.88: A = 42 m, α1 = 2.8
Therefore,
<Calculation example>
Additional refrigerant charge
= 42 × 0.09 + 2.8
= 6.58 kg
≒ 6.6 kg
* All pipe work except A is water pipe work.




Indoor 1: 50 A:ø15.88 18 m
2: 50 B:ø15.88 5 m
3: 50 C:ø15.88 10 m
4: 50 D:ø15.88 8 m
Outdoor M300

The total length of each liquid line is as follows:
ø15.88: A = 18 m, ø15.88: B + C + D = 23m, α1 = 2.8 × 2
Therefore,
<Calculation example>
Additional refrigerant charge
= 18 × 0.09 + (5 + 10 + 8) × 0.09 + 2.8 × 2
= 9.29 kg
≒ 9.3 kg
* All pipe work except A, B, C, D is water pipe work.

**<Amount of refrigerant to be added>**

The amount of refrigerant that is shown in the table below is factory-charged to the outdoor units.
The amount necessary for extended pipe (field piping) is not included and must be added on site.

| Outdoor unit model | Amount of pre-charged refrigerant in the outdoor unit (kg) |
|---|---|
| M200YNW | 5.2 |
| M250YNW | 5.2 |
| M300YNW | 5.2 |
| M350YNW | 8.0 |
| M400YNW | 8.0 |
| M450YNW | 10.8 |
| M500YNW | 10.8 |

| Outdoor unit model | Amount of pre-charged refrigerant in the outdoor unit (kg) |
|---|---|
| EM200YNW | 5.2 |
| EM250YNW | 5.2 |
| EM300YNW | 5.2 |
| EM350YNW | 8.0 |
| EM400YNW | 8.0 |
| EM450YNW | 10.8 |
| EM500YNW | 10.8 |

### ■ Calculation formula

- The amount of refrigerant to be added depends on the size and the total length of the high-pressure piping and liquid piping.
- Calculate the amount of refrigerant to be charged according to the formula below.
- Round up the calculation result to the nearest 0.1 kg (Example: 18.04 kg to 18.1 kg).
- The refrigerant does not need to be added for the indoor units in a Hybrid City Multi system.

<Formula>

- When the piping length from the outdoor unit to the farthest HBC controller is 10 m or shorter

Amount of additional charge (kg) = High-pressure pipe ø22.2 total length × 0.23 (kg/m) + High-pressure pipe ø19.05 total length × 0.16 (kg/m) + High-pressure pipe ø15.88 total length × 0.11 (kg/m)

+

| Outdoor unit model | Amount (kg) |
|---|---|
| (E)M200 | 1.0 |
| (E)M250 | 1.0 |
| (E)M300 | 0 |
| (E)M350 | 0 |
| (E)M400 | 0 |
| (E)M450 | 0 |
| (E)M500 | 0 |

+

| Amount (kg/HBC controller) |
|---|
| 2.8 |

* Amount of refrigerant to be charged for single-module units

• When the piping length from the outdoor unit to the farthest HBC controller is longer than 10 m

| Amount of additional charge (kg) | = | High-pressure pipe ø22.2 total length × 0.19 (kg/m) | + | High-pressure pipe ø19.05 total length × 0.13 (kg/m) | + | High-pressure pipe ø15.88 total length × 0.09 (kg/m) |
|---|---|---|---|---|---|---|

+

| Outdoor unit model | Amount (kg) | + | Amount (kg/HBC controller) |
|---|---|---|---|
| (E)M200 | 1.0 | | 2.8 |
| (E)M250 | 1.0 | | |
| (E)M300 | 0 | | |
| (E)M350 | 0 | | |
| (E)M400 | 0 | | |
| (E)M450 | 0 | | |
| (E)M500 | 0 | | |

* Amount of refrigerant to be charged for single-module units

**■ Limitation of the amount of refrigerant to be charged**

The above calculation result of the amount of refrigerant to be charged must become below the value in the table below.

| Total index of the outdoor units | | | M200 YNW | M250 YNW | M300 YNW | M350 YNW | M400 YNW | M450 YNW | M500 YNW | EM200 YNW | EM250 YNW | EM300 YNW | M350 YNW | EM400 YNW | EM450 YNW | EM500 YNW |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Maximum refrigerant charge | Factory charged | kg | 5.2 | 5.2 | 5.2 | 8.0 | 8.0 | 10.8 | 10.8 | 5.2 | 5.2 | 5.2 | 8.0 | 8.0 | 10.8 | 10.8 |
| | Charged on site | kg | 13.5 | 13.5 | 15.5 | 15.5 | 19.5 | 19.5 | 19.5 | 13.5 | 13.5 | 15.5 | 15.5 | 19.5 | 19.5 | 19.5 |
| | Total for system | kg | 18.7 | 18.7 | 20.7 | 23.5 | 27.5 | 30.3 | 30.3 | 18.7 | 18.7 | 20.7 | 23.5 | 27.5 | 30.3 | 30.3 |

## 11-4. Water piping

### 11-4-1. Precautions for water piping

Consider the following when installing a water piping system.

