

AIR CONDITIONING SYSTEMS

# CITY MULTI



## DATA BOOK

MODEL

**PURY-P200-1100Y(S)NW-A2/TR2/RU2(-BS)**



Line-up of Outdoor Units of R410A CITY MULTI

Heat Recovery R2-Series



PURY-P200YNW-A2/TR2/RU2(-BS) PURY-P250YNW-A2/TR2/RU2(-BS)  
PURY-P300YNW-A2/TR2/RU2(-BS)

**8, 10, 12HP**



PURY-P350YNW-A2/TR2/RU2(-BS) PURY-P400YNW-A2/TR2/RU2(-BS)  
PURY-P450YNW-A2/TR2/RU2(-BS)

**14, 16, 18HP**



PURY-P500YNW-A2/TR2/RU2(-BS) PURY-P550YNW-A2/TR2/RU2(-BS)

**20, 22HP**



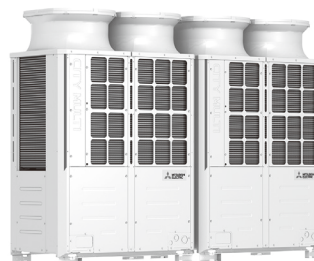
PURY-P400YSNW-A2/TR2/RU2(-BS) PURY-P450YSNW-A2/TR2/RU2(-BS)  
PURY-P500YSNW-A2/TR2/RU2(-BS) PURY-P550YSNW-A2/TR2/RU2(-BS)  
PURY-P600YSNW-A2/TR2/RU2(-BS)

**16, 18, 20, 22, 24HP**



PURY-P650YSNW-A2/TR2/RU2(-BS)

**26HP**



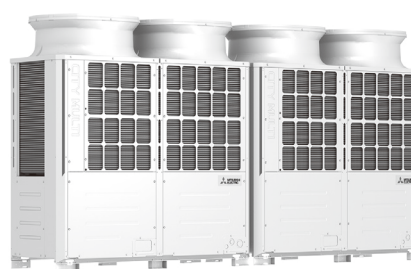
PURY-P700YSNW-A2/TR2/RU2(-BS) PURY-P750YSNW-A2/TR2/RU2(-BS)  
PURY-P800YSNW-A2/TR2/RU2(-BS) PURY-P850YSNW-A2/TR2/RU2(-BS)  
PURY-P900YSNW-A2/TR2/RU2(-BS)

**28, 30, 32, 34, 36HP**



PURY-P950YSNW-A2/TR2/RU2(-BS)

**38HP**



PURY-P1000YSNW-A2/TR2/RU2(-BS) PURY-P1050YSNW-A2/TR2/RU2(-BS)  
PURY-P1100YSNW-A2/TR2/RU2(-BS)

**40, 42, 44HP**

**PURY-P-Y(S)NW-A2/TR2/RU2**

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# 1. SPECIFICATIONS

PURY-P-Y(S)NW-A2/TR2/RU2

| Model  |                              |   | PURY-P200YNW-A2/TR2/RU2 (-BS)                                    |             |  |
|--|------------------------------|---|--|-------------|--|
| Power source   |                              |   | 3-phase 4-wire 380-400-415 V 50/60 Hz                            |             |  |
| Cooling capacity                                       | *1                           | kW  | 22.4   |             |  |
|  |                              | BTU/h   | 76,400   |             |  |
|  | Power input                  | kW  | 6.68   |             |  |
|  | Current input                | A   | 11.2-10.7-10.3   |             |  |
|  | EER                          | kW/kW   | 3.35   |             |  |
|  | SEER                         | kW/kW   | 7.27   |             |  |
| Temp. range of cooling                                 | Indoor                       | W.B.  | 15.0~24.0°C (59~75°F)  |             |  |
|  | *4 Outdoor                   | D.B.  | -5.0~52.0°C (23~126°F)   |             |  |
| Heating capacity (Max)                                 | *2                           | kW  | 25.0   |             |  |
|  |                              | BTU/h   | 85,300   |             |  |
|  | Power input                  | kW  | 6.79   |             |  |
|  | Current input                | A   | 11.4-10.8-10.4   |             |  |
|  | COP                          | kW/kW   | 3.68   |             |  |
|  | (Nominal)                    | *3  | kW   | 22.4        |  |
|  |                              |   | BTU/h  | 76,400      |  |
|  |                              | Power input   | kW   | 5.38        |  |
|  |                              | Current input   | A  | 9.0-8.6-8.3 |  |
|  |                              | COP   | kW/kW  | 4.16        |  |
| SCOP   |                              | kW/kW   | 4.01   |             |  |
| Temp. range of heating                                 | Indoor                       | D.B.  | 15.0~27.0°C (59~81°F)  |             |  |
|  | *4 Outdoor                   | W.B.  | -20.0~15.5°C (-4~60°F)   |             |  |
| Indoor unit connectable                                | Total capacity               | 50~150% of outdoor unit capacity  |  |             |  |
|  | Model/Quantity               | P10~P250, M20~M140/1~20   |  |             |  |
| Sound pressure level (measured in anechoic room) *5, 6 |                              | dB <A>  | 59.0/59.0  |             |  |
| Sound power level (measured in anechoic room) *5       |                              | dB <A>  | 76/76  |             |  |
| 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 <sup>3</sup> /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   |             |  |
| *7 External static press.                              | 0 Pa (0 mmH <sub>2</sub> O)  |   |  |             |  |
| Compressor   | Type x Quantity              |   | Inverter scroll hermetic compressor x 1                          |             |  |
|  | Starting method              |   | Inverter   |             |  |
|  | Motor output                 | kW  | 5.0  |             |  |
|  | Case heater                  | kW  | -  |             |  |
|  | Lubricant                    | MEL32   |  |             |  |
| 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       |   | R410A x 5.2 kg (12 lbs)  |             |  |
|  | Control                      |   | Indoor LEV and BC controller                                     |             |  |
| Net weight   | kg (lbs)                     | 214 (472)   |  |             |  |
| Heat exchanger   |                              | Salt-resistant cross fin & copper tube  |  |             |  |
| HIC circuit (HIC: Heat Inter-Changer)                  |                              | -   |  |             |  |
| Defrosting method                                      |                              | Auto-defrost mode (Reversed refrigerant cycle)  |  |             |  |
| Drawing  | External                     | WKB94C4WD   |  |             |  |
|  | Wiring                       | WKE94L190   |  |             |  |
| Standard attachment                                    | Document                     | Installation Manual   |  |             |  |
|  | Accessory                    | -   |  |             |  |
| Optional parts   |                              | Joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-R160-J1<br>BC controller: CMB-M104, 106, 108, 1012, 1016V-J1<br>Main BC controller: CMB-M108, 1012, 1016V-JA1, CMB-P1016V-KA1<br>Sub BC controller: CMB-M104, 108V-KB1   |  |             |  |
| 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:   | Unit converter  |
|--|---|
| 1. Nominal cooling conditions (subject to JIS B8615-2)<br>Indoor: 27°C D.B./19°C W.B. (81°F D.B./66°F W.B.), Outdoor: 35°C D.B./24°C W.B. (95°F D.B./75°F W.B.)<br>Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)         | BTU/h = kW x 3,412  |
| 2. Nominal heating conditions (subject to JIS B8615-2)<br>Indoor: 20°C D.B. (68°F D.B.), Outdoor: 7°C D.B./6°C W.B. (45°F D.B./43°F W.B.)<br>Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)                               | cfm = m <sup>3</sup> /min x 35.31                           |
| 3. Nominal heating conditions (subject to JIS B8615-2)<br>Indoor: 20°C D.B. (68°F D.B.), Outdoor: 7°C D.B./6°C W.B. (45°F D.B./43°F W.B.)<br>Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)<br>Eurovent registered        | lbs = kg/0.4536   |
| 4. -10 °C D.B. (14 °F D.B.)/-11 °C W.B. (12 °F W.B.) to 21 °C D.B. (70 °F D.B.)/15.5 °C W.B. (60 °F W.B.)<br>with cooling/heating mixed operation.   |   |
| 5. Cooling mode/Heating mode   |   |
| 6. The sound pressure level measured by the conventional method in JIS for reference purpose.  |   |
| 7. External static pressure option is available (30 Pa, 60 Pa, 80 Pa/3.1 mmH <sub>2</sub> O, 6.1 mmH <sub>2</sub> O, 8.2 mmH <sub>2</sub> O).<br>Consult your dealer about the specification when setting External static pressure option. | *Above specification data is subject to rounding variation. |



| Model  |                              |                     | PURY-P250YNW-A2/TR2/RU2 (-BS)   |                             |                |  |  |
|--|------------------------------|---------------------|---|-----------------------------|----------------|--|--|
| Power source   |                              |                     | 3-phase 4-wire 380-400-415 V 50/60 Hz   |                             |                |  |  |
| Cooling capacity                                       | *1                           | kW                  | 28.0  |                             |                |  |  |
|  |                              | BTU/h               | 95,500  |                             |                |  |  |
|  |                              | Power input         | kW  | 10.25                       |                |  |  |
|  |                              | Current input       | A   | 17.3-16.4-15.8              |                |  |  |
|  |                              | EER                 | kW/kW   | 2.73                        |                |  |  |
|  |                              | SEER                | kW/kW   | 6.85                        |                |  |  |
| Temp. range of cooling                                 | *4                           | Indoor              | W.B.  | 15.0~24.0°C (59~75°F)       |                |  |  |
|  |                              | Outdoor             | D.B.  | -5.0~52.0°C (23~126°F)      |                |  |  |
| Heating capacity (Max)                                 | *2                           | kW                  | 31.5  |                             |                |  |  |
|  |                              | BTU/h               | 107,500   |                             |                |  |  |
|  | Power input                  | kW                  | 9.57  |                             |                |  |  |
|  | Current input                | A                   | 16.1-15.3-14.7  |                             |                |  |  |
|  | COP                          | kW/kW               | 3.29  |                             |                |  |  |
|  | (Nominal)                    | *3                  | kW  | 28.0                        |                |  |  |
|  |                              |                     | BTU/h   | 95,500                      |                |  |  |
|  |                              |                     | Power input   | kW                          | 7.36           |  |  |
|  |                              |                     | Current input   | A                           | 12.4-11.8-11.3 |  |  |
|  |                              |                     | COP   | kW/kW                       | 3.80           |  |  |
| Temp. range of heating                                 | *4                           | 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               |                     | P10~P250, M20~M140/1~25   |                             |                |  |  |
| Sound pressure level (measured in anechoic room) *5, 6 |                              | dB <A>              | 60.5/64.0   |                             |                |  |  |
| Sound power level (measured in anechoic room) *5       |                              | dB <A>              | 78/83   |                             |                |  |  |
| Refrigerant piping diameter                            | High pressure                | mm (in.)            | 19.05 (3/4) Brazed  |                             |                |  |  |
|  | Low pressure                 | mm (in.)            | 22.2 (7/8) Brazed   |                             |                |  |  |
| FAN  | Type x Quantity              |                     | Propeller fan x 1   |                             |                |  |  |
|  | Air flow rate                | m <sup>3</sup> /min | 220   |                             |                |  |  |
|  |                              | L/s                 | 3,667   |                             |                |  |  |
|  |                              | cfm                 | 7,768   |                             |                |  |  |
|  | Control, Driving mechanism   |                     | Inverter-control, Direct-driven by motor  |                             |                |  |  |
|  | Motor output                 | kW                  | 0.92 x 1  |                             |                |  |  |
|  | *7 External static press.    |                     |   | 0 Pa (0 mmH <sub>2</sub> O) |                |  |  |
| Compressor   | Type x Quantity              |                     | Inverter scroll hermetic compressor x 1   |                             |                |  |  |
|  | Starting method              |                     | Inverter  |                             |                |  |  |
|  | Motor output                 | kW                  | 8.0   |                             |                |  |  |
|  | Case heater                  | kW                  | -   |                             |                |  |  |
|  | Lubricant                    |                     | MEL32   |                             |                |  |  |
| 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                   |                     | -   |                             |                |  |  |
| Refrigerant  | Fan motor                    |                     | -   |                             |                |  |  |
|  | Type x original charge       |                     | R410A x 5.2 kg (12 lbs)   |                             |                |  |  |
| Net weight   | Control                      |                     | Indoor LEV and BC controller  |                             |                |  |  |
|  | kg (lbs)                     |                     | 223 (492)   |                             |                |  |  |
| Heat exchanger   |                              |                     | Salt-resistant cross fin & copper tube  |                             |                |  |  |
| HIC circuit (HIC: Heat Inter-Changer)                  |                              |                     | -   |                             |                |  |  |
| Defrosting method                                      |                              |                     | Auto-defrost mode (Reversed refrigerant cycle)  |                             |                |  |  |
| Drawing  | External                     |                     | WKB94C4WD   |                             |                |  |  |
|  | Wiring                       |                     | WKE94L190   |                             |                |  |  |
| Standard attachment                                    | Document                     |                     | Installation Manual   |                             |                |  |  |
|  | Accessory                    |                     | -   |                             |                |  |  |
| Optional parts   |                              |                     | Joint: CMY-Y102SS-G2,CMY-Y102LS-G2,CMY-R160-J1<br>BC controller: CMB-M104,106,108,1012,1016V-J1<br>Main BC controller: CMB-M108,1012,1016V-JA1,CMB-P1016V-KA1<br>Sub BC controller: CMB-M104,108V-KB1   |                             |                |  |  |
| 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:  | Unit converter  |
|---|---|
| 1.Nominal cooling conditions (subject to JIS B8615-2)<br>Indoor: 27°C D.B./19°C W.B. (81°F D.B./66°F W.B.), Outdoor: 35°C D.B./24°C W.B. (95°F D.B./75°F W.B.)<br>Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)         | BTU/h =kW x 3,412   |
| 2.Nominal heating conditions (subject to JIS B8615-2)<br>Indoor: 20°C D.B. (68°F D.B.), Outdoor: 7°C D.B./6°C W.B. (45°F D.B./43°F W.B.)<br>Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)                               | cfm =m <sup>3</sup> /min x 35.31                            |
| 3.Nominal heating conditions (subject to JIS B8615-2)<br>Indoor: 20°C D.B. (68°F D.B.), Outdoor: 7°C D.B./6°C W.B. (45°F D.B./43°F W.B.)<br>Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)<br>Eurovent registered        | lbs =kg/0.4536  |
| 4.-10 °C D.B.(14 °F D.B.)/-11 °C W.B.(12 °F W.B.) to 21 °C D.B.(70 °F D.B.)/15.5 °C W.B.(60 °F W.B.)<br>with cooling/heating mixed operation.   |   |
| 5.Cooling mode/Heating mode   |   |
| 6.The sound pressure level measured by the conventional method in JIS for reference purpose.  |   |
| 7.External static pressure option is available (30 Pa, 60 Pa, 80 Pa/3.1 mmH <sub>2</sub> O, 6.1 mmH <sub>2</sub> O, 8.2 mmH <sub>2</sub> O).<br>Consult your dealer about the specification when setting External static pressure option. |   |
|   | *Above specification data is subject to rounding variation. |

# 1. SPECIFICATIONS

PURY-P-Y(S)NW-A2/TR2/RU2

| Model  |                              |   | PURY-P300YNW-A2/TR2/RU2 (-BS)                                    |                |  |
|--|------------------------------|---|--|----------------|--|
| Power source   |                              |   | 3-phase 4-wire 380-400-415 V 50/60 Hz                            |                |  |
| Cooling capacity                                       | *1                           | kW  | 33.5   |                |  |
|  |                              | BTU/h   | 114,300  |                |  |
|  | Power input                  | kW  | 11.75  |                |  |
|  | Current input                | A   | 19.8-18.8-18.1   |                |  |
|  | EER                          | kW/kW   | 2.85   |                |  |
|  | SEER                         | kW/kW   | 6.34   |                |  |
| Temp. range of cooling                                 | Indoor                       | W.B.  | 15.0~24.0°C (59~75°F)  |                |  |
|  | *4 Outdoor                   | D.B.  | -5.0~52.0°C (23~126°F)   |                |  |
| Heating capacity (Max)                                 | *2                           | kW  | 33.5   |                |  |
|  |                              | BTU/h   | 114,300  |                |  |
|  | Power input                  | kW  | 9.62   |                |  |
|  | Current input                | A   | 16.2-15.4-14.8   |                |  |
|  | COP                          | kW/kW   | 3.48   |                |  |
|  | (Nominal)                    | *3  | kW   | 33.5           |  |
|  |                              |   | BTU/h  | 114,300        |  |
|  |                              | Power input   | kW   | 9.62           |  |
|  |                              | Current input   | A  | 16.2-15.4-14.8 |  |
|  |                              | COP   | kW/kW  | 3.48           |  |
| SCOP   | kW/kW                        | 4.01  |  |                |  |
| Temp. range of heating                                 | Indoor                       | D.B.  | 15.0~27.0°C (59~81°F)  |                |  |
|  | *4 Outdoor                   | W.B.  | -20.0~15.5°C (-4~60°F)   |                |  |
| Indoor unit connectable                                | Total capacity               | 50~150% of outdoor unit capacity  |  |                |  |
|  | Model/Quantity               | P10~P250, M20~M140/1~30   |  |                |  |
| Sound pressure level (measured in anechoic room) *5, 6 |                              | dB <A>  | 61.0/67.0  |                |  |
| Sound power level (measured in anechoic room) *5       |                              | dB <A>  | 80/86  |                |  |
| Refrigerant piping diameter                            | High pressure                | mm (in.)  | 19.05 (3/4) Brazed   |                |  |
|  | Low pressure                 | mm (in.)  | 22.2 (7/8) Brazed  |                |  |
| FAN  | Type x Quantity              |   | Propeller fan x 1  |                |  |
|  | Air flow rate                | m <sup>3</sup> /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   |                |  |
| *7 External static press.                              | 0 Pa (0 mmH <sub>2</sub> O)  |   |  |                |  |
| Compressor   | Type x Quantity              |   | Inverter scroll hermetic compressor x 1                          |                |  |
|  | Starting method              |   | Inverter   |                |  |
|  | Motor output                 | kW  | 9.2  |                |  |
|  | Case heater                  | kW  | -  |                |  |
|  | Lubricant                    | MEL32   |  |                |  |
| 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       |   | R410A x 5.2 kg (12 lbs)  |                |  |
|  | Control                      |   | Indoor LEV and BC controller                                     |                |  |
| Net weight   | kg (lbs)                     | 225 (497)   |  |                |  |
| Heat exchanger   |                              | Salt-resistant cross fin & copper tube  |  |                |  |
| HIC circuit (HIC: Heat Inter-Changer)                  |                              | -   |  |                |  |
| Defrosting method                                      |                              | Auto-defrost mode (Reversed refrigerant cycle)  |  |                |  |
| Drawing  | External                     | WKB94C4WD   |  |                |  |
|  | Wiring                       | WKE94L190   |  |                |  |
| Standard attachment                                    | Document                     | Installation Manual   |  |                |  |
|  | Accessory                    | -   |  |                |  |
| Optional parts   |                              | Joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-R160-J1<br>BC controller: CMB-M104, 106, 108, 1012, 1016V-J1<br>Main BC controller: CMB-M108, 1012, 1016V-JA1, CMB-P1016V-KA1<br>Sub BC controller: CMB-M104, 108V-KB1   |  |                |  |
| 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:   | Unit converter  |
|--|---|
| 1. Nominal cooling conditions (subject to JIS B8615-2)<br>Indoor: 27°C D.B./19°C W.B. (81°F D.B./66°F W.B.), Outdoor: 35°C D.B./24°C W.B. (95°F D.B./75°F W.B.)<br>Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)         | BTU/h = kW x 3,412  |
| 2. Nominal heating conditions (subject to JIS B8615-2)<br>Indoor: 20°C D.B. (68°F D.B.), Outdoor: 7°C D.B./6°C W.B. (45°F D.B./43°F W.B.)<br>Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)                               | cfm = m <sup>3</sup> /min x 35.31                           |
| 3. Nominal heating conditions (subject to JIS B8615-2)<br>Indoor: 20°C D.B. (68°F D.B.), Outdoor: 7°C D.B./6°C W.B. (45°F D.B./43°F W.B.)<br>Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)<br>Eurovent registered        | lbs = kg/0.4536   |
| 4. -10 °C D.B. (14 °F D.B.)/-11 °C W.B. (12 °F W.B.) to 21 °C D.B. (70 °F D.B.)/15.5 °C W.B. (60 °F W.B.)<br>with cooling/heating mixed operation.   |   |
| 5. Cooling mode/Heating mode   |   |
| 6. The sound pressure level measured by the conventional method in JIS for reference purpose.  |   |
| 7. External static pressure option is available (30 Pa, 60 Pa, 80 Pa/3.1 mmH <sub>2</sub> O, 6.1 mmH <sub>2</sub> O, 8.2 mmH <sub>2</sub> O).<br>Consult your dealer about the specification when setting External static pressure option. | *Above specification data is subject to rounding variation. |

| Model  |                              |                     | PURY-P350YNW-A2/TR2/RU2 (-BS)   |                        |  |
|--|------------------------------|---------------------|---|------------------------|--|
| Power source   |                              |                     | 3-phase 4-wire 380-400-415 V 50/60 Hz   |                        |  |
| Cooling capacity                                       | *1                           | kW                  | 40.0  |                        |  |
|  |                              | BTU/h               | 136,500   |                        |  |
|  | Power input                  | kW                  | 14.92   |                        |  |
|  | Current input                | A                   | 25.1-23.9-23.0  |                        |  |
|  | EER                          | kW/kW               | 2.68  |                        |  |
|  | SEER                         | kW/kW               | 5.98  |                        |  |
| Temp. range of cooling                                 | *4                           | Indoor              | W.B.  | 15.0~24.0°C (59~75°F)  |  |
|  |                              | Outdoor             | D.B.  | -5.0~52.0°C (23~126°F) |  |
| Heating capacity (Max)                                 | *2                           | kW                  | 45.0  |                        |  |
|  |                              | BTU/h               | 153,500   |                        |  |
|  | Power input                  | kW                  | 13.88   |                        |  |
|  | Current input                | A                   | 23.4-22.2-21.4  |                        |  |
|  | COP                          | kW/kW               | 3.24  |                        |  |
|  | (Nominal)                    | *3                  | kW  | 40.0                   |  |
|  |                              |                     | BTU/h   | 136,500                |  |
|  |                              | Power input         | kW  | 10.89                  |  |
|  |                              | Current input       | A   | 18.3-17.4-16.8         |  |
|  |                              | COP                 | kW/kW   | 3.67                   |  |
| SCOP   | kW/kW                        | 3.53                |   |                        |  |
| Temp. range of heating                                 | *4                           | 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               |                     | P10~P250, M20~M140/1~35   |                        |  |
| Sound pressure level (measured in anechoic room) *5, 6 |                              |                     | dB <A>  |                        |  |
|  |                              |                     | 62.5/64.0   |                        |  |
| Sound power level (measured in anechoic room) *5       |                              |                     | dB <A>  |                        |  |
|  |                              |                     | 81/83   |                        |  |
| 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 <sup>3</sup> /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  |                        |  |
|  | *7 External static press.    |                     | 0 Pa (0 mmH <sub>2</sub> O)   |                        |  |
| Compressor   | Type x Quantity              |                     | Inverter scroll hermetic compressor x 1   |                        |  |
|  | Starting method              |                     | Inverter  |                        |  |
|  | Motor output                 | kW                  | 12.0  |                        |  |
|  | Case heater                  | kW                  | -   |                        |  |
|  | Lubricant                    |                     | MEL32   |                        |  |
| 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       |                     | R410A x 8.0 kg (18 lbs)   |                        |  |
|  | Control                      |                     | Indoor LEV and BC controller  |                        |  |
| Net weight   |                              | kg (lbs)            | 269 (594)   |                        |  |
| Heat exchanger   |                              |                     | Salt-resistant cross fin & copper tube  |                        |  |
| HIC circuit (HIC: Heat Inter-Changer)                  |                              |                     | -   |                        |  |
| Defrosting method                                      |                              |                     | Auto-defrost mode (Reversed refrigerant cycle)  |                        |  |
| Drawing  | External                     |                     | WKB94C4WE   |                        |  |
|  | Wiring                       |                     | WKE94L191   |                        |  |
| Standard attachment                                    | Document                     |                     | Installation Manual   |                        |  |
|  | Accessory                    |                     | -   |                        |  |
| Optional parts   |                              |                     | Joint: CMY-Y102SS-G2,CMY-Y102LS-G2,CMY-R160-J1<br>BC controller: CMB-M104,106,108,1012,1016V-J1<br>Main BC controller: CMB-M108,1012,1016V-JA1,CMB-P1016V-KA1<br>Sub BC controller: CMB-M104,108V-KB1   |                        |  |
| 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:  | Unit converter  |
|---|---|
| 1.Nominal cooling conditions (subject to JIS B8615-2)<br>Indoor: 27°C D.B./19°C W.B. (81°F D.B./66°F W.B.), Outdoor: 35°C D.B./24°C W.B. (95°F D.B./75°F W.B.)<br>Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)         | BTU/h =kW x 3,412   |
| 2.Nominal heating conditions (subject to JIS B8615-2)<br>Indoor: 20°C D.B. (68°F D.B.), Outdoor: 7°C D.B./6°C W.B. (45°F D.B./43°F W.B.)<br>Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)                               | cfm =m <sup>3</sup> /min x 35.31                            |
| 3.Nominal heating conditions (subject to JIS B8615-2)<br>Indoor: 20°C D.B. (68°F D.B.), Outdoor: 7°C D.B./6°C W.B. (45°F D.B./43°F W.B.)<br>Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)<br>Eurovent registered        | lbs =kg/0.4536  |
| 4.-10 °C D.B.(14 °F D.B.)-11 °C W.B.(12 °F W.B.) to 21 °C D.B.(70 °F D.B.)/15.5 °C W.B.(60 °F W.B.)<br>with cooling/heating mixed operation.  |   |
| 5.Cooling mode/Heating mode   |   |
| 6.The sound pressure level measured by the conventional method in JIS for reference purpose.  |   |
| 7.External static pressure option is available (30 Pa, 60 Pa, 80 Pa/3.1 mmH <sub>2</sub> O, 6.1 mmH <sub>2</sub> O, 8.2 mmH <sub>2</sub> O).<br>Consult your dealer about the specification when setting External static pressure option. | *Above specification data is subject to rounding variation. |

# 1. SPECIFICATIONS

PURY-P-Y(S)NW-A2/TR2/RU2

|  |                              |                                  |   |                |  |  |
|--|------------------------------|----------------------------------|---|----------------|--|--|
| Model  |                              |                                  | <b>PURY-P400YNW-A2/TR2/RU2 (-BS)</b>  |                |  |  |
| Power source   |                              |                                  | 3-phase 4-wire 380-400-415 V 50/60 Hz   |                |  |  |
| Cooling capacity                                       | *1                           | kW                               | 45.0  |                |  |  |
|  |                              | BTU/h                            | 153,500   |                |  |  |
|  | Power input                  | kW                               | 19.65   |                |  |  |
|  | Current input                | A                                | 33.1-31.5-30.3  |                |  |  |
|  | EER                          | kW/kW                            | 2.29  |                |  |  |
|  | SEER                         | kW/kW                            | 5.82  |                |  |  |
| Temp. range of cooling                                 | Indoor                       | W.B.                             | 15.0~24.0°C (59~75°F)   |                |  |  |
|  | *4 Outdoor                   | D.B.                             | -5.0~52.0°C (23~126°F)  |                |  |  |
| Heating capacity (Max)                                 | *2                           | kW                               | 50.0  |                |  |  |
|  |                              | BTU/h                            | 170,600   |                |  |  |
|  | Power input                  | kW                               | 16.66   |                |  |  |
|  | Current input                | A                                | 28.1-26.7-25.7  |                |  |  |
|  | COP                          | kW/kW                            | 3.00  |                |  |  |
|  | (Nominal)                    | *3                               | kW  | 45.0           |  |  |
|  |                              |                                  | BTU/h   | 153,500        |  |  |
|  |                              | Power input                      | kW  | 13.39          |  |  |
|  |                              | Current input                    | A   | 22.6-21.4-20.6 |  |  |
|  |                              | COP                              | kW/kW   | 3.36           |  |  |
| SCOP   |                              | kW/kW                            | 3.51  |                |  |  |
| Temp. range of heating                                 | Indoor                       | D.B.                             | 15.0~27.0°C (59~81°F)   |                |  |  |
|  | *4 Outdoor                   | W.B.                             | -20.0~15.5°C (-4~60°F)  |                |  |  |
| Indoor unit connectable                                | Total capacity               | 50~150% of outdoor unit capacity |   |                |  |  |
|  | Model/Quantity               | P10~P250, M20~M140/1~40          |   |                |  |  |
| Sound pressure level (measured in anechoic room) *5, 6 |                              | dB <A>                           | 65.0/69.0   |                |  |  |
| Sound power level (measured in anechoic room) *5       |                              | dB <A>                           | 83/88   |                |  |  |
| Refrigerant piping diameter                            | High pressure                | mm (in.)                         | 22.2 (7/8) Brazed   |                |  |  |
|  | Low pressure                 | mm (in.)                         | 28.58 (1-1/8) Brazed  |                |  |  |
| FAN  | Type x Quantity              |                                  | Propeller fan x 2   |                |  |  |
|  | Air flow rate                | m <sup>3</sup> /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  |                |  |  |
| *7 External static press.                              | 0 Pa (0 mmH <sub>2</sub> O)  |                                  |   |                |  |  |
| Compressor   | Type x Quantity              |                                  | Inverter scroll hermetic compressor x 1   |                |  |  |
|  | Starting method              |                                  | Inverter  |                |  |  |
|  | Motor output                 | kW                               | 16.1  |                |  |  |
|  | Case heater                  | kW                               | -   |                |  |  |
|  | Lubricant                    | MEL32                            |   |                |  |  |
| 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       |                                  | R410A x 8.0 kg (18 lbs)   |                |  |  |
|  | Control                      |                                  | Indoor LEV and BC controller  |                |  |  |
| Net weight   | kg (lbs)                     | 269 (594)                        |   |                |  |  |
| Heat exchanger   |                              |                                  | Salt-resistant cross fin & copper tube  |                |  |  |
| HIC circuit (HIC: Heat Inter-Changer)                  |                              |                                  | -   |                |  |  |
| Defrosting method                                      |                              |                                  | Auto-defrost mode (Reversed refrigerant cycle)  |                |  |  |
| Drawing  | External                     |                                  | WKB94C4WE   |                |  |  |
|  | Wiring                       |                                  | WKE94L191   |                |  |  |
| Standard attachment                                    | Document                     |                                  | Installation Manual   |                |  |  |
|  | Accessory                    |                                  | -   |                |  |  |
| Optional parts   |                              |                                  | Joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-R160-J1<br><br>Main BC controller: CMB-M108, 1012, 1016V-JA1, CMB-P1016V-KA1<br>Sub BC controller: CMB-M104, 108V-KB1  |                |  |  |
| 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:   |  | Unit converter  |                              |
| 1. Nominal cooling conditions (subject to JIS B8615-2)<br>Indoor: 27°C D.B./19°C W.B. (81°F D.B./66°F W.B.), Outdoor: 35°C D.B./24°C W.B. (95°F D.B./75°F W.B.)<br>Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)         |  | BTU/h   | =kW x 3,412                  |
| 2. Nominal heating conditions (subject to JIS B8615-2)<br>Indoor: 20°C D.B. (68°F D.B.), Outdoor: 7°C D.B./6°C W.B. (45°F D.B./43°F W.B.)<br>Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)                               |  | cfm   | =m <sup>3</sup> /min x 35.31 |
| 3. Nominal heating conditions (subject to JIS B8615-2)<br>Indoor: 20°C D.B. (68°F D.B.), Outdoor: 7°C D.B./6°C W.B. (45°F D.B./43°F W.B.)<br>Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)<br>Eurovent registered        |  | lbs   | =kg/0.4536                   |
| 4. -10 °C D.B. (14 °F D.B.)/-11 °C W.B. (12 °F W.B.) to 21 °C D.B. (70 °F D.B.)/15.5 °C W.B. (60 °F W.B.)<br>with cooling/heating mixed operation.   |  |   |                              |
| 5. Cooling mode/Heating mode   |  |   |                              |
| 6. The sound pressure level measured by the conventional method in JIS for reference purpose.  |  |   |                              |
| 7. External static pressure option is available (30 Pa, 60 Pa, 80 Pa/3.1 mmH <sub>2</sub> O, 6.1 mmH <sub>2</sub> O, 8.2 mmH <sub>2</sub> O).<br>Consult your dealer about the specification when setting External static pressure option. |  |   |                              |
|  |  | *Above specification data is subject to rounding variation. |                              |

# 1. SPECIFICATIONS

| Model  |                              |                     | PURY-P450YNW-A2/TR2/RU2 (-BS)   |                             |  |
|--|------------------------------|---------------------|---|-----------------------------|--|
| Power source   |                              |                     | 3-phase 4-wire 380-400-415 V 50/60 Hz   |                             |  |
| Cooling capacity                                       | *1                           | kW                  | 50.0  |                             |  |
|  |                              | BTU/h               | 170,600   |                             |  |
|  | Power input                  | kW                  | 19.84   |                             |  |
|  | Current input                | A                   | 33.4-31.8-30.6  |                             |  |
|  | EER                          | kW/kW               | 2.52  |                             |  |
|  | SEER                         | kW/kW               | 6.38  |                             |  |
| Temp. range of cooling                                 | *4                           | Indoor              | W.B.  | 15.0~24.0°C (59~75°F)       |  |
|  |                              | Outdoor             | D.B.  | -5.0~52.0°C (23~126°F)      |  |
| Heating capacity (Max)                                 | *2                           | kW                  | 56.0  |                             |  |
|  |                              | BTU/h               | 191,100   |                             |  |
|  | Power input                  | kW                  | 18.79   |                             |  |
|  | Current input                | A                   | 31.7-30.1-29.0  |                             |  |
|  | COP                          | kW/kW               | 2.98  |                             |  |
|  | (Nominal)                    | *3                  | kW  | 50.0                        |  |
|  |                              |                     | BTU/h   | 170,600                     |  |
|  |                              | Power input         | kW  | 15.33                       |  |
|  |                              | Current input       | A   | 25.8-24.5-23.6              |  |
|  |                              | COP                 | kW/kW   | 3.26                        |  |
| SCOP   | kW/kW                        | 3.51                |   |                             |  |
| Temp. range of heating                                 | *4                           | 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               |                     | P10~P250, M20~M140/1~45   |                             |  |
| Sound pressure level (measured in anechoic room) *5, 6 |                              |                     | dB <A>  |                             |  |
|  |                              |                     | 65.5/70.0   |                             |  |
| Sound power level (measured in anechoic room) *5       |                              |                     | dB <A>  |                             |  |
|  |                              |                     | 83/89   |                             |  |
| Refrigerant piping diameter                            | High pressure                | mm (in.)            | 22.2 (7/8) Brazed   |                             |  |
|  | Low pressure                 | mm (in.)            | 28.58 (1-1/8) Brazed  |                             |  |
| FAN  | Type x Quantity              |                     | Propeller fan x 2   |                             |  |
|  | Air flow rate                | m <sup>3</sup> /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  |                             |  |
|  | *7 External static press.    |                     |   | 0 Pa (0 mmH <sub>2</sub> O) |  |
| Compressor   | Type x Quantity              |                     | Inverter scroll hermetic compressor x 1   |                             |  |
|  | Starting method              |                     | Inverter  |                             |  |
|  | Motor output                 | kW                  | 16.2  |                             |  |
|  | Case heater                  | kW                  | -   |                             |  |
|  | Lubricant                    |                     | MEL32   |                             |  |
| 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       |                     | R410A x 10.8 kg (24 lbs)  |                             |  |
|  | Control                      |                     | Indoor LEV and BC controller  |                             |  |
| Net weight   | kg (lbs)                     |                     | 289 (638)   |                             |  |
| Heat exchanger   |                              |                     | Salt-resistant cross fin & copper tube  |                             |  |
| HIC circuit (HIC: Heat Inter-Changer)                  |                              |                     | -   |                             |  |
| Defrosting method                                      |                              |                     | Auto-defrost mode (Reversed refrigerant cycle)  |                             |  |
| Drawing  | External                     |                     | WKB94C4WE   |                             |  |
|  | Wiring                       |                     | WKE94L191   |                             |  |
| Standard attachment                                    | Document                     |                     | Installation Manual   |                             |  |
|  | Accessory                    |                     | -   |                             |  |
| Optional parts   |                              |                     | Joint: CMY-Y102SS-G2,CMY-Y102LS-G2,CMY-R160-J1<br><br>Main BC controller: CMB-M108,1012,1016V-JA1,CMB-P1016V-KA1<br>Sub BC controller: CMB-M104,108V-KB1  |                             |  |
| 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:  | Unit converter  |
|---|---|
| 1.Nominal cooling conditions (subject to JIS B8615-2)<br>Indoor: 27°C D.B./19°C W.B. (81°F D.B./66°F W.B.), Outdoor: 35°C D.B./24°C W.B. (95°F D.B./75°F W.B.)<br>Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)         | BTU/h =kW x 3,412   |
| 2.Nominal heating conditions (subject to JIS B8615-2)<br>Indoor: 20°C D.B. (68°F D.B.), Outdoor: 7°C D.B./6°C W.B. (45°F D.B./43°F W.B.)<br>Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)                               | cfm =m <sup>3</sup> /min x 35.31                            |
| 3.Nominal heating conditions (subject to JIS B8615-2)<br>Indoor: 20°C D.B. (68°F D.B.), Outdoor: 7°C D.B./6°C W.B. (45°F D.B./43°F W.B.)<br>Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)<br>Eurovent registered        | lbs =kg/0.4536  |
| 4.-10 °C D.B.(14 °F D.B.)-11 °C W.B.(12 °F W.B.) to 21 °C D.B.(70 °F D.B.)/15.5 °C W.B.(60 °F W.B.)<br>with cooling/heating mixed operation.  |   |
| 5.Cooling mode/Heating mode   |   |
| 6.The sound pressure level measured by the conventional method in JIS for reference purpose.  |   |
| 7.External static pressure option is available (30 Pa, 60 Pa, 80 Pa/3.1 mmH <sub>2</sub> O, 6.1 mmH <sub>2</sub> O, 8.2 mmH <sub>2</sub> O).<br>Consult your dealer about the specification when setting External static pressure option. | *Above specification data is subject to rounding variation. |

# 1. SPECIFICATIONS

R2-Series

PURY-P-Y(S)NW-A2/TR2/RU2

| Model  |                              |   | PURY-P500YNW-A2/TR2/RU2 (-BS)                                    |                |  |
|--|------------------------------|---|--|----------------|--|
| Power source   |                              |   | 3-phase 4-wire 380-400-415 V 50/60 Hz                            |                |  |
| Cooling capacity                                       | *1                           | kW  | 56.0   |                |  |
|  |                              | BTU/h   | 191,100  |                |  |
|  | Power input                  | kW  | 22.22  |                |  |
|  | Current input                | A   | 37.5-35.6-34.3   |                |  |
|  | EER                          | kW/kW   | 2.52   |                |  |
|  | SEER                         | kW/kW   | 6.24   |                |  |
| Temp. range of cooling                                 | Indoor                       | W.B.  | 15.0~24.0°C (59~75°F)  |                |  |
|  | *4 Outdoor                   | D.B.  | -5.0~52.0°C (23~126°F)   |                |  |
| Heating capacity (Max)                                 | *2                           | kW  | 63.0   |                |  |
|  |                              | BTU/h   | 215,000  |                |  |
|  | Power input                  | kW  | 21.14  |                |  |
|  | Current input                | A   | 35.6-33.9-32.6   |                |  |
|  | COP                          | kW/kW   | 2.98   |                |  |
|  | (Nominal)                    | *3  | kW   | 56.0           |  |
|  |                              |   | BTU/h  | 191,100        |  |
|  |                              | Power input   | kW   | 16.76          |  |
|  |                              | Current input   | A  | 28.2-26.8-25.9 |  |
|  |                              | COP   | kW/kW  | 3.34           |  |
| SCOP   |                              | kW/kW   | 3.51   |                |  |
| Temp. range of heating                                 | Indoor                       | D.B.  | 15.0~27.0°C (59~81°F)  |                |  |
|  | *4 Outdoor                   | W.B.  | -20.0~15.5°C (-4~60°F)   |                |  |
| Indoor unit connectable                                | Total capacity               | 50~150% of outdoor unit capacity  |  |                |  |
|  | Model/Quantity               | P10~P250, M20~M140/1~50   |  |                |  |
| Sound pressure level (measured in anechoic room) *5, 6 |                              | dB <A>  | 63.5/64.5  |                |  |
| Sound power level (measured in anechoic room) *5       |                              | dB <A>  | 82/84  |                |  |
| Refrigerant piping diameter                            | High pressure                | mm (in.)  | 22.2 (7/8) Brazed  |                |  |
|  | Low pressure                 | mm (in.)  | 28.58 (1-1/8) Brazed   |                |  |
| FAN  | Type x Quantity              |   | Propeller fan x 2  |                |  |
|  | Air flow rate                | m <sup>3</sup> /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   |                |  |
| *7 External static press.                              | 0 Pa (0 mmH <sub>2</sub> O)  |   |  |                |  |
| Compressor   | Type x Quantity              |   | Inverter scroll hermetic compressor x 1                          |                |  |
|  | Starting method              |   | Inverter   |                |  |
|  | Motor output                 | kW  | 17.4   |                |  |
|  | Case heater                  | kW  | -  |                |  |
|  | Lubricant                    | MEL32   |  |                |  |
| 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       |   | R410A x 10.8 kg (24 lbs)   |                |  |
|  | Control                      |   | Indoor LEV and BC controller                                     |                |  |
| Net weight   | kg (lbs)                     | 335 (739)   |  |                |  |
| Heat exchanger   |                              | Salt-resistant cross fin & copper tube  |  |                |  |
| HIC circuit (HIC: Heat Inter-Changer)                  |                              | -   |  |                |  |
| Defrosting method                                      |                              | Auto-defrost mode (Reversed refrigerant cycle)  |  |                |  |
| Drawing  | External                     | WKB94C4WF   |  |                |  |
|  | Wiring                       | WKE94L192   |  |                |  |
| Standard attachment                                    | Document                     | Installation Manual   |  |                |  |
|  | Accessory                    | -   |  |                |  |
| Optional parts   |                              | Joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-R160-J1<br><br>Main BC controller: CMB-M108, 1012, 1016V-JA1, CMB-P1016V-KA1<br>Sub BC controller: CMB-M104, 108V-KB1  |  |                |  |
| 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:   | Unit converter  |
|--|---|
| 1. Nominal cooling conditions (subject to JIS B8615-2)<br>Indoor: 27°C D.B./19°C W.B. (81°F D.B./66°F W.B.), Outdoor: 35°C D.B./24°C W.B. (95°F D.B./75°F W.B.)<br>Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)         | BTU/h = kW x 3,412  |
| 2. Nominal heating conditions (subject to JIS B8615-2)<br>Indoor: 20°C D.B. (68°F D.B.), Outdoor: 7°C D.B./6°C W.B. (45°F D.B./43°F W.B.)<br>Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)                               | cfm = m <sup>3</sup> /min x 35.31                           |
| 3. Nominal heating conditions (subject to JIS B8615-2)<br>Indoor: 20°C D.B. (68°F D.B.), Outdoor: 7°C D.B./6°C W.B. (45°F D.B./43°F W.B.)<br>Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)                               | lbs = kg/0.4536   |
| 4. -10 °C D.B. (14 °F D.B.)/-11 °C W.B. (12 °F W.B.) to 21 °C D.B. (70 °F D.B.)/15.5 °C W.B. (60 °F W.B.)<br>with cooling/heating mixed operation.   |   |
| 5. Cooling mode/Heating mode   |   |
| 6. The sound pressure level measured by the conventional method in JIS for reference purpose.  |   |
| 7. External static pressure option is available (30 Pa, 60 Pa, 80 Pa/3.1 mmH <sub>2</sub> O, 6.1 mmH <sub>2</sub> O, 8.2 mmH <sub>2</sub> O).<br>Consult your dealer about the specification when setting External static pressure option. | *Above specification data is subject to rounding variation. |

# 1. SPECIFICATIONS

| Model  |                              |                     | PURY-P550YNW-A2/TR2/RU2 (-BS)   |                                  |  |
|--|------------------------------|---------------------|---|----------------------------------|--|
| Power source   |                              |                     | 3-phase 4-wire 380-400-415 V 50/60 Hz   |                                  |  |
| Cooling capacity                                       | *1                           | kW                  | 60.0  |                                  |  |
|  |                              | BTU/h               | 204,700   |                                  |  |
|  | Power input                  | kW                  | 25.86   |                                  |  |
|  | Current input                | A                   | 43.6-41.4-39.9  |                                  |  |
|  | EER                          | kW/kW               | 2.32  |                                  |  |
|  | SEER                         | kW/kW               | 6.25  |                                  |  |
| Temp. range of cooling                                 | *4                           | Indoor              | W.B.  | 15.0~24.0°C (59~75°F)            |  |
|  |                              | Outdoor             | D.B.  | -5.0~52.0°C (23~126°F)           |  |
| Heating capacity (Max)                                 | *2                           | kW                  | 69.0  |                                  |  |
|  |                              | BTU/h               | 235,400   |                                  |  |
|  | Power input                  | kW                  | 24.55   |                                  |  |
|  | Current input                | A                   | 41.4-39.3-37.9  |                                  |  |
|  | COP                          | kW/kW               | 2.81  |                                  |  |
|  | (Nominal)                    | *3                  | kW  | 63.0                             |  |
|  |                              |                     | BTU/h   | 215,000                          |  |
|  |                              | Power input         | kW  | 20.00                            |  |
|  |                              | Current input       | A   | 33.7-32.0-30.9                   |  |
|  |                              | COP                 | kW/kW   | 3.15                             |  |
| SCOP   |                              | kW/kW               | 3.51  |                                  |  |
| Temp. range of heating                                 | *4                           | 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               |                     |   | P10~P250, M20~M140/2~50          |  |
| Sound pressure level (measured in anechoic room) *5, 6 |                              |                     | dB <A>  | 70.0/70.0                        |  |
| Sound power level (measured in anechoic room) *5       |                              |                     | dB <A>  | 89/89                            |  |
| Refrigerant piping diameter                            | High pressure                | mm (in.)            | 22.2 (7/8) Brazed (28.58 (1-1/8) Brazed for the part that exceeds 65 m)   |                                  |  |
|  | Low pressure                 | mm (in.)            | 28.58 (1-1/8) Brazed  |                                  |  |
| FAN  | Type x Quantity              |                     | Propeller fan x 2   |                                  |  |
|  | Air flow rate                | m <sup>3</sup> /min | 410   |                                  |  |
|  |                              | L/s                 | 6,833   |                                  |  |
|  |                              | cfm                 | 14,477  |                                  |  |
|  | Control, Driving mechanism   |                     | Inverter-control, Direct-driven by motor  |                                  |  |
|  | Motor output                 | kW                  | 0.92 x 2  |                                  |  |
|  | *7 External static press.    |                     | 0 Pa (0 mmH <sub>2</sub> O)   |                                  |  |
| Compressor   | Type x Quantity              |                     | Inverter scroll hermetic compressor x 1   |                                  |  |
|  | Starting method              |                     | Inverter  |                                  |  |
|  | Motor output                 | kW                  | 20.5  |                                  |  |
|  | Case heater                  | kW                  | -   |                                  |  |
|  | Lubricant                    |                     | MEL32   |                                  |  |
| 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                   |                     | -   |                                  |  |
| Refrigerant  | Fan motor                    |                     | -   |                                  |  |
|  | Type x original charge       |                     | R410A x 10.8 kg (24 lbs)  |                                  |  |
| Net weight   | Control                      |                     | Indoor LEV and BC controller  |                                  |  |
|  | kg (lbs)                     |                     | 335 (739)   |                                  |  |
| Heat exchanger   |                              |                     | Salt-resistant cross fin & copper tube  |                                  |  |
| HIC circuit (HIC: Heat Inter-Changer)                  |                              |                     | -   |                                  |  |
| Defrosting method                                      |                              |                     | Auto-defrost mode (Reversed refrigerant cycle)  |                                  |  |
| Drawing  | External                     |                     | WKB94C4WF   |                                  |  |
|  | Wiring                       |                     | WKE94L192   |                                  |  |
| Standard attachment                                    | Document                     |                     | Installation Manual   |                                  |  |
|  | Accessory                    |                     | -   |                                  |  |
| Optional parts   |                              |                     | Joint: CMY-Y102SS-G2,CMY-Y102LS-G2,CMY-R160-J1<br><br>Main BC controller: CMB-M108,1012,1016V-JA1,CMB-P1016V-KA1<br>Sub BC controller: CMB-M104,108V-KB1  |                                  |  |
| 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:   | Unit converter  |
|--|---|
| 1.Nominal cooling conditions (subject to JIS B8615-2)<br>Indoor: 27°C D.B./19°C W.B. (81°F D.B./66°F W.B.), Outdoor: 35°C D.B./24°C W.B. (95°F D.B./75°F W.B.)<br>Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)  | BTU/h =kW x 3,412   |
| 2.Nominal heating conditions (subject to JIS B8615-2)<br>Indoor: 20°C D.B. (68°F D.B.), Outdoor: 7°C D.B./6°C W.B. (45°F D.B./43°F W.B.)<br>Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)                        | cfm =m <sup>3</sup> /min x 35.31                            |
| 3.Nominal heating conditions (subject to JIS B8615-2)<br>Indoor: 20°C D.B. (68°F D.B.), Outdoor: 7°C D.B./6°C W.B. (45°F D.B./43°F W.B.)<br>Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)<br>Eurovent registered | lbs =kg/0.4536  |
| 4.-10 °C D.B.(14 °F D.B.)-11 °C W.B.(12 °F W.B.) to 21 °C D.B.(70 °F D.B.)/15.5 °C W.B.(60 °F W.B.)<br>with cooling/heating mixed operation.   |   |
| 5.Cooling mode/Heating mode  |   |
| 6.The sound pressure level measured by the conventional method in JIS for reference purpose.   |   |
| 7.External static pressure option is available (30 Pa/3.1 mmH <sub>2</sub> O).<br>Consult your dealer about the specification when setting External static pressure option.  | *Above specification data is subject to rounding variation. |



# 1. SPECIFICATIONS

R2-Series

PURY-P-Y(S)NW-A2/TR2/RU2

| Model  |                |               | PURY-P400YSNW-A2/TR2/RU2 (-BS)        |                |  |
|--|----------------|---------------|---------------------------------------|----------------|--|
| Power source   |                |               | 3-phase 4-wire 380-400-415 V 50/60 Hz |                |  |
| Cooling capacity                                       | *1             | kW            | 44.8                                  |                |  |
|  |                | BTU/h         | 152,900                               |                |  |
|  | Power input    | kW            | 13.78                                 |                |  |
|  | Current input  | A             | 23.2-22.0-21.3                        |                |  |
|  | EER            | kW/kW         | 3.25                                  |                |  |
|  | SEER           | kW/kW         | 7.05                                  |                |  |
| Temp. range of cooling                                 | *4             | Indoor        | W.B. 15.0~24.0°C (59~75°F)            |                |  |
|  |                | Outdoor       | D.B. -5.0~52.0°C (23~126°F)           |                |  |
| Heating capacity (Max)                                 | *2             | kW            | 50.0                                  |                |  |
|  |                | BTU/h         | 170,600                               |                |  |
|  | Power input    | kW            | 14.00                                 |                |  |
|  | Current input  | A             | 23.6-22.4-21.6                        |                |  |
|  | COP            | kW/kW         | 3.57                                  |                |  |
|  | (Nominal)      | *3            | kW                                    | 44.8           |  |
|  |                |               | BTU/h                                 | 152,900        |  |
|  |                | Power input   | kW                                    | 11.08          |  |
|  |                | Current input | A                                     | 18.7-17.7-17.1 |  |
|  |                | COP           | kW/kW                                 | 4.04           |  |
| SCOP   | kW/kW          | 4.01          |                                       |                |  |
| Temp. range of heating                                 | *4             | 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 |               | P10~P250, M20~M140/1~40               |                |  |
| Sound pressure level (measured in anechoic room) *5, 6 |                | dB <A>        | 62.0/62.0                             |                |  |
| Sound power level (measured in anechoic room) *5       |                | dB <A>        | 79/79                                 |                |  |
| Refrigerant piping diameter                            | High pressure  |               | mm (in.) 22.2 (7/8) Brazed            |                |  |
|  | Low pressure   |               | mm (in.) 28.58 (1-1/8) Brazed         |                |  |

Set Model

| Model                                 |                              |                     | PURY-P200YNW-A2/TR2/RU2 (-BS)   |           | PURY-P200YNW-A2/TR2/RU2 (-BS)   |  |
|---------------------------------------|------------------------------|---------------------|---|-----------|---|--|
| FAN                                   | Type x Quantity              |                     | Propeller fan x 1   |           | Propeller fan x 1   |  |
|                                       | Air flow rate                | m <sup>3</sup> /min | 170   |           | 170   |  |
|                                       |                              | L/s                 | 2,833   |           | 2,833   |  |
|                                       |                              | cfm                 | 6,003   |           | 6,003   |  |
|                                       | Control, Driving mechanism   |                     | Inverter-control, Direct-driven by motor  |           | Inverter-control, Direct-driven by motor  |  |
|                                       | Motor output                 | kW                  | 0.92 x 1  |           | 0.92 x 1  |  |
|                                       | *7 External static press.    |                     | 0 Pa (0 mmH <sub>2</sub> O)   |           | 0 Pa (0 mmH <sub>2</sub> O)   |  |
| Compressor                            | Type x Quantity              |                     | Inverter scroll hermetic compressor x 1   |           | Inverter scroll hermetic compressor x 1   |  |
|                                       | Starting method              |                     | Inverter  |           | Inverter  |  |
|                                       | Motor output                 | kW                  | 5.0   |           | 5.0   |  |
|                                       | Case heater                  | kW                  | -   |           | -   |  |
|                                       | Lubricant                    |                     | MEL32   |           | MEL32   |  |
| External finish                       |                              |                     | Pre-coated galvanized steel sheets (+powder coating for -BS type)<br><MUNSELL 5Y 8/1 or similar>  |           | 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<br>in. 73-3/16 (70-13/16 without legs) x 36-1/4 x 29-3/16   |           | mm 1,858 (1,798 without legs) x 920 x 740<br>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)  |           | High pressure sensor, High pressure switch at 4.15 MPa (601 psi)                                    |  |
|                                       | Inverter circuit (COMP./FAN) |                     | Over-heat protection, Over-current protection   |           | Over-heat protection, Over-current protection   |  |
|                                       | Compressor                   |                     | -   |           | -   |  |
|                                       | Fan motor                    |                     | -   |           | -   |  |
| Refrigerant                           | Type x original charge       |                     | R410A x 5.2 kg (12 lbs)   |           | R410A x 5.2 kg (12 lbs)   |  |
|                                       | Control                      |                     | Indoor LEV and BC controller  |           |   |  |
| Net weight                            | kg (lbs)                     | 214 (472)           |   | 214 (472) |   |  |
| Heat exchanger                        |                              |                     | Salt-resistant cross fin & copper tube  |           | Salt-resistant cross fin & copper tube  |  |
| HIC circuit (HIC: Heat Inter-Changer) |                              |                     | -   |           |   |  |
| Pipe between unit and distributor     | High pressure                |                     | mm (in.) 15.88 (5/8) Brazed   |           | 15.88 (5/8) Brazed  |  |
|                                       | Low pressure                 |                     | mm (in.) 19.05 (3/4) Brazed   |           | 19.05 (3/4) Brazed  |  |
| Defrosting method                     |                              |                     | Auto-defrost mode (Reversed refrigerant cycle)  |           |   |  |
| Drawing                               | External                     |                     | WKB94C4VZ   |           |   |  |
|                                       | Wiring                       |                     | WKE94L190   |           | WKE94L190   |  |
| Standard attachment                   | Document                     |                     | Installation Manual   |           |   |  |
|                                       | Accessory                    |                     | -   |           |   |  |
| Optional parts                        |                              |                     | Outdoor Twinning kit: CMY-R100VBK4<br>Joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-R160-J1<br>Main BC controller: CMB-M108, 1012, 1016V-JA1, CMB-P1016V-KA1<br>Sub BC controller: CMB-M104, 108V-KB1  |           |   |  |
| 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:   | Unit converter  |
|--|---|
| 1. Nominal cooling conditions (subject to JIS B8615-2)<br>Indoor: 27°C D.B./19°C W.B. (81°F D.B./66°F W.B.), Outdoor: 35°C D.B./24°C W.B. (95°F D.B./75°F W.B.)<br>Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)         | BTU/h = kW x 3,412  |
| 2. Nominal heating conditions (subject to JIS B8615-2)<br>Indoor: 20°C D.B. (68°F D.B.), Outdoor: 7°C D.B./6°C W.B. (45°F D.B./43°F W.B.)<br>Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)                               | cfm = m <sup>3</sup> /min x 35.31                           |
| 3. Nominal heating conditions (subject to JIS B8615-2)<br>Indoor: 20°C D.B. (68°F D.B.), Outdoor: 7°C D.B./6°C W.B. (45°F D.B./43°F W.B.)<br>Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)<br>Eurovent registered        | lbs = kg/0.4536   |
| 4. -10 °C D.B. (14 °F D.B.)/-11 °C W.B. (12 °F W.B.) to 21 °C D.B. (70 °F D.B.)/15.5 °C W.B. (60 °F W.B.)<br>with cooling/heating mixed operation.   |   |
| 5. Cooling mode/Heating mode   |   |
| 6. The sound pressure level measured by the conventional method in JIS for reference purpose.  |   |
| 7. External static pressure option is available (30 Pa, 60 Pa, 80 Pa/3.1 mmH <sub>2</sub> O, 6.1 mmH <sub>2</sub> O, 8.2 mmH <sub>2</sub> O).<br>Consult your dealer about the specification when setting External static pressure option. | *Above specification data is subject to rounding variation. |

|  |                |                                       |                      |                        |                |
|--|----------------|---------------------------------------|----------------------|------------------------|----------------|
| Model  |                | <b>PURY-P450YSNW-A2/TR2/RU2 (-BS)</b> |                      |                        |                |
| Power source   |                | 3-phase 4-wire 380-400-415 V 50/60 Hz |                      |                        |                |
| Cooling capacity                                       | *1             | kW                                    | 50.4                 |                        |                |
|  |                | BTU/h                                 | 172,000              |                        |                |
|  | Power input    | kW                                    | 17.08                |                        |                |
|  | Current input  | A                                     | 28.8-27.3-26.4       |                        |                |
|  | EER            | kW/kW                                 | 2.95                 |                        |                |
|  | SEER           | kW/kW                                 | 6.85                 |                        |                |
| Temp. range of cooling                                 | *4             | Indoor                                | W.B.                 | 15.0~24.0°C (59~75°F)  |                |
|  |                | Outdoor                               | D.B.                 | -5.0~52.0°C (23~126°F) |                |
| Heating capacity (Max)                                 | *2             | kW                                    | 56.5                 |                        |                |
|  |                | BTU/h                                 | 192,800              |                        |                |
|  |                | Power input                           | kW                   | 16.71                  |                |
|  |                | Current input                         | A                    | 28.2-26.7-25.8         |                |
|  |                | COP                                   | kW/kW                | 3.38                   |                |
|  | (Nominal)      | *3                                    | kW                   | 50.4                   |                |
|  |                |                                       | BTU/h                | 172,000                |                |
|  |                |                                       | Power input          | kW                     | 13.05          |
|  |                |                                       | Current input        | A                      | 22.0-20.9-20.1 |
|  |                |                                       | COP                  | kW/kW                  | 3.86           |
|  | SCOP           | kW/kW                                 | 4.01                 |                        |                |
| Temp. range of heating                                 | *4             | 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 | P10~P250, M20~M140/1~45               |                      |                        |                |
| Sound pressure level (measured in anechoic room) *5, 6 | dB <A>         | 63.0/65.5                             |                      |                        |                |
| Sound power level (measured in anechoic room) *5       | dB <A>         | 81/84                                 |                      |                        |                |
| Refrigerant piping diameter                            | High pressure  | mm (in.)                              | 22.2 (7/8) Brazed    |                        |                |
|  | Low pressure   | mm (in.)                              | 28.58 (1-1/8) Brazed |                        |                |

|                                       |                              |   |  |  |  |  |
|---------------------------------------|------------------------------|---|--|--|--|--|
| Set Model                             |                              |   |  |  |  |  |
| Model                                 |                              | <b>PURY-P250YNW-A2/TR2/RU2 (-BS)</b>  |  | <b>PURY-P200YNW-A2/TR2/RU2 (-BS)</b>   |  |  |
| FAN                                   | Type x Quantity              |   | Propeller fan x 1  |  | Propeller fan x 1  |  |
|                                       | Air flow rate                | m <sup>3</sup> /min   | 220  |  | 170  |  |
|                                       |                              | L/s   | 3,667  |  | 2,833  |  |
|                                       |                              | cfm   | 7,768  |  | 6,003  |  |
|                                       | Control, Driving mechanism   |   | Inverter-control, Direct-driven by motor                         |  | Inverter-control, Direct-driven by motor                         |  |
|                                       | Motor output                 | kW  | 0.92 x 1   |  | 0.92 x 1   |  |
|                                       | *7 External static press.    |   | 0 Pa (0 mmH <sub>2</sub> O)                                      |  | 0 Pa (0 mmH <sub>2</sub> O)                                      |  |
| Compressor                            | Type x Quantity              |   | Inverter scroll hermetic compressor x 1                          |  | Inverter scroll hermetic compressor x 1                          |  |
|                                       | Starting method              |   | Inverter   |  | Inverter   |  |
|                                       | Motor output                 | kW  | 8.0  |  | 5.0  |  |
|                                       | Case heater                  | kW  | -  |  | -  |  |
|                                       | Lubricant                    |   | MEL32  |  | MEL32  |  |
| External finish                       |                              | Pre-coated galvanized steel sheets (+powder coating for -BS type)<br><MUNSELL 5Y 8/1 or similar>  |  | 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                           |  | 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               |  | 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) |  | High pressure sensor, High pressure switch at 4.15 MPa (601 psi) |  |
|                                       | Inverter circuit (COMP./FAN) |   | Over-heat protection, Over-current protection                    |  | Over-heat protection, Over-current protection                    |  |
|                                       | Compressor                   |   | -  |  | -  |  |
|                                       | Fan motor                    |   | -  |  | -  |  |
| Refrigerant                           | Type x original charge       |   | R410A x 5.2 kg (12 lbs)  |  | R410A x 5.2 kg (12 lbs)  |  |
|                                       | Control                      |   | Indoor LEV and BC controller                                     |  |  |  |
| Net weight                            | kg (lbs)                     | 223 (492)   |  | 214 (472)  |  |  |
| Heat exchanger                        |                              | Salt-resistant cross fin & copper tube  |  | Salt-resistant cross fin & copper tube   |  |  |
| HIC circuit (HIC: Heat Inter-Changer) |                              | -   |  |  |  |  |
| Pipe between unit and distributor     | High pressure                | mm (in.)  | 19.05 (3/4) Brazed   |  | 15.88 (5/8) Brazed   |  |
|                                       | Low pressure                 | mm (in.)  | 22.2 (7/8) Brazed  |  | 19.05 (3/4) Brazed   |  |
| Defrosting method                     |                              | Auto-defrost mode (Reversed refrigerant cycle)  |  |  |  |  |
| Drawing                               | External                     | WKB94C4VZ   |  | WKB94C4VZ  |  |  |
|                                       | Wiring                       | WKE94L190   |  | WKE94L190  |  |  |
| Standard attachment                   | Document                     | Installation Manual   |  |  |  |  |
|                                       | Accessory                    | -   |  |  |  |  |
| Optional parts                        |                              | Outdoor Twinning kit: CMY-R100VBK4<br>Joint: CMY-Y102SS-G2,CMY-Y102LS-G2,CMY-R160-J1<br>Main BC controller: CMB-M108,1012,1016V-JA1,CMB-P1016V-KA1<br>Sub BC controller: CMB-M104,108V-KB1  |  |  |  |  |
| 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:  |  | Unit converter  |
| 1.Nominal cooling conditions (subject to JIS B8615-2)<br>Indoor: 27°C.D.B./19°C.W.B. (81°F.D.B./66°F.W.B.), Outdoor: 35°C.D.B./24°C.W.B. (95°F.D.B./75°F.W.B.)<br>Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)         |  | BTU/h =kW x 3,412   |
| 2.Nominal heating conditions (subject to JIS B8615-2)<br>Indoor: 20°C.D.B. (68°F.D.B.), Outdoor: 7°C.D.B./6°C.W.B. (45°F.D.B./43°F.W.B.)<br>Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)                               |  | cfm =m <sup>3</sup> /min x 35.31                            |
| 3.Nominal heating conditions (subject to JIS B8615-2)<br>Indoor: 20°C.D.B. (68°F.D.B.), Outdoor: 7°C.D.B./6°C.W.B. (45°F.D.B./43°F.W.B.)<br>Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)<br>Eurovent registered        |  | lbs =kg/0.4536  |
| 4.-10 °C.D.B.(14 °F.D.B.)/-11 °C.W.B.(12 °F.W.B.) to 21 °C.D.B.(70 °F.D.B.)/15.5 °C.W.B.(60 °F.W.B.)<br>with cooling/heating mixed operation.   |  |   |
| 5.Cooling mode/Heating mode   |  |   |
| 6.The sound pressure level measured by the conventional method in JIS for reference purpose.  |  |   |
| 7.External static pressure option is available (30 Pa, 60 Pa, 80 Pa/3.1 mmH <sub>2</sub> O, 6.1 mmH <sub>2</sub> O, 8.2 mmH <sub>2</sub> O).<br>Consult your dealer about the specification when setting External static pressure option. |  | *Above specification data is subject to rounding variation. |

# 1. SPECIFICATIONS

R2-Series

PURY-P-Y(S)NW-A2/TR2/RU2

|  |                |                                  |                                       |                        |  |  |
|--|----------------|----------------------------------|---------------------------------------|------------------------|--|--|
| Model  |                |                                  | <b>PURY-P500YSNW-A2/TR2/RU2 (-BS)</b> |                        |  |  |
| Power source   |                |                                  | 3-phase 4-wire 380-400-415 V 50/60 Hz |                        |  |  |
| Cooling capacity                                       | *1             | kW                               | 56.0                                  |                        |  |  |
|  |                | BTU/h                            | 191,100                               |                        |  |  |
|  | Power input    | kW                               | 21.13                                 |                        |  |  |
|  | Current input  | A                                | 35.6-33.8-32.6                        |                        |  |  |
|  | EER            | kW/kW                            | 2.65                                  |                        |  |  |
|  |                | SEER                             | kW/kW                                 | 6.64                   |  |  |
| Temp. range of cooling                                 | *4             | Indoor                           | W.B.                                  | 15.0~24.0°C (59~75°F)  |  |  |
|  |                | Outdoor                          | D.B.                                  | -5.0~52.0°C (23~126°F) |  |  |
| Heating capacity (Max)                                 | *2             | kW                               | 63.0                                  |                        |  |  |
|  |                | BTU/h                            | 215,000                               |                        |  |  |
|  | Power input    | kW                               | 19.74                                 |                        |  |  |
|  | Current input  | A                                | 33.3-31.6-30.5                        |                        |  |  |
|  | COP            | kW/kW                            | 3.19                                  |                        |  |  |
|  | (Nominal)      | *3                               | kW                                    | 56.0                   |  |  |
|  |                |                                  | BTU/h                                 | 191,100                |  |  |
|  |                | Power input                      | kW                                    | 15.17                  |  |  |
|  |                | Current input                    | A                                     | 25.6-24.3-23.4         |  |  |
|  |                | COP                              | kW/kW                                 | 3.69                   |  |  |
|  |                | SCOP                             | kW/kW                                 | 4.01                   |  |  |
| Temp. range of heating                                 | *4             | 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 | P10~P250, M20~M140/1~50          |                                       |                        |  |  |
| Sound pressure level (measured in anechoic room) *5, 6 |                | dB <A>                           | 63.5/67.0                             |                        |  |  |
| Sound power level (measured in anechoic room) *5       |                | dB <A>                           | 81/86                                 |                        |  |  |
| Refrigerant piping diameter                            | High pressure  | mm (in.)                         | 22.2 (7/8) Brazed                     |                        |  |  |
|  | Low pressure   | mm (in.)                         | 28.58 (1-1/8) Brazed                  |                        |  |  |

|                                       |                              |   |  |  |  |
|---------------------------------------|------------------------------|---|--|--|--|
| Set Model                             |                              |   |  |  |  |
| Model                                 |                              | <b>PURY-P250YNW-A2/TR2/RU2 (-BS)</b>  |  | <b>PURY-P250YNW-A2/TR2/RU2 (-BS)</b>   |  |
| FAN                                   | Type x Quantity              |   | Propeller fan x 1  |  | Propeller fan x 1  |
|                                       | Air flow rate                | m <sup>3</sup> /min   | 220  |  | 220  |
|                                       |                              | L/s   | 3,667  |  | 3,667  |
|                                       |                              | cfm   | 7,768  |  | 7,768  |
|                                       | Control, Driving mechanism   |   | Inverter-control, Direct-driven by motor                         |  | Inverter-control, Direct-driven by motor                         |
|                                       | Motor output                 | kW  | 0.92 x 1   |  | 0.92 x 1   |
| *7 External static press.             |                              | 0 Pa (0 mmH <sub>2</sub> O)   |  | 0 Pa (0 mmH <sub>2</sub> O)  |  |
| Compressor                            | Type x Quantity              |   | Inverter scroll hermetic compressor x 1                          |  | Inverter scroll hermetic compressor x 1                          |
|                                       | Starting method              |   | Inverter   |  | Inverter   |
|                                       | Motor output                 | kW  | 8.0  |  | 8.0  |
|                                       | Case heater                  |   | -  |  | -  |
|                                       | Lubricant                    |   | MEL32  |  | MEL32  |
| External finish                       |                              | Pre-coated galvanized steel sheets (+powder coating for -BS type)<br><MUNSELL 5Y 8/1 or similar>  |  | 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                           |  | 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               |  | 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) |  | High pressure sensor, High pressure switch at 4.15 MPa (601 psi) |
|                                       | Inverter circuit (COMP./FAN) |   | Over-heat protection, Over-current protection                    |  | Over-heat protection, Over-current protection                    |
|                                       | Compressor                   |   | -  |  | -  |
|                                       | Fan motor                    |   | -  |  | -  |
| Refrigerant                           | Type x original charge       |   | R410A x 5.2 kg (12 lbs)  |  | R410A x 5.2 kg (12 lbs)  |
|                                       | Control                      |   | Indoor LEV and BC controller                                     |  |  |
| Net weight                            | kg (lbs)                     | 223 (492)   |  | 223 (492)  |  |
| Heat exchanger                        |                              | Salt-resistant cross fin & copper tube  |  | Salt-resistant cross fin & copper tube   |  |
| HIC circuit (HIC: Heat Inter-Changer) |                              | -   |  | -  |  |
| Pipe between unit and distributor     | High pressure                | mm (in.)  | 19.05 (3/4) Brazed   |  | 19.05 (3/4) Brazed   |
|                                       | Low pressure                 | mm (in.)  | 22.2 (7/8) Brazed  |  | 22.2 (7/8) Brazed  |
| Defrosting method                     |                              | Auto-defrost mode (Reversed refrigerant cycle)  |  |  |  |
| Drawing                               | External                     | WKB94C4VZ   |  |  |  |
|                                       | Wiring                       | WKE94L190   |  | WKE94L190  |  |
| Standard attachment                   | Document                     | Installation Manual   |  |  |  |
|                                       | Accessory                    | -   |  |  |  |
| Optional parts                        |                              | Outdoor Twinning kit: CMY-R100VBK4<br>Joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-R160-J1<br>Main BC controller: CMB-M108, 1012, 1016V-JA1, CMB-P1016V-KA1<br>Sub BC controller: CMB-M104, 108V-KB1  |  |  |  |
| 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:   |  | Unit converter |   |
| 1. Nominal cooling conditions (subject to JIS B8615-2)<br>Indoor: 27°C D.B./19°C W.B. (81°F D.B./66°F W.B.), Outdoor: 35°C D.B./24°C W.B. (95°F D.B./75°F W.B.)<br>Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)         |  | BTU/h          | =kW x 3,412   |
| 2. Nominal heating conditions (subject to JIS B8615-2)<br>Indoor: 20°C D.B. (68°F D.B.), Outdoor: 7°C D.B./6°C W.B. (45°F D.B./43°F W.B.)<br>Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)                               |  | cfm            | =m <sup>3</sup> /min x 35.31                                |
| 3. Nominal heating conditions (subject to JIS B8615-2)<br>Indoor: 20°C D.B. (68°F D.B.), Outdoor: 7°C D.B./6°C W.B. (45°F D.B./43°F W.B.)<br>Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)<br>Eurovent registered        |  | lbs            | =kg/0.4536  |
| 4. -10 °C D.B. (14 °F D.B.)/-11 °C W.B. (12 °F W.B.) to 21 °C D.B. (70 °F D.B.)/15.5 °C W.B. (60 °F W.B.)<br>with cooling/heating mixed operation.   |  |                |   |
| 5. Cooling mode/Heating mode   |  |                |   |
| 6. The sound pressure level measured by the conventional method in JIS for reference purpose.  |  |                |   |
| 7. External static pressure option is available (30 Pa, 60 Pa, 80 Pa/3.1 mmH <sub>2</sub> O, 6.1 mmH <sub>2</sub> O, 8.2 mmH <sub>2</sub> O).<br>Consult your dealer about the specification when setting External static pressure option. |  |                | *Above specification data is subject to rounding variation. |

# 1. SPECIFICATIONS

|  |                |                                       |   |                |
|--|----------------|---------------------------------------|---|----------------|
| Model  |                | <b>PURY-P550YSNW-A2/TR2/RU2 (-BS)</b> |   |                |
| Power source   |                | 3-phase 4-wire 380-400-415 V 50/60 Hz |   |                |
| Cooling capacity                                       | *1             | kW                                    | 61.5  |                |
|  |                | BTU/h                                 | 209,800   |                |
|  |                | Power input kW                        | 22.69   |                |
|  |                | Current input A                       | 38.3-36.3-35.0  |                |
|  |                | EER                                   | 2.71  |                |
|  |                | SEER                                  | 6.40  |                |
| Temp. range of cooling                                 | *4             | Indoor                                | W.B. 15.0~24.0°C (59~75°F)  |                |
|  |                | Outdoor                               | D.B. -5.0~52.0°C (23~126°F)   |                |
| Heating capacity (Max)                                 | *2             | kW                                    | 65.0  |                |
|  |                | BTU/h                                 | 221,800   |                |
|  |                | Power input kW                        | 19.81   |                |
|  |                | Current input A                       | 33.4-31.7-30.6  |                |
|  |                | COP                                   | 3.28  |                |
|  | (Nominal)      | *3                                    | kW  | 61.5           |
|  |                |                                       | BTU/h   | 209,800        |
|  |                |                                       | Power input kW  | 17.42          |
|  |                |                                       | Current input A   | 29.4-27.9-26.9 |
|  |                |                                       | COP   | 3.53           |
|  |                | SCOP                                  | 4.01  |                |
| Temp. range of heating                                 | *4             | 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 |                                       | P10~P250, M20~M140/2~50   |                |
| Sound pressure level (measured in anechoic room) *5, 6 |                | dB <A>                                | 64.0/69.0   |                |
| Sound power level (measured in anechoic room) *5       |                | dB <A>                                | 83/88   |                |
| Refrigerant piping diameter                            | High pressure  | mm (in.)                              | 22.2 (7/8) Brazed (28.58 (1-1/8) Brazed for the part that exceeds 65 m) |                |
|  | Low pressure   | mm (in.)                              | 28.58 (1-1/8) Brazed  |                |

|                                       |                              |   |  |  |  |                             |  |
|---------------------------------------|------------------------------|---|--|--|--|-----------------------------|--|
| Set Model                             |                              |   |  |  |  |                             |  |
| Model                                 |                              | <b>PURY-P300YNW-A2/TR2/RU2 (-BS)</b>  |  | <b>PURY-P250YNW-A2/TR2/RU2 (-BS)</b>   |  |                             |  |
| FAN                                   | Type x Quantity              |   | Propeller fan x 1  |  | Propeller fan x 1  |                             |  |
|                                       | Air flow rate                | m <sup>3</sup> /min   | 240  |  | 220  |                             |  |
|                                       |                              | L/s   | 4,000  |  | 3,667  |                             |  |
|                                       |                              | cfm   | 8,474  |  | 7,768  |                             |  |
|                                       | Control, Driving mechanism   |   | Inverter-control, Direct-driven by motor                         |  | Inverter-control, Direct-driven by motor                         |                             |  |
|                                       | *7                           | Motor output  | kW   | 0.92 x 1   |  | 0.92 x 1                    |  |
|                                       |                              | External static press.  |  | 0 Pa (0 mmH <sub>2</sub> O)  |  | 0 Pa (0 mmH <sub>2</sub> O) |  |
| Type x Quantity                       |                              | Inverter scroll hermetic compressor x 1   |  | Inverter scroll hermetic compressor x 1  |  |                             |  |
| Compressor                            | Starting method              |   | Inverter   |  | Inverter   |                             |  |
|                                       | Motor output                 | kW  | 9.2  |  | 8.0  |                             |  |
|                                       | Case heater                  | kW  | -  |  | -  |                             |  |
|                                       | Lubricant                    |   | MEL32  |  | MEL32  |                             |  |
| External finish                       |                              | Pre-coated galvanized steel sheets (+powder coating for -BS type)<br><MUNSELL 5Y 8/1 or similar>  |  | 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                           |  | 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               |  | 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) |  | High pressure sensor, High pressure switch at 4.15 MPa (601 psi) |                             |  |
|                                       | Inverter circuit (COMP./FAN) |   | Over-heat protection, Over-current protection                    |  | Over-heat protection, Over-current protection                    |                             |  |
|                                       | Compressor                   |   | -  |  | -  |                             |  |
|                                       | Fan motor                    |   | -  |  | -  |                             |  |
| Refrigerant                           | Type x original charge       |   | R410A x 5.2 kg (12 lbs)  |  | R410A x 5.2 kg (12 lbs)  |                             |  |
|                                       | Control                      |   | Indoor LEV and BC controller                                     |  |  |                             |  |
| Net weight                            |                              | kg (lbs)  | 225 (497)  |  | 223 (492)  |                             |  |
| Heat exchanger                        |                              | Salt-resistant cross fin & copper tube  |  | Salt-resistant cross fin & copper tube   |  |                             |  |
| HIC circuit (HIC: Heat Inter-Changer) |                              | -   |  | -  |  |                             |  |
| Pipe between unit and distributor     | High pressure                | mm (in.)  | 19.05 (3/4) Brazed   |  | 19.05 (3/4) Brazed   |                             |  |
|                                       | Low pressure                 | mm (in.)  | 22.2 (7/8) Brazed  |  | 22.2 (7/8) Brazed  |                             |  |
| Defrosting method                     |                              | Auto-defrost mode (Reversed refrigerant cycle)  |  |  |  |                             |  |
| Drawing                               | External                     | WKB94C4VZ   |  |  |  |                             |  |
|                                       | Wiring                       | WKE94L190   |  | WKE94L190  |  |                             |  |
| Standard attachment                   | Document                     | Installation Manual   |  |  |  |                             |  |
|                                       | Accessory                    | -   |  |  |  |                             |  |
| Optional parts                        |                              | Outdoor Twinning kit: CMY-R100VBK4<br>Joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-R160-J1<br>Main BC controller: CMB-M108, 1012, 1016V-JA1, CMB-P1016V-KA1<br>Sub BC controller: CMB-M104, 108V-KB1  |  |  |  |                             |  |
| 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:   |  | Unit converter  |                              |
| 1. Nominal cooling conditions (subject to JIS B8615-2)<br>Indoor: 27°C D.B./19°C W.B. (81°F D.B./66°F W.B.), Outdoor: 35°C D.B./24°C W.B. (95°F D.B./75°F W.B.)<br>Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)         |  | BTU/h   | =kW x 3,412                  |
| 2. Nominal heating conditions (subject to JIS B8615-2)<br>Indoor: 20°C D.B. (68°F D.B.), Outdoor: 7°C D.B./6°C W.B. (45°F D.B./43°F W.B.)<br>Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)                               |  | cfm   | =m <sup>3</sup> /min x 35.31 |
| 3. Nominal heating conditions (subject to JIS B8615-2)<br>Indoor: 20°C D.B. (68°F D.B.), Outdoor: 7°C D.B./6°C W.B. (45°F D.B./43°F W.B.)<br>Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)<br>Eurovent registered        |  | lbs   | =kg/0.4536                   |
| 4. -10 °C D.B. (14 °F D.B.)/-11 °C W.B. (12 °F W.B.) to 21 °C D.B. (70 °F D.B.)/15.5 °C W.B. (60 °F W.B.)<br>with cooling/heating mixed operation.   |  |   |                              |
| 5. Cooling mode/Heating mode   |  |   |                              |
| 6. The sound pressure level measured by the conventional method in JIS for reference purpose.  |  |   |                              |
| 7. External static pressure option is available (30 Pa, 60 Pa, 80 Pa/3.1 mmH <sub>2</sub> O, 6.1 mmH <sub>2</sub> O, 8.2 mmH <sub>2</sub> O).<br>Consult your dealer about the specification when setting External static pressure option. |  | *Above specification data is subject to rounding variation. |                              |

# 1. SPECIFICATIONS

R2-Series

PURY-P-Y(S)NW-A2/TR2/RU2

|  |                |                                  |   |                        |                |  |  |
|--|----------------|----------------------------------|---|------------------------|----------------|--|--|
| Model  |                |                                  | <b>PURY-P600YSNW-A2/TR2/RU2 (-BS)</b>                                   |                        |                |  |  |
| Power source   |                |                                  | 3-phase 4-wire 380-400-415 V 50/60 Hz                                   |                        |                |  |  |
| Cooling capacity                                       | *1             | kW                               | 67.0  |                        |                |  |  |
|  |                | BTU/h                            | 228,600   |                        |                |  |  |
|  |                | Power input                      | kW  | 24.27                  |                |  |  |
|  |                | Current input                    | A   | 40.9-38.9-37.5         |                |  |  |
|  |                | EER                              | kW/kW   | 2.76                   |                |  |  |
|  |                | SEER                             | kW/kW   | 6.15                   |                |  |  |
| Temp. range of cooling                                 | *4             | Indoor                           | W.B.  | 15.0~24.0°C (59~75°F)  |                |  |  |
|  |                | Outdoor                          | D.B.  | -5.0~52.0°C (23~126°F) |                |  |  |
| Heating capacity (Max)                                 | *2             | kW                               | 67.0  |                        |                |  |  |
|  |                | BTU/h                            | 228,600   |                        |                |  |  |
|  |                | Power input                      | kW  | 19.81                  |                |  |  |
|  |                | Current input                    | A   | 33.4-31.7-30.6         |                |  |  |
|  |                | COP                              | kW/kW   | 3.38                   |                |  |  |
|  | (Nominal)      | *3                               | kW  | 67.0                   |                |  |  |
|  |                |                                  | BTU/h   | 228,600                |                |  |  |
|  |                |                                  | Power input   | kW                     | 19.82          |  |  |
|  |                |                                  | Current input   | A                      | 33.4-31.7-30.6 |  |  |
|  |                |                                  | COP   | kW/kW                  | 3.38           |  |  |
|  |                | SCOP                             | kW/kW   | 4.01                   |                |  |  |
| Temp. range of heating                                 | *4             | 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 | P10~P250, M20~M140/2~50          |   |                        |                |  |  |
| Sound pressure level (measured in anechoic room) *5, 6 | dB <A>         | 64.0/70.0                        |   |                        |                |  |  |
| Sound power level (measured in anechoic room) *5       | dB <A>         | 83/89                            |   |                        |                |  |  |
| Refrigerant piping diameter                            | High pressure  | mm (in.)                         | 22.2 (7/8) Brazed (28.58 (1-1/8) Brazed for the part that exceeds 65 m) |                        |                |  |  |
|  | Low pressure   | mm (in.)                         | 28.58 (1-1/8) Brazed  |                        |                |  |  |

|                                       |                              |   |  |  |  |  |
|---------------------------------------|------------------------------|---|--|--|--|--|
| Set Model                             |                              |   |  |  |  |  |
| Model                                 |                              | <b>PURY-P300YNW-A2/TR2/RU2 (-BS)</b>  |  | <b>PURY-P300YNW-A2/TR2/RU2 (-BS)</b>   |  |  |
| FAN                                   | Type x Quantity              | Propeller fan x 1   |  | Propeller fan x 1  |  |  |
|                                       | Air flow rate                | m <sup>3</sup> /min   | 240  |  | 240  |  |
|                                       |                              | L/s   | 4,000  |  | 4,000  |  |
|                                       |                              | cfm   | 8,474  |  | 8,474  |  |
|                                       | Control, Driving mechanism   | Inverter-control, Direct-driven by motor  |  | Inverter-control, Direct-driven by motor   |  |  |
|                                       | Motor output                 | kW  | 0.92 x 1   |  | 0.92 x 1   |  |
| External static press.                |                              | 0 Pa (0 mmH <sub>2</sub> O)   |  | 0 Pa (0 mmH <sub>2</sub> O)  |  |  |
| Compressor                            | Type x Quantity              | Inverter scroll hermetic compressor x 1   |  | Inverter scroll hermetic compressor x 1  |  |  |
|                                       | Starting method              | Inverter  |  | Inverter   |  |  |
|                                       | Motor output                 | kW  | 9.2  |  | 9.2  |  |
|                                       | Case heater                  | kW  | -  |  | -  |  |
|                                       | Lubricant                    |   | MEL32  |  | MEL32  |  |
| External finish                       |                              | Pre-coated galvanized steel sheets (+powder coating for -BS type)<br><MUNSELL 5Y 8/1 or similar>  |  | 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  |  | 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 |  | 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)  |  | High pressure sensor, High pressure switch at 4.15 MPa (601 psi)                                 |  |  |
|                                       | Inverter circuit (COMP./FAN) | Over-heat protection, Over-current protection   |  | Over-heat protection, Over-current protection  |  |  |
|                                       | Compressor                   | -   |  | -  |  |  |
|                                       | Fan motor                    | -   |  | -  |  |  |
| Refrigerant                           | Type x original charge       | R410A x 5.2 kg (12 lbs)   |  | R410A x 5.2 kg (12 lbs)  |  |  |
|                                       | Control                      | Indoor LEV and BC controller  |  |  |  |  |
| Net weight                            | kg (lbs)                     | 225 (497)   |  | 225 (497)  |  |  |
| Heat exchanger                        |                              | Salt-resistant cross fin & copper tube  |  | Salt-resistant cross fin & copper tube   |  |  |
| HIC circuit (HIC: Heat Inter-Changer) |                              | -   |  | -  |  |  |
| Pipe between unit and distributor     | High pressure                | mm (in.)  | 19.05 (3/4) Brazed                                 |  | 19.05 (3/4) Brazed                                 |  |
|                                       | Low pressure                 | mm (in.)  | 22.2 (7/8) Brazed                                  |  | 22.2 (7/8) Brazed                                  |  |
| Defrosting method                     |                              | Auto-defrost mode (Reversed refrigerant cycle)  |  |  |  |  |
| Drawing                               | External                     | WKB94C4VZ   |  |  |  |  |
|                                       | Wiring                       | WKE94L190   |  | WKE94L190  |  |  |
| Standard attachment                   | Document                     | Installation Manual   |  |  |  |  |
|                                       | Accessory                    | -   |  |  |  |  |
| Optional parts                        |                              | Outdoor Twinning kit: CMY-R100VBK4<br>Joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-R160-J1<br>Main BC controller: CMB-M108, 1012, 1016V-JA1, CMB-P1016V-KA1<br>Sub BC controller: CMB-M104, 108V-KB1  |  |  |  |  |
| 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:   | Unit converter  |
| 1. Nominal cooling conditions (subject to JIS B8615-2)<br>Indoor: 27°C D.B./19°C W.B. (81°F D.B./66°F W.B.), Outdoor: 35°C D.B./24°C W.B. (95°F D.B./75°F W.B.)<br>Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)         | BTU/h = kW x 3,412  |
| 2. Nominal heating conditions (subject to JIS B8615-2)<br>Indoor: 20°C D.B. (68°F D.B.), Outdoor: 7°C D.B./6°C W.B. (45°F D.B./43°F W.B.)<br>Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)                               | cfm = m <sup>3</sup> /min x 35.31                           |
| 3. Nominal heating conditions (subject to JIS B8615-2)<br>Indoor: 20°C D.B. (68°F D.B.), Outdoor: 7°C D.B./6°C W.B. (45°F D.B./43°F W.B.)<br>Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)<br>Eurovent registered        | lbs = kg/0.4536   |
| 4. -10 °C D.B. (14 °F D.B.)/-11 °C W.B. (12 °F W.B.) to 21 °C D.B. (70 °F D.B.)/15.5 °C W.B. (60 °F W.B.)<br>with cooling/heating mixed operation.   |   |
| 5. Cooling mode/Heating mode   |   |
| 6. The sound pressure level measured by the conventional method in JIS for reference purpose.  |   |
| 7. External static pressure option is available (30 Pa, 60 Pa, 80 Pa/3.1 mmH <sub>2</sub> O, 6.1 mmH <sub>2</sub> O, 8.2 mmH <sub>2</sub> O).<br>Consult your dealer about the specification when setting External static pressure option. | *Above specification data is subject to rounding variation. |

# 1. SPECIFICATIONS

R2-Series

PURY-P-Y(S)NW-A2/TR2/RU2

| Model  |                 | PURY-P650YSNW-A2/TR2/RU2 (-BS)        |                        |  |
|--|-----------------|---------------------------------------|------------------------|--|
| Power source   |                 | 3-phase 4-wire 380-400-415 V 50/60 Hz |                        |  |
| Cooling capacity                                       | *1 kW           | 73.5                                  |                        |  |
|  | BTU/h           | 250,800                               |                        |  |
|  | Power input kW  | 27.42                                 |                        |  |
|  | Current input A | 46.2-43.9-42.3                        |                        |  |
|  | EER             | 2.68                                  |                        |  |
| SEER   | 5.98            |                                       |                        |  |
| Temp. range of cooling                                 | *4 Indoor       | W.B.                                  | 15.0~24.0°C (59~75°F)  |  |
|  | Outdoor         | D.B.                                  | -5.0~52.0°C (23~126°F) |  |
| Heating capacity (Max)                                 | *2 kW           | 78.5                                  |                        |  |
|  | BTU/h           | 267,800                               |                        |  |
|  | Power input kW  | 24.07                                 |                        |  |
|  | Current input A | 40.6-38.6-37.2                        |                        |  |
|  | COP             | 3.26                                  |                        |  |
|  | (Nominal)       | *3 kW                                 | 73.5                   |  |
|  |                 | BTU/h                                 | 250,800                |  |
|  |                 | Power input kW                        | 21.18                  |  |
|  |                 | Current input A                       | 35.7-33.9-32.7         |  |
|  |                 | COP                                   | 3.47                   |  |
| SCOP   | 3.53            |                                       |                        |  |
| Temp. range of heating                                 | *4 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  | P10~P250, M20~M140/2~50               |                        |  |
| Sound pressure level (measured in anechoic room) *5, 6 | dB <A>          | 65.0/69.0                             |                        |  |
| Sound power level (measured in anechoic room) *5       | dB <A>          | 84/88                                 |                        |  |
| Refrigerant piping diameter                            | High pressure   | mm (in.)                              | 28.58 (1-1/8) Brazed   |  |
|  | Low pressure    | mm (in.)                              | 28.58 (1-1/8) Brazed   |  |

| Set Model                             |   |  |   |  |          |  |
|---------------------------------------|---|--|---|--|----------|--|
| Model                                 |   | PURY-P350YNW-A2/TR2/RU2 (-BS)                                    |   | PURY-P300YNW-A2/TR2/RU2 (-BS)                                    |          |  |
| FAN                                   | Type x Quantity   | Propeller fan x 2  |   | Propeller fan x 1  |          |  |
|                                       | Air flow rate   | m <sup>3</sup> /min  | 250   |  | 240      |  |
|                                       |   | L/s  | 4,167   |  | 4,000    |  |
|                                       |   | cfm  | 8,828   |  | 8,474    |  |
|                                       | Control, Driving mechanism  | Inverter-control, Direct-driven by motor                         |   | Inverter-control, Direct-driven by motor                         |          |  |
|                                       | Motor output  | kW   | 0.46 x 2  |  | 0.92 x 1 |  |
|                                       | *7 External static press.   | 0 Pa (0 mmH <sub>2</sub> O)                                      |   | 0 Pa (0 mmH <sub>2</sub> O)                                      |          |  |
| Compressor                            | Type x Quantity   | Inverter scroll hermetic compressor x 1                          |   | Inverter scroll hermetic compressor x 1                          |          |  |
|                                       | Starting method   | Inverter   |   | Inverter   |          |  |
|                                       | Motor output  | kW   | 12.0  |  | 9.2      |  |
|                                       | Case heater   | kW   | -   |  | -        |  |
|                                       | Lubricant   | MEL32  |   | MEL32  |          |  |
| External finish                       | Pre-coated galvanized steel sheets (+powder coating for -BS type)   |  | Pre-coated galvanized steel sheets (+powder coating for -BS type) |  |          |  |
|                                       | <MUNSELL 5Y 8/1 or similar>   |  | <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                         |   | 1,858 (1,798 without legs) x 920 x 740                           |          |  |
|                                       | in.   | 73-3/16 (70-13/16 without legs) x 48-7/8 x 29-3/16               |   | 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) |   | High pressure sensor, High pressure switch at 4.15 MPa (601 psi) |          |  |
|                                       | Inverter circuit (COMP./FAN)  | Over-heat protection, Over-current protection                    |   | Over-heat protection, Over-current protection                    |          |  |
|                                       | Compressor  | -  |   | -  |          |  |
|                                       | Fan motor   | -  |   | -  |          |  |
| Refrigerant                           | Type x original charge  | R410A x 8.0 kg (18 lbs)  |   | R410A x 5.2 kg (12 lbs)  |          |  |
|                                       | Control   | Indoor LEV and BC controller                                     |   |  |          |  |
| Net weight                            | kg (lbs)  | 269 (594)  |   | 225 (497)  |          |  |
| Heat exchanger                        | Salt-resistant cross fin & copper tube  |  | Salt-resistant cross fin & copper tube                            |  |          |  |
| HIC circuit (HIC: Heat Inter-Changer) | -   |  | -   |  |          |  |
| Pipe between unit and distributor     | High pressure   | mm (in.)   | 19.05 (3/4) Brazed  |  |          |  |
|                                       | Low pressure  | mm (in.)   | 28.58 (1-1/8) Brazed  |  |          |  |
| Defrosting method                     | Auto-defrost mode (Reversed refrigerant cycle)  |  |   |  |          |  |
| Drawing                               | External  | WKB94C4W0  |   |  |          |  |
|                                       | Wiring  | WKE94L191  | WKE94L190   |  |          |  |
| Standard attachment                   | Document  | Installation Manual  |   |  |          |  |
|                                       | Accessory   | -  |   |  |          |  |
| Optional parts                        | Outdoor Twinning kit: CMY-R100VBK4<br>Joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-R160-J1<br>Main BC controller: CMB-M108, 1012, 1016V-JA1, CMB-P1016V-KA1<br>Sub BC controller: CMB-M104, 108V-KB1  |  |   |  |          |  |
| 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:   | Unit converter  |
|--|---|
| 1. Nominal cooling conditions (subject to JIS B8615-2)<br>Indoor: 27°C D.B./19°C W.B. (81°F D.B./66°F W.B.), Outdoor: 35°C D.B./24°C W.B. (95°F D.B./75°F W.B.)<br>Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)         | BTU/h =kW x 3,412   |
| 2. Nominal heating conditions (subject to JIS B8615-2)<br>Indoor: 20°C D.B. (68°F D.B.), Outdoor: 7°C D.B./6°C W.B. (45°F D.B./43°F W.B.)<br>Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)                               | cfm =m <sup>3</sup> /min x 35.31                            |
| 3. Nominal heating conditions (subject to JIS B8615-2)<br>Indoor: 20°C D.B. (68°F D.B.), Outdoor: 7°C D.B./6°C W.B. (45°F D.B./43°F W.B.)<br>Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)<br>Eurovent registered        | lbs =kg/0.4536  |
| 4. -10 °C D.B. (14 °F D.B.)/-11 °C W.B. (12 °F W.B.) to 21 °C D.B. (70 °F D.B.)/15.5 °C W.B. (60 °F W.B.)<br>with cooling/heating mixed operation.   |   |
| 5. Cooling mode/Heating mode   |   |
| 6. The sound pressure level measured by the conventional method in JIS for reference purpose.  |   |
| 7. External static pressure option is available (30 Pa, 60 Pa, 80 Pa/3.1 mmH <sub>2</sub> O, 6.1 mmH <sub>2</sub> O, 8.2 mmH <sub>2</sub> O).<br>Consult your dealer about the specification when setting External static pressure option. | *Above specification data is subject to rounding variation. |



# 1. SPECIFICATIONS

PURY-P-Y(S)NW-A2/TR2/RU2

|  |                |                                  |                                       |                |  |  |
|--|----------------|----------------------------------|---------------------------------------|----------------|--|--|
| Model  |                |                                  | <b>PURY-P700YSNW-A2/TR2/RU2 (-BS)</b> |                |  |  |
| Power source   |                |                                  | 3-phase 4-wire 380-400-415 V 50/60 Hz |                |  |  |
| Cooling capacity                                       | *1             | kW                               | 80.0                                  |                |  |  |
|  |                | BTU/h                            | 273,000                               |                |  |  |
|  |                | Power input kW                   | 30.76                                 |                |  |  |
|  |                | Current input A                  | 51.9-49.3-47.5                        |                |  |  |
|  |                | EER                              | 2.60                                  |                |  |  |
| Temp. range of cooling                                 | *4             | Indoor                           | W.B.                                  |                |  |  |
|  |                | Outdoor                          | D.B.                                  |                |  |  |
| Heating capacity (Max)                                 | *2             | kW                               | 90.0                                  |                |  |  |
|  |                | BTU/h                            | 307,100                               |                |  |  |
|  |                | Power input kW                   | 28.66                                 |                |  |  |
|  |                | Current input A                  | 48.3-45.9-44.3                        |                |  |  |
|  |                | COP                              | 3.14                                  |                |  |  |
|  | (Nominal)      | *3                               | kW                                    | 80.0           |  |  |
|  |                |                                  | BTU/h                                 | 273,000        |  |  |
|  |                |                                  | Power input kW                        | 22.47          |  |  |
|  |                |                                  | Current input A                       | 37.9-36.0-34.7 |  |  |
|  |                |                                  | COP                                   | 3.56           |  |  |
| Temp. range of heating                                 | *4             | Indoor                           | D.B.                                  |                |  |  |
|  |                | Outdoor                          | W.B.                                  |                |  |  |
| Indoor unit connectable                                | Total capacity | 50~150% of outdoor unit capacity |                                       |                |  |  |
|  | Model/Quantity | P10~P250, M20~M140/2~50          |                                       |                |  |  |
| Sound pressure level (measured in anechoic room) *5, 6 |                | dB <A>                           | 65.5/67.0                             |                |  |  |
| Sound power level (measured in anechoic room) *5       |                | dB <A>                           | 84/86                                 |                |  |  |
| Refrigerant piping diameter                            | High pressure  | mm (in.)                         | 28.58 (1-1/8) Brazed                  |                |  |  |
|  | Low pressure   | mm (in.)                         | 34.93 (1-3/8) Brazed                  |                |  |  |

|                                       |                              |   |  |  |  |  |
|---------------------------------------|------------------------------|---|--|--|--|--|
| Set Model                             |                              |   |  |  |  |  |
| Model                                 |                              | <b>PURY-P350YNW-A2/TR2/RU2 (-BS)</b>  |  | <b>PURY-P350YNW-A2/TR2/RU2 (-BS)</b>   |  |  |
| FAN                                   | Type x Quantity              |   | Propeller fan x 2  |  | Propeller fan x 2  |  |
|                                       | Air flow rate                | m <sup>3</sup> /min   | 250  |  | 250  |  |
|                                       |                              | L/s   | 4,167  |  | 4,167  |  |
|                                       |                              | cfm   | 8,828  |  | 8,828  |  |
|                                       | Control, Driving mechanism   |   | Inverter-control, Direct-driven by motor                         |  | Inverter-control, Direct-driven by motor                         |  |
|                                       | Motor output                 | kW  | 0.46 x 2   |  | 0.46 x 2   |  |
| External static press.                |                              | 0 Pa (0 mmH <sub>2</sub> O)   |  | 0 Pa (0 mmH <sub>2</sub> O)  |  |  |
| Compressor                            | Type x Quantity              |   | Inverter scroll hermetic compressor x 1                          |  | Inverter scroll hermetic compressor x 1                          |  |
|                                       | Starting method              |   | Inverter   |  | Inverter   |  |
|                                       | Motor output                 | kW  | 12.0   |  | 12.0   |  |
|                                       | Case heater                  |   | -  |  | -  |  |
|                                       | Lubricant                    |   | MEL32  |  | MEL32  |  |
| External finish                       |                              | Pre-coated galvanized steel sheets (+powder coating for -BS type)<br><MUNSELL 5Y 8/1 or similar>  |  | 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                         |  | 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               |  | 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) |  | High pressure sensor, High pressure switch at 4.15 MPa (601 psi) |  |
|                                       | Inverter circuit (COMP./FAN) |   | Over-heat protection, Over-current protection                    |  | Over-heat protection, Over-current protection                    |  |
|                                       | Compressor                   |   | -  |  | -  |  |
|                                       | Fan motor                    |   | -  |  | -  |  |
| Refrigerant                           | Type x original charge       |   | R410A x 8.0 kg (18 lbs)  |  | R410A x 8.0 kg (18 lbs)  |  |
|                                       | Control                      |   | Indoor LEV and BC controller                                     |  |  |  |
| Net weight                            |                              | kg (lbs)  | 269 (594)  |  | 269 (594)  |  |
| Heat exchanger                        |                              | Salt-resistant cross fin & copper tube  |  |  |  |  |
| HIC circuit (HIC: Heat Inter-Changer) |                              | -   |  |  |  |  |
| Pipe between unit and distributor     | High pressure                | mm (in.)  | 19.05 (3/4) Brazed   |  | 19.05 (3/4) Brazed   |  |
|                                       | Low pressure                 | mm (in.)  | 28.58 (1-1/8) Brazed   |  | 28.58 (1-1/8) Brazed   |  |
| Defrosting method                     |                              | Auto-defrost mode (Reversed refrigerant cycle)  |  |  |  |  |
| Drawing                               | External                     | WKB94C4W1   |  |  |  |  |
|                                       | Wiring                       | WKE94L191   |  | WKE94L191  |  |  |
| Standard attachment                   | Document                     | Installation Manual   |  |  |  |  |
|                                       | Accessory                    | -   |  |  |  |  |
| Optional parts                        |                              | Outdoor Twinning kit: CMY-R200VBK4<br>Joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-R160-J1<br>Main BC controller: CMB-M108, 1012, 1016V-JA1, CMB-P1016V-KA1<br>Sub BC controller: CMB-M104, 108V-KB1  |  |  |  |  |
| 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:   |  | Unit converter  |                              |
| 1. Nominal cooling conditions (subject to JIS B8615-2)<br>Indoor: 27°C D.B./19°C C.W.B. (81°F D.B./66°F C.W.B.), Outdoor: 35°C D.B./24°C C.W.B. (95°F D.B./75°F C.W.B.)<br>Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.) |  | BTU/h   | =kW x 3,412                  |
| 2. Nominal heating conditions (subject to JIS B8615-2)<br>Indoor: 20°C D.B. (68°F D.B.), Outdoor: 7°C D.B./6°C C.W.B. (45°F D.B./43°F C.W.B.)<br>Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)                           |  | cfm   | =m <sup>3</sup> /min x 35.31 |
| 3. Nominal heating conditions (subject to JIS B8615-2)<br>Indoor: 20°C D.B. (68°F D.B.), Outdoor: 7°C D.B./6°C C.W.B. (45°F D.B./43°F C.W.B.)<br>Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)<br>Eurovent registered    |  | lbs   | =kg/0.4536                   |
| 4. -10 °C D.B. (14 °F D.B.)/-11 °C C.W.B. (12 °F C.W.B.) to 21 °C D.B. (70 °F D.B.)/15.5 °C C.W.B. (60 °F C.W.B.)<br>with cooling/heating mixed operation.   |  |   |                              |
| 5. Cooling mode/Heating mode   |  |   |                              |
| 6. The sound pressure level measured by the conventional method in JIS for reference purpose.  |  |   |                              |
| 7. External static pressure option is available (30 Pa, 60 Pa, 80 Pa/3.1 mmH <sub>2</sub> O, 6.1 mmH <sub>2</sub> O, 8.2 mmH <sub>2</sub> O).<br>Consult your dealer about the specification when setting External static pressure option. |  | *Above specification data is subject to rounding variation. |                              |