1. Design pressure of the water piping
   Use a water pipe that is strong enough to withstand the design pressure (1.0 MPa).
2. Water pipe type
   Use of plastic pipe is recommended.
   When using copper pipes, be sure to braze the pipes under a nitrogen purge. (Oxidation during may shorten the life of the pump.)
3. Expansion vessel
   Install an expansion vessel to accommodate expanded water.
4. Drain piping
   Install the drain pipe with a downward inclination of between 1/100 and 1/200. To prevent drain water from freezing in winter, install the drain pipe as steep an angle as practically possible and minimize the straight line. For cold climate installation, take an appropriate measure (e.g., drain heater) to prevent the drain water from freezing.
5. Insulation
   Cover the water pipe with insulating materials with the specified thickness or more to prevent thermal loss or condensation from collecting.
6. Air vent valve
   Install air vent valves to the highest places where air can accumulate.
7. Maintenance valve
   It is recommended to install valves on the inlet/outlet for each HBC controller branch for maintenance.
8. Water pressure gauge
   Install a water pressure gauge to check the charged pressure.

## 11-4-2. Notes on corrosion

1. Water quality
   It is important to check the water quality beforehand. See table below (Circulating water/Makeup Water Quality Standards).

| Items | | Lower mid-range temperature water system | | Tendency | |
|---|---|---|---|---|---|
| | | Recirculating water [20<T<60°C] [68<T<140°F] | Make-up water | Corrosive | Scale-forming |
| Standard items | pH (25°C[77°F]) | 7.0 ~ 8.0 | 7.0 ~ 8.0 | ○ | ○ |
| | Electric conductivity (mS/m) (25°C[77°F]) (μS/cm) (25°C[77°F]) | 30 or less [300 or less] | 30 or less [300 or less] | ○ | ○ |
| | Chloride ion (mg $Cl^-$/ ℓ ) | 50 or less | 50 or less | ○ | |
| | Sulfate ion (mg $SO_4^{2-}$/ ℓ ) | 50 or less | 50 or less | ○ | |
| | Acid consumption (pH4.8) (mg $CaCO_3$/ ℓ ) | 50 or less | 50 or less | | ○ |
| | Total hardness (mg $CaCO_3$/ ℓ ) | 70 or less | 70 or less | | ○ |
| | Calcium hardness (mg $CaCO_3$/ ℓ ) | 50 or less | 50 or less | | ○ |
| | Ionic silica (mg $SiO_2$/ ℓ ) | 30 or less | 30 or less | | ○ |
| Reference items | Iron (mg Fe/ ℓ ) | 1.0 or less | 0.3 or less | ○ | ○ |
| | Copper (mg Cu/ ℓ ) | 1.0 or less | 0.1 or less | ○ | |
| | Sulfide ion (mg $S^{2-}$/ ℓ ) | not to be detected | not to be detected | ○ | |
| | Ammonium ion (mg $NH_4^+$/ ℓ ) | 0.3 or less | 0.1 or less | ○ | |
| | Residual chlorine (mg Cl/ ℓ ) | 0.25 or less | 0.3 or less | ○ | |
| | Free carbon dioxide (mg $CO_2$/ ℓ) | 0.4 or less | 4.0 or less | ○ | |
| | Ryzner stability index | – | – | ○ | ○ |

Reference : Guideline of Water Quality for Refrigeration and Air Conditioning Equipment. (JRA GL02E-1994)

2. Debris in the water
   Sand, pebbles, suspended solids, and corrosion products in water can damage the metal pipe and heat exchanger on the HBC controller and may cause corrosion. When installing, prevent debris from entering the water. If there is debris in the water, perform debris removal operation after test run by cleaning the strainers inside the HBC controller. (Refer to other sections for how to perform a test run.)
3. Connecting pipes made of different materials
   Connecting pipes used for HBC controller and indoor unit are copper alloy pipes. If steel pipes are connected to the pipes, the contact surface will corrode. Do not use steel pipes to avoid corrosion.
4. Residual air
   Residual air in the pipe results in water pump malfunction, noise, or water pipe corrosion in the water circuit. Ensure air is purged before use. (Refer to other sections for how to perform air vent operation.)

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Eco Changes is the Mitsubishi Electric Group's environmental statement, and expresses the Group's stance on environmental management. Through a wide range of businesses, we are helping contribute to the realization of a sustainable society.

⚠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, R32.

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