# 1. SPECIFICATIONS

| Model  |                | PURY-P750YSNW-A2/TR2/RU2 (-BS)        |                                  |                        |
|--|----------------|---------------------------------------|----------------------------------|------------------------|
| Power source   |                | 3-phase 4-wire 380-400-415 V 50/60 Hz |                                  |                        |
| Cooling capacity                                       | *1             | kW                                    | 85.0                             |                        |
|  |                | BTU/h                                 | 290,000                          |                        |
|  |                | Power input kW                        | 35.26                            |                        |
|  |                | Current input A                       | 59.5-56.5-54.5                   |                        |
|  |                | EER                                   | 2.41                             |                        |
|  | SEER           | kW/kW                                 | 5.72                             |                        |
| Temp. range of cooling                                 | *4             | Indoor                                | W.B.                             | 15.0~24.0°C (59~75°F)  |
|  |                | Outdoor                               | D.B.                             | -5.0~52.0°C (23~126°F) |
| Heating capacity (Max)                                 | *2             | kW                                    | 95.0                             |                        |
|  |                | BTU/h                                 | 324,100                          |                        |
|  |                | Power input kW                        | 31.35                            |                        |
|  |                | Current input A                       | 52.9-50.2-48.4                   |                        |
|  | (Nominal)      | *3                                    | COP                              | 3.03                   |
|  |                |                                       | kW                               | 85.0                   |
|  |                | BTU/h                                 | 290,000                          |                        |
|  |                | Power input kW                        | 24.92                            |                        |
|  |                | Current input A                       | 42.0-39.9-38.5                   |                        |
|  |                | COP                                   | kW/kW                            | 3.41                   |
|  | SCOP           | kW/kW                                 | 3.51                             |                        |
| Temp. range of heating                                 | *4             | 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 |                                       | P10~P250, M20~M140/2~50          |                        |
| Sound pressure level (measured in anechoic room) *5, 6 |                | dB <A>                                | 67.0/70.5                        |                        |
| Sound power level (measured in anechoic room) *5       |                | dB <A>                                | 86/90                            |                        |
| Refrigerant piping diameter                            | High pressure  | mm (in.)                              | 28.58 (1-1/8) Brazed             |                        |
|  | Low pressure   | mm (in.)                              | 34.93 (1-3/8) Brazed             |                        |

| Set Model                             |                              |   |  |   |  |          |
|---------------------------------------|------------------------------|---|--|---|--|----------|
| Model                                 |                              | PURY-P400YNW-A2/TR2/RU2 (-BS)   |  | PURY-P350YNW-A2/TR2/RU2 (-BS)           |  |          |
| FAN                                   | Type x Quantity              |   | Propeller fan x 2  |   | Propeller fan x 2  |          |
|                                       | Air flow rate                | m <sup>3</sup> /min   | 315  |   | 250  |          |
|                                       |                              | L/s   | 5,250  |   | 4,167  |          |
|                                       |                              | cfm   | 11,123   |   | 8,828  |          |
|                                       | Control, Driving mechanism   |   | Inverter-control, Direct-driven by motor   |   | Inverter-control, Direct-driven by motor   |          |
|                                       | *7                           | Motor output  | kW   | 0.46 x 2                                |  | 0.46 x 2 |
| External static press.                |                              | 0 Pa (0 mmH <sub>2</sub> O)   |  | 0 Pa (0 mmH <sub>2</sub> O)             |  |          |
| Type x Quantity                       |                              | Inverter scroll hermetic compressor x 1   |  | Inverter scroll hermetic compressor x 1 |  |          |
| Starting method                       |                              | Inverter  |  | Inverter                                |  |          |
| Compressor                            | Motor output                 | kW  | 16.1   |   | 12.0   |          |
|                                       | Case heater                  | kW  | -  |   | -  |          |
|                                       | Lubricant                    |   | MEL32  |   | MEL32  |          |
|                                       | External finish              |   | Pre-coated galvanized steel sheets (+powder coating for -BS type)<br><MUNSELL 5Y 8/1 or similar> |   | 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   |   | 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   |   | 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)                                 |   | High pressure sensor, High pressure switch at 4.15 MPa (601 psi)                                 |          |
|                                       | Inverter circuit (COMP./FAN) |   | Over-heat protection, Over-current protection  |   | Over-heat protection, Over-current protection  |          |
|                                       | Compressor                   |   | -  |   | -  |          |
|                                       | Fan motor                    |   | -  |   | -  |          |
| Refrigerant                           | Type x original charge       |   | R410A x 8.0 kg (18 lbs)  |   | R410A x 8.0 kg (18 lbs)  |          |
|                                       | Control                      |   | Indoor LEV and BC controller   |   |  |          |
| Net weight                            |                              | kg (lbs)  | 269 (594)  |   | 269 (594)  |          |
| Heat exchanger                        |                              | Salt-resistant cross fin & copper tube  |  | Salt-resistant cross fin & copper tube  |  |          |
| HIC circuit (HIC: Heat Inter-Changer) |                              | -   |  | -                                       |  |          |
| Pipe between unit and distributor     | High pressure                | mm (in.)  | 22.2 (7/8) Brazed  |   | 19.05 (3/4) Brazed   |          |
|                                       | Low pressure                 | mm (in.)  | 28.58 (1-1/8) Brazed   |   | 28.58 (1-1/8) Brazed   |          |
| Defrosting method                     |                              | Auto-defrost mode (Reversed refrigerant cycle)  |  |   |  |          |
| Drawing                               | External                     | WKB94C4W1   |  |   |  |          |
|                                       | Wiring                       | WKE94L191   |  | WKE94L191                               |  |          |
| Standard attachment                   | Document                     | Installation Manual   |  |   |  |          |
|                                       | Accessory                    | -   |  |   |  |          |
| Optional parts                        |                              | Outdoor Twinning kit: CMY-R200VBK4<br>Joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-R160-J1<br>Main BC controller: CMB-M108, 1012, 1016V-JA1, CMB-P1016V-KA1<br>Sub BC controller: CMB-M104, 108V-KB1  |  |   |  |          |
| 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:   | Unit converter  |
|--|---|
| 1. Nominal cooling conditions (subject to JIS B8615-2)<br>Indoor: 27°C D.B./19°C W.B. (81°F D.B./66°F W.B.), Outdoor: 35°C D.B./24°C W.B. (95°F D.B./75°F W.B.)<br>Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)         | BTU/h = kW x 3,412  |
| 2. Nominal heating conditions (subject to JIS B8615-2)<br>Indoor: 20°C D.B. (68°F D.B.), Outdoor: 7°C D.B./6°C W.B. (45°F D.B./43°F W.B.)<br>Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)                               | cfm = m <sup>3</sup> /min x 35.31                           |
| 3. Nominal heating conditions (subject to JIS B8615-2)<br>Indoor: 20°C D.B. (68°F D.B.), Outdoor: 7°C D.B./6°C W.B. (45°F D.B./43°F W.B.)<br>Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)<br>Eurovent registered        | lbs = kg/0.4536   |
| 4. -10 °C D.B. (14 °F D.B.)/-11 °C W.B. (12 °F W.B.) to 21 °C D.B. (70 °F D.B.)/15.5 °C W.B. (60 °F W.B.)<br>with cooling/heating mixed operation.   |   |
| 5. Cooling mode/Heating mode   |   |
| 6. The sound pressure level measured by the conventional method in JIS for reference purpose.  |   |
| 7. External static pressure option is available (30 Pa, 60 Pa, 80 Pa/3.1 mmH <sub>2</sub> O, 6.1 mmH <sub>2</sub> O, 8.2 mmH <sub>2</sub> O).<br>Consult your dealer about the specification when setting External static pressure option. | *Above specification data is subject to rounding variation. |

# 1. SPECIFICATIONS

R2-Series

PURY-P-Y(S)NW-A2/TR2/RU2

|                         |                |  |                                       |                        |                      |  |  |
|-------------------------|----------------|--|---------------------------------------|------------------------|----------------------|--|--|
| Model                   |                |  | <b>PURY-P800YSNW-A2/TR2/RU2 (-BS)</b> |                        |                      |  |  |
| Power source            |                |  | 3-phase 4-wire 380-400-415 V 50/60 Hz |                        |                      |  |  |
| Cooling capacity        | *1             | kW   | 90.0                                  |                        |                      |  |  |
|                         |                | BTU/h  | 307,100                               |                        |                      |  |  |
|                         |                | Power input kW   | 40.54                                 |                        |                      |  |  |
|                         |                | Current input A  | 68.4-65.0-62.6                        |                        |                      |  |  |
|                         |                | EER  | 2.22                                  |                        |                      |  |  |
| Temp. range of cooling  | *4             | Indoor   | W.B.                                  | 15.0~24.0°C (59~75°F)  |                      |  |  |
|                         |                | Outdoor  | D.B.                                  | -5.0~52.0°C (23~126°F) |                      |  |  |
|                         |                | (Nominal)  | *2                                    | kW                     | 100.0                |  |  |
|                         |                |  |                                       | BTU/h                  | 341,200              |  |  |
|                         |                |  |                                       | Power input kW         | 34.36                |  |  |
| Current input A         | 58.0-55.1-53.1 |  |                                       |                        |                      |  |  |
| Heating capacity (Max)  | *3             | COP  | 2.91                                  |                        |                      |  |  |
|                         |                | kW   | 90.0                                  |                        |                      |  |  |
|                         |                | BTU/h  | 307,100                               |                        |                      |  |  |
|                         |                | Power input kW   | 27.60                                 |                        |                      |  |  |
|                         |                | Current input A  | 46.5-44.2-42.6                        |                        |                      |  |  |
| Temp. range of heating  | *4             | Indoor   | D.B.                                  | 15.0~27.0°C (59~81°F)  |                      |  |  |
|                         |                | Outdoor  | W.B.                                  | -20.0~15.5°C (-4~60°F) |                      |  |  |
|                         |                | (Nominal)  | *3                                    | COP                    | 3.26                 |  |  |
|                         |                |  |                                       | kW                     | 90.0                 |  |  |
|                         |                |  |                                       | BTU/h                  | 307,100              |  |  |
| Power input kW          | 27.60          |  |                                       |                        |                      |  |  |
| Indoor unit connectable | *4             | Total capacity   | 50~150% of outdoor unit capacity      |                        |                      |  |  |
|                         |                | Model/Quantity   | P10~P250, M20~M140/2~50               |                        |                      |  |  |
|                         |                | Sound pressure level (measured in anechoic room) *5, 6 | dB <A>                                | 68.0/72.0              |                      |  |  |
|                         |                | Sound power level (measured in anechoic room) *5       | dB <A>                                | 86/91                  |                      |  |  |
|                         |                | Refrigerant piping diameter                            | High pressure                         | mm (in.)               | 28.58 (1-1/8) Brazed |  |  |
|                         | Low pressure   | mm (in.)   | 34.93 (1-3/8) Brazed                  |                        |                      |  |  |

|                                       |                              |                     |   |  |  |   |  |  |
|---------------------------------------|------------------------------|---------------------|---|--|--|---|--|--|
| Set Model                             |                              |                     | <b>PURY-P400YNW-A2/TR2/RU2 (-BS)</b>  |  |  | <b>PURY-P400YNW-A2/TR2/RU2 (-BS)</b>  |  |  |
| FAN                                   | Type x Quantity              |                     | Propeller fan x 2   |  |  | Propeller fan x 2   |  |  |
|                                       | Air flow rate                | m <sup>3</sup> /min | 315   |  |  | 315   |  |  |
|                                       |                              | L/s                 | 5,250   |  |  | 5,250   |  |  |
|                                       |                              | cfm                 | 11,123  |  |  | 11,123  |  |  |
|                                       | Control, Driving mechanism   |                     | Inverter-control, Direct-driven by motor  |  |  | Inverter-control, Direct-driven by motor  |  |  |
| Compressor                            | Type x Quantity              |                     | Inverter scroll hermetic compressor x 1   |  |  | Inverter scroll hermetic compressor x 1   |  |  |
|                                       | Starting method              |                     | Inverter  |  |  | Inverter  |  |  |
|                                       | Motor output                 | kW                  | 16.1  |  |  | 16.1  |  |  |
|                                       | Case heater                  |                     | -   |  |  | -   |  |  |
|                                       | Lubricant                    |                     | MEL32   |  |  | MEL32   |  |  |
| External finish                       |                              |                     | Pre-coated galvanized steel sheets (+powder coating for -BS type)<br><MUNSELL 5Y 8/1 or similar>  |  |  | Pre-coated galvanized steel sheets (+powder coating for -BS type)<br><MUNSELL 5Y 8/1 or similar>  |  |  |
| External dimension H x W x D          |                              |                     | 1,858 (1,798 without legs) x 1,240 x 740<br>73-3/16 (70-13/16 without legs) x 48-7/8 x 29-3/16  |  |  | 1,858 (1,798 without legs) x 1,240 x 740<br>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)  |  |  | High pressure sensor, High pressure switch at 4.15 MPa (601 psi)  |  |  |
|                                       | Inverter circuit (COMP./FAN) |                     | Over-heat protection, Over-current protection   |  |  | Over-heat protection, Over-current protection   |  |  |
|                                       | Compressor                   |                     | -   |  |  | -   |  |  |
|                                       | Fan motor                    |                     | -   |  |  | -   |  |  |
| Refrigerant                           | Type x original charge       |                     | R410A x 8.0 kg (18 lbs)   |  |  | R410A x 8.0 kg (18 lbs)   |  |  |
|                                       | Control                      |                     | Indoor LEV and BC controller  |  |  | Indoor LEV and BC controller  |  |  |
| Net weight                            |                              |                     | 269 (594)   |  |  | 269 (594)   |  |  |
| Heat exchanger                        |                              |                     | Salt-resistant cross fin & copper tube  |  |  | Salt-resistant cross fin & copper tube  |  |  |
| HIC circuit (HIC: Heat Inter-Changer) |                              |                     | -   |  |  | -   |  |  |
| Pipe between unit and distributor     | High pressure                | mm (in.)            | 22.2 (7/8) Brazed   |  |  | 22.2 (7/8) Brazed   |  |  |
|                                       | Low pressure                 | mm (in.)            | 28.58 (1-1/8) Brazed  |  |  | 28.58 (1-1/8) Brazed  |  |  |
| Defrosting method                     |                              |                     | Auto-defrost mode (Reversed refrigerant cycle)  |  |  | Auto-defrost mode (Reversed refrigerant cycle)  |  |  |
| Drawing                               | External                     |                     | WKB94C4W1   |  |  | WKB94C4W1   |  |  |
|                                       | Wiring                       |                     | WKE94L191   |  |  | WKE94L191   |  |  |
| Standard attachment                   | Document                     |                     | Installation Manual   |  |  | Installation Manual   |  |  |
|                                       | Accessory                    |                     | -   |  |  | -   |  |  |
| Optional parts                        |                              |                     | Outdoor Twinning kit: CMY-R200VBK4<br>Joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-R160-J1<br>Main BC controller: CMB-M108, 1012, 1016V-JA1, CMB-P1016V-KA1<br>Sub BC controller: CMB-M104, 108V-KB1  |  |  | Outdoor Twinning kit: CMY-R200VBK4<br>Joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-R160-J1<br>Main BC controller: CMB-M108, 1012, 1016V-JA1, CMB-P1016V-KA1<br>Sub BC controller: CMB-M104, 108V-KB1  |  |  |
| 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. |  |  | 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:   |  |  | Unit converter  |  |  |
| 1. Nominal cooling conditions (subject to JIS B8615-2)<br>Indoor: 27°C D.B./19°C W.B. (81°F D.B./66°F W.B.), Outdoor: 35°C D.B./24°C W.B. (95°F D.B./75°F W.B.)<br>Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)         |  |  | BTU/h =kW x 3,412   |  |  |
| 2. Nominal heating conditions (subject to JIS B8615-2)<br>Indoor: 20°C D.B. (68°F D.B.), Outdoor: 7°C D.B./6°C W.B. (45°F D.B./43°F W.B.)<br>Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)                               |  |  | cfm =m <sup>3</sup> /min x 35.31                            |  |  |
| 3. Nominal heating conditions (subject to JIS B8615-2)<br>Indoor: 20°C D.B. (68°F D.B.), Outdoor: 7°C D.B./6°C W.B. (45°F D.B./43°F W.B.)<br>Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)<br>Eurovent registered        |  |  | lbs =kg/0.4536  |  |  |
| 4. -10 °C D.B. (14 °F D.B.)/-11 °C W.B. (12 °F W.B.) to 21 °C D.B. (70 °F D.B.)/15.5 °C W.B. (60 °F W.B.)<br>with cooling/heating mixed operation.   |  |  |   |  |  |
| 5. Cooling mode/Heating mode   |  |  |   |  |  |
| 6. The sound pressure level measured by the conventional method in JIS for reference purpose.  |  |  |   |  |  |
| 7. External static pressure option is available (30 Pa, 60 Pa, 80 Pa/3.1 mmH <sub>2</sub> O, 6.1 mmH <sub>2</sub> O, 8.2 mmH <sub>2</sub> O).<br>Consult your dealer about the specification when setting External static pressure option. |  |  | *Above specification data is subject to rounding variation. |  |  |

# 1. SPECIFICATIONS

|  |                |                                       |                                  |                        |                |
|--|----------------|---------------------------------------|----------------------------------|------------------------|----------------|
| Model  |                | <b>PURY-P850YSNW-A2/TR2/RU2 (-BS)</b> |                                  |                        |                |
| Power source   |                | 3-phase 4-wire 380-400-415 V 50/60 Hz |                                  |                        |                |
| Cooling capacity                                       | *1             | kW                                    | 95.0                             |                        |                |
|  |                | BTU/h                                 | 324,100                          |                        |                |
|  |                | Power input                           | kW                               | 40.77                  |                |
|  |                | Current input                         | A                                | 68.8-65.3-63.0         |                |
|  |                | EER                                   | kW/kW                            | 2.33                   |                |
|  |                | SEER                                  | kW/kW                            | 5.92                   |                |
| Temp. range of cooling                                 | *4             | Indoor                                | W.B.                             | 15.0~24.0°C (59~75°F)  |                |
|  |                | Outdoor                               | D.B.                             | -5.0~52.0°C (23~126°F) |                |
| Heating capacity (Max)                                 | *2             | kW                                    | 106.0                            |                        |                |
|  |                | BTU/h                                 | 361,700                          |                        |                |
|  |                | Power input                           | kW                               | 36.55                  |                |
|  |                | Current input                         | A                                | 61.7-58.6-56.4         |                |
|  |                | COP                                   | kW/kW                            | 2.90                   |                |
|  | (Nominal)      | *3                                    | kW                               | 95.0                   |                |
|  |                |                                       | BTU/h                            | 324,100                |                |
|  |                |                                       | Power input                      | kW                     | 29.59          |
|  |                |                                       | Current input                    | A                      | 49.9-47.4-45.7 |
|  |                |                                       | COP                              | kW/kW                  | 3.21           |
|  |                | SCOP                                  | kW/kW                            | 3.51                   |                |
| Temp. range of heating                                 | *4             | 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 |                                       | P10~P250, M20~M140/2~50          |                        |                |
| Sound pressure level (measured in anechoic room) *5, 6 |                | dB <A>                                | 68.5/72.5                        |                        |                |
| Sound power level (measured in anechoic room) *5       |                | dB <A>                                | 86/92                            |                        |                |
| Refrigerant piping diameter                            | High pressure  | mm (in.)                              | 28.58 (1-1/8) Brazed             |                        |                |
|  | Low pressure   | mm (in.)                              | 41.28 (1-5/8) Brazed             |                        |                |

|                                       |                              |   |  |  |  |          |
|---------------------------------------|------------------------------|---|--|--|--|----------|
| Set Model                             |                              |   |  |  |  |          |
| Model                                 |                              | <b>PURY-P450YNW-A2/TR2/RU2 (-BS)</b>  |  | <b>PURY-P400YNW-A2/TR2/RU2 (-BS)</b>   |  |          |
| FAN                                   | Type x Quantity              |   | Propeller fan x 2  |  | Propeller fan x 2  |          |
|                                       | Air flow rate                | m <sup>3</sup> /min   | 315  |  | 315  |          |
|                                       |                              | L/s   | 5,250  |  | 5,250  |          |
|                                       |                              | cfm   | 11,123   |  | 11,123   |          |
|                                       | Control, Driving mechanism   |   | Inverter-control, Direct-driven by motor                         |  | Inverter-control, Direct-driven by motor                         |          |
|                                       | *7                           | Motor output  | kW   | 0.46 x 2   |  | 0.46 x 2 |
| External static press.                |                              | 0 Pa (0 mmH <sub>2</sub> O)   |  | 0 Pa (0 mmH <sub>2</sub> O)  |  |          |
| Type x Quantity                       |                              | Inverter scroll hermetic compressor x 1   |  | Inverter scroll hermetic compressor x 1  |  |          |
| Compressor                            | Starting method              |   | Inverter   |  | Inverter   |          |
|                                       | Motor output                 | kW  | 16.2   |  | 16.1   |          |
|                                       | Case heater                  | kW  | -  |  | -  |          |
|                                       | Lubricant                    |   | MEL32  |  | MEL32  |          |
| External finish                       |                              | Pre-coated galvanized steel sheets (+powder coating for -BS type)<br><MUNSELL 5Y 8/1 or similar>  |  | 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                         |  | 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               |  | 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) |  | High pressure sensor, High pressure switch at 4.15 MPa (601 psi) |          |
|                                       | Inverter circuit (COMP./FAN) |   | Over-heat protection, Over-current protection                    |  | Over-heat protection, Over-current protection                    |          |
|                                       | Compressor                   |   | -  |  | -  |          |
|                                       | Fan motor                    |   | -  |  | -  |          |
| Refrigerant                           | Type x original charge       |   | R410A x 10.8 kg (24 lbs)   |  | R410A x 8.0 kg (18 lbs)  |          |
|                                       | Control                      |   | Indoor LEV and BC controller                                     |  |  |          |
| Net weight                            |                              | kg (lbs)  | 289 (638)  |  | 269 (594)  |          |
| Heat exchanger                        |                              | Salt-resistant cross fin & copper tube  |  | Salt-resistant cross fin & copper tube   |  |          |
| HIC circuit (HIC: Heat Inter-Changer) |                              | -   |  | -  |  |          |
| Pipe between unit and distributor     | High pressure                | mm (in.)  | 22.2 (7/8) Brazed  |  | 22.2 (7/8) Brazed  |          |
|                                       | Low pressure                 | mm (in.)  | 28.58 (1-1/8) Brazed   |  | 28.58 (1-1/8) Brazed   |          |
| Defrosting method                     |                              | Auto-defrost mode (Reversed refrigerant cycle)  |  |  |  |          |
| Drawing                               | External                     | WKB94C4W1   |  |  |  |          |
|                                       | Wiring                       | WKE94L191   |  | WKE94L191  |  |          |
| Standard attachment                   | Document                     | Installation Manual   |  |  |  |          |
|                                       | Accessory                    | -   |  |  |  |          |
| Optional parts                        |                              | Outdoor Twinning kit: CMY-R200VBK4<br>Joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-R160-J1<br>Main BC controller: CMB-M108, 1012, 1016V-JA1, CMB-P1016V-KA1<br>Sub BC controller: CMB-M104, 108V-KB1  |  |  |  |          |
| 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:   |  | Unit converter  |                              |
| 1. Nominal cooling conditions (subject to JIS B8615-2)<br>Indoor: 27°C D.B./19°C W.B. (81°F D.B./66°F W.B.), Outdoor: 35°C D.B./24°C W.B. (95°F D.B./75°F W.B.)<br>Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)         |  | BTU/h   | =kW x 3,412                  |
| 2. Nominal heating conditions (subject to JIS B8615-2)<br>Indoor: 20°C D.B. (68°F D.B.), Outdoor: 7°C D.B./6°C W.B. (45°F D.B./43°F W.B.)<br>Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)                               |  | cfm   | =m <sup>3</sup> /min x 35.31 |
| 3. Nominal heating conditions (subject to JIS B8615-2)<br>Indoor: 20°C D.B. (68°F D.B.), Outdoor: 7°C D.B./6°C W.B. (45°F D.B./43°F W.B.)<br>Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)<br>Eurovent registered        |  | lbs   | =kg/0.4536                   |
| 4. -10 °C D.B. (14 °F D.B.)/-11 °C W.B. (12 °F W.B.) to 21 °C D.B. (70 °F D.B.)/15.5 °C W.B. (60 °F W.B.)<br>with cooling/heating mixed operation.   |  |   |                              |
| 5. Cooling mode/Heating mode   |  |   |                              |
| 6. The sound pressure level measured by the conventional method in JIS for reference purpose.  |  |   |                              |
| 7. External static pressure option is available (30 Pa, 60 Pa, 80 Pa/3.1 mmH <sub>2</sub> O, 6.1 mmH <sub>2</sub> O, 8.2 mmH <sub>2</sub> O).<br>Consult your dealer about the specification when setting External static pressure option. |  | *Above specification data is subject to rounding variation. |                              |

# 1. SPECIFICATIONS

R2-Series

PURY-P-Y(S)NW-A2/TR2/RU2

|  |                |                                  |                                       |                        |  |
|--|----------------|----------------------------------|---------------------------------------|------------------------|--|
| Model  |                |                                  | <b>PURY-P900YSNW-A2/TR2/RU2 (-BS)</b> |                        |  |
| Power source   |                |                                  | 3-phase 4-wire 380-400-415 V 50/60 Hz |                        |  |
| Cooling capacity                                       | *1             | kW                               | 100.0                                 |                        |  |
|  |                | BTU/h                            | 341,200                               |                        |  |
|  | Power input    | kW                               | 40.98                                 |                        |  |
|  | Current input  | A                                | 69.1-65.7-63.3                        |                        |  |
|  | EER            | kW/kW                            | 2.44                                  |                        |  |
|  |                | SEER                             | 6.19                                  |                        |  |
| Temp. range of cooling                                 | *4             | Indoor                           | W.B.                                  | 15.0~24.0°C (59~75°F)  |  |
|  |                | Outdoor                          | D.B.                                  | -5.0~52.0°C (23~126°F) |  |
| Heating capacity (Max)                                 | *2             | kW                               | 112.0                                 |                        |  |
|  |                | BTU/h                            | 382,100                               |                        |  |
|  | Power input    | kW                               | 38.75                                 |                        |  |
|  | Current input  | A                                | 65.4-62.1-59.8                        |                        |  |
|  | COP            | kW/kW                            | 2.89                                  |                        |  |
|  | (Nominal)      | *3                               | kW                                    | 100.0                  |  |
|  |                |                                  | BTU/h                                 | 341,200                |  |
|  |                | Power input                      | kW                                    | 31.64                  |  |
| Current input  |                | A                                | 53.4-50.7-48.9                        |                        |  |
|  |                | COP                              | 3.16                                  |                        |  |
|  |                | SCOP                             | 3.51                                  |                        |  |
| Temp. range of heating                                 | *4             | 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 | P10~P250, M20~M140/2~50          |                                       |                        |  |
| Sound pressure level (measured in anechoic room) *5, 6 | dB <A>         | 68.5/73.0                        |                                       |                        |  |
| Sound power level (measured in anechoic room) *5       | dB <A>         | 86/92                            |                                       |                        |  |
| Refrigerant piping diameter                            | High pressure  | mm (in.)                         | 28.58 (1-1/8) Brazed                  |                        |  |
|  | Low pressure   | mm (in.)                         | 41.28 (1-5/8) Brazed                  |                        |  |

|                                       |                              |                             |   |  |
|---------------------------------------|------------------------------|-----------------------------|---|--|
| Set Model                             |                              |                             |   |  |
| Model                                 |                              |                             | <b>PURY-P450YNW-A2/TR2/RU2 (-BS)</b>  |  |
| FAN                                   | Type x Quantity              |                             | Propeller fan x 2   |  |
|                                       | Air flow rate                | m <sup>3</sup> /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  |  |
| External static press.                |                              | 0 Pa (0 mmH <sub>2</sub> O) |   |  |
| Compressor                            | Type x Quantity              |                             | Inverter scroll hermetic compressor x 1   |  |
|                                       | Starting method              |                             | Inverter  |  |
|                                       | Motor output                 | kW                          | 16.2  |  |
|                                       | Case heater                  | kW                          | -   |  |
|                                       | Lubricant                    |                             | MEL32   |  |
| External finish                       |                              |                             | Pre-coated galvanized steel sheets (+powder coating for -BS type)<br><MUNSELL 5Y 8/1 or similar>  | 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<br>1,858 (1,798 without legs) x 1,240 x 740  | mm<br>1,858 (1,798 without legs) x 1,240 x 740   |
|                                       |                              |                             | in.<br>73-3/16 (70-13/16 without legs) x 48-7/8 x 29-3/16   | in.<br>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)  | High pressure sensor, High pressure switch at 4.15 MPa (601 psi)                                 |
|                                       | Inverter circuit (COMP./FAN) |                             | Over-heat protection, Over-current protection   | Over-heat protection, Over-current protection  |
|                                       | Compressor                   |                             | -   | -  |
|                                       | Fan motor                    |                             | -   | -  |
| Refrigerant                           | Type x original charge       |                             | R410A x 10.8 kg (24 lbs)  | R410A x 10.8 kg (24 lbs)   |
|                                       | Control                      |                             | Indoor LEV and BC controller  |  |
| Net weight                            | kg (lbs)                     | 289 (638)                   |   | 289 (638)  |
| Heat exchanger                        |                              |                             | Salt-resistant cross fin & copper tube  | Salt-resistant cross fin & copper tube   |
| HIC circuit (HIC: Heat Inter-Changer) |                              |                             | -   | -  |
| Pipe between unit and distributor     | High pressure                | mm (in.)                    | 22.2 (7/8) Brazed   |  |
|                                       | Low pressure                 | mm (in.)                    | 28.58 (1-1/8) Brazed  |  |
| Defrosting method                     |                              |                             | Auto-defrost mode (Reversed refrigerant cycle)  |  |
| Drawing                               | External                     | WKB94C4W1                   |   |  |
|                                       | Wiring                       | WKE94L191                   | WKE94L191   |  |
| Standard attachment                   | Document                     | Installation Manual         |   |  |
|                                       | Accessory                    | -                           |   |  |
| Optional parts                        |                              |                             | Outdoor Twinning kit: CMY-R200VBK4<br>Joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-R160-J1<br>Main BC controller: CMB-M108, 1012, 1016V-JA1, CMB-P1016V-KA1<br>Sub BC controller: CMB-M104, 108V-KB1  |  |
| 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:   |  |  | Unit converter |   |
| 1. Nominal cooling conditions (subject to JIS B8615-2)<br>Indoor: 27°C D.B./19°C W.B. (81°F D.B./66°F W.B.), Outdoor: 35°C D.B./24°C W.B. (95°F D.B./75°F W.B.)<br>Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)         |  |  | BTU/h          | =kW x 3,412   |
| 2. Nominal heating conditions (subject to JIS B8615-2)<br>Indoor: 20°C D.B. (68°F D.B.), Outdoor: 7°C D.B./6°C W.B. (45°F D.B./43°F W.B.)<br>Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)                               |  |  | cfm            | =m <sup>3</sup> /min x 35.31                                |
| 3. Nominal heating conditions (subject to JIS B8615-2)<br>Indoor: 20°C D.B. (68°F D.B.), Outdoor: 7°C D.B./6°C W.B. (45°F D.B./43°F W.B.)<br>Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)<br>Eurovent registered        |  |  | lbs            | =kg/0.4536  |
| 4. -10 °C D.B. (14 °F D.B.)/-11 °C W.B. (12 °F W.B.) to 21 °C D.B. (70 °F D.B.)/15.5 °C W.B. (60 °F W.B.)<br>with cooling/heating mixed operation.   |  |  |                |   |
| 5. Cooling mode/Heating mode   |  |  |                |   |
| 6. The sound pressure level measured by the conventional method in JIS for reference purpose.  |  |  |                |   |
| 7. External static pressure option is available (30 Pa, 60 Pa, 80 Pa/3.1 mmH <sub>2</sub> O, 6.1 mmH <sub>2</sub> O, 8.2 mmH <sub>2</sub> O).<br>Consult your dealer about the specification when setting External static pressure option. |  |  |                | *Above specification data is subject to rounding variation. |

# 1. SPECIFICATIONS

| Model  |                 | PURY-P950YSNW-A2/TR2/RU2 (-BS)        |                        |  |
|--|-----------------|---------------------------------------|------------------------|--|
| Power source   |                 | 3-phase 4-wire 380-400-415 V 50/60 Hz |                        |  |
| Cooling capacity                                       | *1 kW           | 106.0                                 |                        |  |
|  | BTU/h           | 361,700                               |                        |  |
|  | Power input kW  | 43.44                                 |                        |  |
|  | Current input A | 73.3-69.6-67.1                        |                        |  |
|  | EER             | 2.44                                  |                        |  |
|  | SEER            | 6.12                                  |                        |  |
| Temp. range of cooling                                 | *4 Indoor       | W.B.                                  | 15.0~24.0°C (59~75°F)  |  |
|  | Outdoor         | D.B.                                  | -5.0~52.0°C (23~126°F) |  |
| Heating capacity (Max)                                 | *2 kW           | 119.0                                 |                        |  |
|  | BTU/h           | 406,000                               |                        |  |
|  | Power input kW  | 41.17                                 |                        |  |
|  | Current input A | 69.5-66.0-63.6                        |                        |  |
|  | COP             | 2.89                                  |                        |  |
|  | (Nominal)       | *3 kW                                 | 106.0                  |  |
|  |                 | BTU/h                                 | 361,700                |  |
|  |                 | Power input kW                        | 33.12                  |  |
|  |                 | Current input A                       | 55.9-53.1-51.1         |  |
|  |                 | COP                                   | 3.20                   |  |
|  | SCOP            | 3.51                                  |                        |  |
| Temp. range of heating                                 | *4 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  | P10~P250, M20~M140/2~50               |                        |  |
| Sound pressure level (measured in anechoic room) *5, 6 |                 | dB <A>                                | 68.0/71.5              |  |
| Sound power level (measured in anechoic room) *5       |                 | dB <A>                                | 86/91                  |  |
| Refrigerant piping diameter                            | High pressure   | mm (in.)                              | 28.58 (1-1/8) Brazed   |  |
|  | Low pressure    | mm (in.)                              | 41.28 (1-5/8) Brazed   |  |

| Set Model                             |                              |   |  |  |  |  |
|---------------------------------------|------------------------------|---|--|--|--|--|
| Model                                 |                              | PURY-P500YNW-A2/TR2/RU2 (-BS)   |  | PURY-P450YNW-A2/TR2/RU2 (-BS)  |  |  |
| FAN                                   | Type x Quantity              | Propeller fan x 2   |  | Propeller fan x 2  |  |  |
|                                       | Air flow rate                | m <sup>3</sup> /min   | 295  |  | 315  |  |
|                                       |                              | L/s   | 4,917  |  | 5,250  |  |
|                                       |                              | cfm   | 10,416   |  | 11,123   |  |
|                                       | Control, Driving mechanism   | Inverter-control, Direct-driven by motor  |  | Inverter-control, Direct-driven by motor   |  |  |
|                                       | *7 Motor output              | kW  | 0.92 x 2   |  | 0.46 x 2   |  |
| External static press.                | 0 Pa (0 mmH <sub>2</sub> O)  |   | 0 Pa (0 mmH <sub>2</sub> O)                          |  |  |  |
| Compressor                            | Type x Quantity              | Inverter scroll hermetic compressor x 1   |  | Inverter scroll hermetic compressor x 1  |  |  |
|                                       | Starting method              | Inverter  |  | Inverter   |  |  |
|                                       | Motor output                 | kW  | 17.4   |  | 16.2   |  |
|                                       | Case heater                  | kW  | -  |  | -  |  |
|                                       | Lubricant                    | MEL32   |  | MEL32  |  |  |
| External finish                       |                              | Pre-coated galvanized steel sheets (+powder coating for -BS type)<br><MUNSELL 5Y 8/1 or similar>  |  | 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             |  | 1,858 (1,798 without legs) x 1,240 x 740           |  |
|                                       |                              | in.   | 73-3/16 (70-13/16 without legs) x 68-15/16 x 29-3/16 |  | 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)  |  | High pressure sensor, High pressure switch at 4.15 MPa (601 psi)                                 |  |  |
|                                       | Inverter circuit (COMP./FAN) | Over-heat protection, Over-current protection   |  | Over-heat protection, Over-current protection  |  |  |
|                                       | Compressor                   | -   |  | -  |  |  |
|                                       | Fan motor                    | -   |  | -  |  |  |
| Refrigerant                           | Type x original charge       | R410A x 10.8 kg (24 lbs)  |  | R410A x 10.8 kg (24 lbs)   |  |  |
|                                       | Control                      | Indoor LEV and BC controller  |  |  |  |  |
| Net weight                            | kg (lbs)                     | 335 (739)   |  | 289 (638)  |  |  |
| Heat exchanger                        |                              | Salt-resistant cross fin & copper tube  |  | Salt-resistant cross fin & copper tube   |  |  |
| HIC circuit (HIC: Heat Inter-Changer) |                              | -   |  | -  |  |  |
| Pipe between unit and distributor     | High pressure                | mm (in.)  | 22.2 (7/8) Brazed                                    |  | 22.2 (7/8) Brazed                                  |  |
|                                       | Low pressure                 | mm (in.)  | 28.58 (1-1/8) Brazed                                 |  | 28.58 (1-1/8) Brazed                               |  |
| Defrosting method                     |                              | Auto-defrost mode (Reversed refrigerant cycle)  |  |  |  |  |
| Drawing                               | External                     | WKB94C4W2   |  |  |  |  |
|                                       | Wiring                       | WKE94L192   |  | WKE94L191  |  |  |
| Standard attachment                   | Document                     | Installation Manual   |  |  |  |  |
|                                       | Accessory                    | -   |  |  |  |  |
| Optional parts                        |                              | Outdoor Twinning kit: CMY-R200VBK4<br>Joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-R160-J1<br>Main BC controller: CMB-P1016V-KA1<br>Sub BC controller: CMB-M104, 108V-KB1   |  |  |  |  |
| 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:   | Unit converter  |
|--|---|
| 1. Nominal cooling conditions (subject to JIS B8615-2)<br>Indoor: 27°C D.B./19°C W.B. (81°F D.B./66°F W.B.), Outdoor: 35°C D.B./24°C W.B. (95°F D.B./75°F W.B.)<br>Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)         | BTU/h =kW x 3,412   |
| 2. Nominal heating conditions (subject to JIS B8615-2)<br>Indoor: 20°C D.B. (68°F D.B.), Outdoor: 7°C D.B./6°C W.B. (45°F D.B./43°F W.B.)<br>Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)                               | cfm =m <sup>3</sup> /min x 35.31                            |
| 3. Nominal heating conditions (subject to JIS B8615-2)<br>Indoor: 20°C D.B. (68°F D.B.), Outdoor: 7°C D.B./6°C W.B. (45°F D.B./43°F W.B.)<br>Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)<br>Eurovent registered        | lbs =kg/0.4536  |
| 4. -10 °C D.B. (14 °F D.B.)/-11 °C W.B. (12 °F W.B.) to 21 °C D.B. (70 °F D.B.)/15.5 °C W.B. (60 °F W.B.)<br>with cooling/heating mixed operation.   |   |
| 5. Cooling mode/Heating mode   |   |
| 6. The sound pressure level measured by the conventional method in JIS for reference purpose.  |   |
| 7. External static pressure option is available (30 Pa, 60 Pa, 80 Pa/3.1 mmH <sub>2</sub> O, 6.1 mmH <sub>2</sub> O, 8.2 mmH <sub>2</sub> O).<br>Consult your dealer about the specification when setting External static pressure option. | *Above specification data is subject to rounding variation. |

# 1. SPECIFICATIONS

R2-Series

PURY-P-Y(S)NW-A2/TR2/RU2

|  |                |                                  |  |                |  |
|--|----------------|----------------------------------|--|----------------|--|
| Model  |                |                                  | <b>PURY-P1000YSNW-A2/TR2/RU2 (-BS)</b> |                |  |
| Power source   |                |                                  | 3-phase 4-wire 380-400-415 V 50/60 Hz  |                |  |
| Cooling capacity                                       | *1             | kW                               | 112.0                                  |                |  |
|  |                | BTU/h                            | 382,100                                |                |  |
|  |                | Power input kW                   | 45.90                                  |                |  |
|  |                | Current input A                  | 77.4-73.6-70.9                         |                |  |
|  |                | EER                              | 2.44                                   |                |  |
| Temp. range of cooling                                 | *4             | Indoor                           | W.B.                                   |                |  |
|  |                | Outdoor                          | D.B.                                   |                |  |
|  |                | Indoor                           | 15.0~24.0°C (59~75°F)                  |                |  |
|  |                | Outdoor                          | -5.0~52.0°C (23~126°F)                 |                |  |
|  |                | SEER                             | 6.05                                   |                |  |
| Heating capacity (Max)                                 | *2             | kW                               | 126.0                                  |                |  |
|  |                | BTU/h                            | 429,900                                |                |  |
|  |                | Power input kW                   | 43.59                                  |                |  |
|  |                | Current input A                  | 73.5-69.9-67.3                         |                |  |
|  |                | COP                              | 2.89                                   |                |  |
|  | (Nominal)      | *3                               | kW                                     | 112.0          |  |
|  |                |                                  | BTU/h                                  | 382,100        |  |
|  |                |                                  | Power input kW                         | 34.56          |  |
|  |                |                                  | Current input A                        | 58.3-55.4-53.4 |  |
|  |                |                                  | COP                                    | 3.24           |  |
| Temp. range of heating                                 | *4             | Indoor                           | D.B.                                   |                |  |
|  |                | Outdoor                          | W.B.                                   |                |  |
|  |                | Indoor                           | 15.0~27.0°C (59~81°F)                  |                |  |
|  |                | Outdoor                          | -20.0~15.5°C (-4~60°F)                 |                |  |
|  |                | SCOP                             | 3.51                                   |                |  |
| Indoor unit connectable                                | Total capacity | 50~150% of outdoor unit capacity |  |                |  |
|  | Model/Quantity | P10~P250, M20~M140/2~50          |  |                |  |
| Sound pressure level (measured in anechoic room) *5, 6 |                | dB <A>                           | 66.5/67.5                              |                |  |
| Sound power level (measured in anechoic room) *5       |                | dB <A>                           | 85/87                                  |                |  |
| Refrigerant piping diameter                            | High pressure  | mm (in.)                         | 28.58 (1-1/8) Brazed                   |                |  |
|  | Low pressure   | mm (in.)                         | 41.28 (1-5/8) Brazed                   |                |  |

|                                       |                              |                     |   |   |
|---------------------------------------|------------------------------|---------------------|---|---|
| Set Model                             |                              |                     |   |   |
| Model                                 |                              |                     | <b>PURY-P500YNW-A2/TR2/RU2 (-BS)</b>  |   |
| FAN                                   | Type x Quantity              |                     | Propeller fan x 2   |   |
|                                       | Air flow rate                | m <sup>3</sup> /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  |   |
|                                       | External static press.       |                     | 0 Pa (0 mmH <sub>2</sub> O)   |   |
| Compressor                            | Type x Quantity              |                     | Inverter scroll hermetic compressor x 1   |   |
|                                       | Starting method              |                     | Inverter  |   |
|                                       | Motor output                 | kW                  | 17.4  |   |
|                                       | Case heater                  | kW                  | -   |   |
|                                       | Lubricant                    |                     | MEL32   |   |
| External finish                       |                              |                     | Pre-coated galvanized steel sheets (+powder coating for -BS type)   | Pre-coated galvanized steel sheets (+powder coating for -BS type) |
| External dimension H x W x D          |                              |                     | 1,858 (1,798 without legs) x 1,750 x 740  | 1,858 (1,798 without legs) x 1,750 x 740                          |
| Protection devices                    | High pressure protection     |                     | High pressure sensor, High pressure switch at 4.15 MPa (601 psi)  | High pressure sensor, High pressure switch at 4.15 MPa (601 psi)  |
|                                       | Inverter circuit (COMP./FAN) |                     | Over-heat protection, Over-current protection   | Over-heat protection, Over-current protection                     |
|                                       | Compressor                   |                     | -   | -   |
|                                       | Fan motor                    |                     | -   | -   |
| Refrigerant                           | Type x original charge       |                     | R410A x 10.8 kg (24 lbs)  |   |
|                                       | Control                      |                     | Indoor LEV and BC controller  |   |
| Net weight                            | kg (lbs)                     | 335 (739)           |   |   |
| Heat exchanger                        |                              |                     | Salt-resistant cross fin & copper tube  |   |
| HIC circuit (HIC: Heat Inter-Changer) |                              |                     | -   |   |
| Pipe between unit and distributor     | High pressure                | mm (in.)            | 22.2 (7/8) Brazed   |   |
|                                       | Low pressure                 | mm (in.)            | 28.58 (1-1/8) Brazed  |   |
| Defrosting method                     |                              |                     | Auto-defrost mode (Reversed refrigerant cycle)  |   |
| Drawing                               | External                     |                     | WKB94C4W3   |   |
|                                       | Wiring                       |                     | WKE94L192   | WKE94L192   |
| Standard attachment                   | Document                     |                     | Installation Manual   |   |
|                                       | Accessory                    |                     | -   |   |
| Optional parts                        |                              |                     | Outdoor Twinning kit: CMY-R200VBK4<br>Joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-R160-J1<br>Main BC controller: CMB-P1016V-KA1<br>Sub BC controller: CMB-M104, 108V-KB1   |   |
| 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:   |  | Unit converter  |
| 1. Nominal cooling conditions (subject to JIS B8615-2)<br>Indoor: 27°C D.B./19°C CW.B. (81°F D.B./66°F CW.B.), Outdoor: 35°C D.B./24°C CW.B. (95°F D.B./75°F CW.B.)<br>Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)     |  | BTU/h = kW x 3,412  |
| 2. Nominal heating conditions (subject to JIS B8615-2)<br>Indoor: 20°C D.B. (68°F D.B.), Outdoor: 7°C D.B./6°C CW.B. (45°F D.B./43°F CW.B.)<br>Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)                             |  | cfm = m <sup>3</sup> /min x 35.31                           |
| 3. Nominal heating conditions (subject to JIS B8615-2)<br>Indoor: 20°C D.B. (68°F D.B.), Outdoor: 7°C D.B./6°C CW.B. (45°F D.B./43°F CW.B.)<br>Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)<br>Eurovent registered      |  | lbs = kg/0.4536   |
| 4. -10 °C D.B. (14 °F D.B.)/-11 °C CW.B. (12 °F CW.B.) to 21 °C D.B. (70 °F D.B.)/15.5 °C CW.B. (60 °F CW.B.)<br>with cooling/heating mixed operation.   |  |   |
| 5. Cooling mode/Heating mode   |  |   |
| 6. The sound pressure level measured by the conventional method in JIS for reference purpose.  |  |   |
| 7. External static pressure option is available (30 Pa, 60 Pa, 80 Pa/3.1 mmH <sub>2</sub> O, 6.1 mmH <sub>2</sub> O, 8.2 mmH <sub>2</sub> O).<br>Consult your dealer about the specification when setting External static pressure option. |  | *Above specification data is subject to rounding variation. |



# 1. SPECIFICATIONS

|  |                |               |  |                        |         |                |
|--|----------------|---------------|--|------------------------|---------|----------------|
| Model  |                |               | <b>PURY-P1050YSNW-A2/TR2/RU2 (-BS)</b> |                        |         |                |
| Power source   |                |               | 3-phase 4-wire 380-400-415 V 50/60 Hz  |                        |         |                |
| Cooling capacity                                       | *1             | kW            | 116.0                                  |                        |         |                |
|  |                | BTU/h         | 395,800                                |                        |         |                |
|  |                | Power input   | kW                                     | 49.36                  |         |                |
|  |                | Current input | A                                      | 83.3-79.1-76.2         |         |                |
|  |                | EER           | kW/kW                                  | 2.35                   |         |                |
|  |                | SEER          | kW/kW                                  | 6.06                   |         |                |
| Temp. range of cooling                                 | *4             | Indoor        | W.B.                                   | 15.0~24.0°C (59~75°F)  |         |                |
|  |                | Outdoor       | D.B.                                   | -5.0~52.0°C (23~126°F) |         |                |
| Heating capacity (Max)                                 | *2             | kW            | 132.0                                  |                        |         |                |
|  |                | BTU/h         | 450,400                                |                        |         |                |
|  |                | Power input   | kW                                     | 46.97                  |         |                |
|  |                | Current input | A                                      | 79.2-75.3-72.6         |         |                |
|  |                | COP           | kW/kW                                  | 2.81                   |         |                |
|  |                | (Nominal)     | *3                                     | kW                     | 119.0   |                |
|  |                |               |  | BTU/h                  | 406,000 |                |
|  |                |               |  | Power input            | kW      | 37.77          |
|  |                |               |  | Current input          | A       | 63.7-60.5-58.3 |
|  |                |               |  | COP                    | kW/kW   | 3.15           |
|  |                | SCOP          | kW/kW                                  | 3.51                   |         |                |
| Temp. range of heating                                 | *4             | 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 |               | P10~P250, M20~M140/3~50                |                        |         |                |
| Sound pressure level (measured in anechoic room) *5, 6 |                | dB <A>        | 71.0/71.5                              |                        |         |                |
| Sound power level (measured in anechoic room) *5       |                | dB <A>        | 90/91                                  |                        |         |                |
| Refrigerant piping diameter                            | High pressure  | mm (in.)      | 34.93 (1-3/8) Brazed                   |                        |         |                |
|  | Low pressure   | mm (in.)      | 41.28 (1-5/8) Brazed                   |                        |         |                |

|                                       |                              |                     |   |  |
|---------------------------------------|------------------------------|---------------------|---|--|
| Set Model                             |                              |                     |   |  |
| Model                                 |                              |                     | <b>PURY-P550YNW-A2/TR2/RU2 (-BS)</b>  |  |
| FAN                                   | Type x Quantity              |                     | Propeller fan x 2   |  |
|                                       | Air flow rate                | m <sup>3</sup> /min | 410   |  |
|                                       |                              | L/s                 | 6,833   |  |
|                                       |                              | cfm                 | 14,477  |  |
|                                       | Control, Driving mechanism   |                     | Inverter-control, Direct-driven by motor  |  |
|                                       | Motor output                 | kW                  | 0.92 x 2  |  |
|                                       | *7 External static press.    |                     | 0 Pa (0 mmH <sub>2</sub> O)   |  |
| Compressor                            | Type x Quantity              |                     | Inverter scroll hermetic compressor x 1   |  |
|                                       | Starting method              |                     | Inverter  |  |
|                                       | Motor output                 | kW                  | 20.5  |  |
|                                       | Case heater                  | kW                  | -   |  |
|                                       | Lubricant                    |                     | MEL32   |  |
| External finish                       |                              |                     | Pre-coated galvanized steel sheets (+powder coating for -BS type)   |  |
|                                       |                              |                     | <MUNSELL 5Y 8/1 or similar>   |  |
| External dimension H x W x D          |                              |                     | 1,858 (1,798 without legs) x 1,750 x 740  |  |
|                                       |                              |                     | 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       |                     | R410A x 10.8 kg (24 lbs)  |  |
|                                       | Control                      |                     | Indoor LEV and BC controller  |  |
| Net weight                            | kg (lbs)                     | 335 (739)           |   |  |
| Heat exchanger                        |                              |                     | Salt-resistant cross fin & copper tube  |  |
| HIC circuit (HIC: Heat Inter-Changer) |                              |                     | -   |  |
| Pipe between unit and distributor     | High pressure                | mm (in.)            | 22.2 (7/8) Brazed   |  |
|                                       | Low pressure                 | mm (in.)            | 28.58 (1-1/8) Brazed  |  |
| Defrosting method                     |                              |                     | Auto-defrost mode (Reversed refrigerant cycle)  |  |
| Drawing                               | External                     |                     | WKB94C4W3   |  |
|                                       | Wiring                       |                     | WKE94L192   |  |
| Standard attachment                   | Document                     |                     | Installation Manual   |  |
|                                       | Accessory                    |                     | -   |  |
| Optional parts                        |                              |                     | Outdoor Twinning kit: CMY-R200VBK4<br>Joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-R160-J1<br>Main BC controller: CMB-P1016V-KA1<br>Sub BC controller: CMB-M104, 108V-KB1   |  |
| 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:  |  |  | Unit converter  |  |
| 1. Nominal cooling conditions (subject to JIS B8615-2)<br>Indoor: 27°C D.B./19°C W.B. (81°F D.B./66°F W.B.), Outdoor: 35°C D.B./24°C W.B. (95°F D.B./75°F W.B.)<br>Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)  |  |  | BTU/h =kW x 3,412   |  |
| 2. Nominal heating conditions (subject to JIS B8615-2)<br>Indoor: 20°C D.B. (68°F D.B.), Outdoor: 7°C D.B./6°C W.B. (45°F D.B./43°F W.B.)<br>Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)                        |  |  | cfm =m <sup>3</sup> /min x 35.31                            |  |
| 3. Nominal heating conditions (subject to JIS B8615-2)<br>Indoor: 20°C D.B. (68°F D.B.), Outdoor: 7°C D.B./6°C W.B. (45°F D.B./43°F W.B.)<br>Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)<br>Eurovent registered |  |  | lbs =kg/0.4536  |  |
| 4. -10 °C D.B. (14 °F D.B.)/-11 °C W.B. (12 °F W.B.) to 21 °C D.B. (70 °F D.B.)/15.5 °C W.B. (60 °F W.B.)<br>with cooling/heating mixed operation.  |  |  |   |  |
| 5. Cooling mode/Heating mode  |  |  |   |  |
| 6. The sound pressure level measured by the conventional method in JIS for reference purpose.   |  |  |   |  |
| 7. External static pressure option is available (30 Pa/3.1 mmH <sub>2</sub> O).<br>Consult your dealer about the specification when setting External static pressure option.  |  |  | *Above specification data is subject to rounding variation. |  |



# 1. SPECIFICATIONS

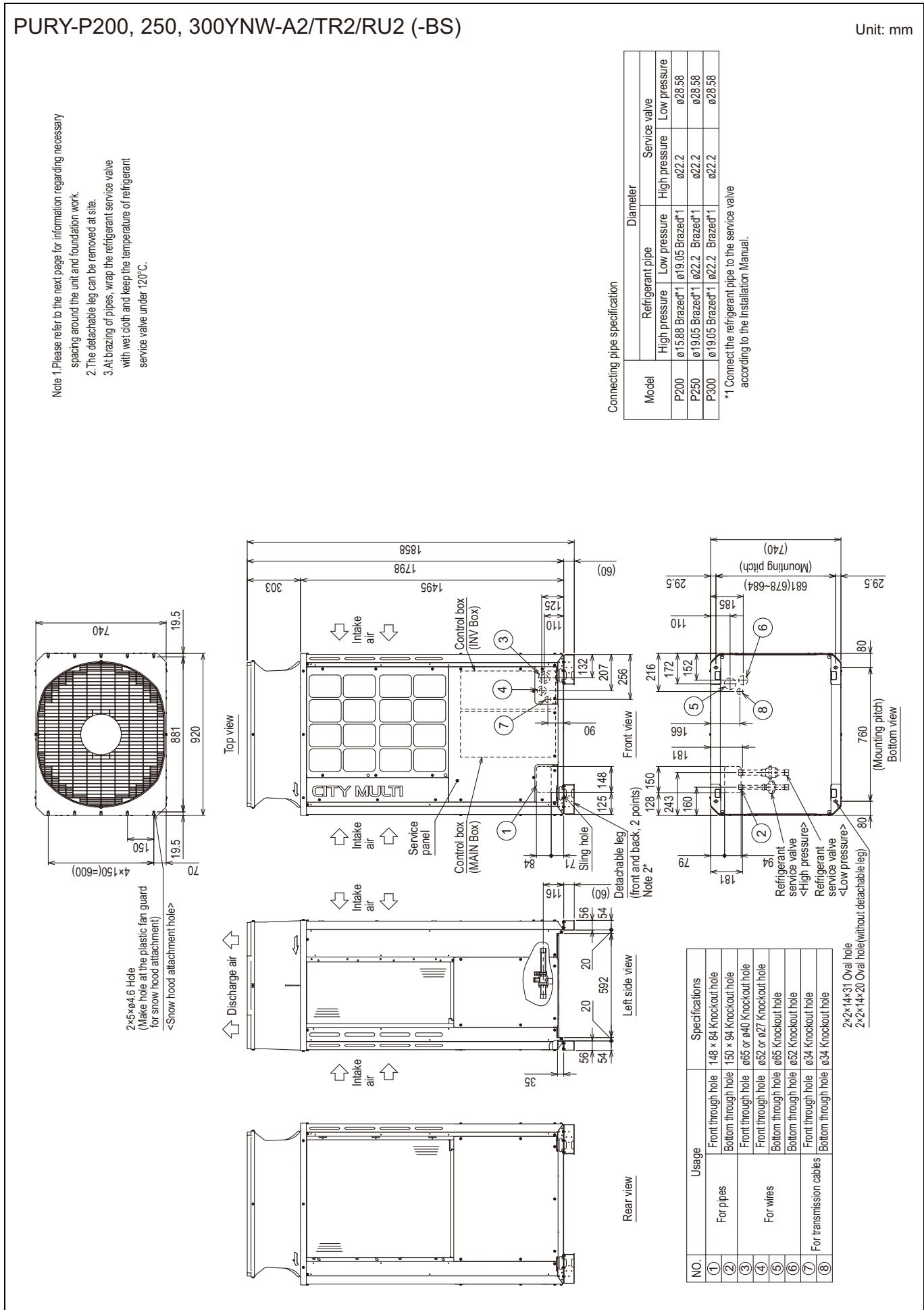
R2-Series

PURY-P-Y(S)N/A2/TR2/RU2

|  |                |                                  |  |                        |  |  |
|--|----------------|----------------------------------|--|------------------------|--|--|
| Model  |                |                                  | <b>PURY-P1100YSNW-A2/TR2/RU2 (-BS)</b> |                        |  |  |
| Power source   |                |                                  | 3-phase 4-wire 380-400-415 V 50/60 Hz  |                        |  |  |
| Cooling capacity                                       | *1             | kW                               | 120.0                                  |                        |  |  |
|  |                | BTU/h                            | 409,400                                |                        |  |  |
|  |                | Power input kW                   | 53.32                                  |                        |  |  |
|  |                | Current input A                  | 90.0-85.5-82.4                         |                        |  |  |
|  |                | EER                              | 2.25                                   |                        |  |  |
| SEER   | kW/kW          | 6.06                             |  |                        |  |  |
|  |                |                                  |  |                        |  |  |
| Temp. range of cooling                                 | *4             | Indoor                           | W.B.                                   | 15.0~24.0°C (59~75°F)  |  |  |
|  |                | Outdoor                          | D.B.                                   | -5.0~52.0°C (23~126°F) |  |  |
| Heating capacity (Max)                                 | *2             | kW                               | 138.0                                  |                        |  |  |
|  |                | BTU/h                            | 470,900                                |                        |  |  |
|  |                | Power input kW                   | 50.54                                  |                        |  |  |
|  |                | Current input A                  | 85.3-81.0-78.1                         |                        |  |  |
|  |                | COP                              | 2.73                                   |                        |  |  |
|  | (Nominal)      | *3                               | kW                                     | 126.0                  |  |  |
|  |                |                                  | BTU/h                                  | 429,900                |  |  |
|  |                |                                  | Power input kW                         | 41.17                  |  |  |
|  |                |                                  | Current input A                        | 69.5-66.0-63.6         |  |  |
|  |                |                                  | COP                                    | 3.06                   |  |  |
| SCOP   | 3.51           |                                  |  |                        |  |  |
| Temp. range of heating                                 | *4             | 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 | P10~P250, M20~M140/3~50          |  |                        |  |  |
| Sound pressure level (measured in anechoic room) *5, 6 | dB <A>         | 73.0/73.0                        |  |                        |  |  |
| Sound power level (measured in anechoic room) *5       | dB <A>         | 92/92                            |  |                        |  |  |
| Refrigerant piping diameter                            | High pressure  | mm (in.)                         | 34.93 (1-3/8) Brazed                   |                        |  |  |
|  | Low pressure   | mm (in.)                         | 41.28 (1-5/8) Brazed                   |                        |  |  |

|                                       |   |   |  |   |  |  |
|---------------------------------------|---|---|--|---|--|--|
| Set Model                             |   |   |  |   |  |  |
| Model                                 |   | <b>PURY-P550YNW-A2/TR2/RU2 (-BS)</b>          |  | <b>PURY-P550YNW-A2/TR2/RU2 (-BS)</b>          |  |  |
| FAN                                   | Type x Quantity   | Propeller fan x 2                             |  | Propeller fan x 2                             |  |  |
|                                       | Air flow rate   | m <sup>3</sup> /min                           | 410  |   | 410  |  |
|                                       |   | L/s   | 6,833  |   | 6,833  |  |
|                                       |   | cfm   | 14,477   |   | 14,477   |  |
|                                       | Control, Driving mechanism  | Inverter-control, Direct-driven by motor      |  | Inverter-control, Direct-driven by motor      |  |  |
|                                       | Motor output  | kW  | 0.92 x 2   |   | 0.92 x 2   |  |
|                                       | External static press.  | 0 Pa (0 mmH <sub>2</sub> O)                   |  | 0 Pa (0 mmH <sub>2</sub> O)                   |  |  |
| Compressor                            | Type x Quantity   | Inverter scroll hermetic compressor x 1       |  | Inverter scroll hermetic compressor x 1       |  |  |
|                                       | Starting method   | Inverter                                      |  | Inverter                                      |  |  |
|                                       | Motor output  | kW  | 20.5   |   | 20.5   |  |
|                                       | Case heater   | kW  | -  |   | -  |  |
|                                       | Lubricant   | MEL32   |  | MEL32   |  |  |
| External finish                       | Pre-coated galvanized steel sheets (+powder coating for -BS type)<br><MUNSELL 5Y 8/1 or similar>  |   | 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      |  | 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   |   | 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)                                 |   | High pressure sensor, High pressure switch at 4.15 MPa (601 psi) |  |
|                                       | Inverter circuit (COMP./FAN)  | Over-heat protection, Over-current protection |  | Over-heat protection, Over-current protection |  |  |
|                                       | Compressor  | -   |  | -   |  |  |
|                                       | Fan motor   | -   |  | -   |  |  |
| Refrigerant                           | Type x original charge  | R410A x 10.8 kg (24 lbs)                      |  | R410A x 10.8 kg (24 lbs)                      |  |  |
|                                       | Control   | Indoor LEV and BC controller                  |  |   |  |  |
| Net weight                            | kg (lbs)  | 335 (739)                                     |  | 335 (739)                                     |  |  |
| Heat exchanger                        | Salt-resistant cross fin & copper tube  |   | Salt-resistant cross fin & copper tube   |   |  |  |
| HIC circuit (HIC: Heat Inter-Changer) | -   |   | -  |   |  |  |
| Pipe between unit and distributor     | High pressure   | mm (in.)                                      | 22.2 (7/8) Brazed  |   | 22.2 (7/8) Brazed  |  |
|                                       | Low pressure  | mm (in.)                                      | 28.58 (1-1/8) Brazed   |   | 28.58 (1-1/8) Brazed   |  |
| Defrosting method                     | Auto-defrost mode (Reversed refrigerant cycle)  |   |  |   |  |  |
| Drawing                               | External  | WKB94C4W3                                     |  |   |  |  |
|                                       | Wiring  | WKE94L192                                     |  | WKE94L192                                     |  |  |
| Standard attachment                   | Document  | Installation Manual                           |  |   |  |  |
|                                       | Accessory   | -   |  |   |  |  |
| Optional parts                        | Outdoor Twinning kit: CMY-R200VBK4<br>Joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-R160-J1<br>Main BC controller: CMB-P1016V-KA1<br>Sub BC controller: CMB-M104, 108V-KB1   |   |  |   |  |  |
| 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:  | Unit converter  |
| 1. Nominal cooling conditions (subject to JIS B8615-2)<br>Indoor: 27°C D.B./19°C W.B. (81°F D.B./66°F W.B.), Outdoor: 35°C D.B./24°C W.B. (95°F D.B./75°F W.B.)<br>Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)  | BTU/h = kW x 3,412  |
| 2. Nominal heating conditions (subject to JIS B8615-2)<br>Indoor: 20°C D.B. (68°F D.B.), Outdoor: 7°C D.B./6°C W.B. (45°F D.B./43°F W.B.)<br>Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)                        | cfm = m <sup>3</sup> /min x 35.31                           |
| 3. Nominal heating conditions (subject to JIS B8615-2)<br>Indoor: 20°C D.B. (68°F D.B.), Outdoor: 7°C D.B./6°C W.B. (45°F D.B./43°F W.B.)<br>Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)<br>Eurovent registered | lbs = kg/0.4536   |
| 4. -10 °C D.B. (14 °F D.B.)/-11 °C W.B. (12 °F W.B.) to 21 °C D.B. (70 °F D.B.)/15.5 °C W.B. (60 °F W.B.)<br>with cooling/heating mixed operation.  |   |
| 5. Cooling mode/Heating mode  |   |
| 6. The sound pressure level measured by the conventional method in JIS for reference purpose.   |   |
| 7. External static pressure option is available (30 Pa/3.1 mmH <sub>2</sub> O).<br>Consult your dealer about the specification when setting External static pressure option.  | *Above specification data is subject to rounding variation. |



PURY-P200, 250, 300YNW-A2/TR2/RU2 (-BS)

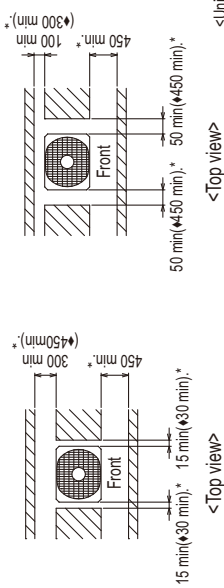
Unit: mm

◆:When installing a panel heater<Optional parts>

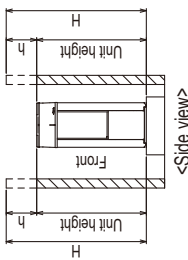
1. Required space around the unit

●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(450mm) to the wall on the back of the unit



- 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.



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 M12 hole-in anchor bolts <field supply required>. (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.

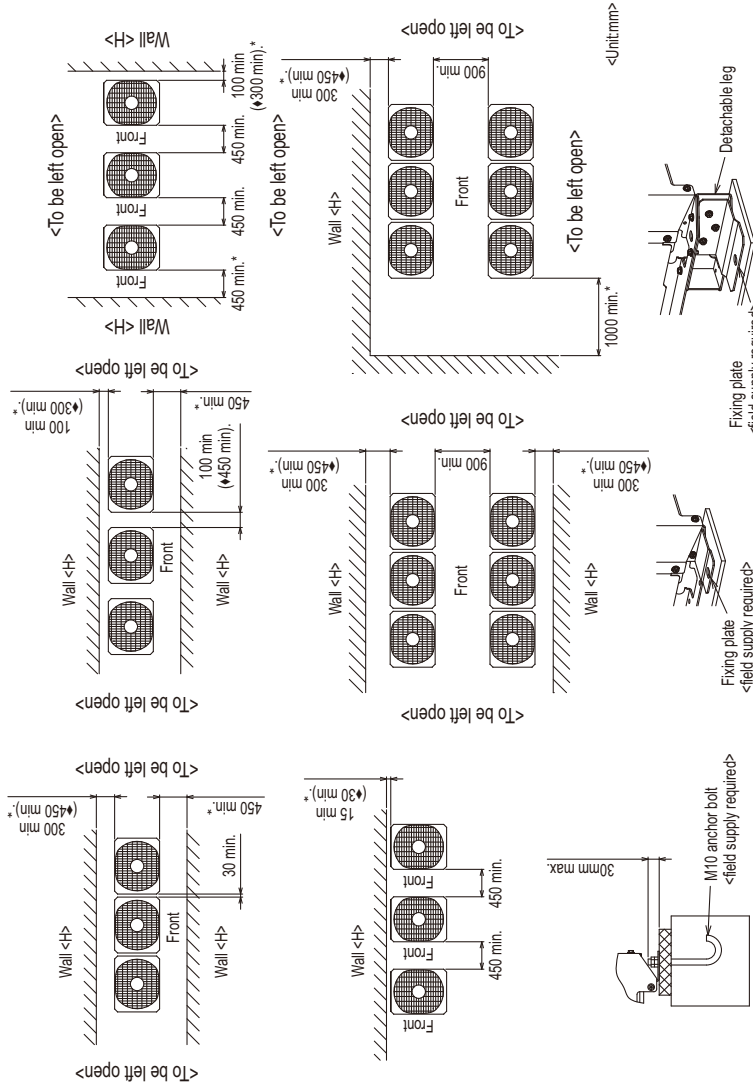


Fig.A (without detachable legs)

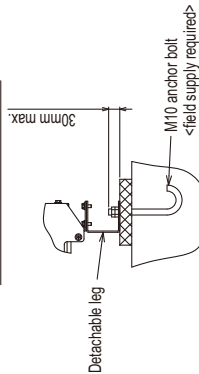


Fig.B (with detachable legs)

Fig.C (without detachable legs)

Fig.C (without detachable legs)

Fig.D (with detachable legs)

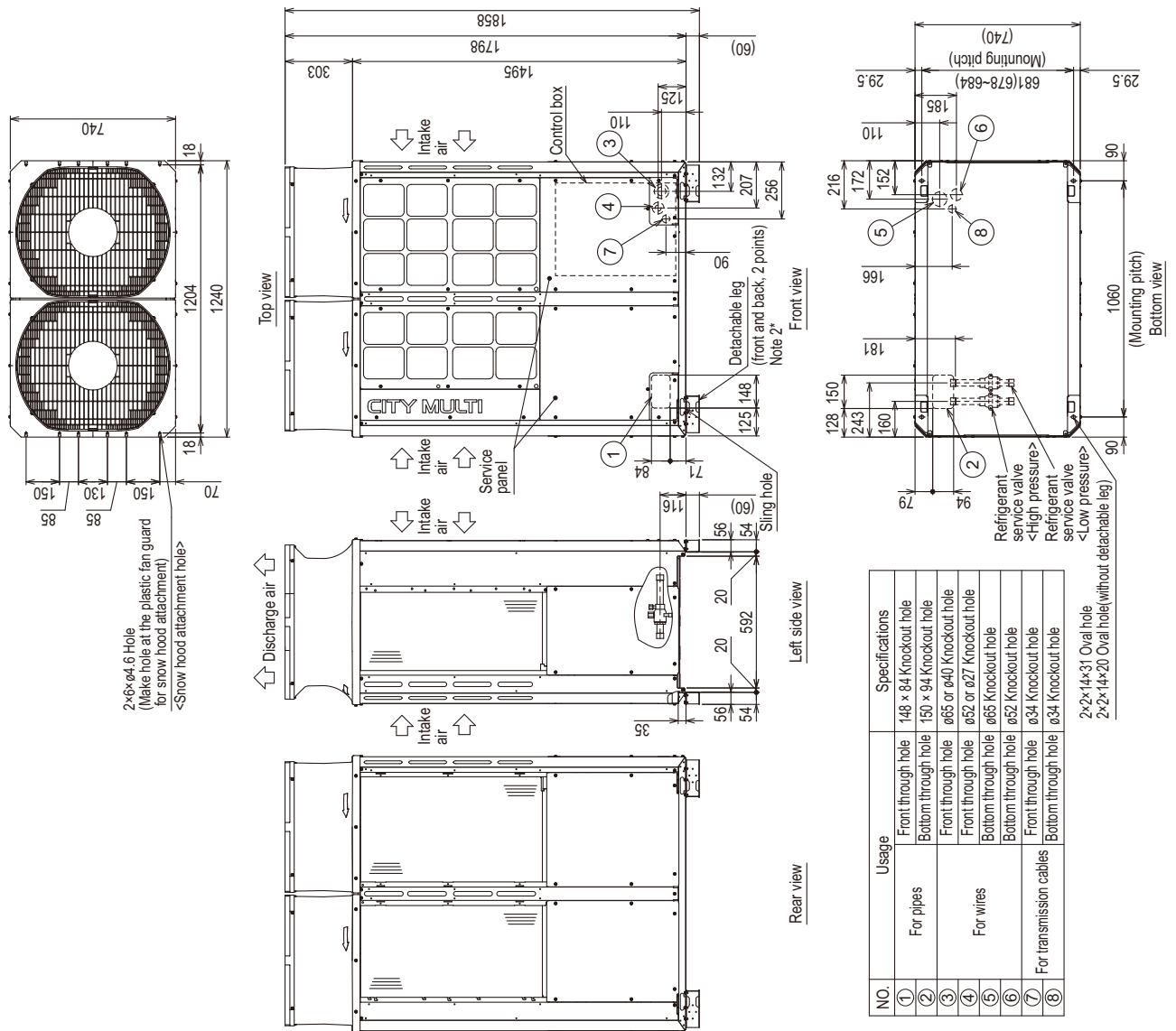
◆Outline dwg at panel heater installation

Fig.D (with detachable legs)

PURY-P350, 400, 450YNW-A2/TR2/RU2 (-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.



Connecting pipe specification

| Model | Refrigerant pipe       |                      | Service valve |              |
|-------|------------------------|----------------------|---------------|--------------|
|       | High pressure          | Low pressure         | High pressure | Low pressure |
| P350  | $\phi$ 19.05 Brazeed*1 | $\phi$ 28.58 Brazeed | $\phi$ 28.58  | $\phi$ 28.58 |
| P400  | $\phi$ 22.2 Brazeed*1  | $\phi$ 28.58 Brazeed | $\phi$ 28.58  | $\phi$ 28.58 |
| P450  | $\phi$ 22.2 Brazeed*1  | $\phi$ 28.58 Brazeed | $\phi$ 28.58  | $\phi$ 28.58 |

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

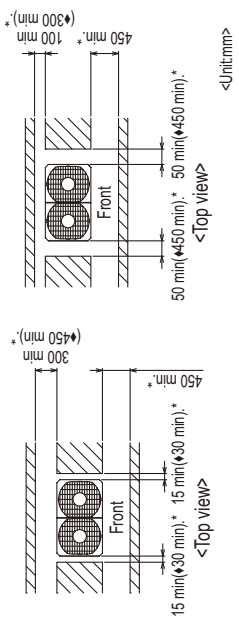
PURY-P350, 400, 450YNW-A2/TR2/RU2 (-BS)

Unit: mm

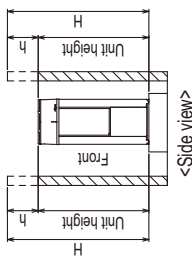
◆When installing a panel heater<Optional parts>  
1. Required space around the unit

●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(450mm) to the wall on the back of the unit



- 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.



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 M12 hole-in anchor bolts <field supply required>.(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.

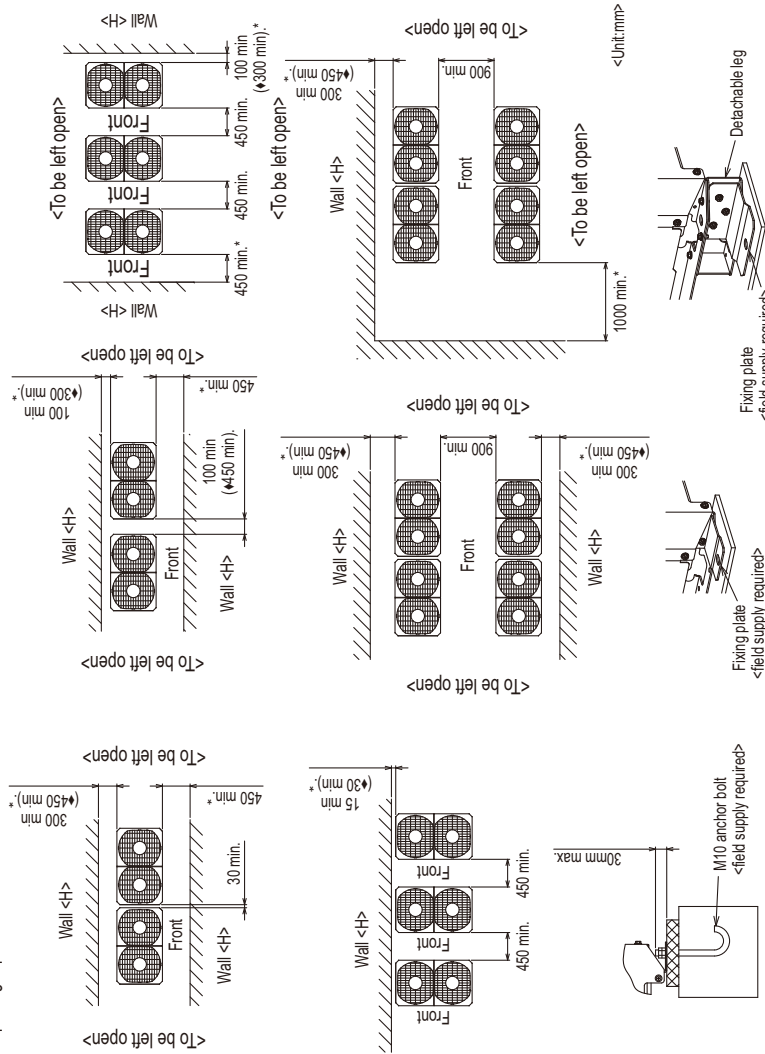


Fig.A (without detachable legs)

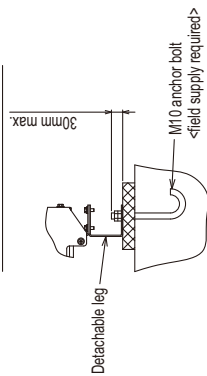


Fig.B (with detachable legs)

Fig.C (without detachable legs)

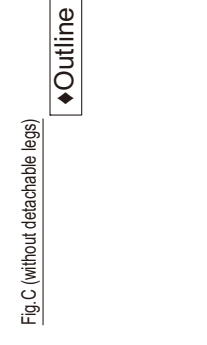


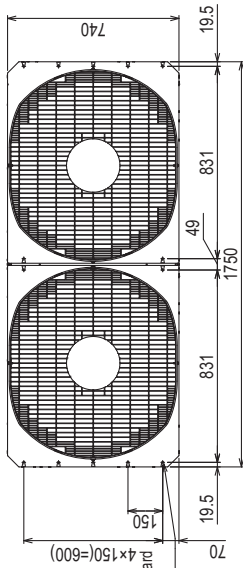
Fig.D (with detachable legs)

◆Outline dwg at panel heater installation

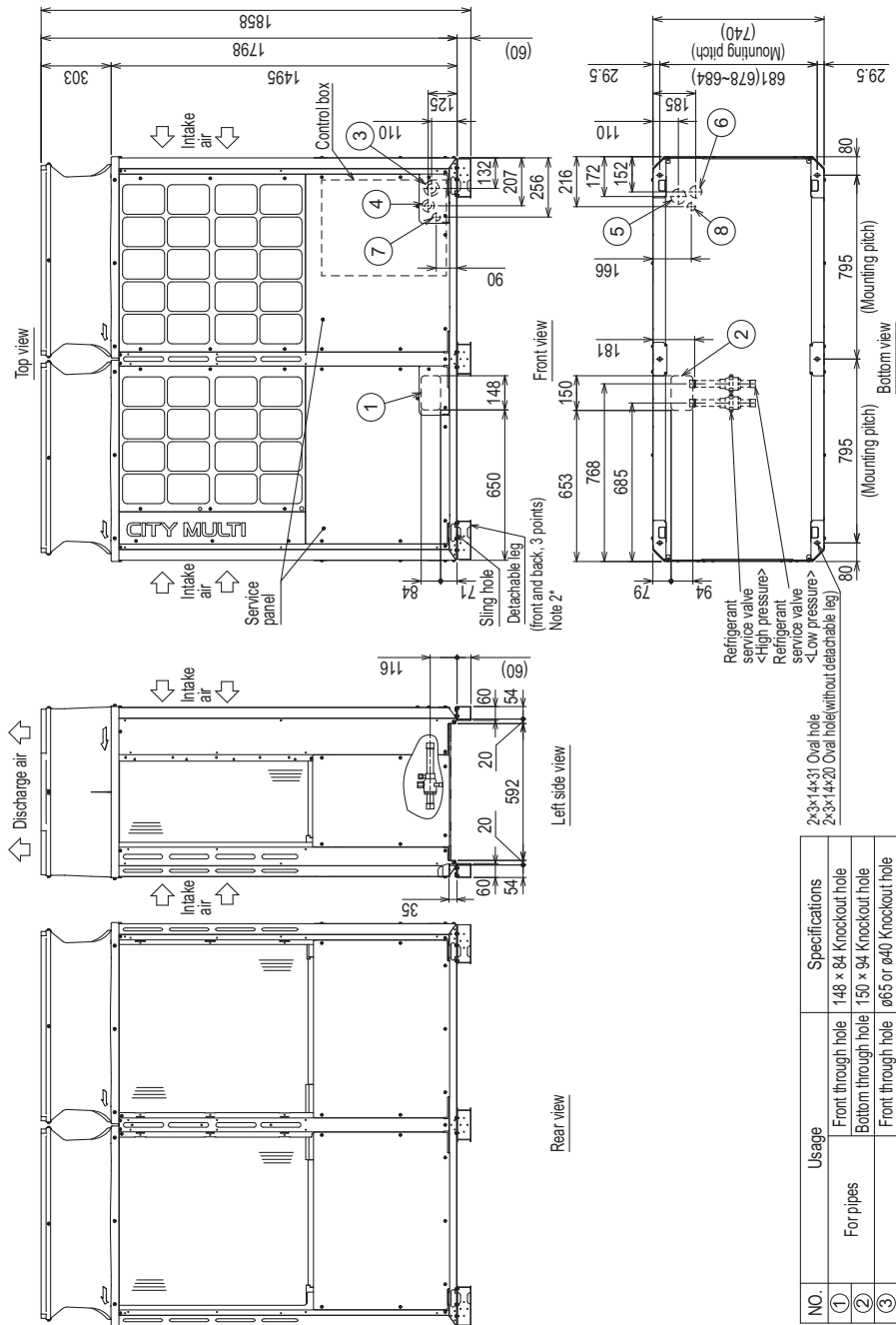
PURY-P500, 550YNW-A2/TR2/RU2 (-BS)

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.



2x7 x ø4.6 Hole  
 (Make hole at the plastic fan guard for snow hood attachment)  
 <Snow hood attachment hole>



Connecting pipe specification

| Model | Refrigerant pipe          |                            | Service valve |              |
|-------|---------------------------|----------------------------|---------------|--------------|
|       | High pressure             | Low pressure               | High pressure | Low pressure |
| P500  | ø22.2 Braze <sup>*1</sup> | ø28.58 Braze <sup>1</sup>  | ø28.58        | ø28.58       |
| P550  | ø22.2 Braze <sup>*1</sup> | ø28.58 Braze <sup>*2</sup> | ø28.58        | ø28.58       |

<sup>\*1</sup> Connect the refrigerant pipe to the service valve according to the Installation Manual.

<sup>\*2</sup> When the piping length is 65m or longer, use the ø28.58 pipe for the part that exceeds 65m.

| NO. | Usage               | Specifications           |
|-----|---------------------|--------------------------|
| ①   | Front through hole  | 148 x 84 Knockout hole   |
| ②   | Bottom through hole | 150 x 94 Knockout hole   |
| ③   | 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   | Front through hole  | ø34 Knockout hole        |
| ⑧   | Bottom through hole | ø34 Knockout hole        |



PURY-P500, 550YNW-A2/TR2/RU2 (-BS)

Unit: mm

◆ 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.

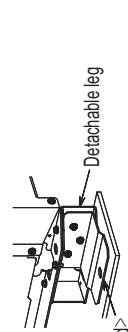
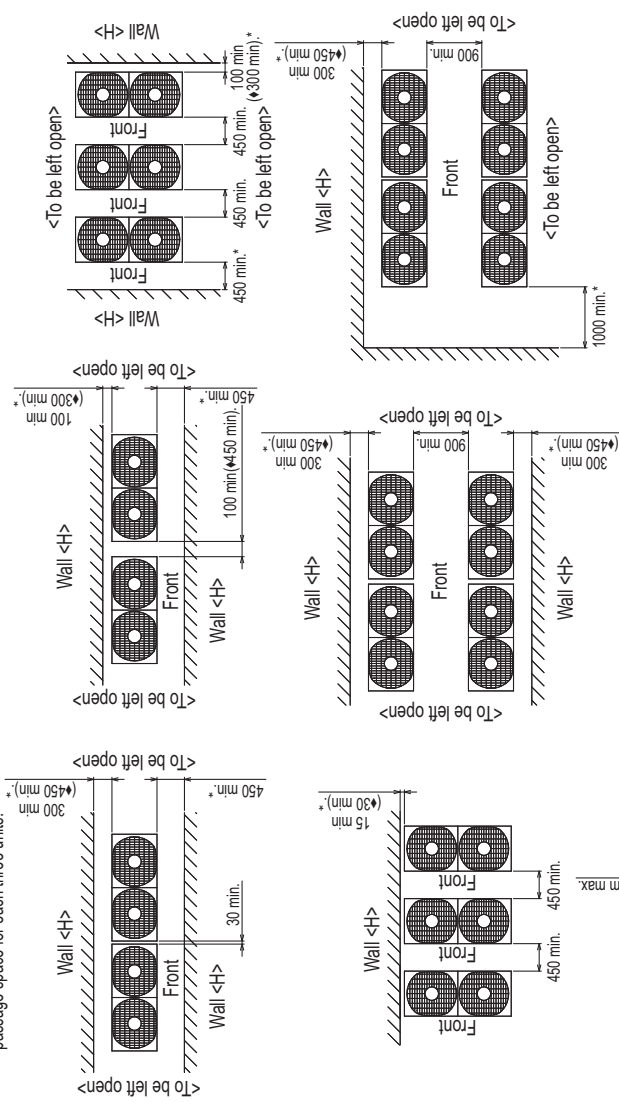


Fig.D (with detachable legs)

◆ Outline dwg at panel heater installation



Fig.C (without detachable legs)

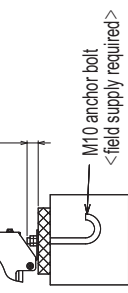


Fig.A (without detachable legs)

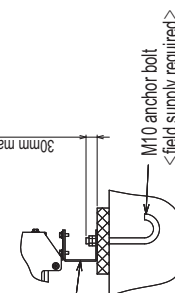
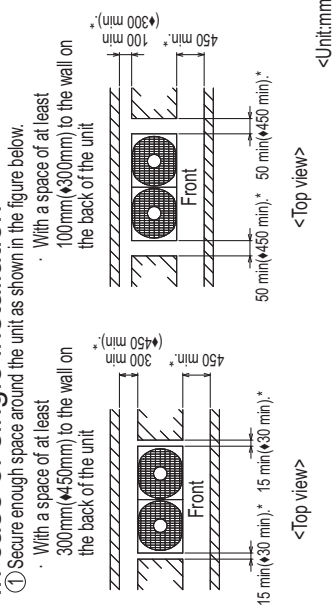


Fig.B (with detachable legs)

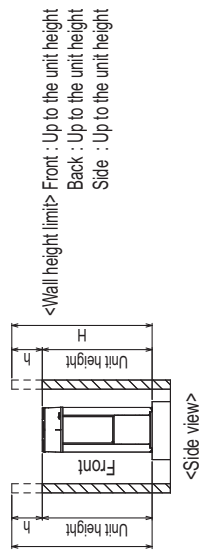
◆ When installing a panel heater<Optional parts>

1. Required space around the unit

◆ In case of single installation



- 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.



2. Foundation work

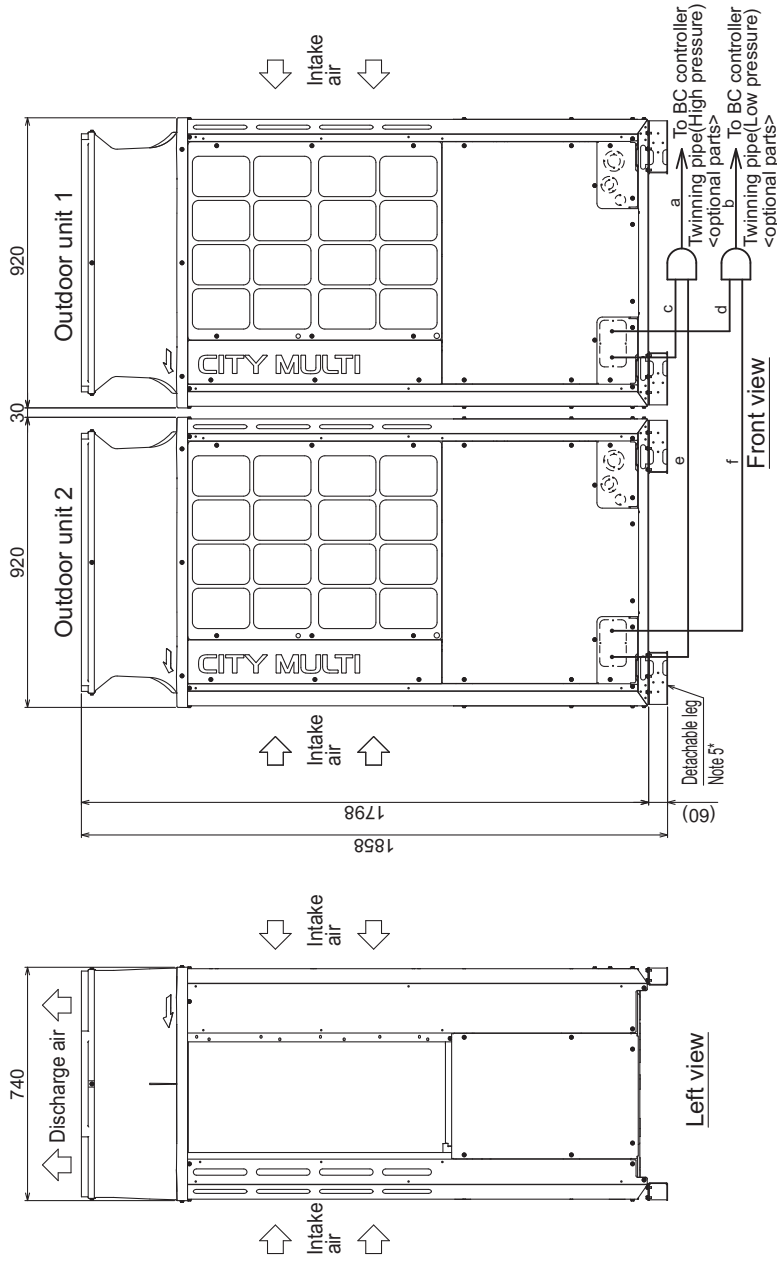
- ① Take into consideration the surface strength, water drainage route, piping route, and wiring route when preparing the installation site. <Note that the drain water comes out of the unit during operation.>
- ② Build the foundation in such way that the corner of the installation leg is securely supported 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 six fixing plates as shown in the right figure <field supply required> when using M12 hole-in anchor bolts <field supply required> (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.

Detachable leg



Unit: mm

PURY-P400, 450, 500, 550, 600YSNW-A2/TR2/RU2 (-BS)



Twinning pipe connection size

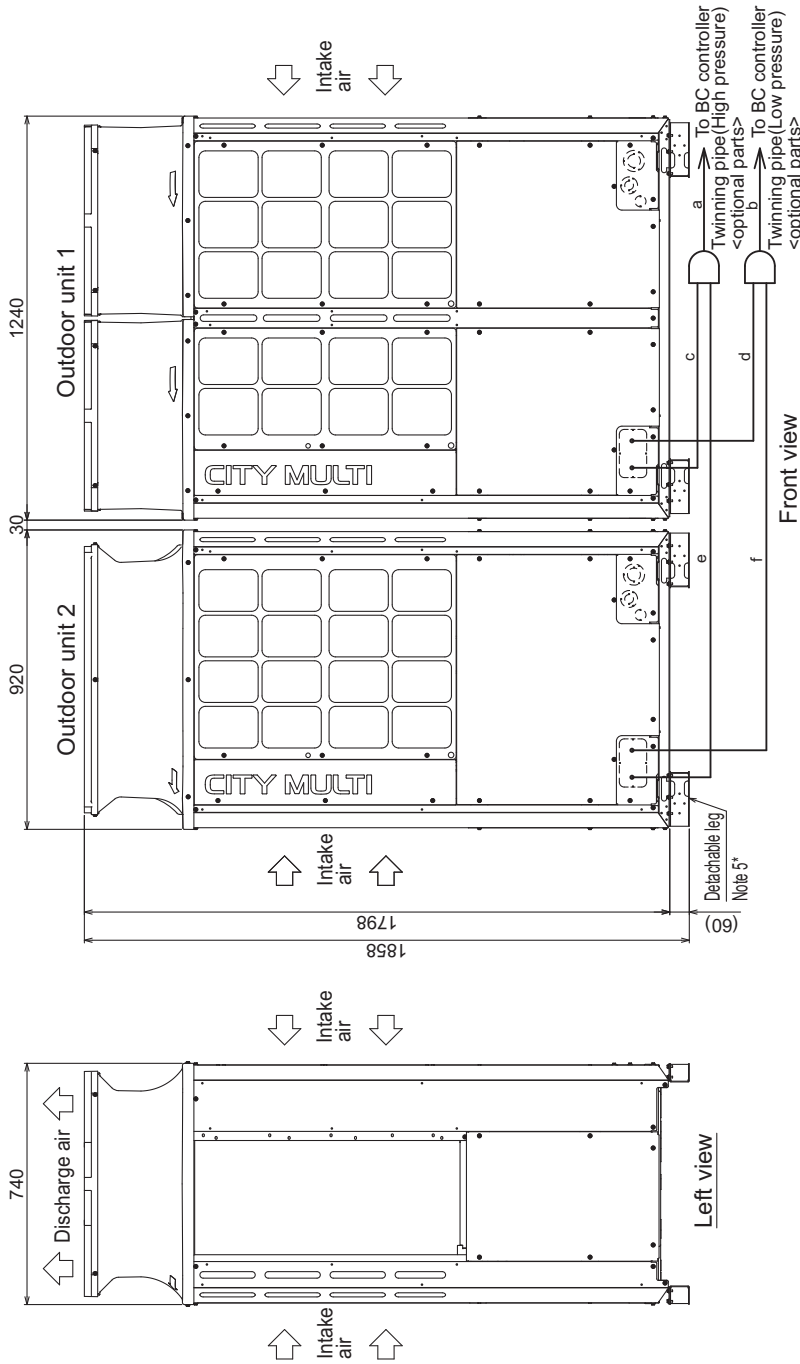
| Package unit name                     | PURY-P400YSNW-A2/TR2/RU2 (-BS) | PURY-P450YSNW-A2/TR2/RU2 (-BS) | PURY-P500YSNW-A2/TR2/RU2 (-BS) | PURY-P550YSNW-A2/TR2/RU2 (-BS) | PURY-P600YSNW-A2/TR2/RU2 (-BS) |
|---------------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
| Outdoor unit 1                        | PURY-P200YNNW-A2/TR2/RU2 (-BS) | PURY-P250YNNW-A2/TR2/RU2 (-BS) | PURY-P300YNNW-A2/TR2/RU2 (-BS) | PURY-P350YNNW-A2/TR2/RU2 (-BS) | PURY-P400YNNW-A2/TR2/RU2 (-BS) |
| Outdoor unit 2                        | PURY-P200YNNW-A2/TR2/RU2 (-BS) | PURY-P250YNNW-A2/TR2/RU2 (-BS) | PURY-P300YNNW-A2/TR2/RU2 (-BS) | PURY-P350YNNW-A2/TR2/RU2 (-BS) | PURY-P400YNNW-A2/TR2/RU2 (-BS) |
| Outdoor Twinning Kit (optional parts) | CMY-R100VBK4                   |                                |                                |                                |                                |
| BC controller                         | CMY-R100VBK4                   |                                |                                |                                |                                |
| ~Twinning pipe                        | High pressure   a              | High pressure   a              | High pressure   a              | High pressure   a              | High pressure   a              |
|                                       | Low pressure   b               | Low pressure   b               | Low pressure   b               | Low pressure   b               | Low pressure   b               |
| Twinning pipe                         | High pressure   c              | High pressure   c              | High pressure   c              | High pressure   c              | High pressure   c              |
| ~Outdoor unit 1                       | Low pressure   d               | Low pressure   d               | Low pressure   d               | Low pressure   d               | Low pressure   d               |
| Twinning pipe                         | High pressure   e              | High pressure   e              | High pressure   e              | High pressure   e              | High pressure   e              |
| ~Outdoor unit 2                       | Low pressure   f               | Low pressure   f               | Low pressure   f               | Low pressure   f               | Low pressure   f               |
|                                       | ø22.2                          | ø22.2                          | ø22.2                          | ø22.2(ø28.58)*                 | ø22.2(ø28.58)*                 |
|                                       | ø28.58                         | ø28.58                         | ø28.58                         | ø28.58                         | ø28.58                         |
|                                       | ø15.88                         | ø19.05                         | ø19.05                         | ø19.05                         | ø19.05                         |
|                                       | ø19.05                         | ø22.2                          | ø22.2                          | ø22.2                          | ø22.2                          |
|                                       | ø15.88                         | ø19.05                         | ø19.05                         | ø19.05                         | ø19.05                         |
|                                       | ø19.05                         | ø22.2                          | ø22.2                          | ø22.2                          | ø22.2                          |

\* When the piping length is 65m or longer, use the ø28.58 pipe for the part that exceeds 65m.

- Note 1. Connect the pipes as shown in the figure above. Refer to the table above for the pipe size.  
 2. Twinning pipes must be installed horizontally using a level vessel.  
 Be sure to see the Installation Manual for details of Twinning pipe installation.  
 3. The pipe section before the Twinning pipe (section "a" and "b" in the figure) must have at least 500mm of straight section (\*including the straight pipe that is supplied with the Twinning pipe).  
 4. Only use the Twinning pipe by Mitsubishi (optional parts).  
 5. The detachable leg can be removed at site.

PURY-P650YSNW-A2/TR2/RU2 (-BS)

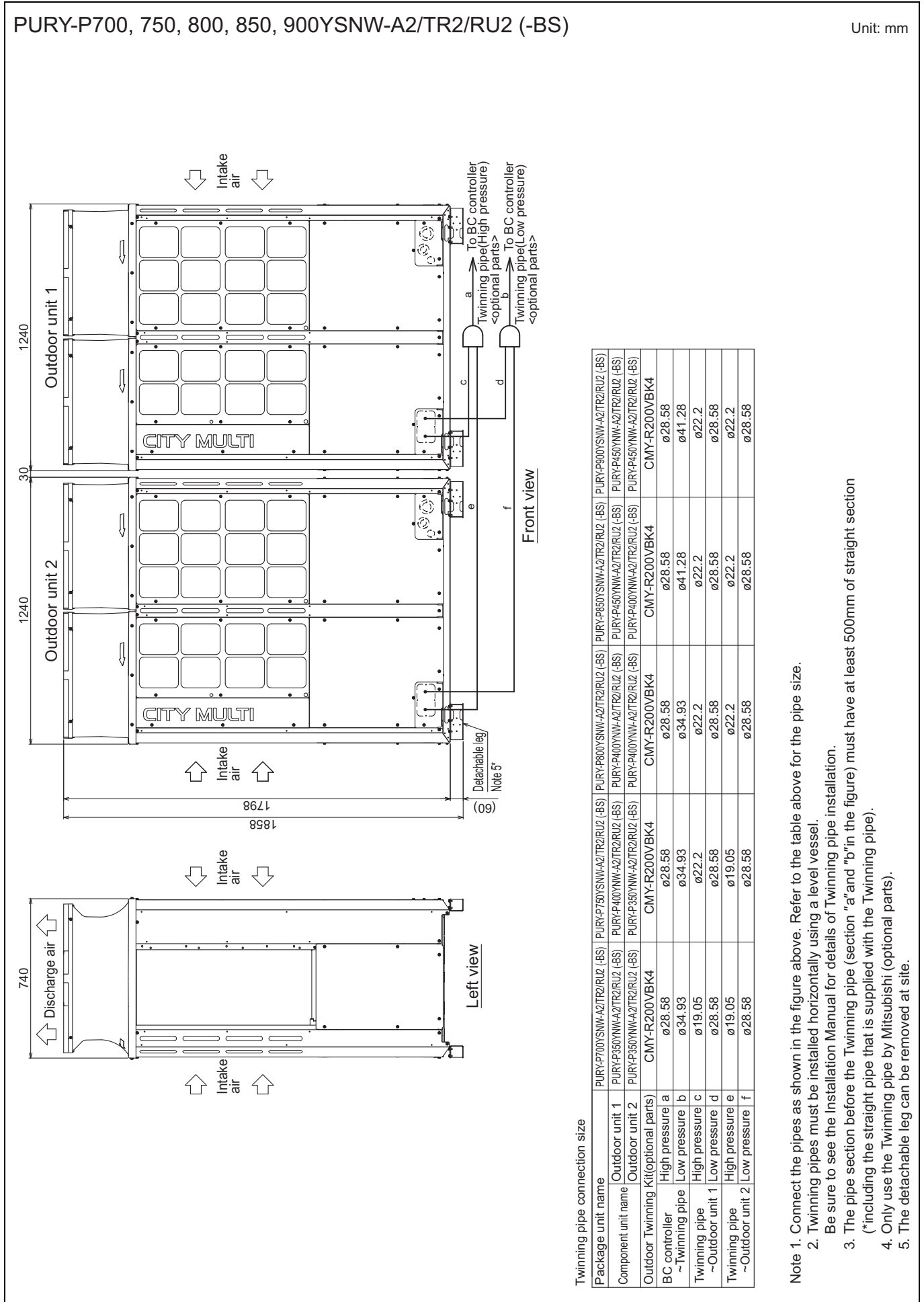
Unit: mm



Twinning pipe connection size

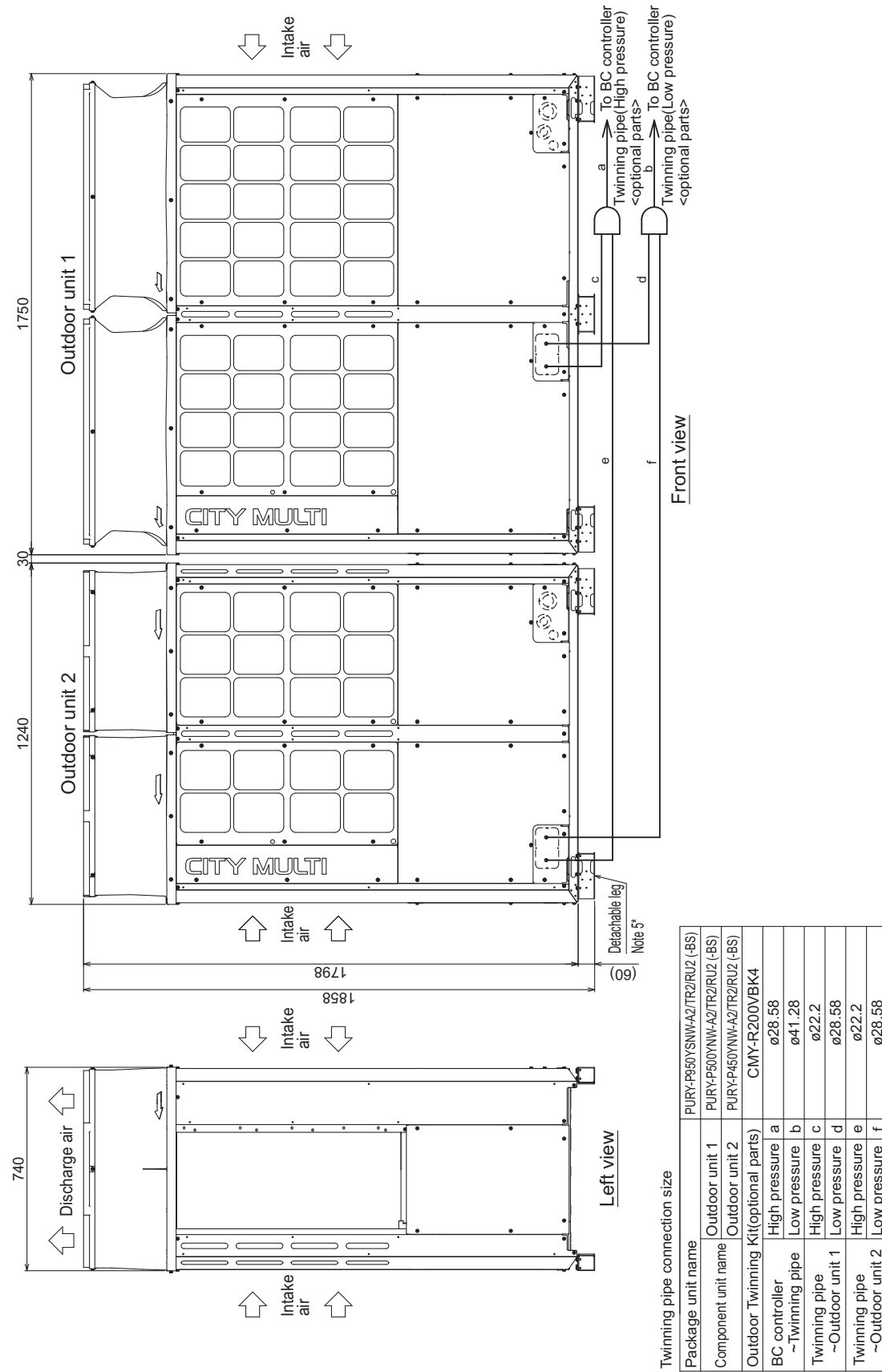
| Package unit name                    | PURY-P650YSNW-A2/TR2/RU2 (-BS) |
|--------------------------------------|--------------------------------|
| Outdoor unit 1                       | PURY-P350YSNW-A2/TR2/RU2 (-BS) |
| Outdoor unit 2                       | PURY-P300YSNW-A2/TR2/RU2 (-BS) |
| Outdoor Twinning Kit(optional parts) | CMY-R100VBK4                   |
| BC controller                        | ø28.58                         |
| ~Twinning pipe                       | ø28.58                         |
| Twinning pipe                        | ø19.05                         |
| ~Outdoor unit 1                      | ø28.58                         |
| Twinning pipe                        | ø19.05                         |
| ~Outdoor unit 2                      | ø22.2                          |

- Note 1. Connect the pipes as shown in the figure above. Refer to the table above for the pipe size.  
 2. Twinning pipes must be installed horizontally using a level vessel.  
 Be sure to see the Installation Manual for details of Twinning pipe installation.  
 3. The pipe section before the Twinning pipe (section "a" and "b" in the figure) must have at least 500mm of straight section (\*including the straight pipe that is supplied with the Twinning pipe).  
 4. Only use the Twinning pipe by Mitsubishi (optional parts).  
 5. The detachable leg can be removed at site.



PURY-P950YSNW-A2/TR2/RU2 (-BS)

Unit: mm



Note 1. Connect the pipes as shown in the figure above. Refer to the table above for the pipe size.

2. Twinning pipes must be installed horizontally using a level vessel.

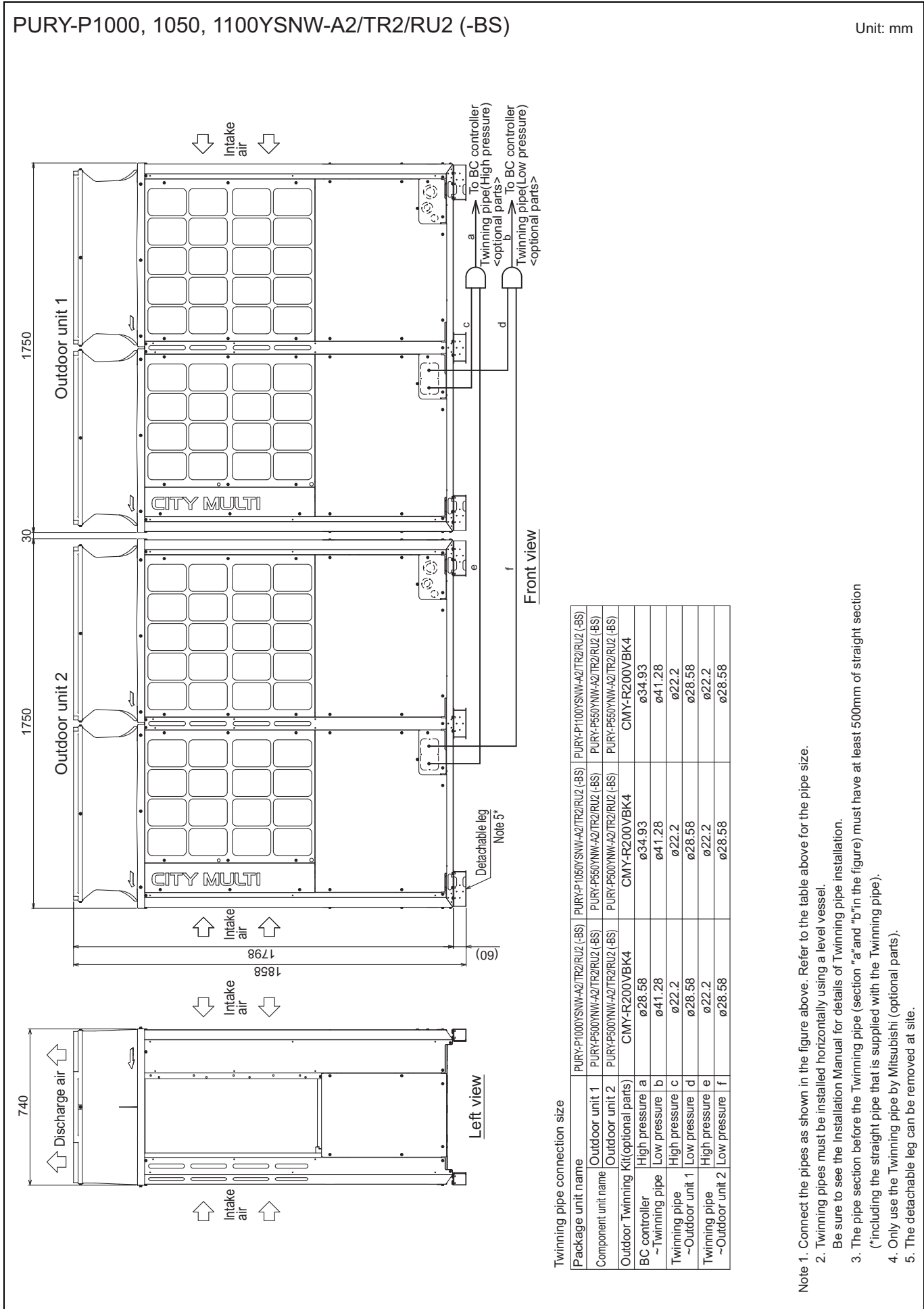
Be sure to see the Installation Manual for details of Twinning pipe installation.

3. The pipe section before the Twinning pipe (section "a" and "b" in the figure) must have at least 500mm of straight section

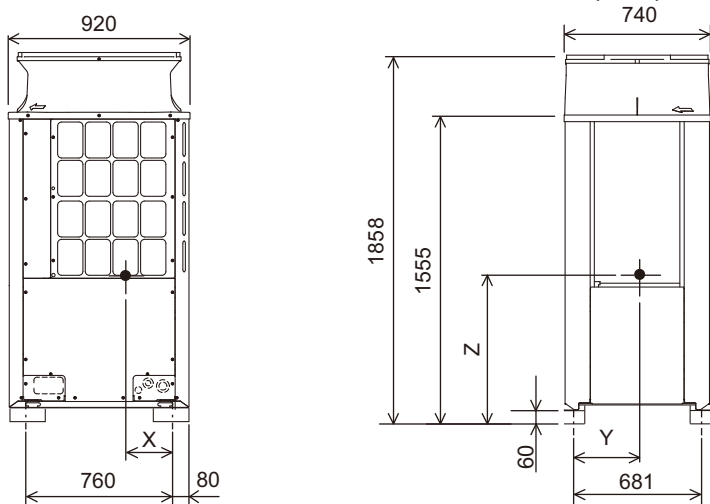
(\*including the straight pipe that is supplied with the Twinning pipe).

4. Only use the Twinning pipe by Mitsubishi (optional parts).

5. The detachable leg can be removed at site.



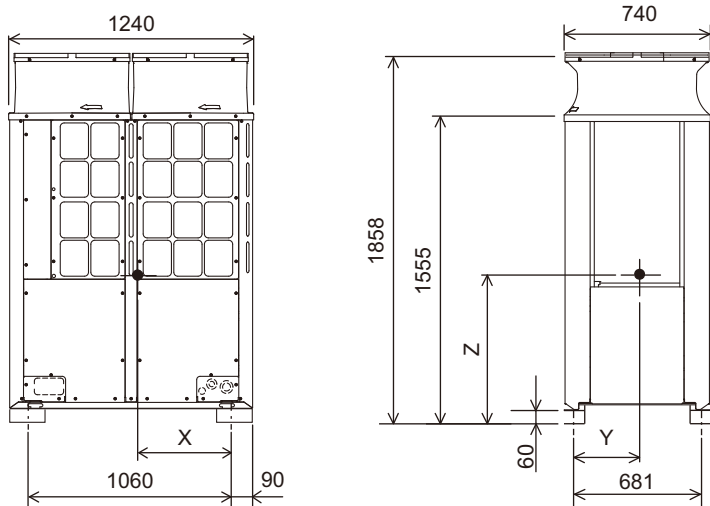
PURY-P200, 250, 300YNW-A2/TR2/RU2 (-BS)



Unit: mm

| Model                        | X   | Y   | Z   |
|------------------------------|-----|-----|-----|
| PURY-P200YNW-A2/TR2/RU2(-BS) | 354 | 338 | 678 |
| PURY-P250YNW-A2/TR2/RU2(-BS) | 356 | 338 | 668 |
| PURY-P300YNW-A2/TR2/RU2(-BS) | 357 | 338 | 665 |

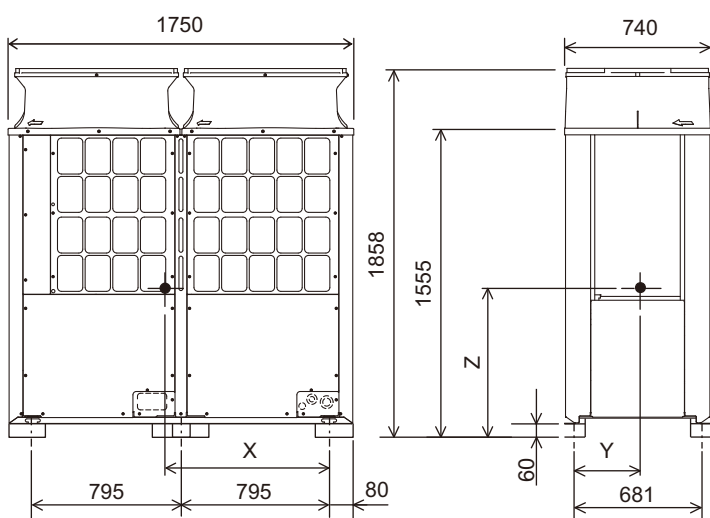
PURY-P350, 400, 450YNW-A2/TR2/RU2 (-BS)



Unit: mm

| Model                        | X   | Y   | Z   |
|------------------------------|-----|-----|-----|
| PURY-P350YNW-A2/TR2/RU2(-BS) | 502 | 344 | 714 |
| PURY-P400YNW-A2/TR2/RU2(-BS) | 502 | 344 | 714 |
| PURY-P450YNW-A2/TR2/RU2(-BS) | 501 | 345 | 741 |

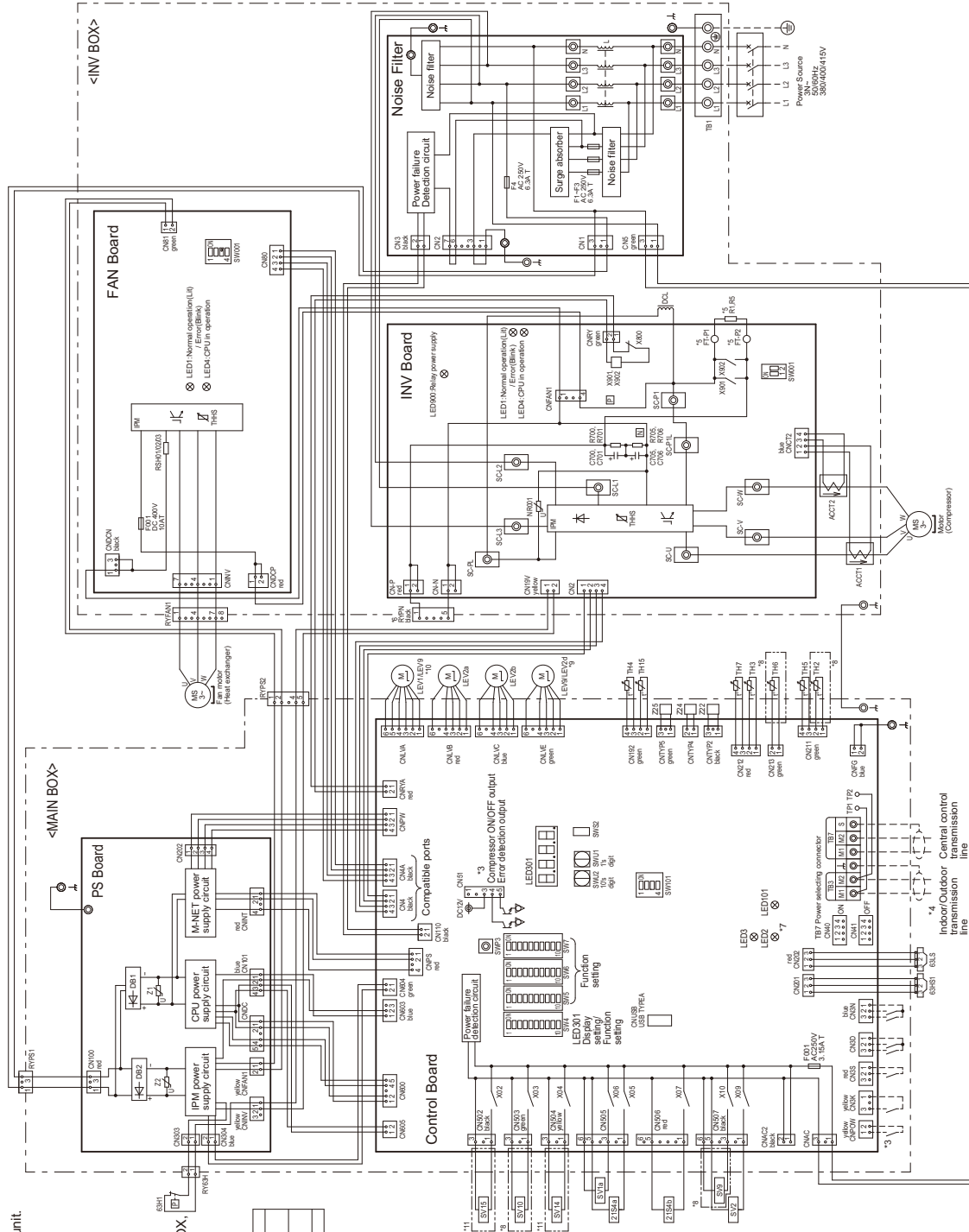
PURY-P500, 550YNW-A2/TR2/RU2 (-BS)



Unit: mm

| Model                        | X   | Y   | Z   |
|------------------------------|-----|-----|-----|
| PURY-P500YNW-A2/TR2/RU2(-BS) | 871 | 305 | 720 |
| PURY-P550YNW-A2/TR2/RU2(-BS) | 871 | 305 | 720 |

PURY-P200, 250, 300YNW-A2/TR2/RU2 (-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.  
Make sure the terminals are securely locked in place after insertion. Press the tab on the terminals to removed them.
- \*5 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.

- LED03 SWS-10 is OFF and SWS4-1-10 are OFF  
SWS-10 is ON  
Function setting by SW4 is enabled (display UMI)
- LED01 Normal operation (L) / Error (Blk)
- LED02 Normal operation (L) / Error (Blk)
- LED03 SWS-10 is OFF and SWS4-1-10 are OFF  
SWS-10 is ON  
Function setting by SW4 is enabled (display UMI)
- LED01 Normal operation (L) / Error (Blk)

<Symbol explanation>

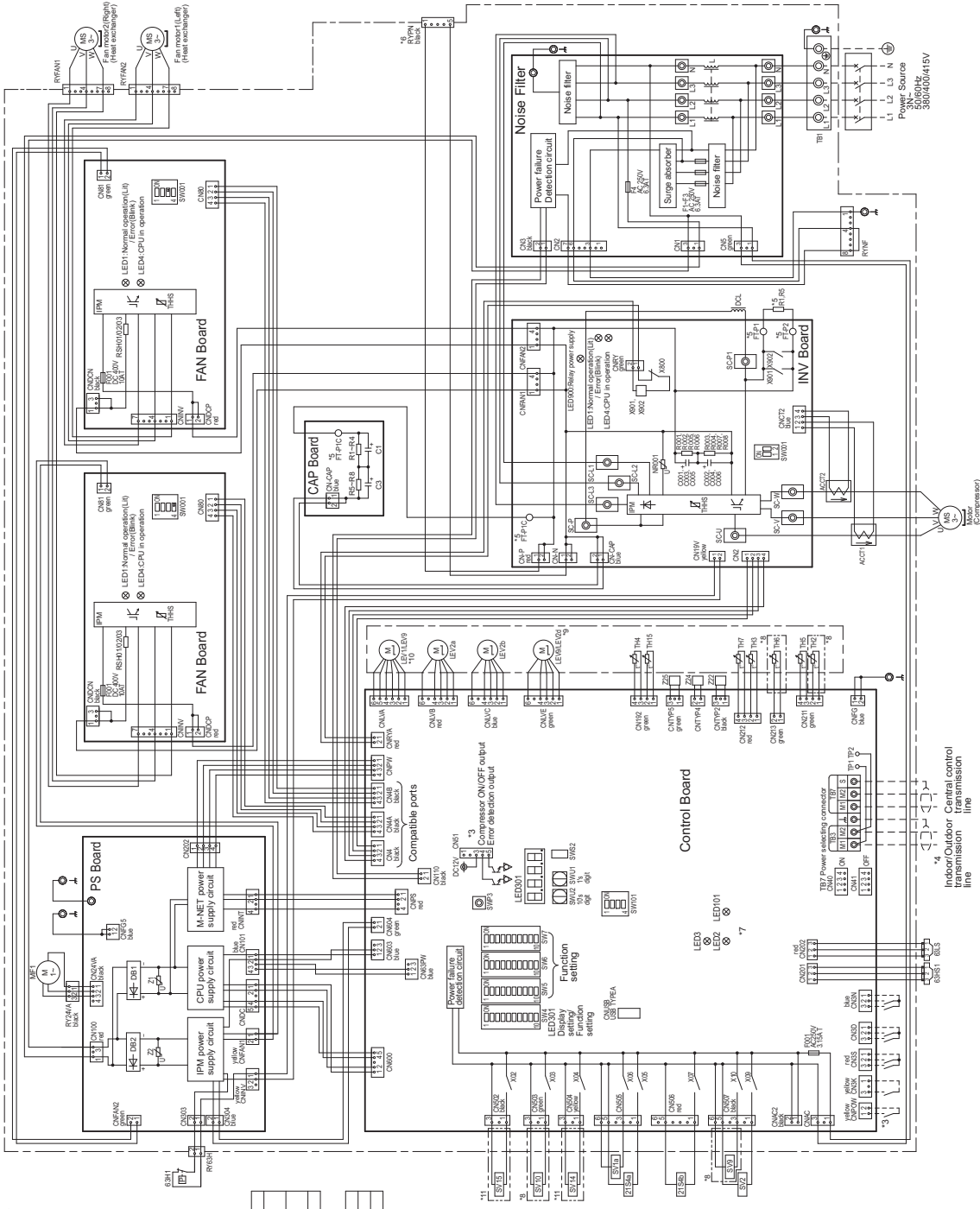
| Symbol     | Explanation                                      |
|------------|--|
| Z1S4a      | Cooling/heating switching                        |
| Z1S4b      | PUV refrigerant capacity continuously            |
| 6BH1       | Cooling/heating switching                        |
| 6SPS1      | High pressure protection for the outdoor unit    |
| 6SPS2      | Discharge pressure                               |
| C700/C701  | Low pressure                                     |
| C705/C706  | Current sensor (AC)                              |
| DCL        | Capacitor (inverter main circuit)                |
| LE1*10     | DC reactor                                       |
| LE1*2a     | HiC bypass (for high frequency noise reduction)  |
| LE1*2b     | Linear expansion valve                           |
| LE1*2c     | Pressure control (Refrigerant flow rate control) |
| LE1*9      | Pressure control (Refrigerant flow rate control) |
| LE1*9-10   | Pressure control (Refrigerant flow rate control) |
| R1-15      | Heat exchanger for inverter                      |
| RSN1/02/03 | For main current prevention                      |
| SV1a       | For current detection                            |
| SV2        | For opening/closing the bypass suction bypass    |
| SV9-8      | For opening/closing the bypass suction bypass    |
| SV10-8     | For continuous heating                           |
| SV14-15*11 | For changing refrigerant flow (cooling/heating)  |
| TB1        | Terminal block                                   |
| TB3        | Indoor/Outdoor transmission line                 |
| TB7        | Central control (bypass) line                    |
| TH2-8      | Subcool bypass outlet temperature                |
| TH3        | Pipe temperature                                 |
| TH4        | Discharge pipe temperature                       |
| TH5        | ACC inlet pipe temperature                       |
| TH6-8      | Subcooled liquid refrigerant temperature         |
| TH9        | Overheat protection temperature                  |
| TH15       | Compressor inlet isolation temperature           |
| THS        | IPK temperature                                  |
| X01-002    | Magnetic relay (inverter main circuit)           |
| Z22-24-25  | Function setting connector                       |

PURY-P-Y(S)NW-A2/TR2/RU2



PURY-P-350, 400, 450YNW-A2/TR2/RU2 (-BS)

PURY-P-Y(S)NW-A2/TR2/RU2



- \*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 (L)/Error (Blnk)    |
| LED3            | In operation (L)/In stop (Unit)      |
| SW4-1 to SW4-10 | SW4-1 to SW4-10 are OFF              |
| SW6-10          | ON                                   |
| LED10           | Normal operation (L)/IC Error (Unit) |

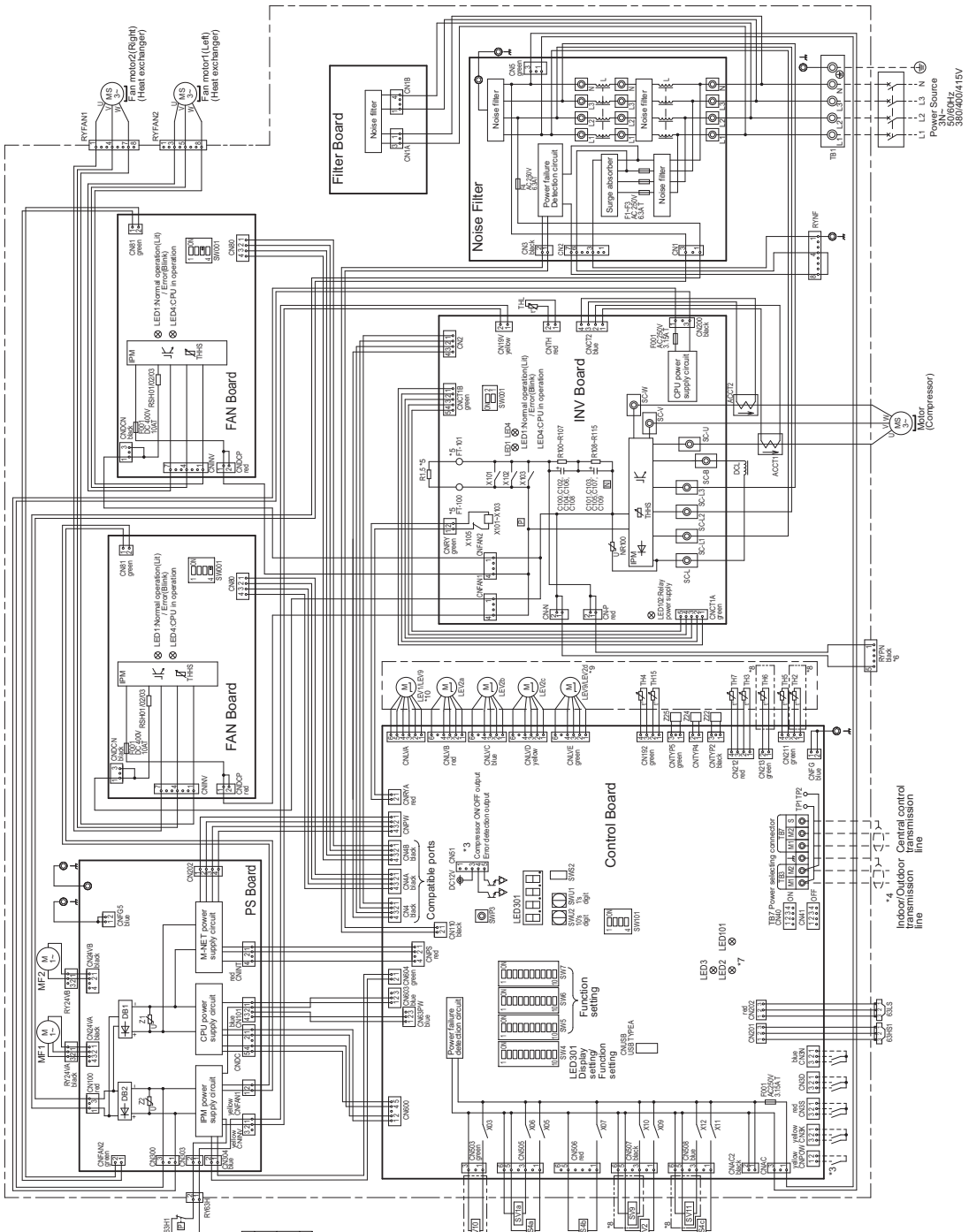
|            |           |
|------------|-----------|
| Model name | Appliance |
| PURY       | Appliance |
| PURY-EP    | Appliance |

|            |           |
|------------|-----------|
| Model name | Appliance |
| PURY       | Appliance |
| PURY-EP    | Appliance |

|            |           |
|------------|-----------|
| Model name | Appliance |
| PURY       | Appliance |
| PURY-EP    | Appliance |

| Symbol     | Explanation  |
|------------|--|
| 2/548      | Cooling/heating switching                            |
| 2/549      | Cooling/heating capacity control (only PURY model)   |
| 63H1       | Cooling/heating switching                            |
| 63H1       | High pressure protection for the outdoor unit        |
| 63H1       | Discharge pressure                                   |
| 63H1       | Low pressure   |
| C1/C3      | Capacitor (inverter main circuit)                    |
| C001-C006  | DC reader  |
| L          | Choke coil (for high frequency noise reduction)      |
| LEV1-10    | Linear   |
| LEV2a,b    | H/C bypass, Controls refrigerant flow in H/C circuit |
| LEV2a,b    | Pressure control/Refrigerant flow rate control       |
| LEV2d-g    | Pressure control/Refrigerant flow rate control       |
| LEV9-9,10  | Heat exchanger for inverter                          |
| LEV9-9,10  | Fan motor (for cooling/heating prevention)           |
| R1.5       | Resistor   |
| RS40/0203  | For current detection                                |
| SV1a       | Solenoid valve                                       |
| SV2        | For opening/closing the bypass circuit under the O/S |
| SV9-8      | For opening/closing the discharge suction bypass     |
| SV10-9     | For opening/closing the bypass circuit               |
| SV14,15-11 | For continuous heating (cooling/heating)             |
| TE1        | Power supply transmission line                       |
| TE2        | Indoor/Outdoor transmission line                     |
| TE3        | Control transmission line                            |
| TH2-8      | Thermistor   |
| TH4        | Pipe temperature                                     |
| TH4        | Discharge pipe temperature                           |
| TH6        | ACC inlet pipe temperature                           |
| TH7-8      | Subcooled liquid refrigerant temperature             |
| TH7        | OA temperature                                       |
| TH15       | IPM temperature                                      |
| TH15       | Compressor shell bottom temperature                  |
| X801,X902  | Magnetic relay (inverter main circuit)               |
| ZZZ2,Z4,Z5 | Function setting connector                           |

PURY-P500, 550YNW-A2/TR2/RU2 (-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/Error blink
  - LED3 In operation (with stop) (Unit)
  - LED4 Function setting by SW4 enable(L)/disable(Unit)
  - LED10 Normal operation/LIC Error(Unit)

- \*8. Difference of appliance.
 

|                      |           |
|----------------------|-----------|
| Model name           | Appliance |
| PURY '8 exist        |           |
| PURY '8 do not exist |           |
- \*9. Difference of appliance.
 

|            |           |
|------------|-----------|
| Model name | Appliance |
| PURY LEV9  |           |
| PURY LEV24 |           |
- \*10. Difference of appliance.
 

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

<Symbol explanation>

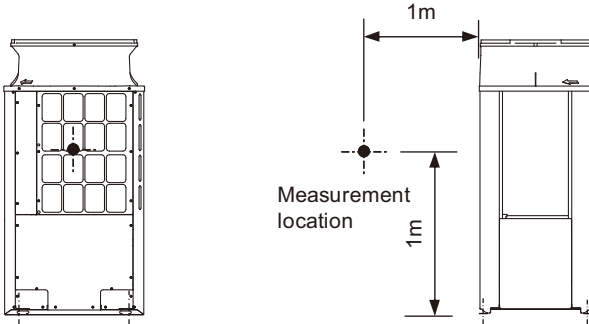
| Symbol     | Explanation  |
|------------|--|
| Z154       | Cooling/heating switching                            |
| Z154a,c    | Pressure capacity control (only PURY model)          |
| 63H1       | Cooling/heating switching outdoor unit               |
| 63HS1      | High pressure protection for the outdoor unit        |
| 63CS1      | Discharge pressure switch                            |
| 63CS2      | Pressure switch                                      |
| C100-C109  | Capacitor (inverter main circuit)                    |
| DCE        | DC reactor (for high frequency noise reduction)      |
| LEV1~10    | HIC bypass. Controls refrigerant flow in HIC circuit |
| LEV2a,b,c  | Pressure control/Refrigerant flow rate control       |
| LEV2d~g    | Pressure control/Refrigerant flow rate control       |
| LEV9,9,10  | Heat exchanger for inverter                          |
| RF1,2      | Fan motor (for cooling in control box)               |
| RF1,2      | Resistor   |
| ES40/0203  | For current detection prevention                     |
| SV1a       | Solenoid valve                                       |
| SV2        | For opening/closing the bypass circuit under the O/S |
| SV9,9      | For opening/closing the discharge suction bypass     |
| SV10,11,18 | For opening/closing the bypass circuit               |
| TB1        | Terminal block                                       |
| TB3        | Indoor/Outdoor transmission line                     |
| TB7        | Central control transmission line                    |
| TH2~9      | Subcool bypass outlet temperature                    |
| TH3        | Pipe temperature                                     |
| TH4        | Discharge temperature                                |
| TH5        | ACC inlet pipe temperature                           |
| TH6~9      | Subcooled liquid refrigerant temperature             |
| TH15       | OA temperature                                       |
| TH16       | Compressor shell bottom temperature                  |
| TH18       | IPM temperature                                      |
| X101~X103  | Magnetic relay (inverter main circuit)               |
| Z22,24,25  | Function setting connector                           |

PURY-P-Y(S)NW-A2/TR2/RU2

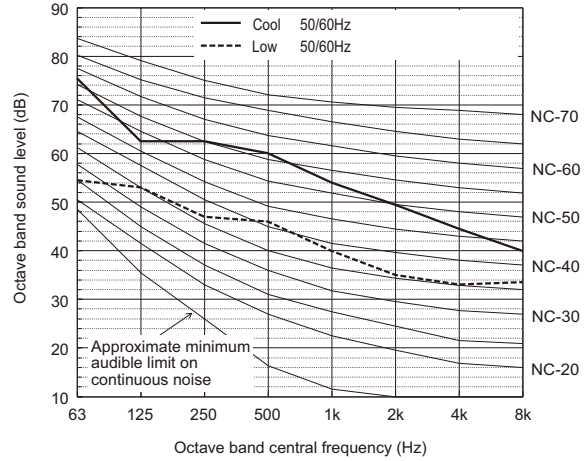
5-1. Sound levels in cooling mode

PURY-P-Y(S)NW-A2/TR2/RU2

Measurement condition  
PURY-P200, 250, 300YNW-A2/TR2/RU2(-BS)



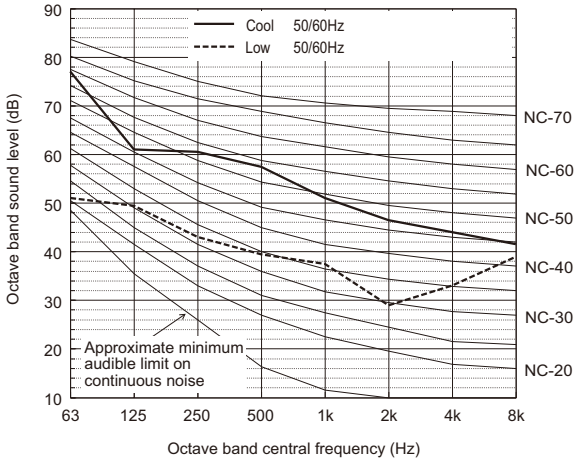
Sound level of PURY-P300YNW-A2/TR2/RU2(-BS)



|                  |         | 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.

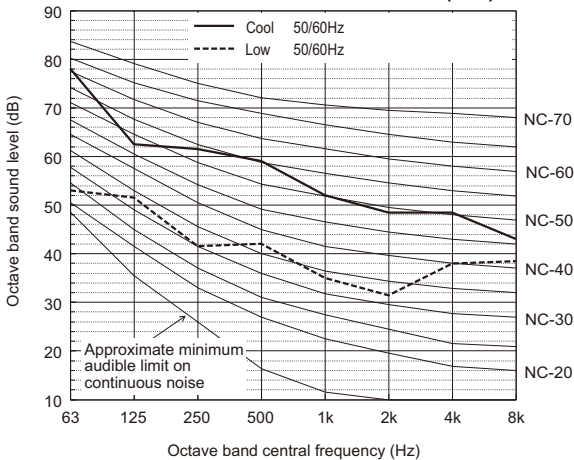
Sound level of PURY-P200YNW-A2/TR2/RU2(-BS)



|                  |         | 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-P250YNW-A2/TR2/RU2(-BS)

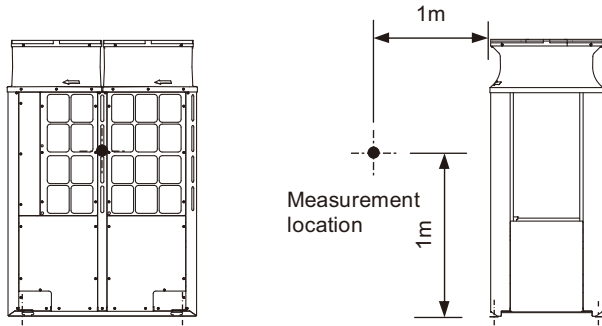


|                  |         | 63   | 125  | 250  | 500  | 1k   | 2k   | 4k   | 8k   | dB(A) |
|------------------|---------|------|------|------|------|------|------|------|------|-------|
| Standard Cooling | 50/60Hz | 78.0 | 62.5 | 61.5 | 59.0 | 52.0 | 48.5 | 48.5 | 43.0 | 60.5  |
| Low noise mode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

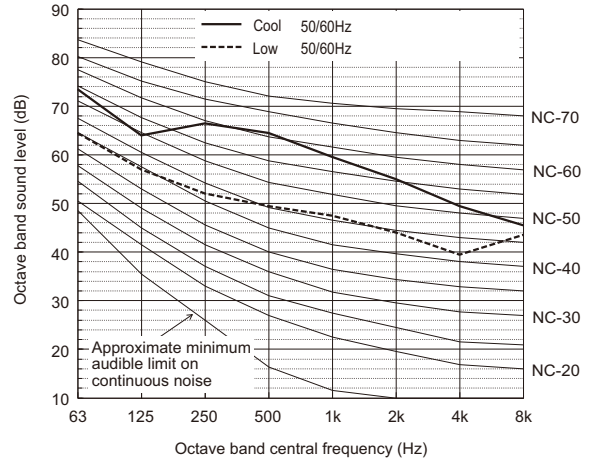
When Low noise mode is set, the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

\*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 BC controller, it is recommended to be installed in places such as ceilings of corridor, rest rooms and plant rooms. The sound pressure level measured by the conventional method in JIS for reference purpose.

**Measurement condition**  
**PURY-P350, 400, 450YNW-A2/TR2/RU2(-BS)**



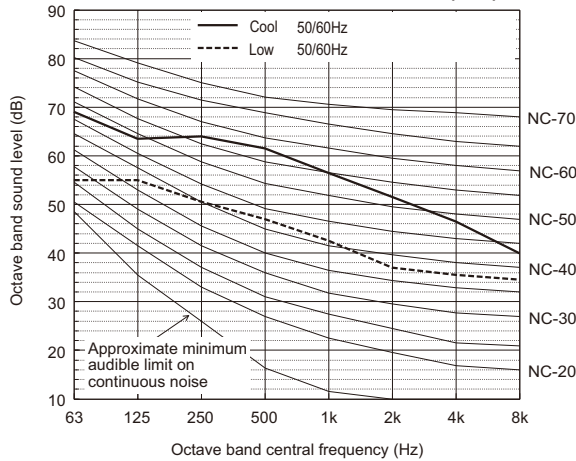
**Sound level of PURY-P450YNW-A2/TR2/RU2(-BS)**



|                  |         | 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.

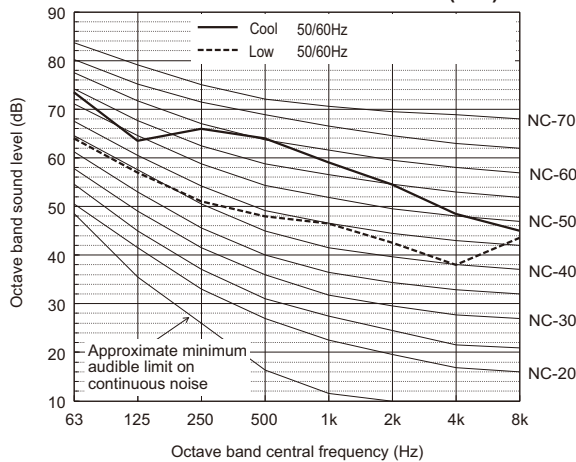
**Sound level of PURY-P350YNW-A2/TR2/RU2(-BS)**



|                  |         | 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.

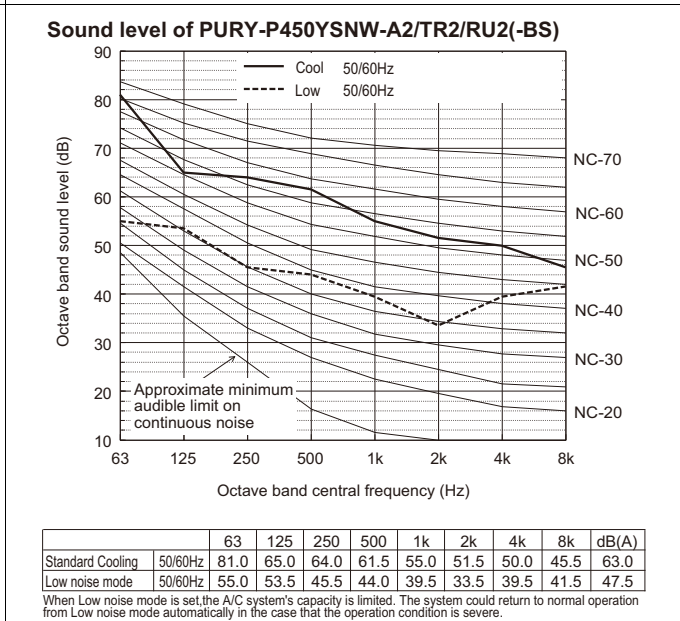
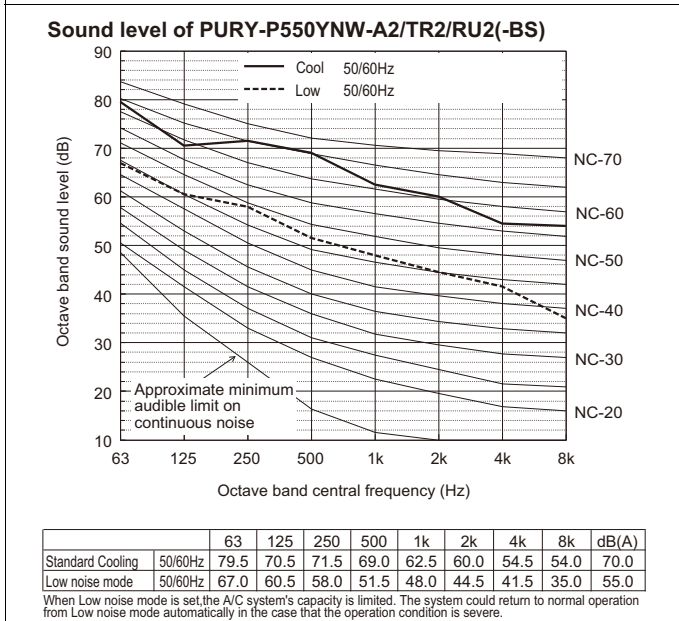
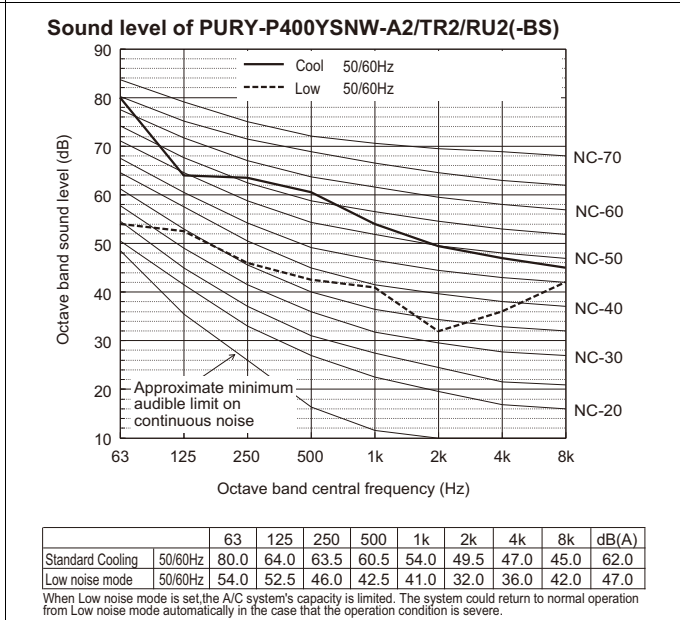
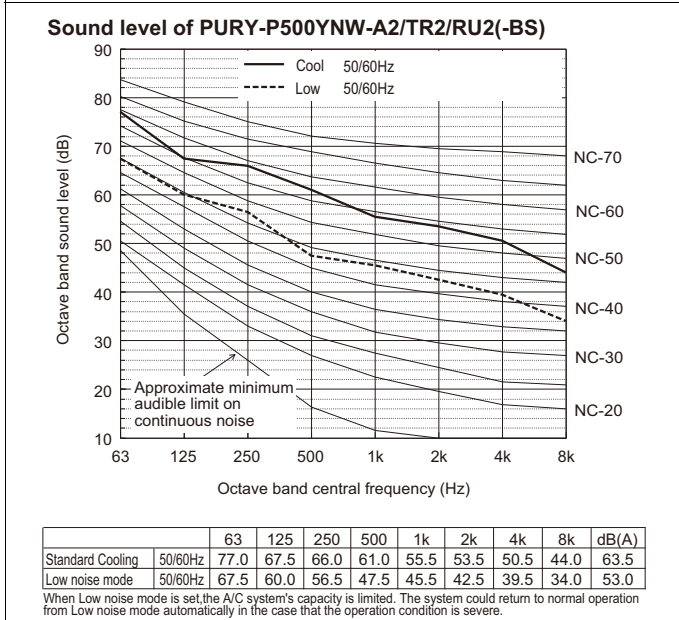
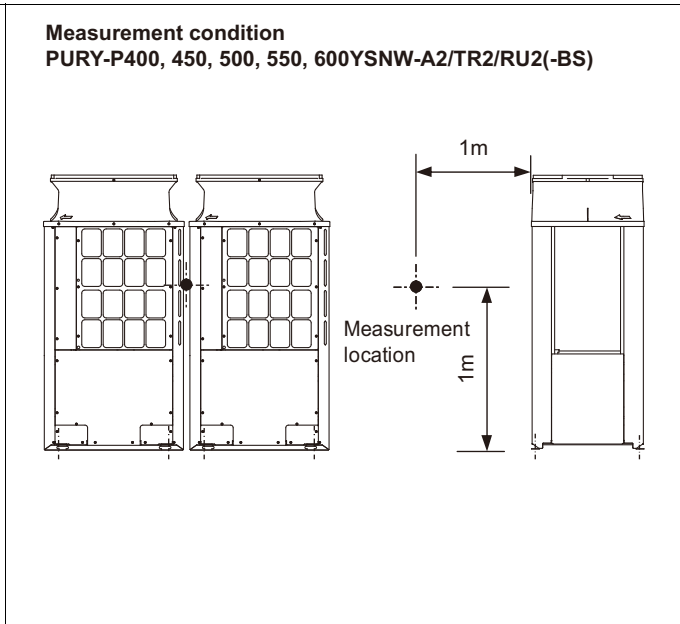
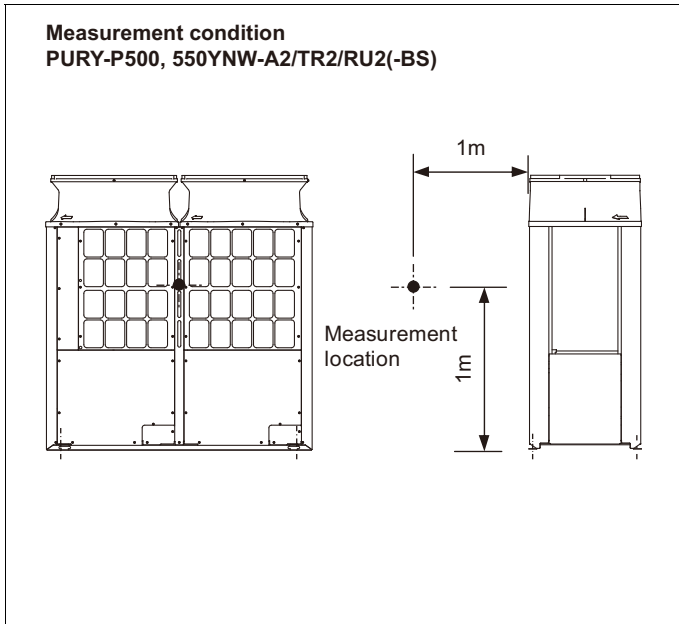
**Sound level of PURY-P400YNW-A2/TR2/RU2(-BS)**



|                  |         | 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  |

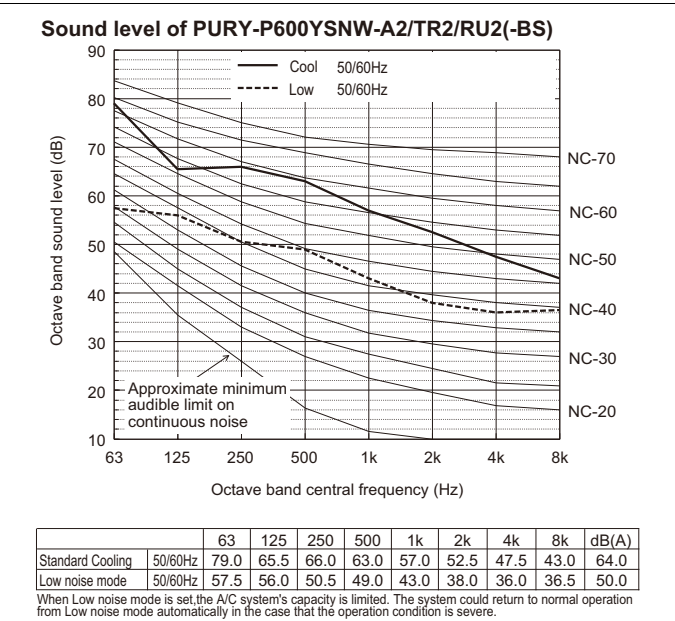
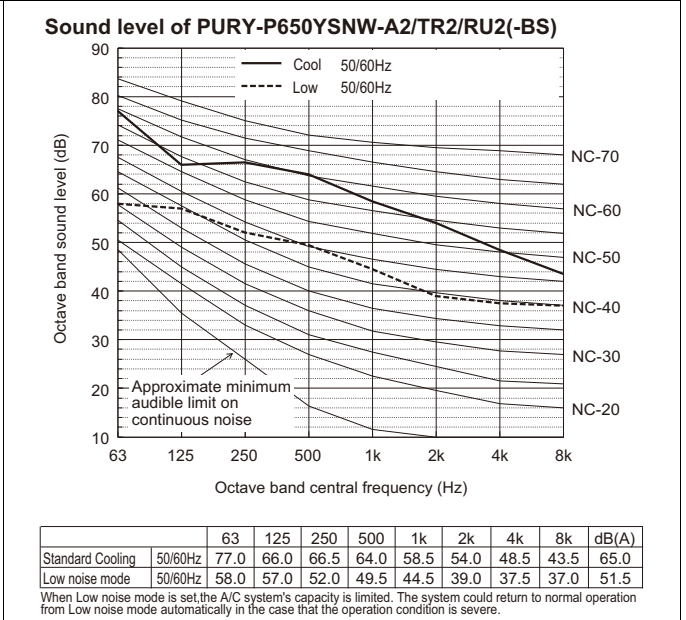
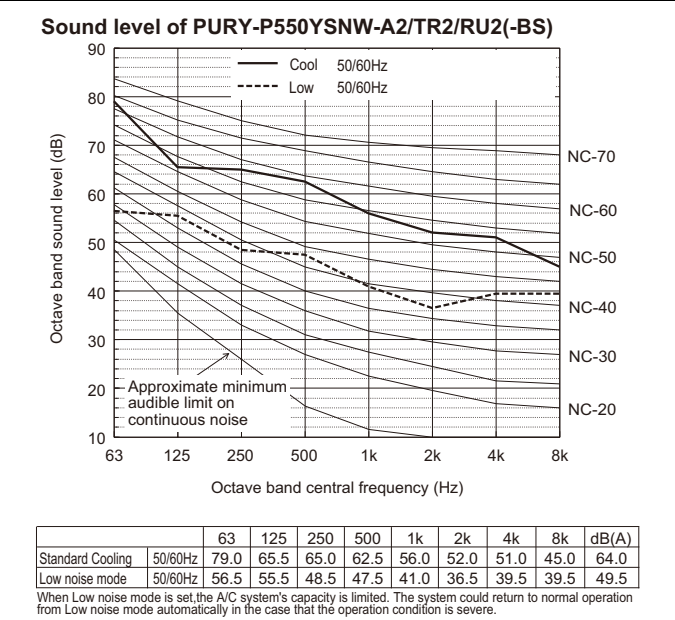
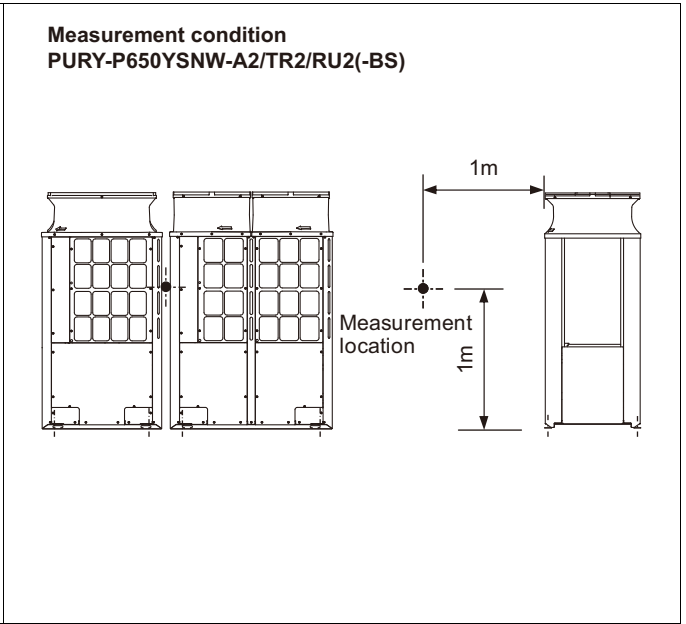
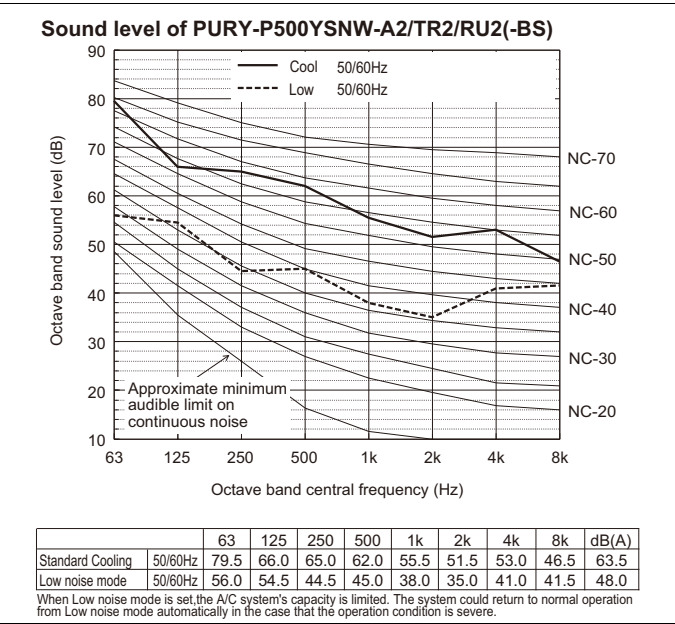
When Low noise mode is set, the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

- 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 BC controller, it is recommended to be installed in places such as ceilings of corridor, rest rooms and plant rooms. The sound pressure level measured by the conventional method in JIS for reference purpose.



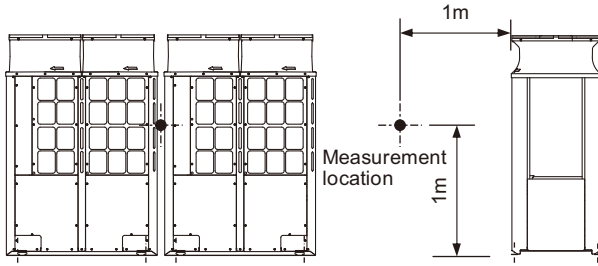
\*Depending on the operation conditions, the unit generates noise caused by valve actuation, refrigerant flow, and pressure changes when operating normally. Please consider to avoid location where quietness is required. For BC controller, it is recommended to be installed in places such as ceilings of corridor, rest rooms and plant rooms. The sound pressure level measured by the conventional method in JIS for reference purpose.



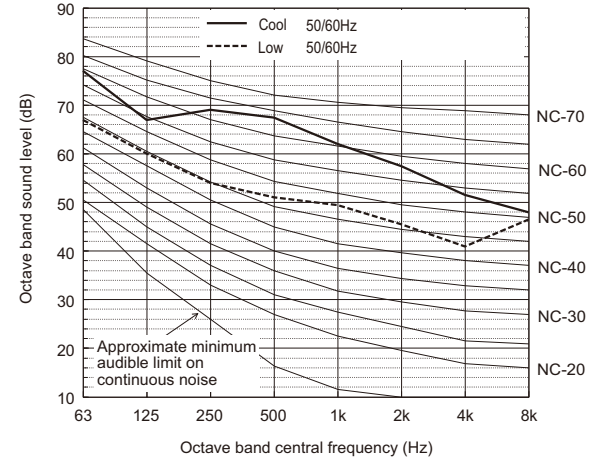


• Depending on the operation conditions, the unit generates noise caused by valve actuation, refrigerant flow, and pressure changes when operating normally. Please consider to avoid location where quietness is required. For BC controller, it is recommended to be installed in places such as ceilings of corridor, rest rooms and plant rooms. The sound pressure level measured by the conventional method in JIS for reference purpose.

**Measurement condition**  
**PURY-P700, 750, 800, 850, 900YSNW-A2/TR2/RU2(-BS)**



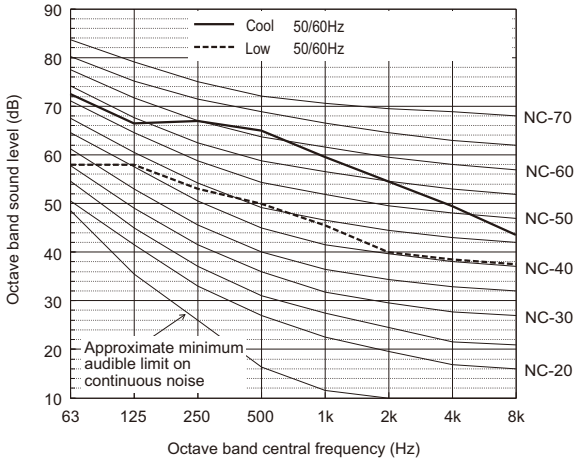
**Sound level of PURY-P800YSNW-A2/TR2/RU2(-BS)**



|                  |         | 63   | 125  | 250  | 500  | 1k   | 2k   | 4k   | 8k   | dB(A) |
|------------------|---------|------|------|------|------|------|------|------|------|-------|
| Standard Cooling | 50/60Hz | 77.0 | 67.0 | 69.0 | 67.5 | 62.0 | 57.5 | 51.5 | 48.0 | 68.0  |
| Low noise mode   | 50/60Hz | 67.0 | 60.0 | 54.0 | 51.0 | 49.5 | 45.5 | 41.0 | 46.5 | 55.0  |

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.

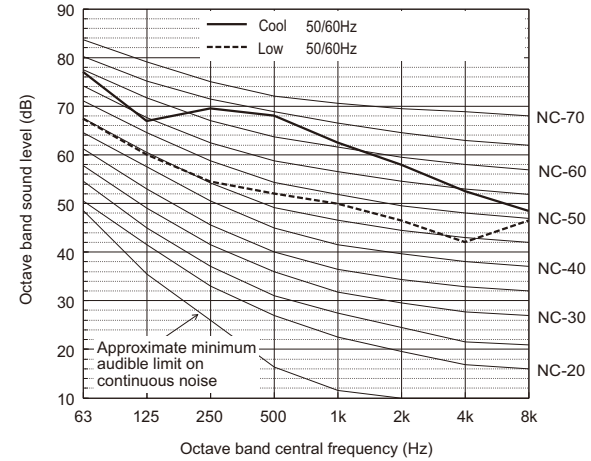
**Sound level of PURY-P700YSNW-A2/TR2/RU2(-BS)**



|                  |         | 63   | 125  | 250  | 500  | 1k   | 2k   | 4k   | 8k   | dB(A) |
|------------------|---------|------|------|------|------|------|------|------|------|-------|
| Standard Cooling | 50/60Hz | 72.5 | 66.5 | 67.0 | 65.0 | 59.5 | 54.5 | 49.5 | 43.5 | 65.5  |
| Low noise mode   | 50/60Hz | 58.0 | 58.0 | 53.0 | 50.0 | 45.5 | 40.0 | 38.5 | 37.5 | 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.

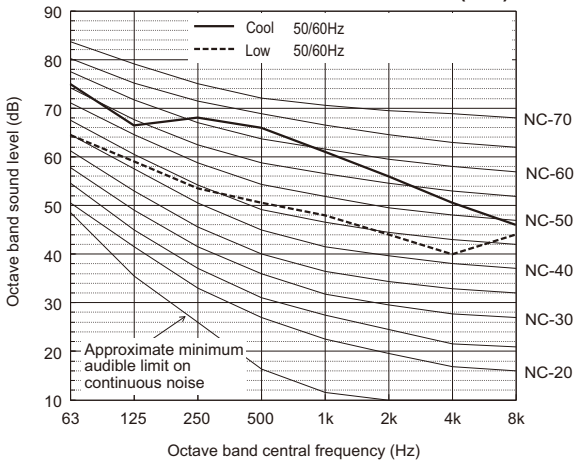
**Sound level of PURY-P850YSNW-A2/TR2/RU2(-BS)**



|                  |         | 63   | 125  | 250  | 500  | 1k   | 2k   | 4k   | 8k   | dB(A) |
|------------------|---------|------|------|------|------|------|------|------|------|-------|
| Standard Cooling | 50/60Hz | 77.0 | 67.0 | 69.5 | 68.0 | 62.5 | 58.0 | 52.5 | 48.5 | 68.5  |
| Low noise mode   | 50/60Hz | 67.5 | 60.0 | 54.5 | 52.0 | 50.0 | 46.5 | 42.0 | 46.5 | 55.5  |

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.

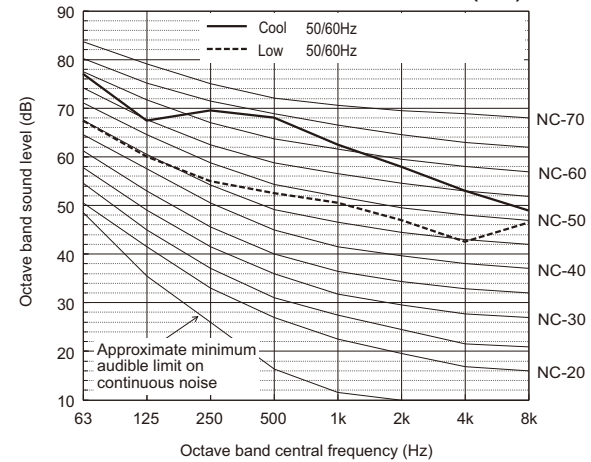
**Sound level of PURY-P750YSNW-A2/TR2/RU2(-BS)**



|                  |         | 63   | 125  | 250  | 500  | 1k   | 2k   | 4k   | 8k   | dB(A) |
|------------------|---------|------|------|------|------|------|------|------|------|-------|
| Standard Cooling | 50/60Hz | 75.0 | 66.5 | 68.0 | 66.0 | 61.0 | 56.0 | 50.5 | 46.0 | 67.0  |
| Low noise mode   | 50/60Hz | 64.5 | 59.0 | 53.5 | 50.5 | 48.0 | 44.0 | 40.0 | 44.0 | 54.0  |

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-P900YSNW-A2/TR2/RU2(-BS)**



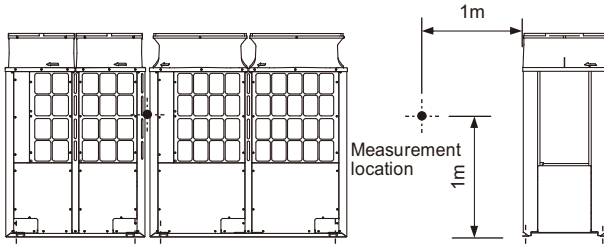
|                  |         | 63   | 125  | 250  | 500  | 1k   | 2k   | 4k   | 8k   | dB(A) |
|------------------|---------|------|------|------|------|------|------|------|------|-------|
| Standard Cooling | 50/60Hz | 77.0 | 67.5 | 69.5 | 68.0 | 62.5 | 58.0 | 53.0 | 49.0 | 68.5  |
| Low noise mode   | 50/60Hz | 67.5 | 60.0 | 55.0 | 52.5 | 50.5 | 47.0 | 42.5 | 46.5 | 56.0  |

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.

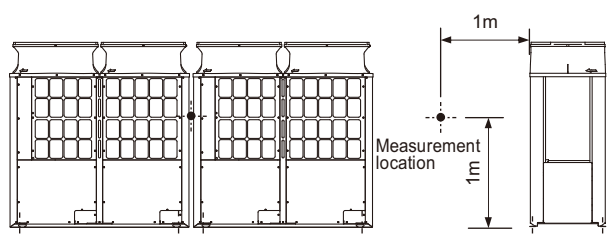
\*Depending on the operation conditions, the unit generates noise caused by valve actuation, refrigerant flow, and pressure changes when operating normally. Please consider to avoid location where quietness is required. For BC controller, it is recommended to be installed in places such as ceilings of corridor, rest rooms and plant rooms. The sound pressure level measured by the conventional method in JIS for reference purpose.



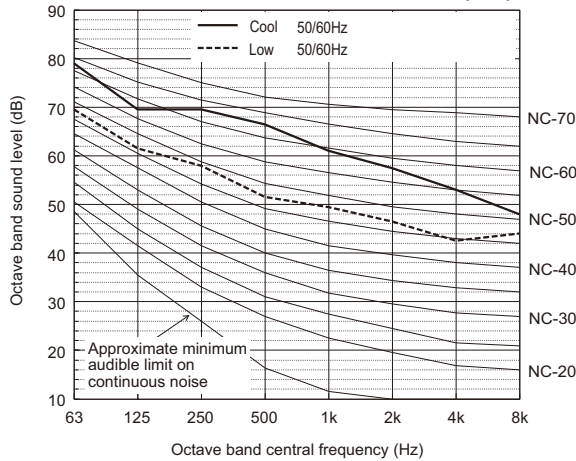
Measurement condition  
PURY-P950YSNW-A2/TR2/RU2(-BS)



Measurement condition  
PURY-P1000, 1050, 1100YSNW-A2/TR2/RU2(-BS)



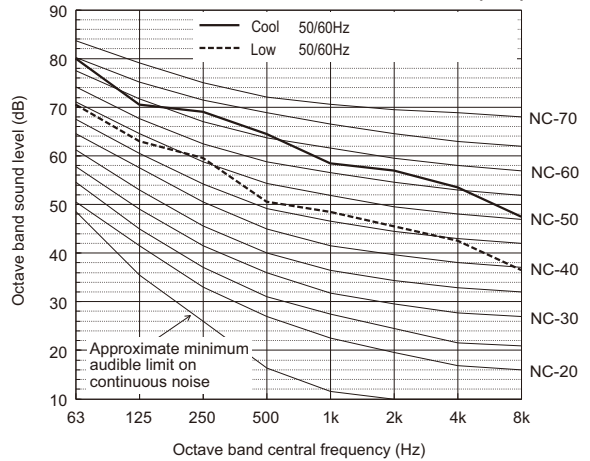
Sound level of PURY-P950YSNW-A2/TR2/RU2(-BS)



|                  |         | 63   | 125  | 250  | 500  | 1k   | 2k   | 4k   | 8k   | dB(A) |
|------------------|---------|------|------|------|------|------|------|------|------|-------|
| Standard Cooling | 50/60Hz | 79.0 | 69.5 | 69.5 | 66.5 | 61.0 | 57.5 | 53.0 | 48.0 | 68.0  |
| Low noise mode   | 50/60Hz | 69.5 | 61.5 | 58.0 | 51.5 | 49.5 | 46.5 | 42.5 | 44.0 | 56.0  |

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.

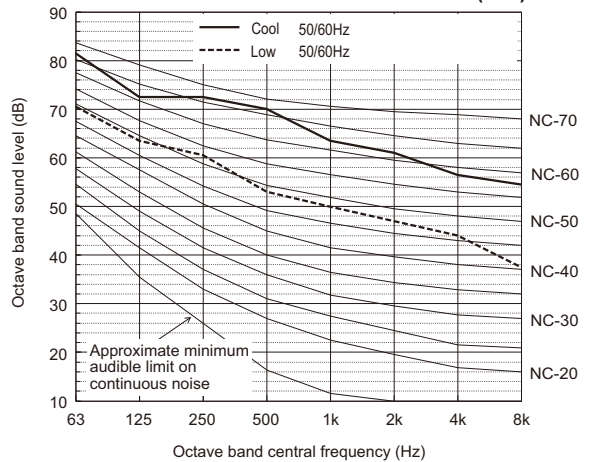
Sound level of PURY-P1000YSNW-A2/TR2/RU2(-BS)



|                  |         | 63   | 125  | 250  | 500  | 1k   | 2k   | 4k   | 8k   | dB(A) |
|------------------|---------|------|------|------|------|------|------|------|------|-------|
| Standard Cooling | 50/60Hz | 80.0 | 70.5 | 69.0 | 64.5 | 58.5 | 57.0 | 53.5 | 47.5 | 66.5  |
| Low noise mode   | 50/60Hz | 70.5 | 63.0 | 59.5 | 50.5 | 48.5 | 45.5 | 42.5 | 36.5 | 56.0  |

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.

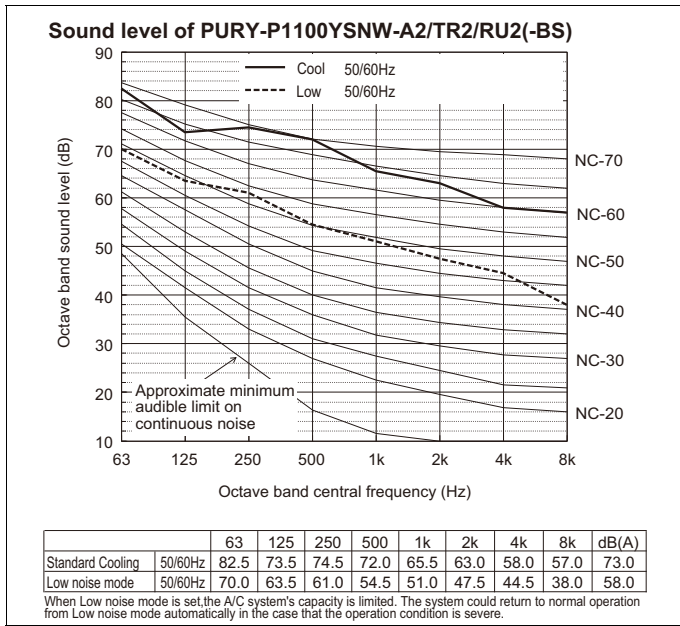
Sound level of PURY-P1050YSNW-A2/TR2/RU2(-BS)



|                  |         | 63   | 125  | 250  | 500  | 1k   | 2k   | 4k   | 8k   | dB(A) |
|------------------|---------|------|------|------|------|------|------|------|------|-------|
| Standard Cooling | 50/60Hz | 81.5 | 72.5 | 72.5 | 70.0 | 63.5 | 61.0 | 56.5 | 54.5 | 71.0  |
| Low noise mode   | 50/60Hz | 70.5 | 63.5 | 60.5 | 53.0 | 50.0 | 47.0 | 44.0 | 37.5 | 57.5  |

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.

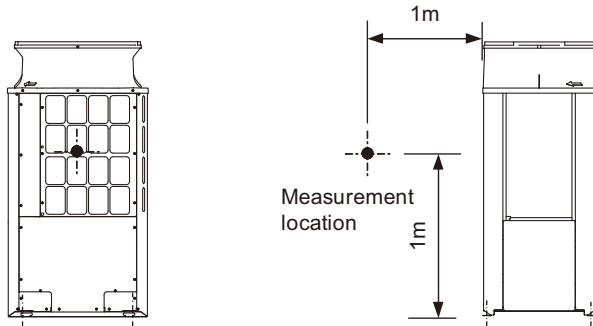
• Depending on the operation conditions, the unit generates noise caused by valve actuation, refrigerant flow, and pressure changes when operating normally. Please consider to avoid location where quietness is required. For BC controller, it is recommended to be installed in places such as ceilings of corridor, rest rooms and plant rooms. The sound pressure level measured by the conventional method in JIS for reference purpose.



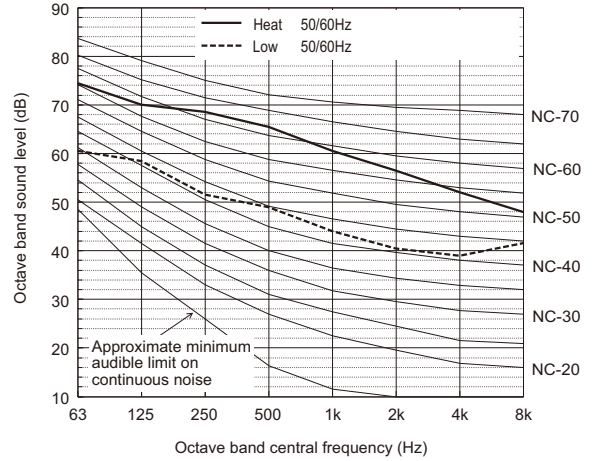
• Depending on the operation conditions, the unit generates noise caused by valve actuation, refrigerant flow, and pressure changes when operating normally. Please consider to avoid location where quietness is required. For BC controller, it is recommended to be installed in places such as ceilings of corridor, rest rooms and plant rooms. The sound pressure level measured by the conventional method in JIS for reference purpose.

5-2. Sound levels in heating mode

Measurement condition  
 PURY-P200, 250, 300YNW-A2/TR2/RU2(-BS)



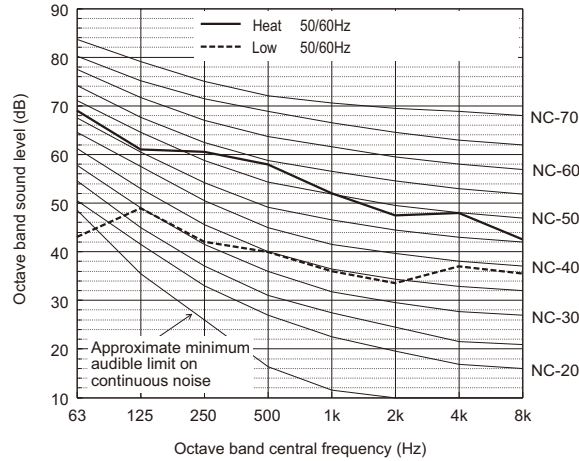
Sound level of PURY-P300YNW-A2/TR2/RU2(-BS)



|                  |         | 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 | 58.5 | 51.5 | 49.0 | 44.0 | 40.5 | 39.0 | 41.5 | 51.5  |

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.

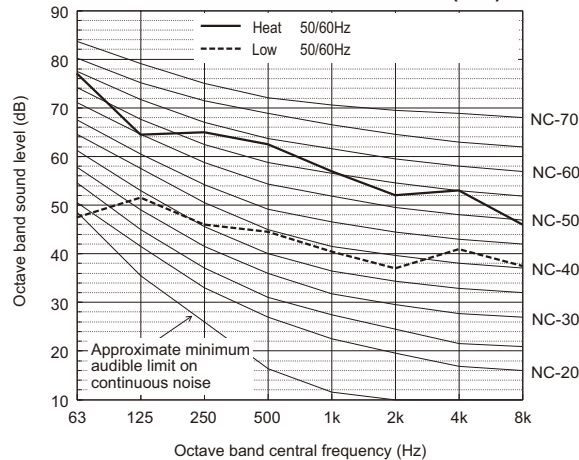
Sound level of PURY-P200YNW-A2/TR2/RU2(-BS)



|                  |         | 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-P250YNW-A2/TR2/RU2(-BS)

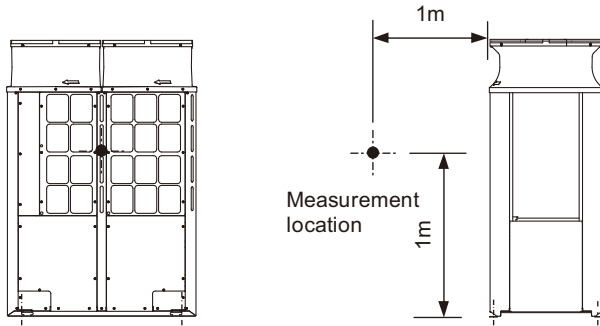


|                  |         | 63   | 125  | 250  | 500  | 1k   | 2k   | 4k   | 8k   | dB(A) |
|------------------|---------|------|------|------|------|------|------|------|------|-------|
| Standard Heating | 50/60Hz | 77.0 | 64.5 | 65.0 | 62.5 | 57.0 | 53.0 | 46.0 | 64.0 |       |
| Low noise mode   | 50/60Hz | 47.5 | 51.5 | 46.0 | 44.5 | 40.5 | 37.0 | 41.0 | 37.5 | 48.0  |

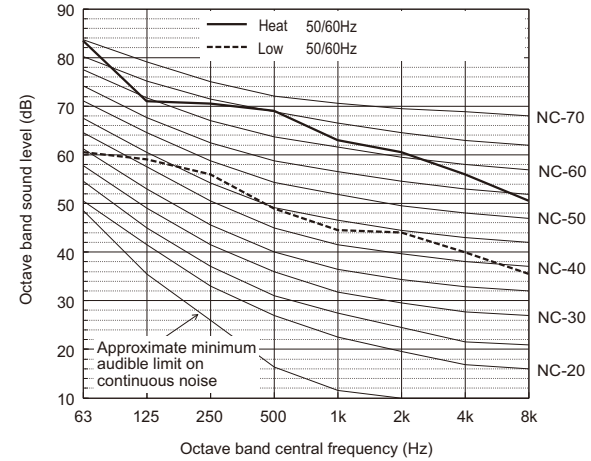
When Low noise mode is set, the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

• 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 BC controller, it is recommended to be installed in places such as ceilings of corridor, rest rooms and plant rooms. The sound pressure level measured by the conventional method in JIS for reference purpose.

**Measurement condition**  
**PURY-P350, 400, 450YNW-A2/TR2/RU2(-BS)**



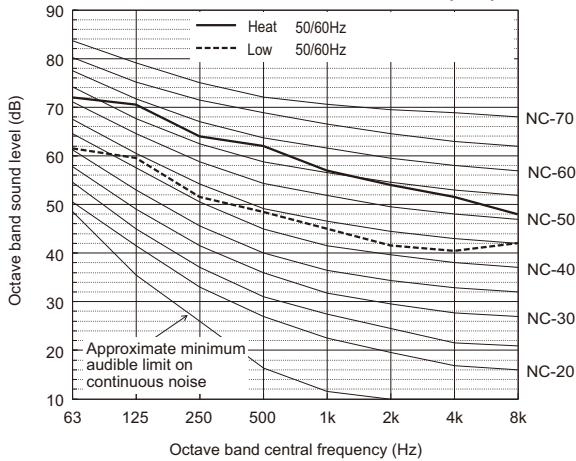
**Sound level of PURY-P450YNW-A2/TR2/RU2(-BS)**



|                  |         | 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.

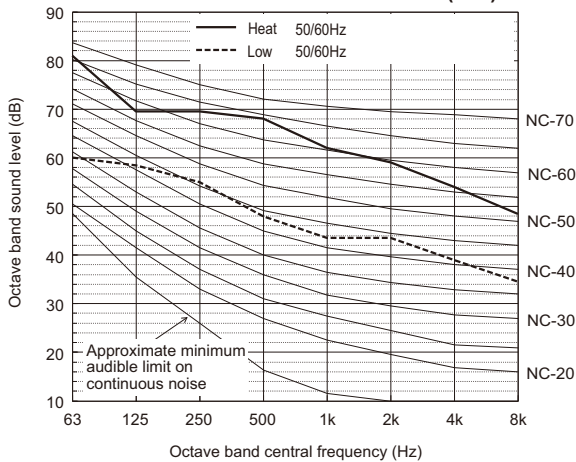
**Sound level of PURY-P350YNW-A2/TR2/RU2(-BS)**



|                  |         | 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-P400YNW-A2/TR2/RU2(-BS)**

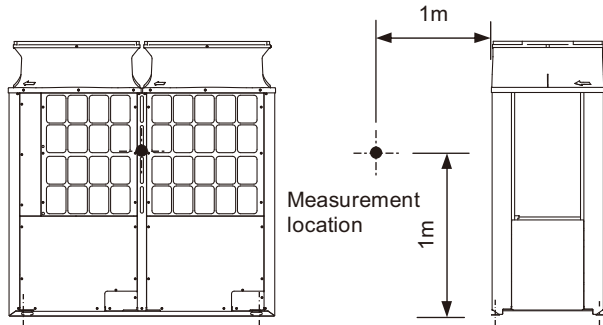


|                  |         | 63   | 125  | 250  | 500  | 1k   | 2k   | 4k   | 8k   | dB(A) |
|------------------|---------|------|------|------|------|------|------|------|------|-------|
| Standard Heating | 50/60Hz | 81.0 | 69.5 | 69.5 | 68.0 | 62.0 | 59.0 | 54.0 | 48.5 | 69.0  |
| Low noise mode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

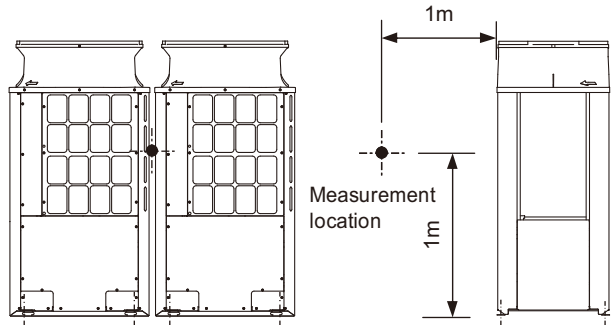
When Low noise mode is set, the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

• 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 BC controller, it is recommended to be installed in places such as ceilings of corridor, rest rooms and plant rooms. The sound pressure level measured by the conventional method in JIS for reference purpose.

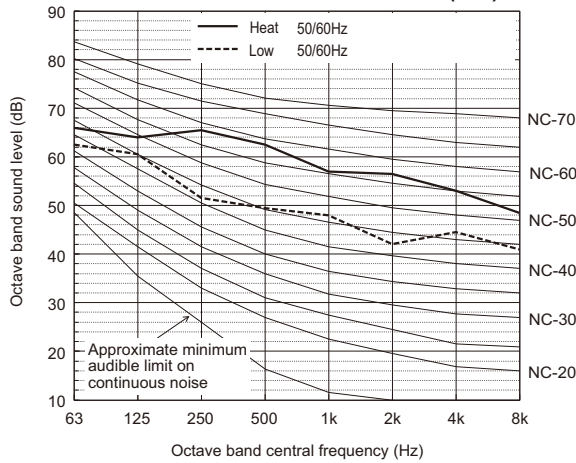
Measurement condition  
PURY-P500, 550YNW-A2/TR2/RU2(-BS)



Measurement condition  
PURY-P400, 450, 500, 550, 600YSNW-A2/TR2/RU2(-BS)



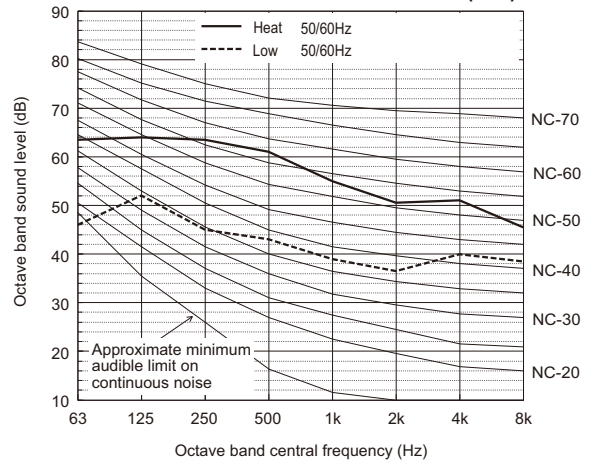
Sound level of PURY-P500YNW-A2/TR2/RU2(-BS)



|                  |         | 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.

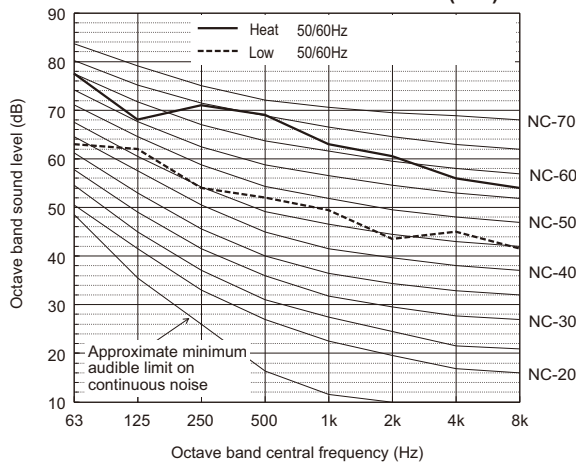
Sound level of PURY-P400YSNW-A2/TR2/RU2(-BS)



|                  |         | 63   | 125  | 250  | 500  | 1k   | 2k   | 4k   | 8k   | dB(A) |
|------------------|---------|------|------|------|------|------|------|------|------|-------|
| Standard Heating | 50/60Hz | 63.5 | 64.0 | 63.5 | 61.0 | 55.0 | 50.5 | 51.0 | 45.5 | 62.0  |
| Low noise mode   | 50/60Hz | 46.0 | 52.0 | 45.0 | 43.0 | 39.0 | 36.5 | 40.0 | 38.5 | 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.

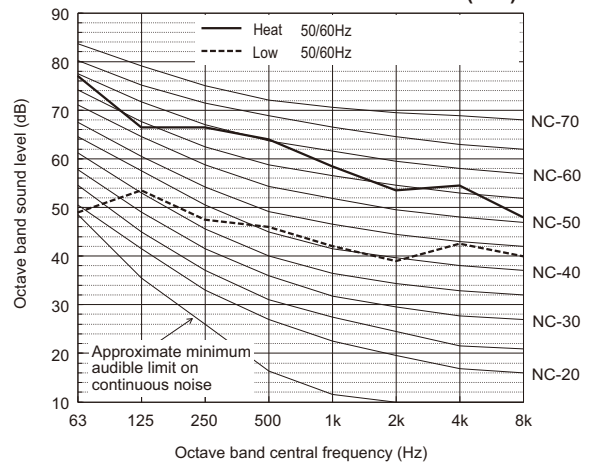
Sound level of PURY-P550YNW-A2/TR2/RU2(-BS)



|                  |         | 63   | 125  | 250  | 500  | 1k   | 2k   | 4k   | 8k   | dB(A) |
|------------------|---------|------|------|------|------|------|------|------|------|-------|
| Standard Heating | 50/60Hz | 77.5 | 68.0 | 71.0 | 69.0 | 63.0 | 60.5 | 56.0 | 54.0 | 70.0  |
| Low noise mode   | 50/60Hz | 63.0 | 62.0 | 54.0 | 52.0 | 49.5 | 43.5 | 45.0 | 41.5 | 55.0  |

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-P450YSNW-A2/TR2/RU2(-BS)

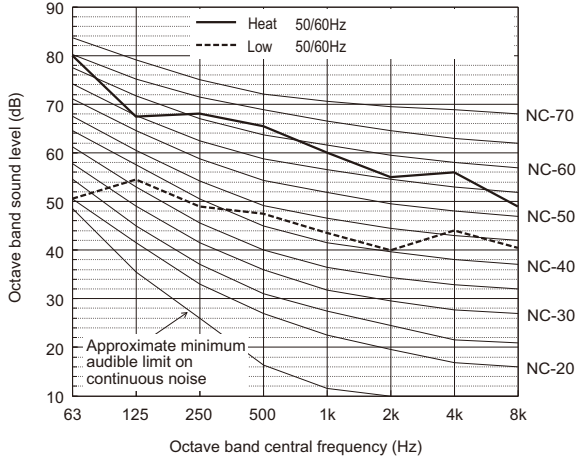


|                  |         | 63   | 125  | 250  | 500  | 1k   | 2k   | 4k   | 8k   | dB(A) |
|------------------|---------|------|------|------|------|------|------|------|------|-------|
| Standard Heating | 50/60Hz | 77.0 | 66.5 | 66.5 | 64.0 | 58.5 | 53.5 | 54.5 | 48.0 | 65.5  |
| Low noise mode   | 50/60Hz | 49.0 | 53.5 | 47.5 | 46.0 | 42.0 | 39.0 | 42.5 | 40.0 | 49.5  |

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.

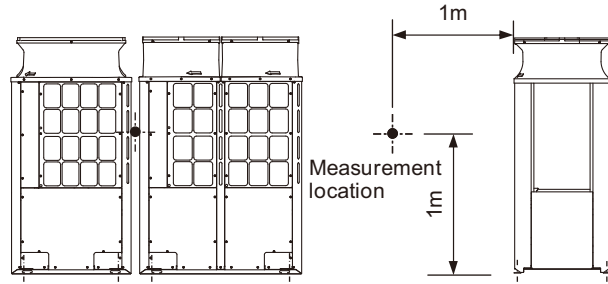
• Depending on the operation conditions, the unit generates noise caused by valve actuation, refrigerant flow, and pressure changes when operating normally. Please consider to avoid location where quietness is required. For BC controller, it is recommended to be installed in places such as ceilings of corridor, rest rooms and plant rooms. The sound pressure level measured by the conventional method in JIS for reference purpose.

Sound level of PURY-P500YSNW-A2/TR2/RU2(-BS)

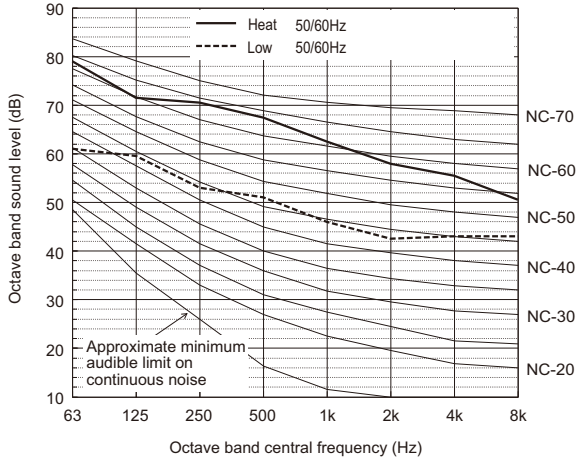


When Low noise mode is set, the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

Measurement condition  
PURY-P650YSNW-A2/TR2/RU2(-BS)

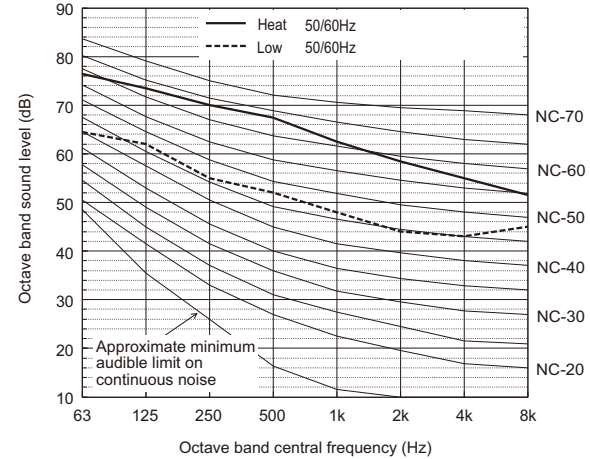


Sound level of PURY-P550YSNW-A2/TR2/RU2(-BS)



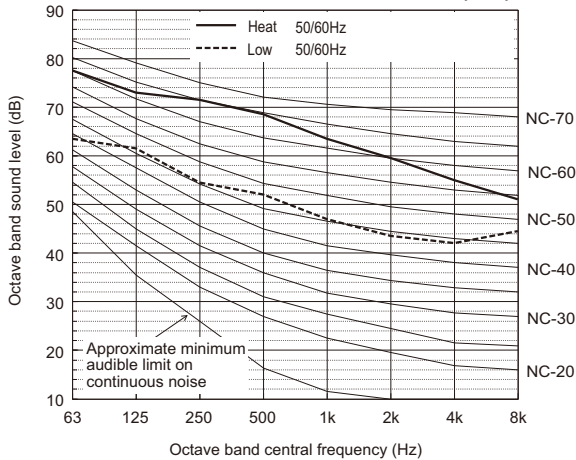
When Low noise mode is set, the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

Sound level of PURY-P650YSNW-A2/TR2/RU2(-BS)



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-P600YSNW-A2/TR2/RU2(-BS)

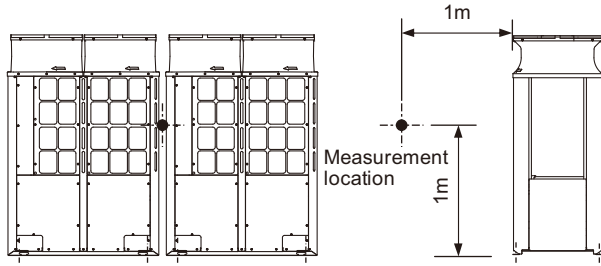


When Low noise mode is set, the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

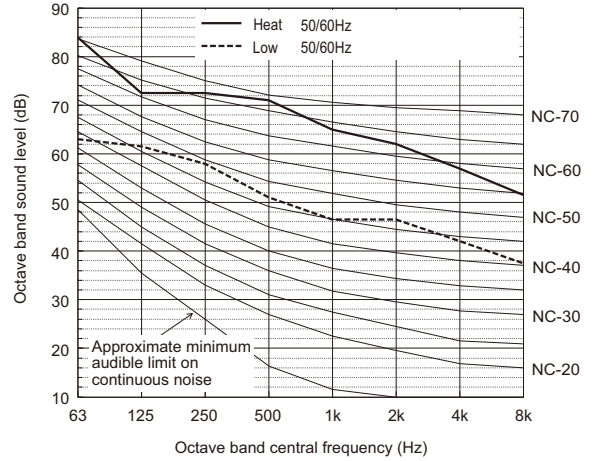
\* Depending on the operation conditions, the unit generates noise caused by valve actuation, refrigerant flow, and pressure changes when operating normally. Please consider to avoid location where quietness is required. For BC controller, it is recommended to be installed in places such as ceilings of corridor, rest rooms and plant rooms. The sound pressure level measured by the conventional method in JIS for reference purpose.



**Measurement condition**  
**PURY-P700, 750, 800, 850, 900YSNW-A2/TR2/RU2(-BS)**



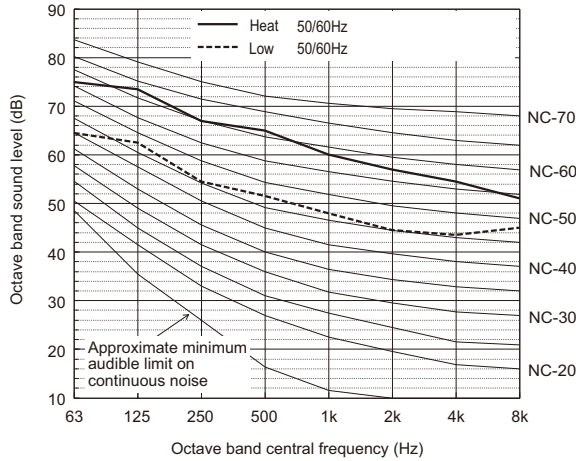
**Sound level of PURY-P800YSNW-A2/TR2/RU2(-BS)**



|                  |         | 63   | 125  | 250  | 500  | 1k   | 2k   | 4k   | 8k   | dB(A) |
|------------------|---------|------|------|------|------|------|------|------|------|-------|
| Standard Heating | 50/60Hz | 84.0 | 72.5 | 72.5 | 71.0 | 65.0 | 62.0 | 57.0 | 51.5 | 72.0  |
| Low noise mode   | 50/60Hz | 63.0 | 61.5 | 58.0 | 51.0 | 46.5 | 46.5 | 42.0 | 37.5 | 55.0  |

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.

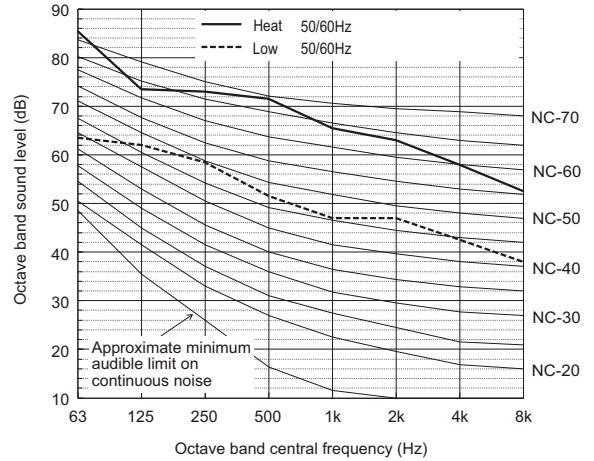
**Sound level of PURY-P700YSNW-A2/TR2/RU2(-BS)**



|                  |         | 63   | 125  | 250  | 500  | 1k   | 2k   | 4k   | 8k   | dB(A) |
|------------------|---------|------|------|------|------|------|------|------|------|-------|
| Standard Heating | 50/60Hz | 75.0 | 73.5 | 67.0 | 65.0 | 60.0 | 57.0 | 54.5 | 51.0 | 67.0  |
| Low noise mode   | 50/60Hz | 64.5 | 62.5 | 54.5 | 51.5 | 48.0 | 44.5 | 43.5 | 45.0 | 55.0  |

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.

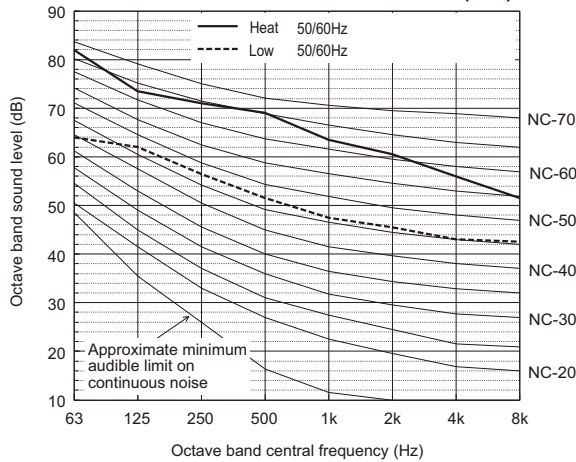
**Sound level of PURY-P850YSNW-A2/TR2/RU2(-BS)**



|                  |         | 63   | 125  | 250  | 500  | 1k   | 2k   | 4k   | 8k   | dB(A) |
|------------------|---------|------|------|------|------|------|------|------|------|-------|
| Standard Heating | 50/60Hz | 85.5 | 73.5 | 73.0 | 71.5 | 65.5 | 63.0 | 58.0 | 52.5 | 72.5  |
| Low noise mode   | 50/60Hz | 63.5 | 62.0 | 58.5 | 51.5 | 47.0 | 47.0 | 42.5 | 38.0 | 55.5  |

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.

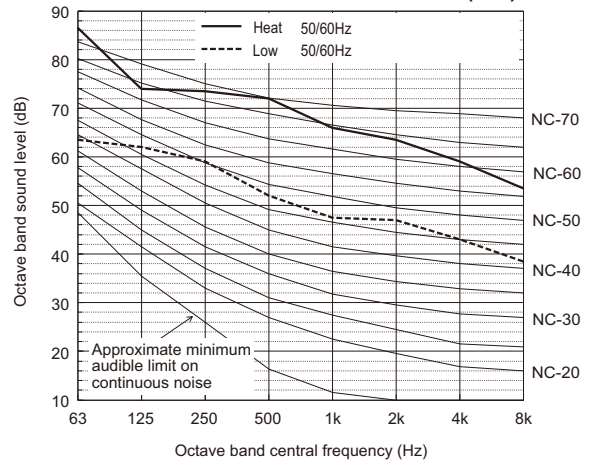
**Sound level of PURY-P750YSNW-A2/TR2/RU2(-BS)**



|                  |         | 63   | 125  | 250  | 500  | 1k   | 2k   | 4k   | 8k   | dB(A) |
|------------------|---------|------|------|------|------|------|------|------|------|-------|
| Standard Heating | 50/60Hz | 82.0 | 73.5 | 71.0 | 69.0 | 63.5 | 60.5 | 56.0 | 51.5 | 70.5  |
| Low noise mode   | 50/60Hz | 64.0 | 62.0 | 56.5 | 51.5 | 47.5 | 45.5 | 43.0 | 42.5 | 55.0  |

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-P900YSNW-A2/TR2/RU2(-BS)**

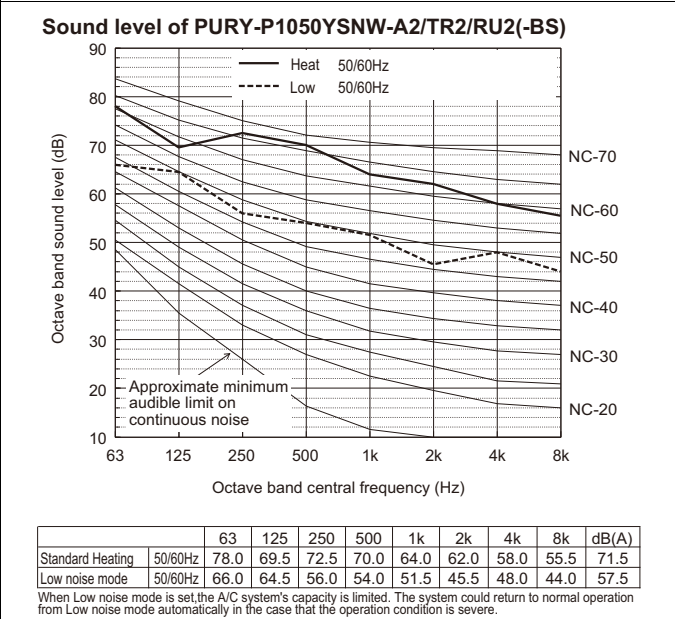
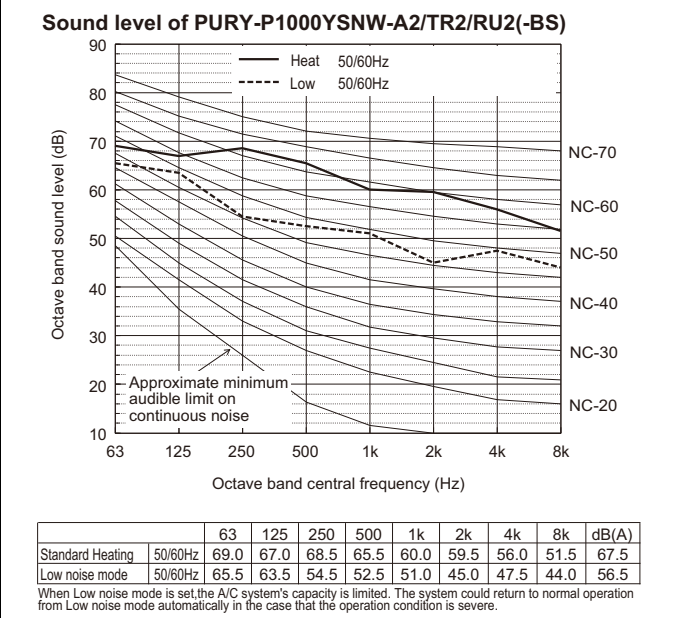
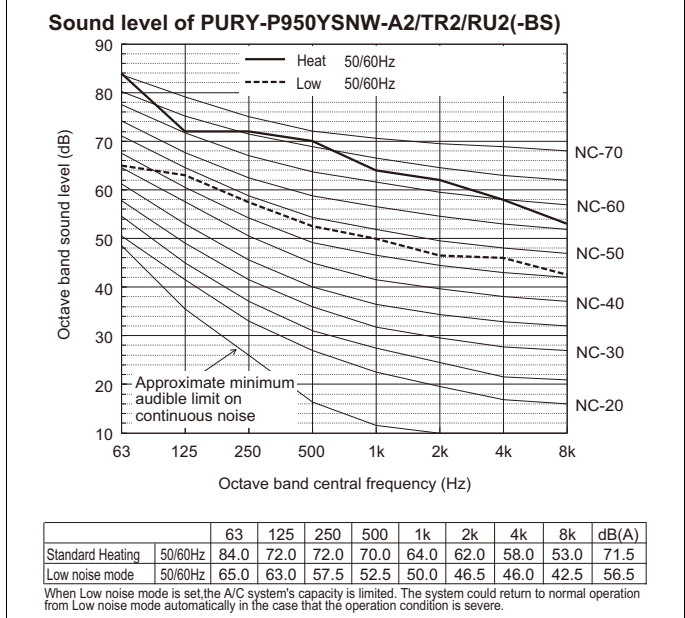
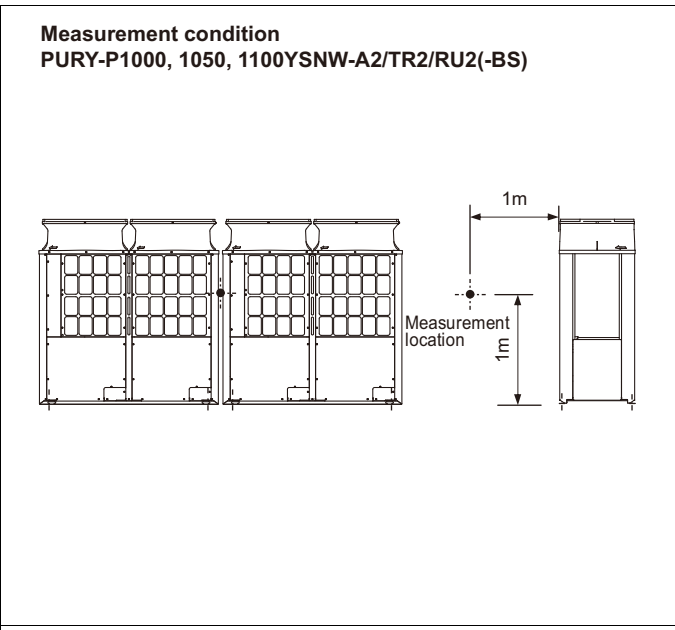
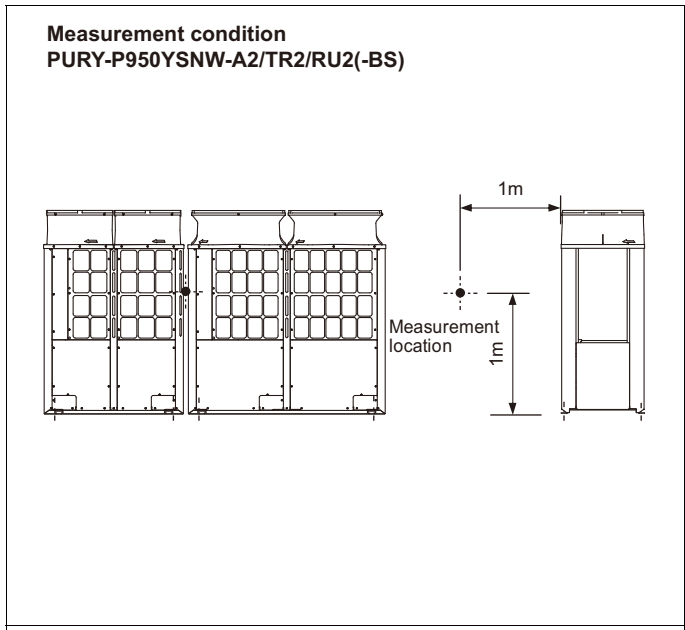


|                  |         | 63   | 125  | 250  | 500  | 1k   | 2k   | 4k   | 8k   | dB(A) |
|------------------|---------|------|------|------|------|------|------|------|------|-------|
| Standard Heating | 50/60Hz | 86.5 | 74.0 | 73.5 | 72.0 | 66.0 | 63.5 | 59.0 | 53.5 | 73.0  |
| Low noise mode   | 50/60Hz | 63.5 | 62.0 | 59.0 | 52.0 | 47.5 | 47.0 | 43.0 | 38.5 | 56.0  |

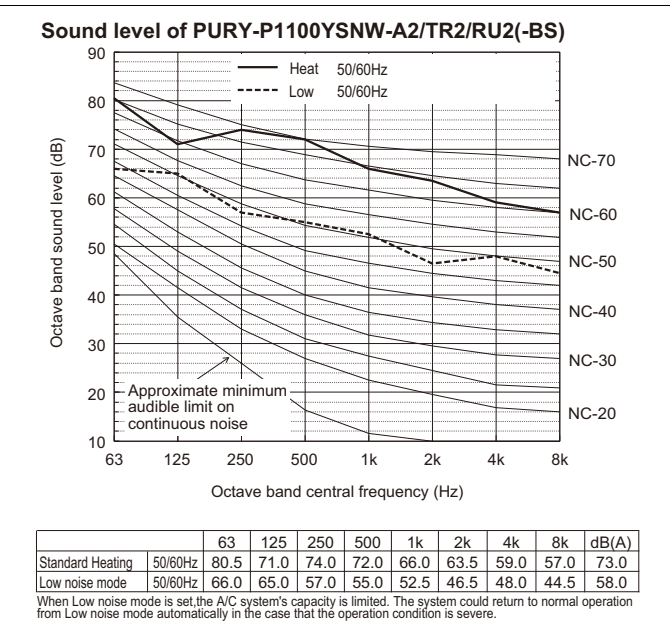
When Low noise mode is set, the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

• 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 BC controller, it is recommended to be installed in places such as ceilings of corridor, rest rooms and plant rooms. The sound pressure level measured by the conventional method in JIS for reference purpose.

PURY-P-Y(S)NW-A2/TR2/RU2



• 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 BC controller, it is recommended to be installed in places such as ceilings of corridor, rest rooms and plant rooms. The sound pressure level measured by the conventional method in JIS for reference purpose.



◆ 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 BC controller, it is recommended to be installed in places such as ceilings of corridor, rest rooms and plant rooms. The sound pressure level measured by the conventional method in JIS for reference purpose.

**[PURY-P200-550YNW, PURY-P400-1100YSNW]**

## Measurement condition

Measurement frequency: 1 Hz-80 Hz

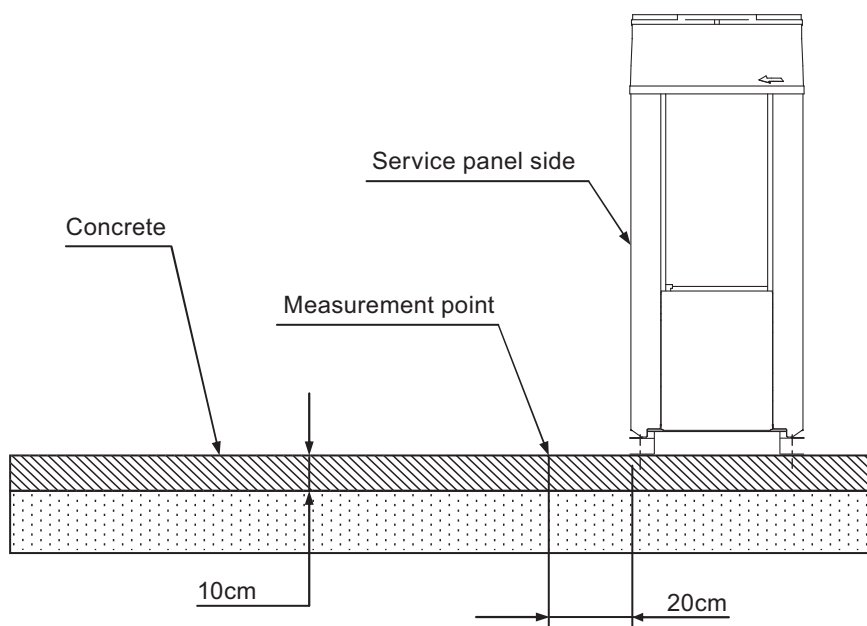
Measurement point: Ground surface 20 cm away from the unit leg

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)

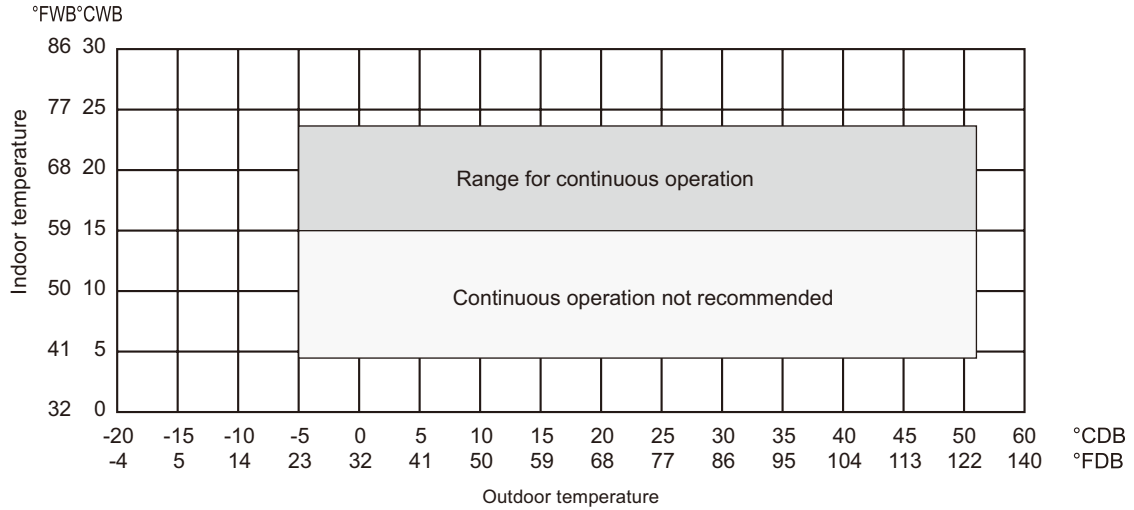


## Vibration level

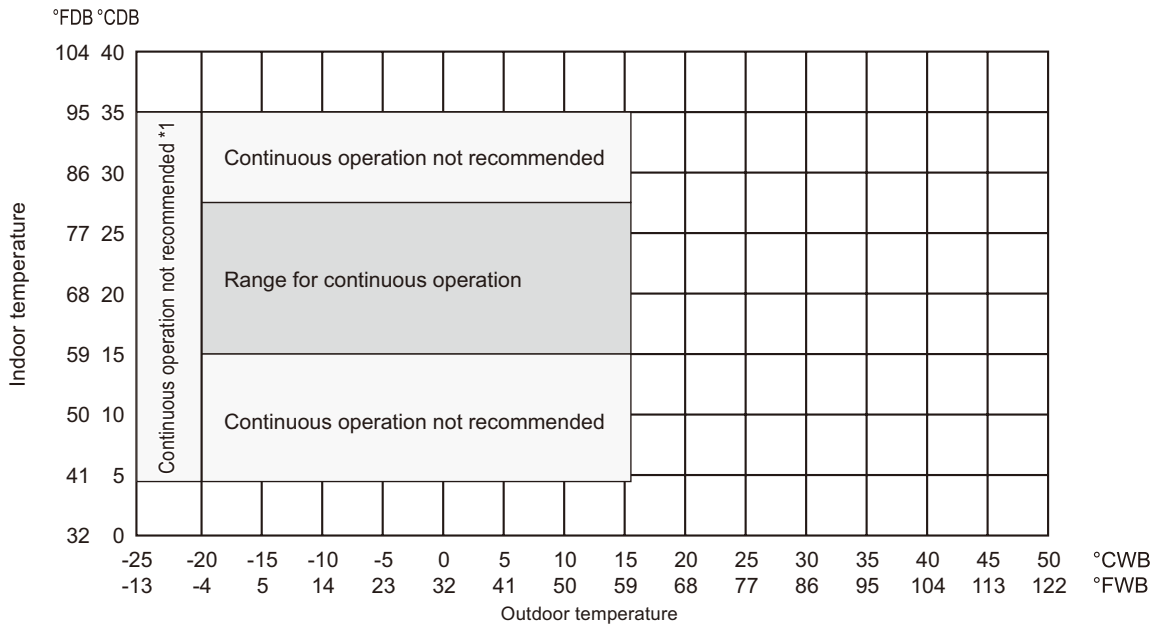
| Model                           | Vibration level (dB) |
|---------------------------------|----------------------|
| PURY-P200YNW-A2/TR2/RU2 (-BS)   | 45                   |
| PURY-P250YNW-A2/TR2/RU2 (-BS)   | 46                   |
| PURY-P300YNW-A2/TR2/RU2 (-BS)   | 47                   |
| PURY-P350YNW-A2/TR2/RU2 (-BS)   | 47                   |
| PURY-P400YNW-A2/TR2/RU2 (-BS)   | 47                   |
| PURY-P450YNW-A2/TR2/RU2 (-BS)   | 47                   |
| PURY-P500YNW-A2/TR2/RU2 (-BS)   | 48                   |
| PURY-P550YNW-A2/TR2/RU2 (-BS)   | 48                   |
| PURY-P400YSNW-A2/TR2/RU2 (-BS)  | 48                   |
| PURY-P450YSNW-A2/TR2/RU2 (-BS)  | 48.5                 |
| PURY-P500YSNW-A2/TR2/RU2 (-BS)  | 49                   |
| PURY-P550YSNW-A2/TR2/RU2 (-BS)  | 49.5                 |
| PURY-P600YSNW-A2/TR2/RU2 (-BS)  | 50                   |
| PURY-P650YSNW-A2/TR2/RU2 (-BS)  | 50                   |
| PURY-P700YSNW-A2/TR2/RU2 (-BS)  | 50                   |
| PURY-P750YSNW-A2/TR2/RU2 (-BS)  | 50                   |
| PURY-P800YSNW-A2/TR2/RU2 (-BS)  | 50                   |
| PURY-P850YSNW-A2/TR2/RU2 (-BS)  | 50                   |
| PURY-P900YSNW-A2/TR2/RU2 (-BS)  | 50                   |
| PURY-P950YSNW-A2/TR2/RU2 (-BS)  | 50.5                 |
| PURY-P1000YSNW-A2/TR2/RU2 (-BS) | 51                   |
| PURY-P1050YSNW-A2/TR2/RU2 (-BS) | 51                   |
| PURY-P1100YSNW-A2/TR2/RU2 (-BS) | 51                   |

\* 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 to 60°FWB) | 15 to 24°CWB (59 to 75°FWB) | —                           |

\*1 When applying product below -20°CWB, consult your design engineer for cold climate application best practices, including the use of a backup source for heating.

8-1. Selection of Cooling/Heating Units

How to determine the capacity when less than or equal 100% indoor model size units are connected in total:

The purpose of this flow chart is to select the indoor and outdoor units. For other purposes, this flow chart is intended only for reference.

PURY-P-Y(S)NW-A2/TR2/RU2

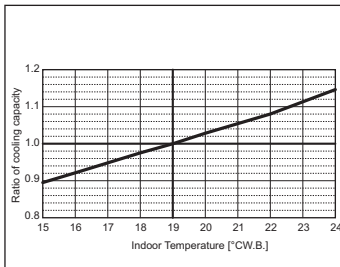
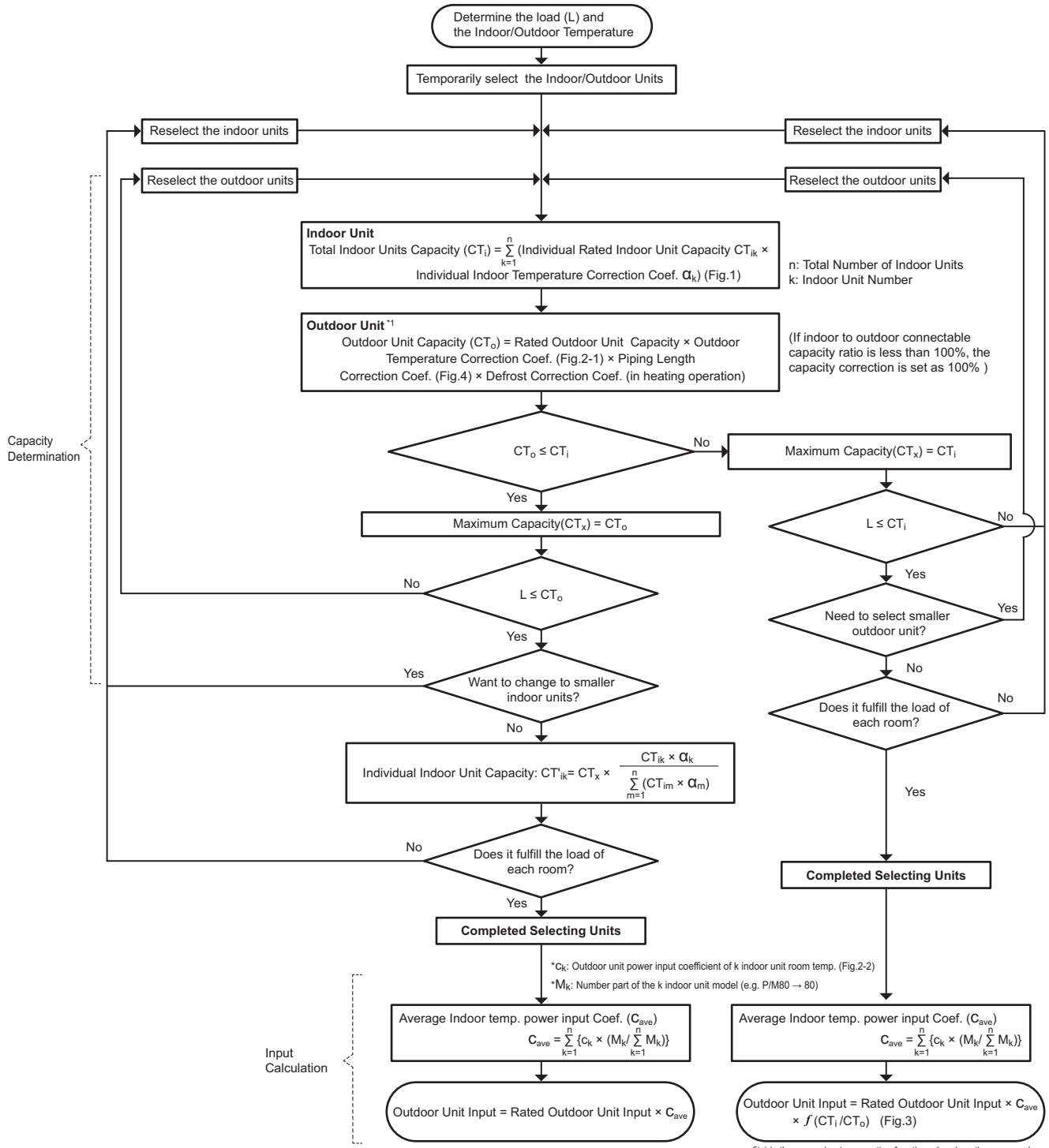


Fig.1 Indoor unit temperature correction

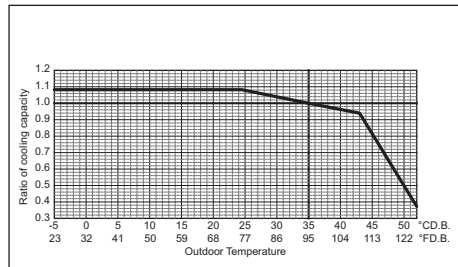


Fig.2-1 Outdoor unit temperature correction (capacity)

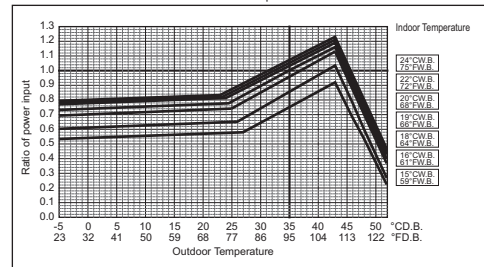


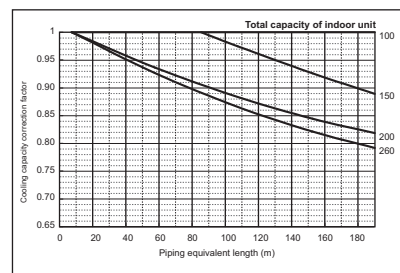
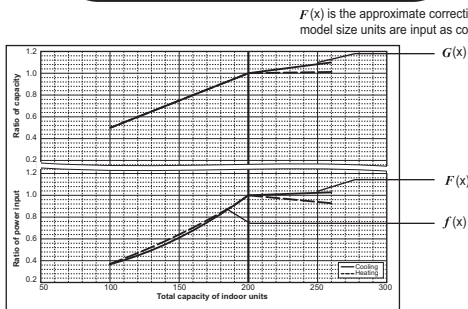
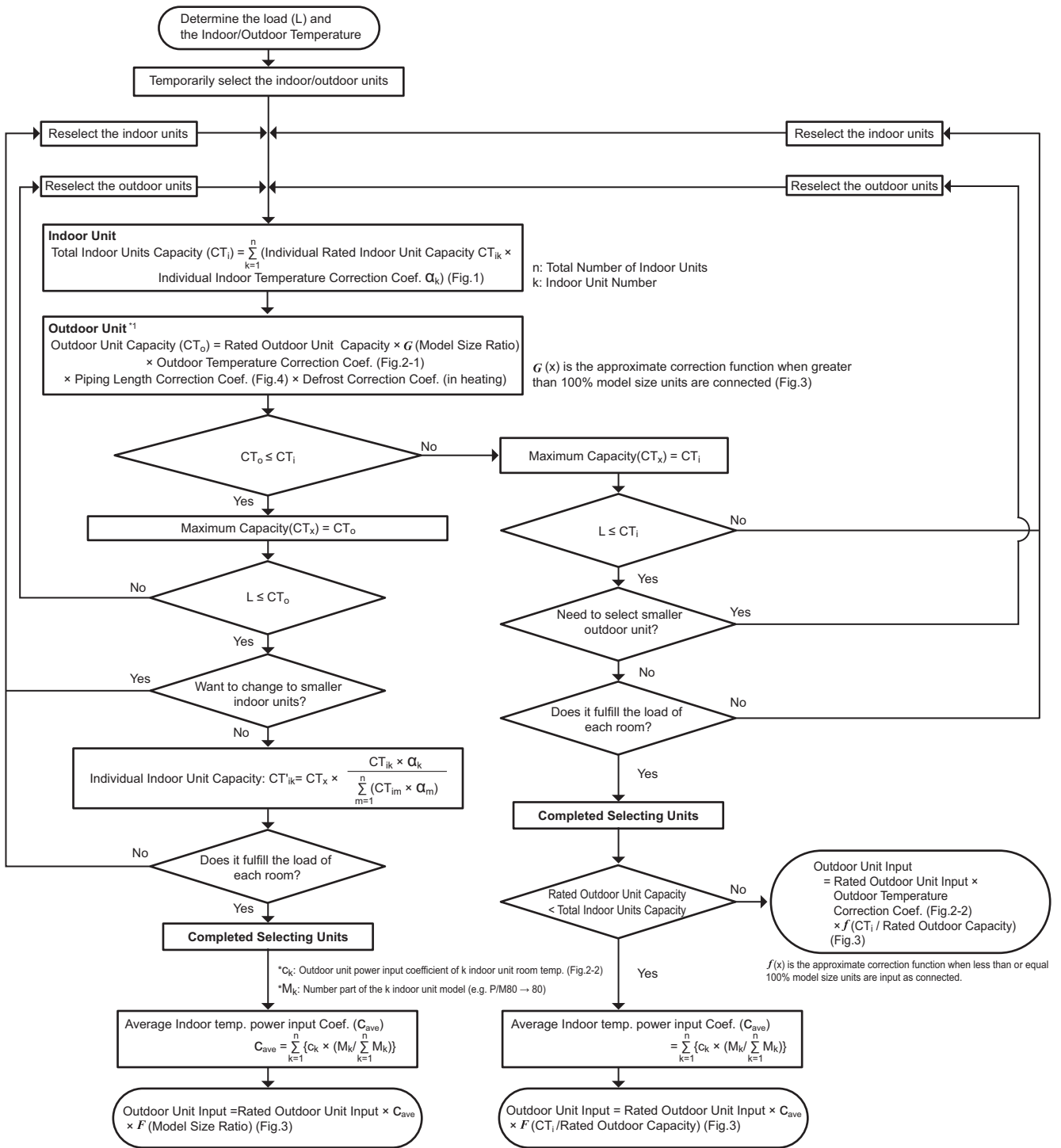
Fig.2-2 Outdoor unit temperature correction (power input)

\*1 When the indoor unit sizes from P/M100 to P/M140 or total capacity indoor units from P/M81 to P/M140 are connected to only 1 port on the BC controller in the R2 system, the cooling capacity of the outdoor unit should be multiplied by a correction factor of 0.97.



**How to determine the capacity when greater than 100% indoor model size units are connected in total:**

The purpose of this flow chart is to select the indoor and outdoor units. For other purposes, this flow chart is intended only for reference.



\*1 When the indoor unit sizes from P/M100 to P/M140 or total capacity indoor units from P/M81 to P/M140 are connected to only 1 port on the BC controller in the R2 system, the cooling capacity of the outdoor unit should be multiplied by a correction factor of 0.97.

<Cooling>

| Design Condition                        |         |
|---|---------|
| Outdoor Design Dry Bulb Temperature     | 37 °C   |
| Total Cooling Load                      | 19.0 kW |
| Room1                                   |         |
| Indoor Design Dry Bulb Temperature      | 27 °C   |
| Indoor Design Wet Bulb Temperature      | 20 °C   |
| Cooling Load                            | 9.0 kW  |
| Room2                                   |         |
| Indoor Design Dry Bulb Temperature      | 24 °C   |
| Indoor Design Wet Bulb Temperature      | 18 °C   |
| Cooling Load                            | 10.0 kW |
| <Other>                                 |         |
| Indoor/Outdoor Equivalent Piping Length | 50 m    |

1. Cooling Calculation

(1) Temporary Selection of Indoor Units

|       |           |                 |
|-------|-----------|-----------------|
| Room1 | PLFY-P100 | 11.2 kW (Rated) |
| Room2 | PEFY-P100 | 11.2 kW (Rated) |

(2) Total Indoor Units Capacity

$$P100 + P100 = P200$$

(3) Selection of Outdoor Unit

The P200 outdoor unit is selected as total indoor units capacity is P200

|            |         |
|------------|---------|
| PUHY-EP200 | 22.4 kW |
|------------|---------|

(4) Total Indoor Units Capacity Correction Calculation

|       |  |                       |
|-------|--|-----------------------|
| Room1 | Indoor Design Wet Bulb Temperature Correction (20°C) | 1.03 (Refer to Fig.1) |
| Room2 | Indoor Design Wet Bulb Temperature Correction (18°C) | 0.98 (Refer to Fig.1) |

Total Indoor Units Capacity (CTi)

$$CTi = \Sigma (\text{Indoor Unit Rating} \times \text{Indoor Design Temperature Correction})$$

$$= 11.2 \times 1.03 + 11.2 \times 0.98$$

$$= 22.5 \text{ kW}$$

(5) Outdoor Unit Correction Calculation

|   |                       |
|---|-----------------------|
| Outdoor Design Dry Bulb Temperature Correction (37°C) | 0.99 (Refer to Fig.2) |
| Piping Length Correction (50 m)                       | 0.95 (Refer to Fig.3) |

Total Outdoor Unit Capacity (CTo)

$$CTo = \text{Outdoor Rating} \times \text{Outdoor Design Temperature Correction} \times \text{Piping Length Correction}$$

$$= 22.4 \times 0.99 \times 0.95$$

$$= 21.0 \text{ kW}$$

(6) Determination of Maximum System Capacity (CTx)

Comparison of Capacity between Total Indoor Units Capacity (CTi) and Total Outdoor Unit Capacity (CTo)

$$CTi = 22.5 > CTo = 21.0, \text{ thus, select } CTo.$$

$$CTx = CTo = 21.0 \text{ kW}$$

(7) Comparison with Essential Load

Against the essential load 19.0kW, the maximum system capacity is 21.0kW: Proper outdoor units have been selected.

(8) Calculation of Maximum Indoor Unit Capacity of Each Room

CTx = CTo, thus, calculate by the calculation below

Room1

$$\text{Maximum Capacity} \times \text{Room1 Capacity after the Temperature Correction} / (\text{Room1,2 Total Capacity after the Temperature Correction})$$

$$= 21.0 \times (11.2 \times 1.03) / (11.2 \times 1.03 + 11.2 \times 0.98)$$

$$= 10.8 \text{ kW} \quad \text{OK: fulfills the load 9.0kW}$$

Room2

$$\text{Maximum Capacity} \times \text{Room2 Capacity after the Temperature Correction} / (\text{Room1,2 Total Capacity after the Temperature Correction})$$

$$= 21.0 \times (11.2 \times 0.98) / (11.2 \times 1.03 + 11.2 \times 0.98)$$

$$= 10.2 \text{ kW} \quad \text{OK: fulfills the load 10.0kW}$$

Go on to the heating trial calculation since the selected units fulfill the cooling loads of Room 1, 2.

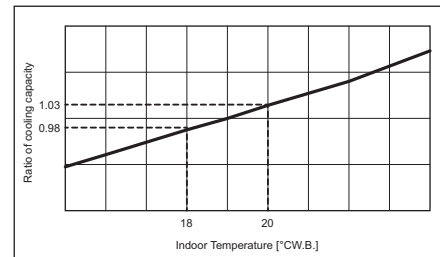


Fig.1 Indoor unit temperature correction  
To be used to correct indoor unit only

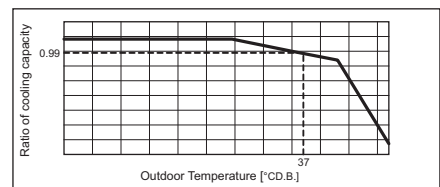


Fig.2 Outdoor unit temperature correction  
To be used to correct outdoor unit only

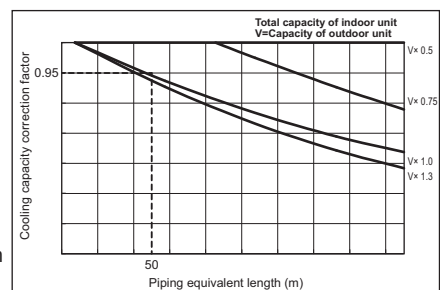


Fig.3 Correction of refrigerant piping length

PURY-P-Y(S)NW-A2/TR2/RU2

<Heating>

| Design Condition                        |         |
|---|---------|
| Outdoor Design Wet Bulb Temperature     | -3 °C   |
| Total Heating Load                      | 18.5 kW |
| Room1                                   |         |
| Indoor Design Dry Bulb Temperature      | 25 °C   |
| Heating Load                            | 9.5 kW  |
| Room2                                   |         |
| Indoor Design Dry Bulb Temperature      | 25 °C   |
| Heating Load                            | 9.0 kW  |
| <Other>                                 |         |
| Indoor/Outdoor Equivalent Piping Length | 50 m    |

2. Heating Calculation

(1) Temporary Selection of Indoor Units

|       |           |                 |
|-------|-----------|-----------------|
| Room1 | PLFY-P100 | 12.5 kW (Rated) |
| Room2 | PEFY-P100 | 12.5 kW (Rated) |

(2) Total Indoor Units Capacity

P100 + P100 = P200

(3) Selection of Outdoor Unit

The P200 outdoor unit is selected as total indoor units capacity is P200

|            |         |
|------------|---------|
| PUHY-EP200 | 25.0 kW |
|------------|---------|

(4) Total Indoor Units Capacity Correction Calculation

|       |  |                       |
|-------|--|-----------------------|
| Room1 | Indoor Design Dry Bulb Temperature Correction (25°C) | 0.80 (Refer to Fig.4) |
| Room2 | Indoor Design Dry Bulb Temperature Correction (25°C) | 0.80 (Refer to Fig.4) |

Total Indoor Units Capacity (CTi)

$$CTi = \sum (\text{Indoor Unit Rating} \times \text{Indoor Design Temperature Correction})$$

$$= 12.5 \times 0.80 + 12.5 \times 0.80$$

$$= 20.0 \text{ kW}$$

(5) Outdoor Unit Correction Calculation

|   |                       |
|---|-----------------------|
| Outdoor Design Wet Bulb Temperature Correction (-3°C) | 0.98 (Refer to Fig.5) |
| Piping Length Correction (50 m)                       | 0.97 (Refer to Fig.6) |
| Defrost Correction                                    | 0.89 (Refer to Tbl.1) |

Total Outdoor Unit Capacity (CTo)

$$CTo = \text{Outdoor Unit Rating} \times \text{Outdoor Design Temperature Correction} \times \text{Piping Length Correction} \times \text{Defrost Correction}$$

$$= 25.0 \times 0.98 \times 0.97 \times 0.89$$

$$= 21.1 \text{ kW}$$

(6) Determination of Maximum System Capacity (CTx)

Comparison of Capacity between Total Indoor Units Capacity (CTi) and Total Outdoor Unit Capacity (CTo)

CTi = 20.0 < CTo = 21.1, thus, select CTi.

CTx = CTi = 20.0 kW

(7) Comparison with Essential Load

Against the essential load 18.5kW, the maximum system capacity is 20.0kW: Proper outdoor units have been selected.

(8) Calculation of Maximum Indoor Unit Capacity of Each Room

CTx = CTi, thus, calculate by the calculation below

|       |   |                                    |
|-------|---|------------------------------------|
| Room1 | Indoor Unit Rating × Indoor Design Temperature Correction |                                    |
|       | = 12.5 × 0.80   |                                    |
|       | = 10.0 kW   | <b>OK: fulfills the load 9.5kW</b> |

|       |   |                                    |
|-------|---|------------------------------------|
| Room2 | Indoor Unit Rating × Indoor Design Temperature Correction |                                    |
|       | = 12.5 × 0.80   |                                    |
|       | = 10.0 kW   | <b>OK: fulfills the load 9.0kW</b> |

Completed selecting units since the selected units fulfill the heating loads of Room 1, 2.

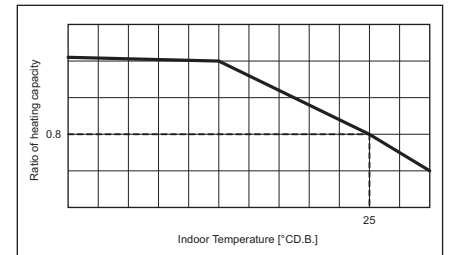


Fig.4 Indoor unit temperature correction  
To be used to correct indoor unit only

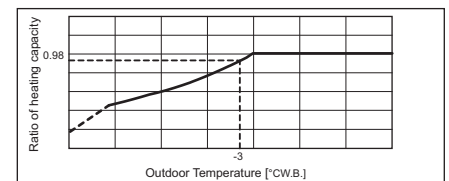


Fig.5 Outdoor unit temperature correction  
To be used to correct outdoor unit only

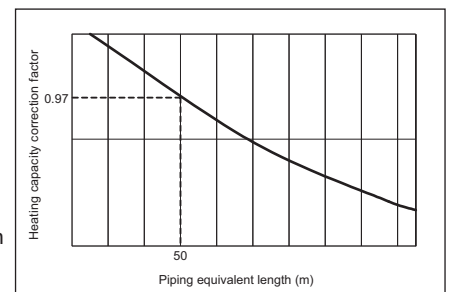


Fig.6 Correction of refrigerant piping length

Tbl.1 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   |
| PUHY-P200                    | 1.00 | 0.95 | 0.84 | 0.825 | 0.83 | 0.87 | 0.90 | 0.95 | 0.95 | 0.95 | 0.95 |
| PUHY-P250                    | 1.00 | 0.95 | 0.84 | 0.825 | 0.83 | 0.87 | 0.90 | 0.95 | 0.95 | 0.95 | 0.95 |
| PUHY-P300                    | 1.00 | 0.93 | 0.82 | 0.80  | 0.82 | 0.86 | 0.90 | 0.90 | 0.95 | 0.95 | 0.95 |
| PUHY-P350                    | 1.00 | 0.93 | 0.85 | 0.83  | 0.84 | 0.86 | 0.90 | 0.90 | 0.95 | 0.95 | 0.95 |
| PUHY-P400                    | 1.00 | 0.93 | 0.85 | 0.83  | 0.84 | 0.86 | 0.90 | 0.90 | 0.95 | 0.95 | 0.95 |

## 3. Power input of outdoor unit

&lt;Cooling&gt;

**(1) Rated power input of outdoor unit** **5.19 kW****(2) Calculation of the average indoor temperature power input coefficient**

Coefficient of the outdoor unit for indoor unit 1 (Outdoor temp. 37 °CD.B., Indoor temp. 20 °CW.B.)

1.07

Coefficient of the outdoor unit for indoor unit 2 (Outdoor temp. 37 °CD.B., Indoor temp. 18 °CW.B.)

1.00

$$\text{Average indoor temp. power input coefficient } (C_{ave}) = \sum_{k=1}^n \{c_k \times (M_k / \sum_{k=1}^n M_k)\}$$

n: Total number of the indoor units

k: Number of the indoor unit

c<sub>k</sub>: Outdoor unit power input coefficient of k indoor unit room temp.M<sub>k</sub>: Number part of the k indoor unit model (e.g. P80 → 80)

$$= 1.07 \times 100 / (100 + 100) + 1 \times 100 / (100 + 100)$$

$$= 1.04$$

**(3) No need to consider Coefficient of the partial load f(CTi/CTo)** -**(4) Outdoor power input (P<sub>lo</sub>)**Maximum System Capacity (CT<sub>x</sub>) = Total Outdoor unit Capacity (CT<sub>o</sub>), so use the following formulaP<sub>lo</sub> = Outdoor unit Cooling Rated Power Input × Correction Coefficient of Indoor temperature

$$= 5.19 \times 1.04$$

$$= 5.4 \text{ kW}$$

&lt;Heating&gt;

**(1) Rated power input of outdoor unit** **5.73 kW****(2) Calculation of the average indoor temperature power input coefficient**Coefficient of the outdoor unit for indoor unit 1 (Outdoor temp. -3 °CW.B., Indoor temp. 25 °CD.B.)  
1.08Coefficient of the outdoor unit for indoor unit 2 (Outdoor temp. -3 °CW.B., Indoor temp. 25 °CD.B.)  
1.08

$$\text{Average indoor temp. power input coefficient } (C_{ave}) = \sum_{k=1}^n \{c_k \times (M_k / \sum_{k=1}^n M_k)\}$$

n: Total number of the indoor units

k: Number of the indoor unit

c<sub>k</sub>: Outdoor unit power input coefficient of k indoor unit room temp.M<sub>k</sub>: Number part of the k indoor unit model (e.g. P80 → 80)

$$= 1.08 \times 100 / (100 + 100) + 1.08 \times 100 / (100 + 100)$$

$$= 1.08$$

**(3) Coefficient of the partial load  $f$  (CTi/CTo)** **0.91****(4) Outdoor power input (P<sub>lo</sub>)**Maximum System Capacity (CT<sub>x</sub>) = Total Indoor unit Capacity (CT<sub>i</sub>), so use the following formula

$$P_{lo} = \text{Outdoor unit Heating Rated Power Input} \times \text{Correction Coefficient of Indoor temperature} \times f(\text{CT}_i/\text{CT}_o)$$

$$= 5.73 \times 1.08 \times 0.91$$

$$= 5.65 \text{ kW}$$

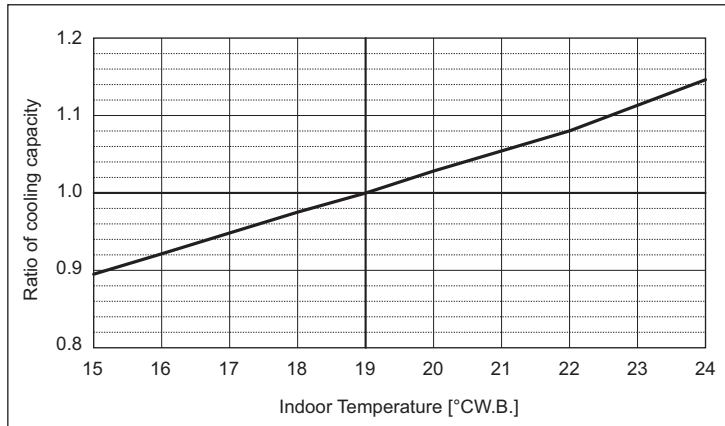
### 8-2. Correction by temperature

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-            |       | P200YNW-A2/TR2/RU2 | P250YNW-A2/TR2/RU2 |
|------------------|-------|--------------------|--------------------|
| Cooling Capacity | kW    | 22.4               | 28.0               |
|                  | BTU/h | 76,400             | 95,500             |
| Input            | kW    | 6.68               | 10.25              |

#### Indoor unit temperature correction

To be used to correct indoor unit capacity only

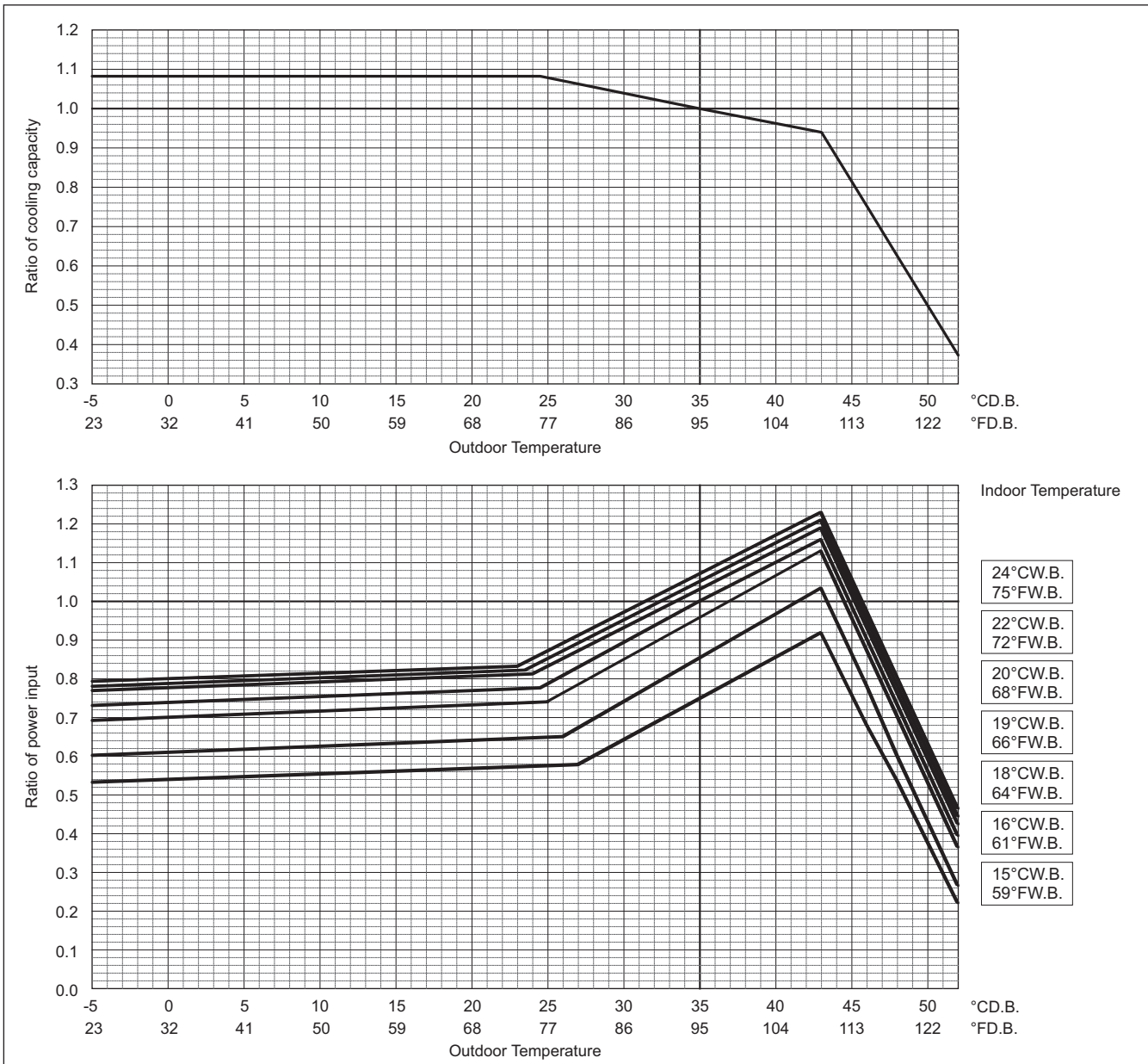


#### Outdoor unit temperature correction

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.



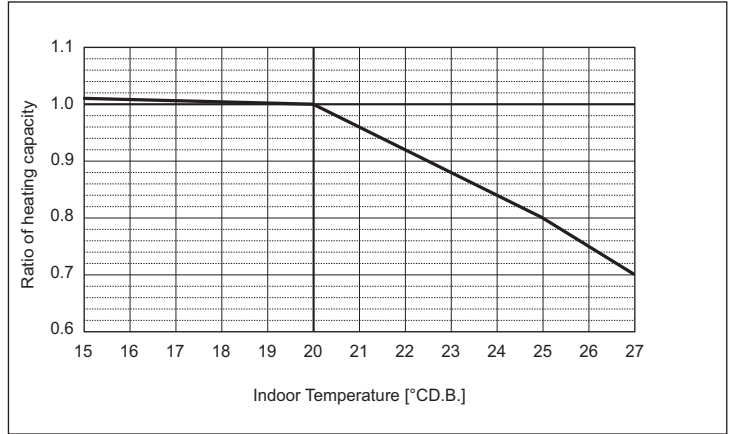
PURY-P-Y(S)NW-A2/TR2/RU2



|                  | PURY- | P200YNW-A2/TR2/RU2 | P250YNW-A2/TR2/RU2 |
|------------------|-------|--------------------|--------------------|
| Heating Capacity | kW    | 25.0               | 31.5               |
| Capacity         | BTU/h | 85,300             | 107,500            |
| Input            | kW    | 6.79               | 9.57               |

**Indoor unit temperature correction**

To be used to correct indoor unit capacity only

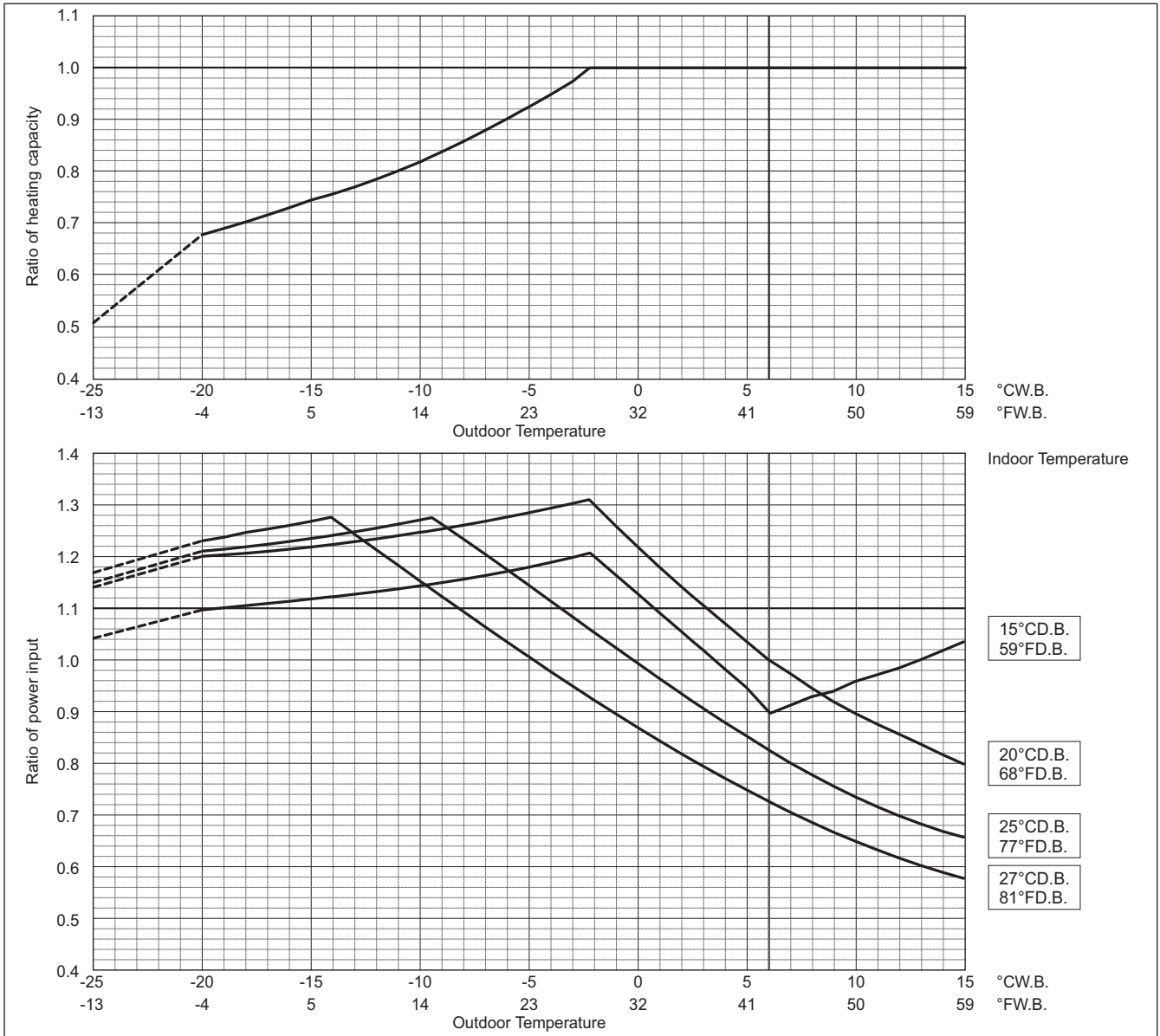


**Outdoor unit temperature correction**

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.

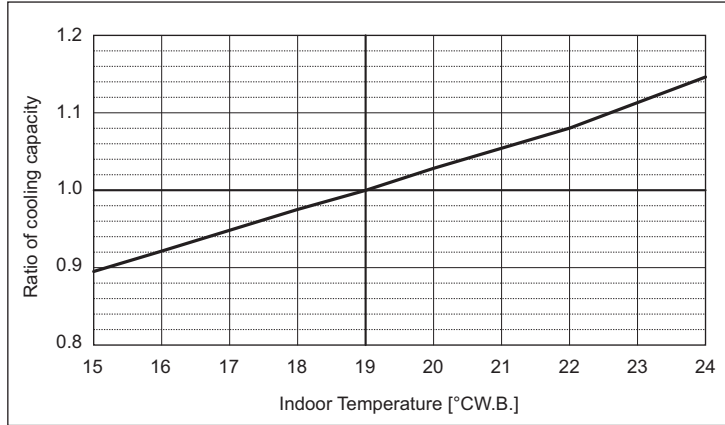


Values in the heating temperature correction diagram in the range below -20°C (-4°F) are reference values and not guaranteed values. Do not use these reference values for selecting outdoor unit models.

When applying product below -20°C (-4°F), consult your design engineer for cold climate application best practices, including the use of a backup source for heating.

| PURY-            |       | P300YNW-A2/TR2/RU2 | P350YNW-A2/TR2/RU2 |
|------------------|-------|--------------------|--------------------|
| Cooling Capacity | kW    | 33.5               | 40.0               |
|                  | BTU/h | 114,300            | 136,500            |
| Input            | kW    | 11.75              | 14.92              |

**Indoor unit temperature correction**  
To be used to correct indoor unit capacity only

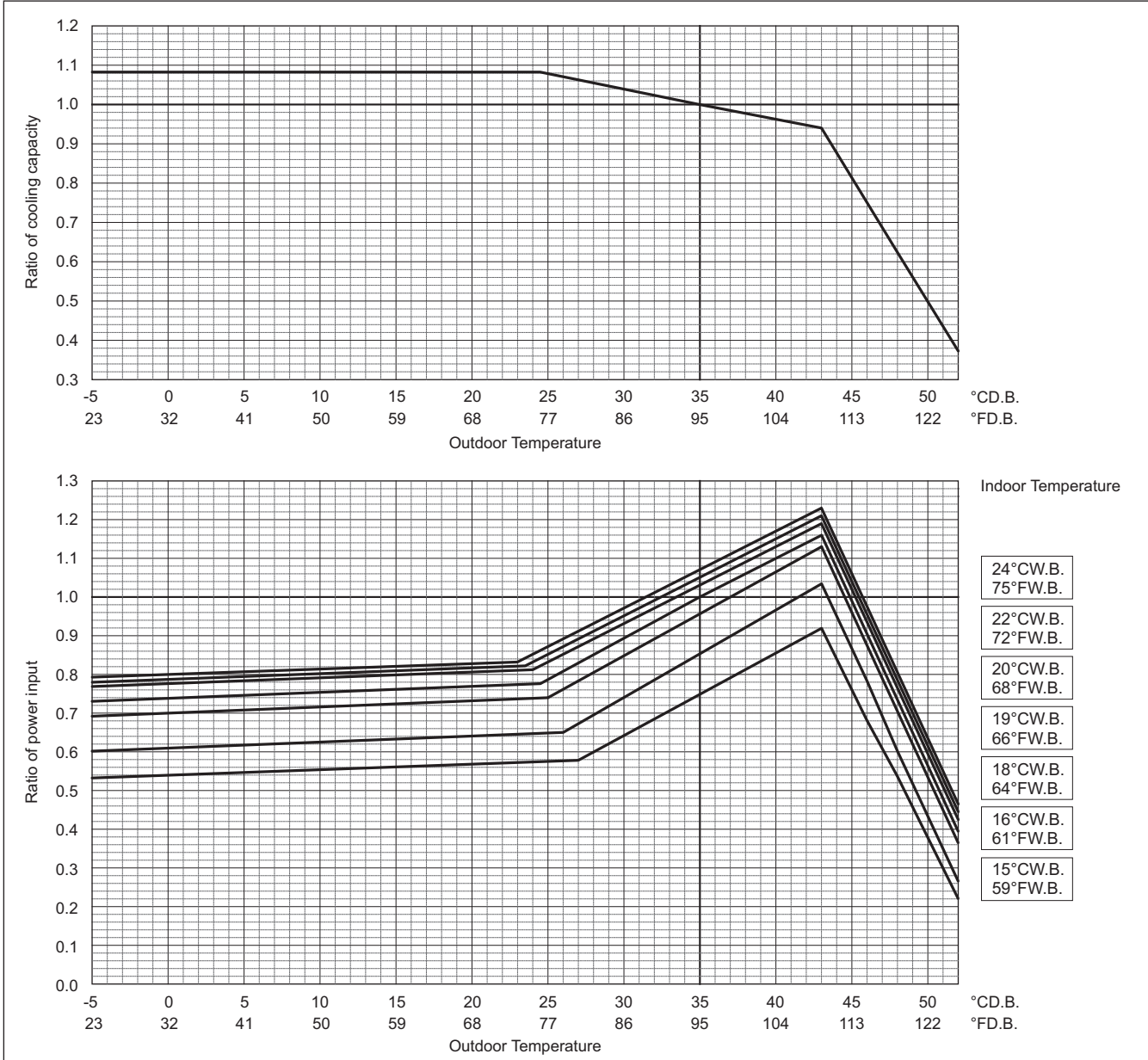


**Outdoor unit temperature correction**

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.

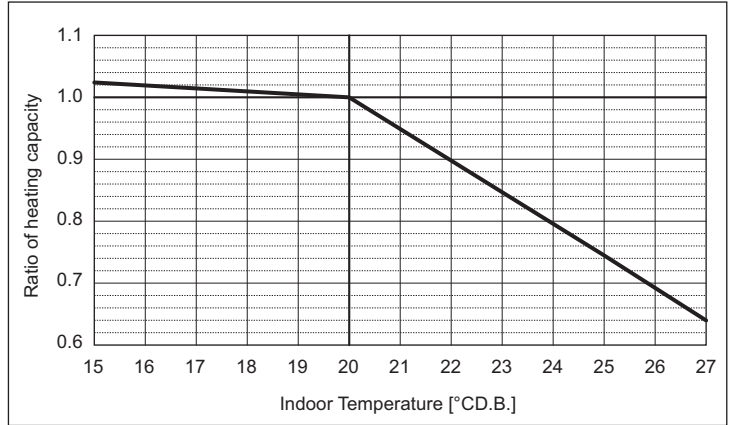


PURY-P-Y(S)NW-A2/TR2/RU2

| PURY-            | P300YNW-A2/TR2/RU2 | P350YNW-A2/TR2/RU2 |
|------------------|--------------------|--------------------|
| Heating Capacity | kW 33.5            | 45.0               |
|                  | BTU/h 114,300      | 153,500            |
| Input            | kW 9.62            | 13.88              |

**Indoor unit temperature correction**

To be used to correct indoor unit capacity only

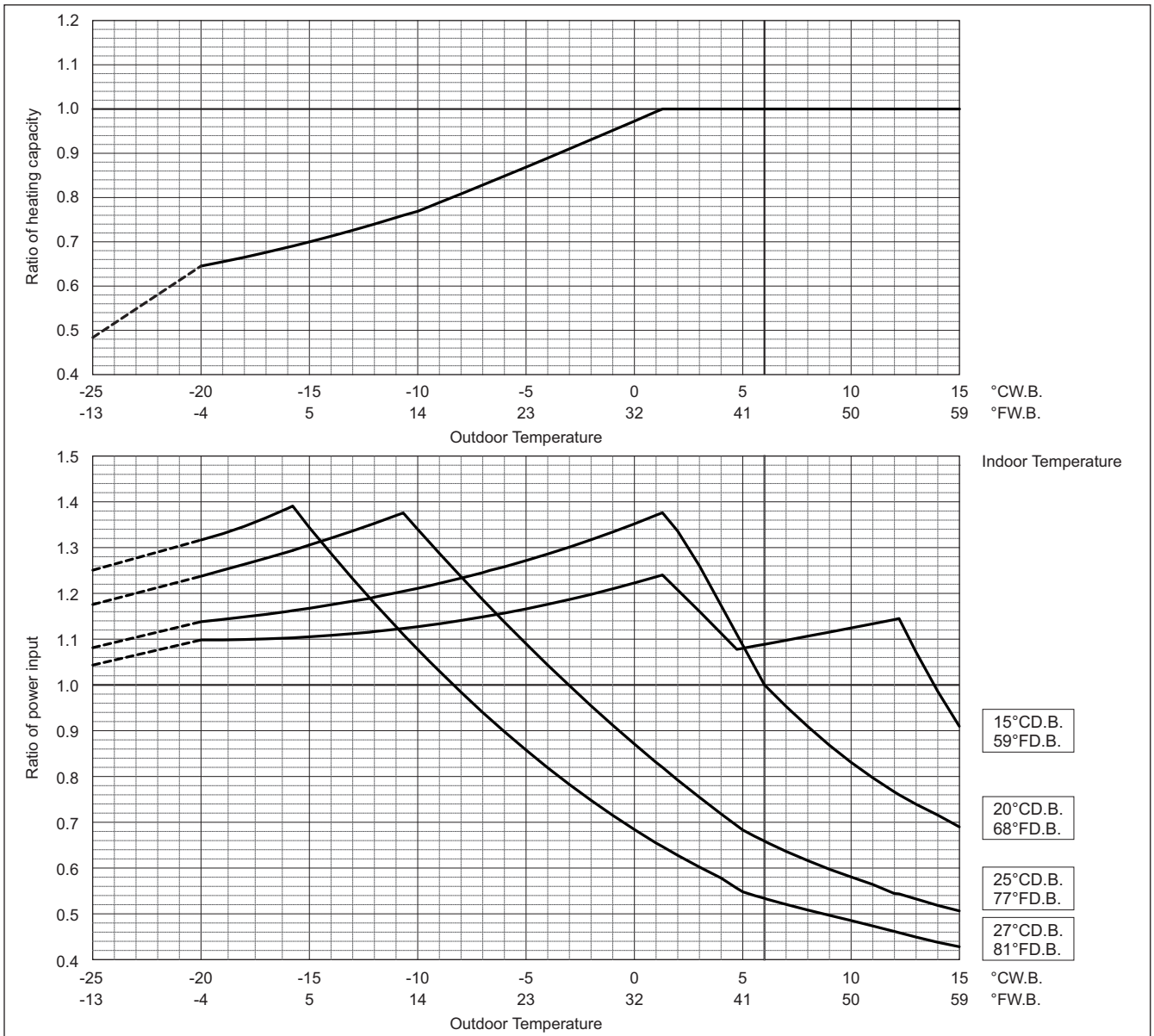


**Outdoor unit temperature correction**

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.

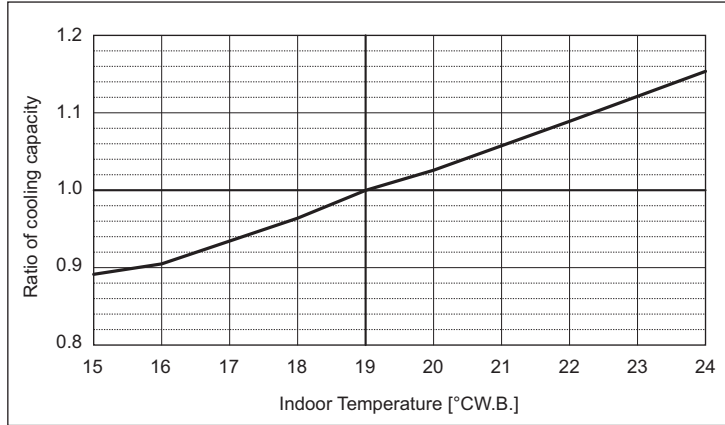


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When applying product below -20°C (-4°F), consult your design engineer for cold climate application best practices, including the use of a backup source for heating.

| PURY-            |       | P400YNW-A2/TR2/RU2 | P450YNW-A2/TR2/RU2 | P500YNW-A2/TR2/RU2 |
|------------------|-------|--------------------|--------------------|--------------------|
| Cooling Capacity | kW    | 45.0               | 50.0               | 56.0               |
|                  | BTU/h | 153,500            | 170,600            | 191,100            |
| Input            | kW    | 19.65              | 19.84              | 22.22              |

**Indoor unit temperature correction**  
To be used to correct indoor unit capacity only

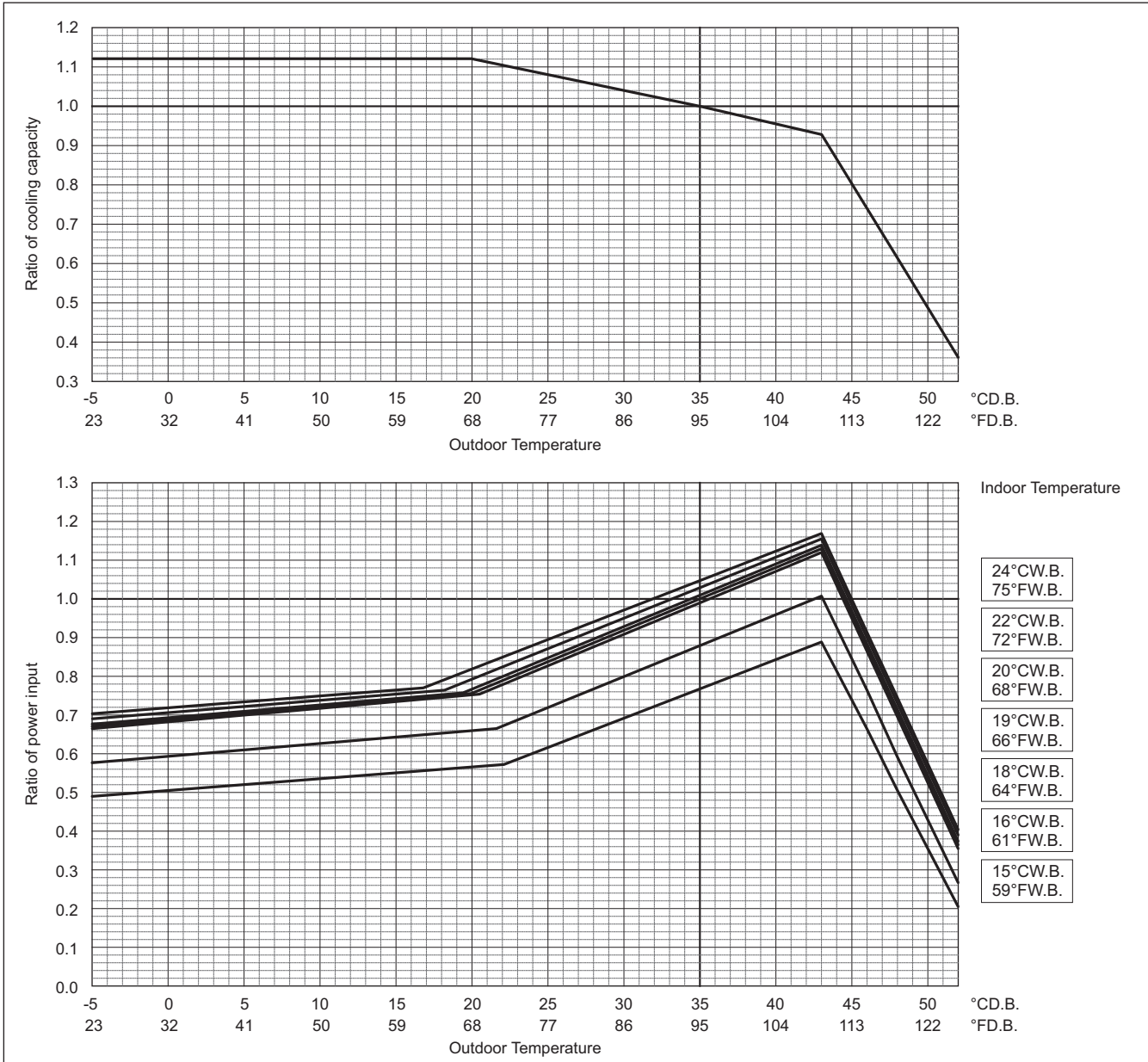


**Outdoor unit temperature correction**

To be used to correct outdoor unit only

Outdoor unit capacity is NOT affected by the indoor temperature.

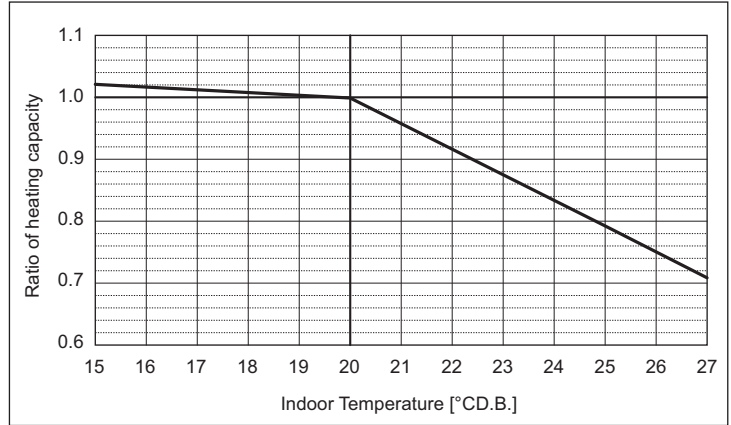
Outdoor unit power input is affected by the indoor and outdoor temperatures. Please consult the sales office for details.



PURY-P-Y(S)NW-A2/TR2/RU2

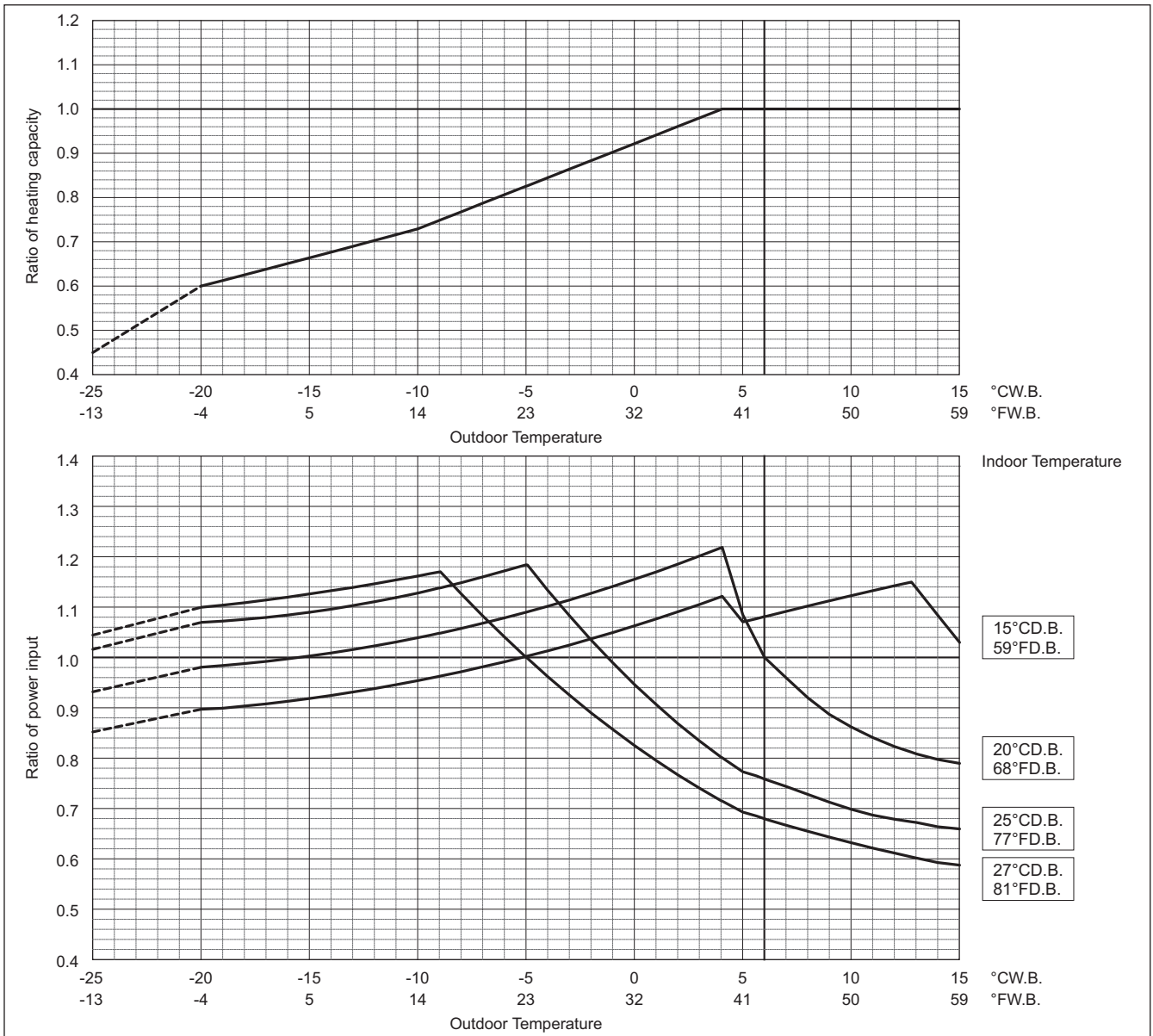
| PURY-            | P400YNW-A2/TR2/RU2 | P450YNW-A2/TR2/RU2 | P500YNW-A2/TR2/RU2 |
|------------------|--------------------|--------------------|--------------------|
| Heating Capacity | kW 50.0            | 56.0               | 63.0               |
| Capacity         | BTU/h 170,600      | 191,100            | 215,000            |
| Input            | kW 16.66           | 18.79              | 21.14              |

**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.



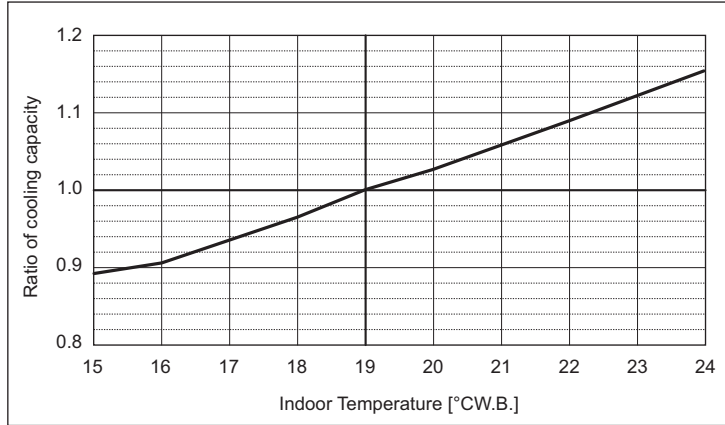
Values in the heating temperature correction diagram in the range below -20°C (-4°F) are reference values and not guaranteed values. Do not use these reference values for selecting outdoor unit models.  
When applying product below -20°C (-4°F), consult your design engineer for cold climate application best practices, including the use of a backup source for heating.

PURY-P-Y(S)NW-A2/TR2/RU2



|                  |       |                           |
|------------------|-------|---------------------------|
| <b>PURY-</b>     |       | <b>P550YNW-A2/TR2/RU2</b> |
| Cooling Capacity | kW    | 60.0                      |
|                  | BTU/h | 204,700                   |
| Input            | kW    | 25.86                     |

**Indoor unit temperature correction**  
To be used to correct indoor unit capacity only

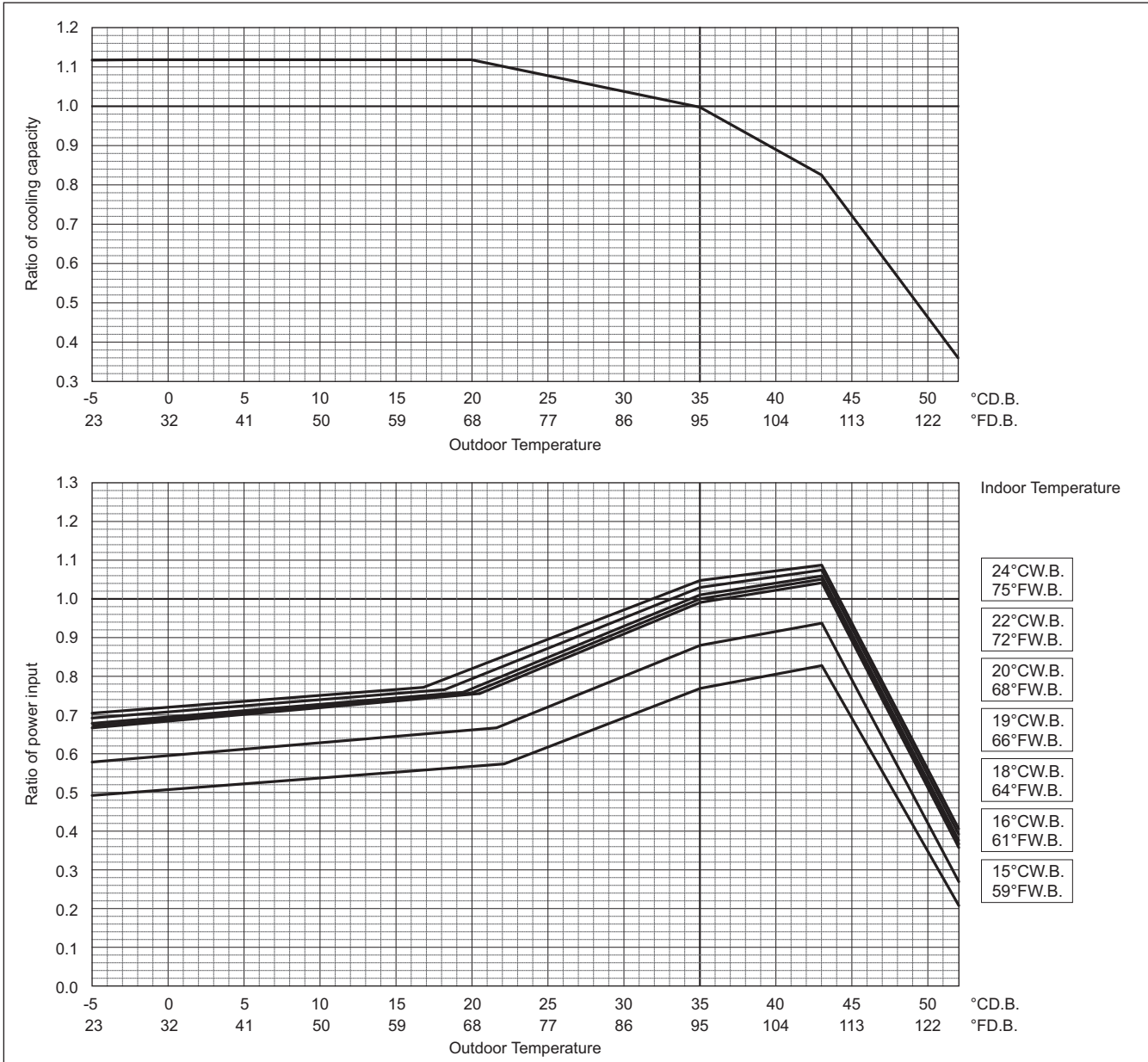


**Outdoor unit temperature correction**

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.

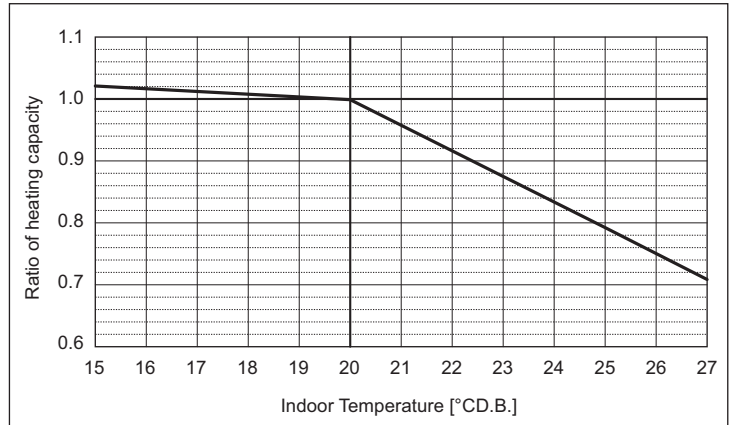


PURY-P-Y(S)NW-A2/TR2/RU2



|                  |       |                           |
|------------------|-------|---------------------------|
| <b>PURY-</b>     |       | <b>P550YNW-A2/TR2/RU2</b> |
| Heating Capacity | kW    | 69.0                      |
|                  | BTU/h | 235,400                   |
| Input            | kW    | 24.55                     |

**Indoor unit temperature correction**  
To be used to correct indoor unit capacity only

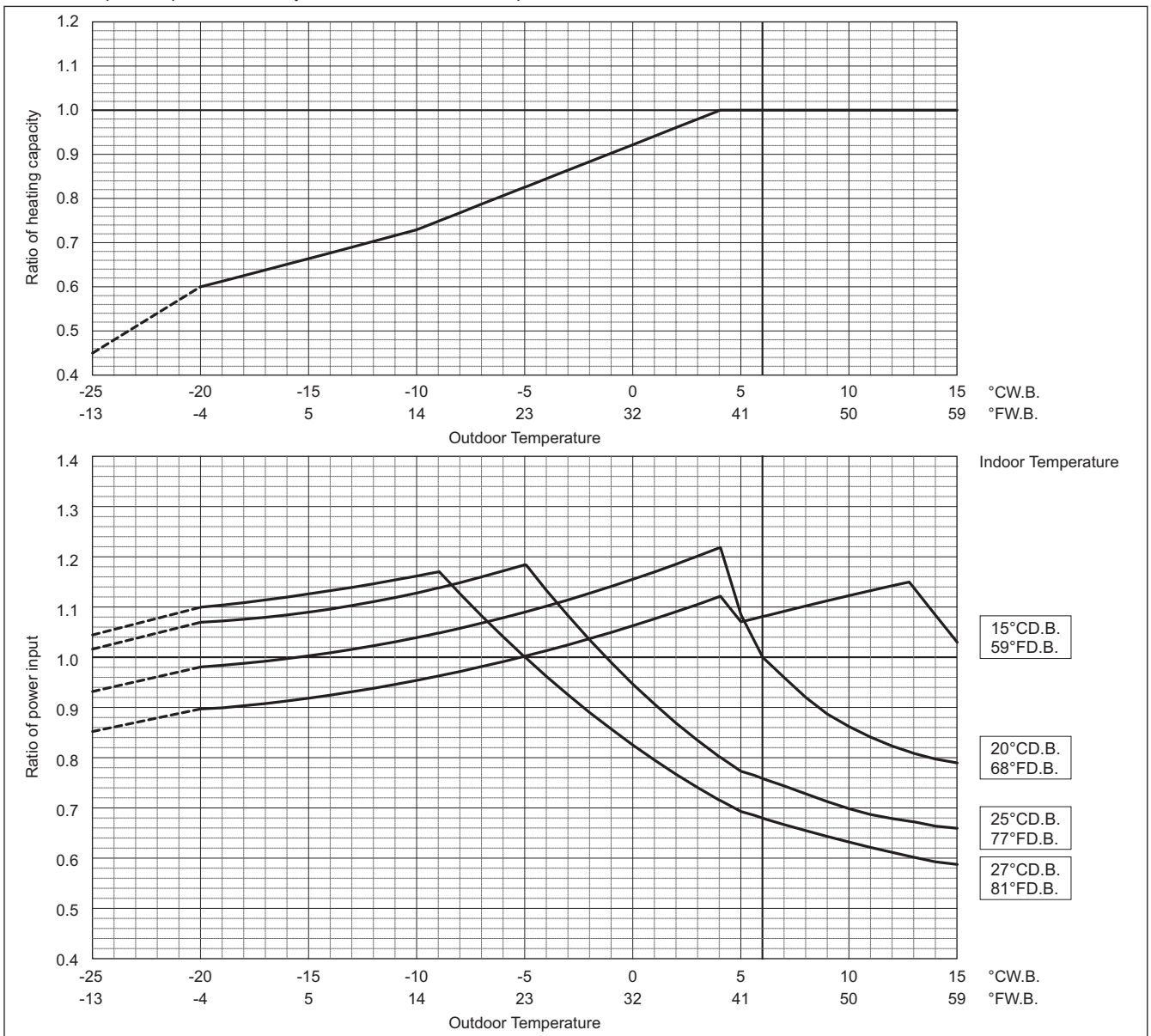


**Outdoor unit temperature correction**

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.



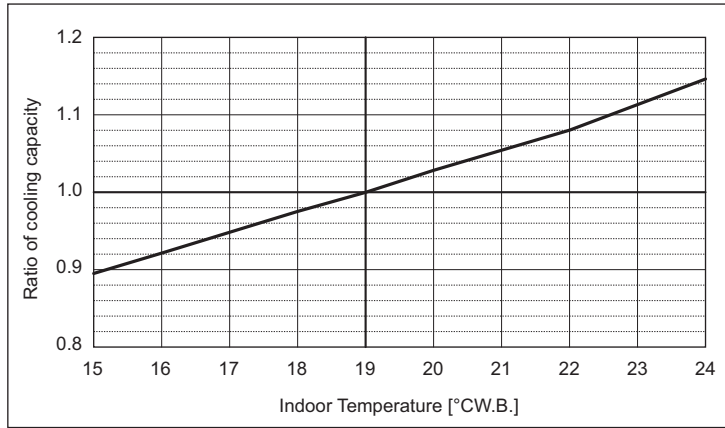
Values in the heating temperature correction diagram in the range below -20°C (-4°F) are reference values and not guaranteed values. Do not use these reference values for selecting outdoor unit models.

When applying product below -20°C (-4°F), consult your design engineer for cold climate application best practices, including the use of a backup source for heating.

PURY-P-Y(S)NW-A2/TR2/RU2

| PURY-            |       | P400YSNW-A2/TR2/RU2 | P450YSNW-A2/TR2/RU2 | P500YSNW-A2/TR2/RU2 |
|------------------|-------|---------------------|---------------------|---------------------|
| Cooling Capacity | kW    | 44.8                | 50.4                | 56.0                |
|                  | BTU/h | 152,900             | 172,000             | 191,100             |
| Input            | kW    | 13.78               | 17.08               | 21.13               |

**Indoor unit temperature correction**  
To be used to correct indoor unit capacity only

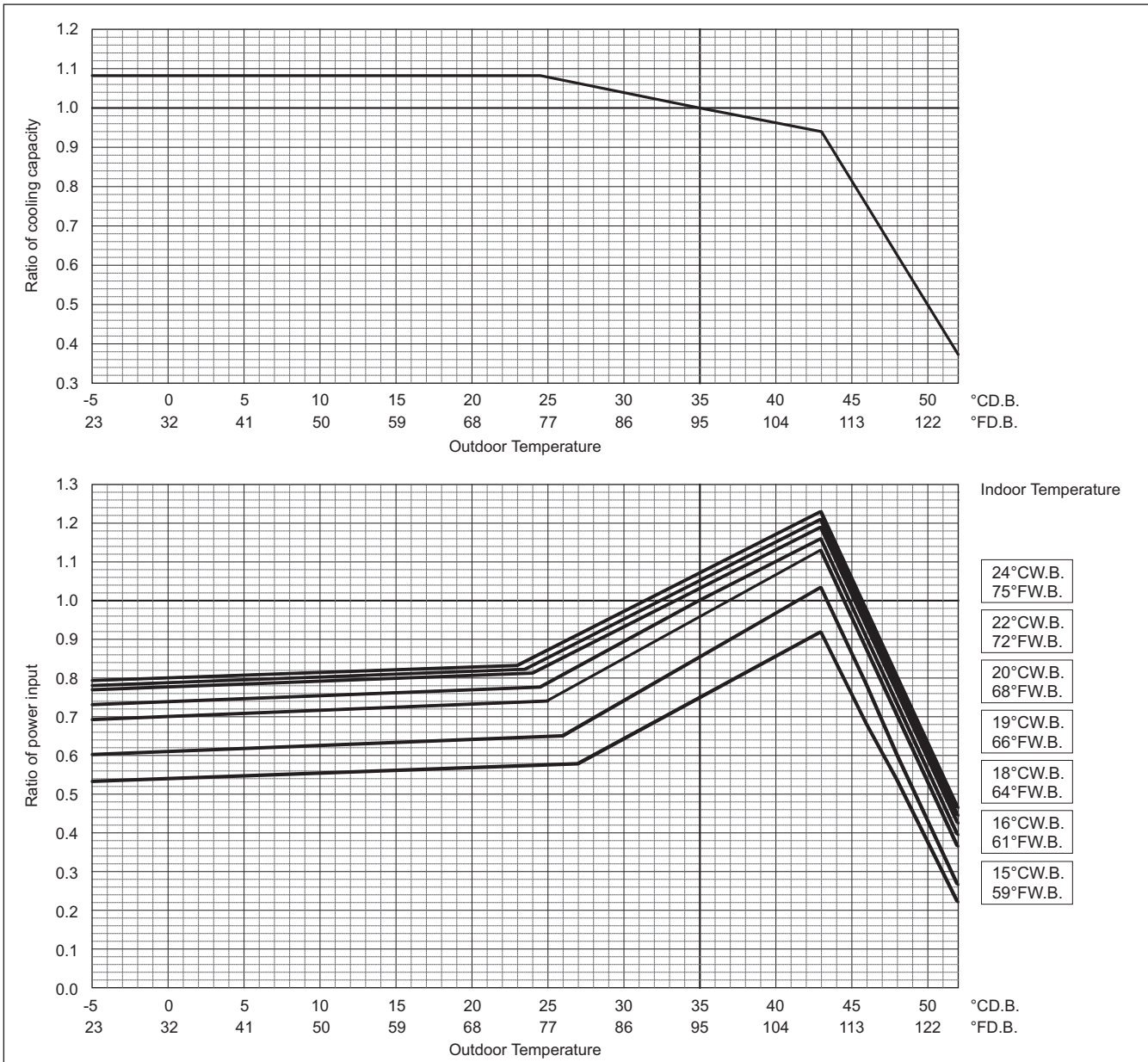


**Outdoor unit temperature correction**

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.

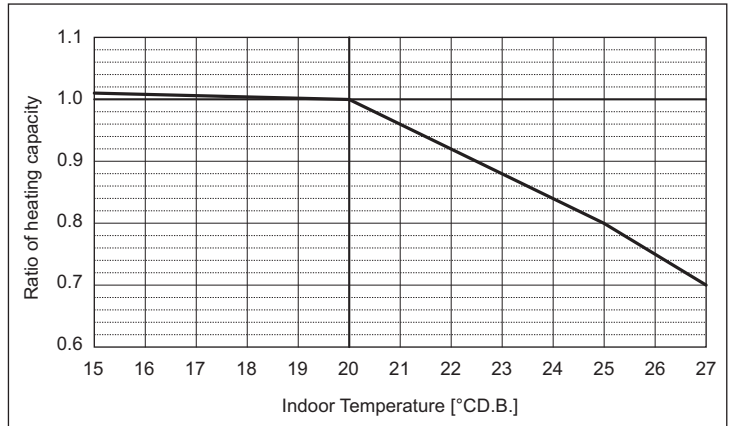


PURY-P-Y(S)NW-A2/TR2/RU2

| PURY-            | P400YSNW-A2/TR2/RU2 | P450YSNW-A2/TR2/RU2 | P500YSNW-A2/TR2/RU2 |
|------------------|---------------------|---------------------|---------------------|
| Heating Capacity | kW 50.0             | 56.5                | 63.0                |
|                  | BTU/h 170,600       | 192,800             | 215,000             |
| Input            | kW 14.00            | 16.71               | 19.74               |

**Indoor unit temperature correction**

To be used to correct indoor unit capacity only

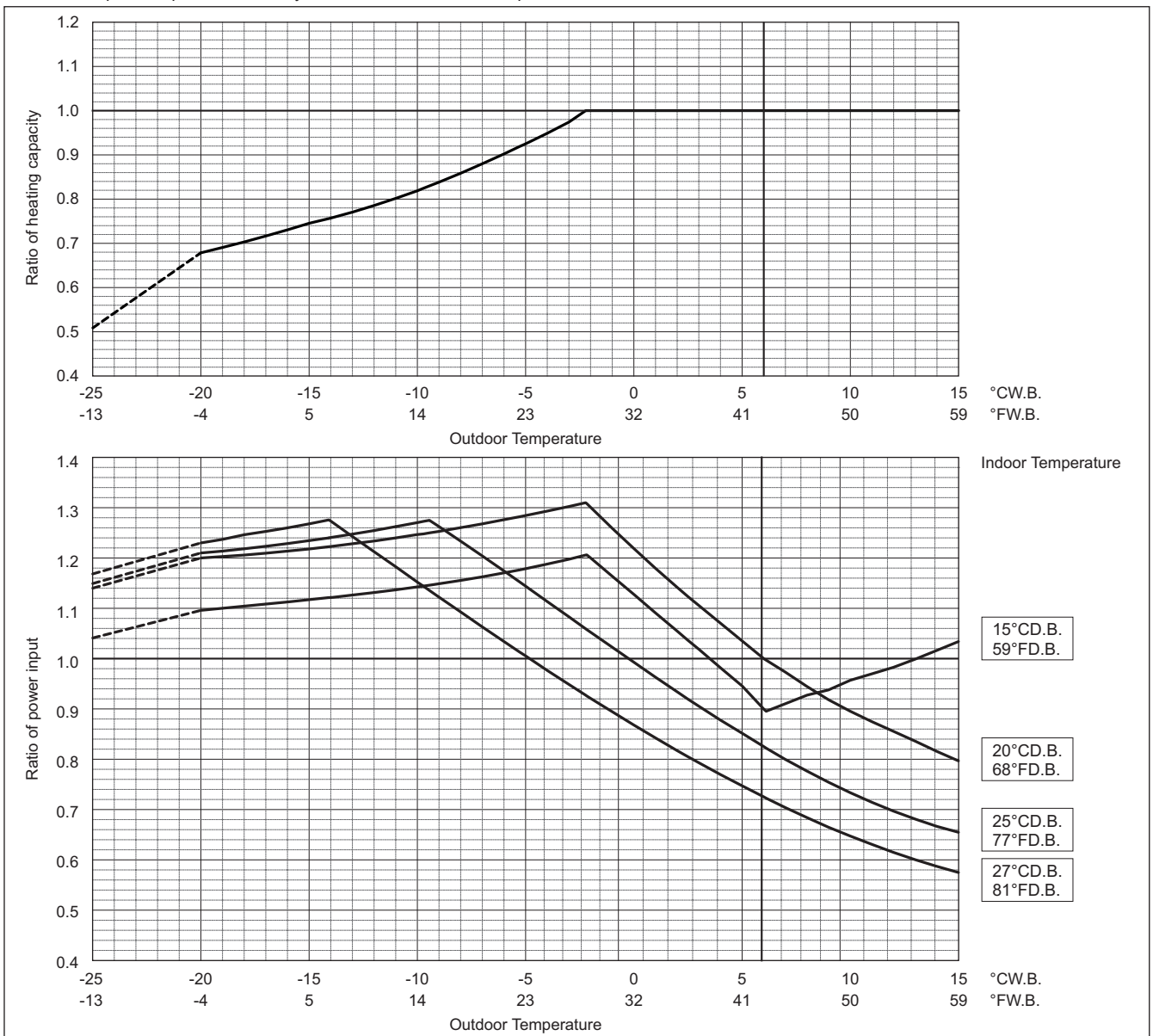


**Outdoor unit temperature correction**

To be used to correct outdoor unit only

Outdoor unit capacity is NOT affected by the indoor temperature.

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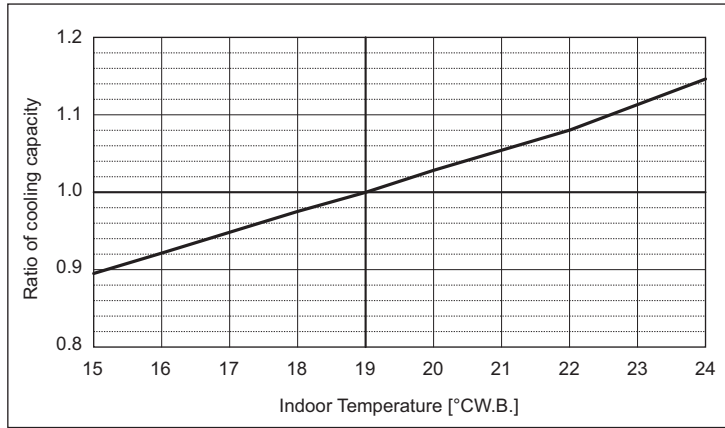
PURY-P-Y(S)NW-A2/TR2/RU2

| PURY-            |       | P550YSNW-A2/TR2/RU2 | P600YSNW-A2/TR2/RU2 | P650YSNW-A2/TR2/RU2 |
|------------------|-------|---------------------|---------------------|---------------------|
| Cooling Capacity | kW    | 61.5                | 67.0                | 73.5                |
|                  | BTU/h | 209,800             | 228,600             | 250,800             |
| Input            | kW    | 22.69               | 24.27               | 27.42               |

| PURY-            |       | P700YSNW-A2/TR2/RU2 |
|------------------|-------|---------------------|
| Cooling Capacity | kW    | 80.0                |
|                  | BTU/h | 273,000             |
| Input            | kW    | 30.76               |

**Indoor unit temperature correction**  
To be used to correct indoor unit capacity only

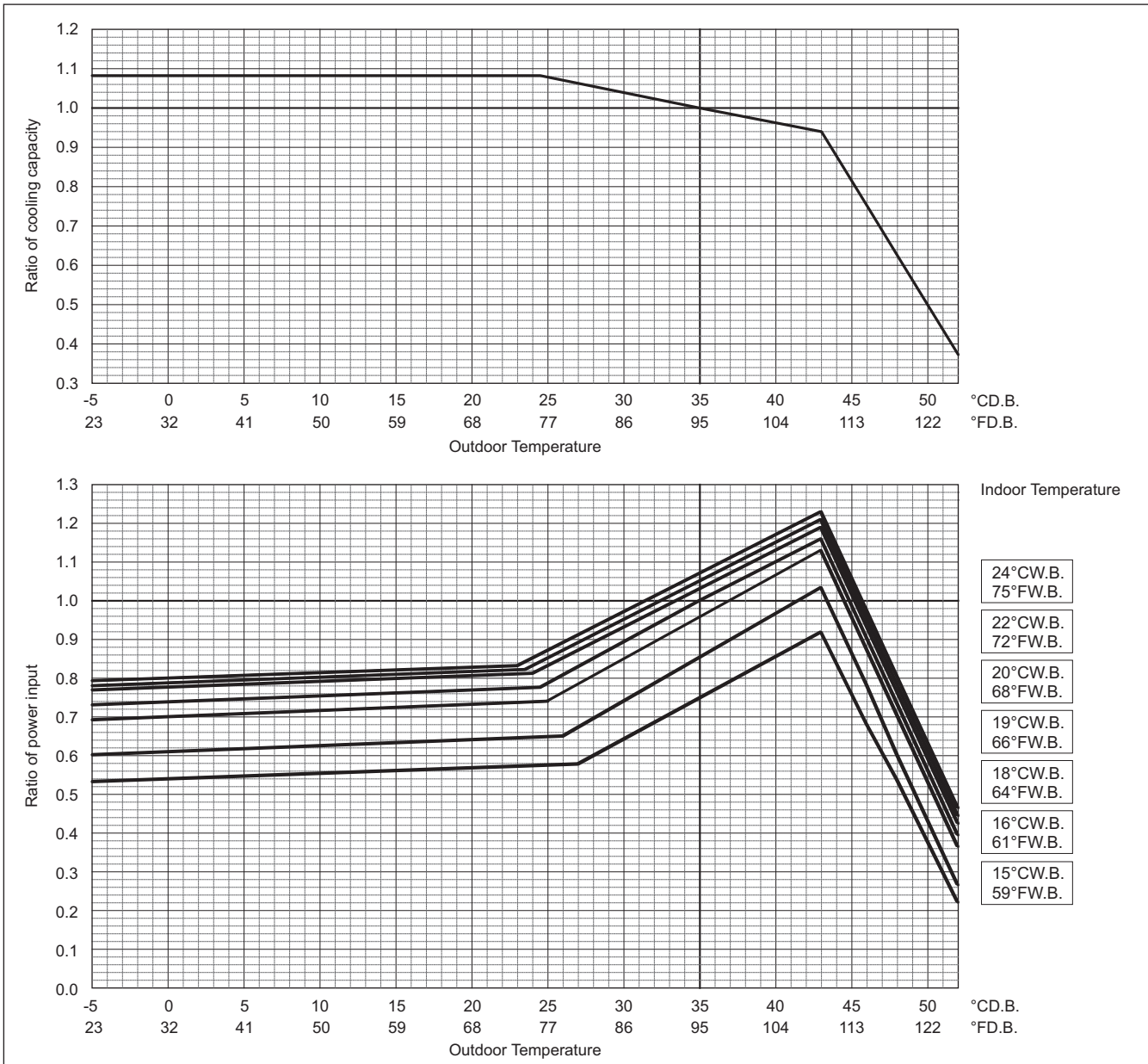


**Outdoor unit temperature correction**

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.

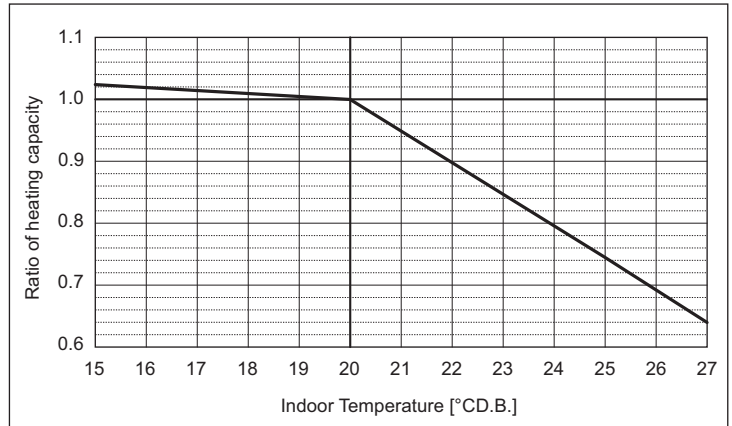


| PURY-            |       | P550YSNW-A2/TR2/RU2 | P600YSNW-A2/TR2/RU2 | P650YSNW-A2/TR2/RU2 |
|------------------|-------|---------------------|---------------------|---------------------|
| Heating Capacity | kW    | 65.0                | 67.0                | 78.5                |
|                  | BTU/h | 221,800             | 228,600             | 267,800             |
| Input            | kW    | 19.81               | 19.81               | 24.07               |

| PURY-            |       | P700YSNW-A2/TR2/RU2 |
|------------------|-------|---------------------|
| Heating Capacity | kW    | 90.0                |
|                  | BTU/h | 307,100             |
| Input            | kW    | 28.66               |

**Indoor unit temperature correction**  
To be used to correct indoor unit capacity only

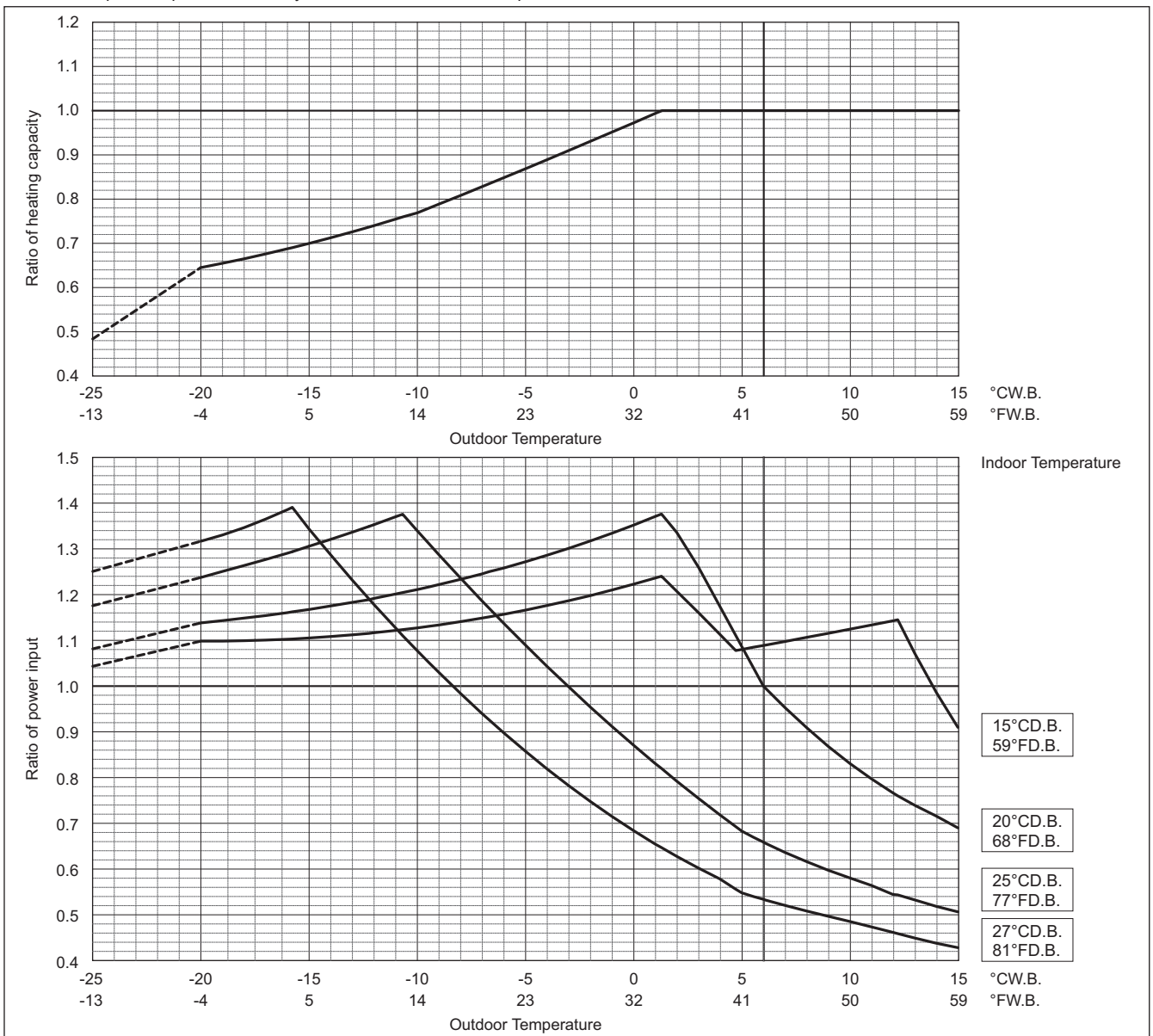


**Outdoor unit temperature correction**

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.



Values in the heating temperature correction diagram in the range below -20°C (-4°F) are reference values and not guaranteed values. Do not use these reference values for selecting outdoor unit models.

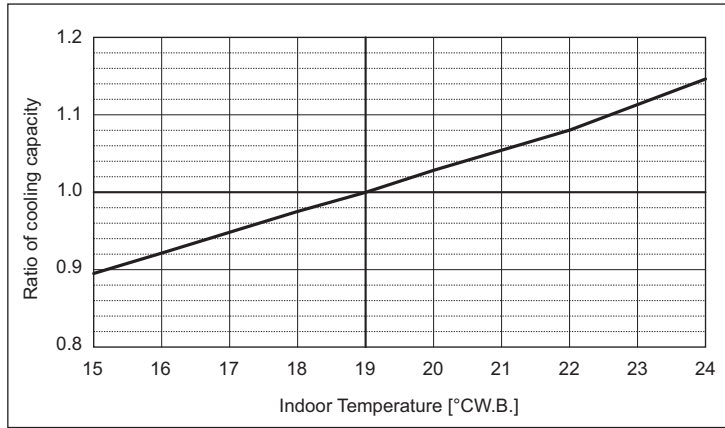
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|                  |       |                            |
|------------------|-------|----------------------------|
| <b>PURY-</b>     |       | <b>P750YSNW-A2/TR2/RU2</b> |
| Cooling Capacity | kW    | 85.0                       |
|                  | BTU/h | 290,000                    |
| Input            | kW    | 35.26                      |

**Indoor unit temperature correction**

To be used to correct indoor unit capacity only

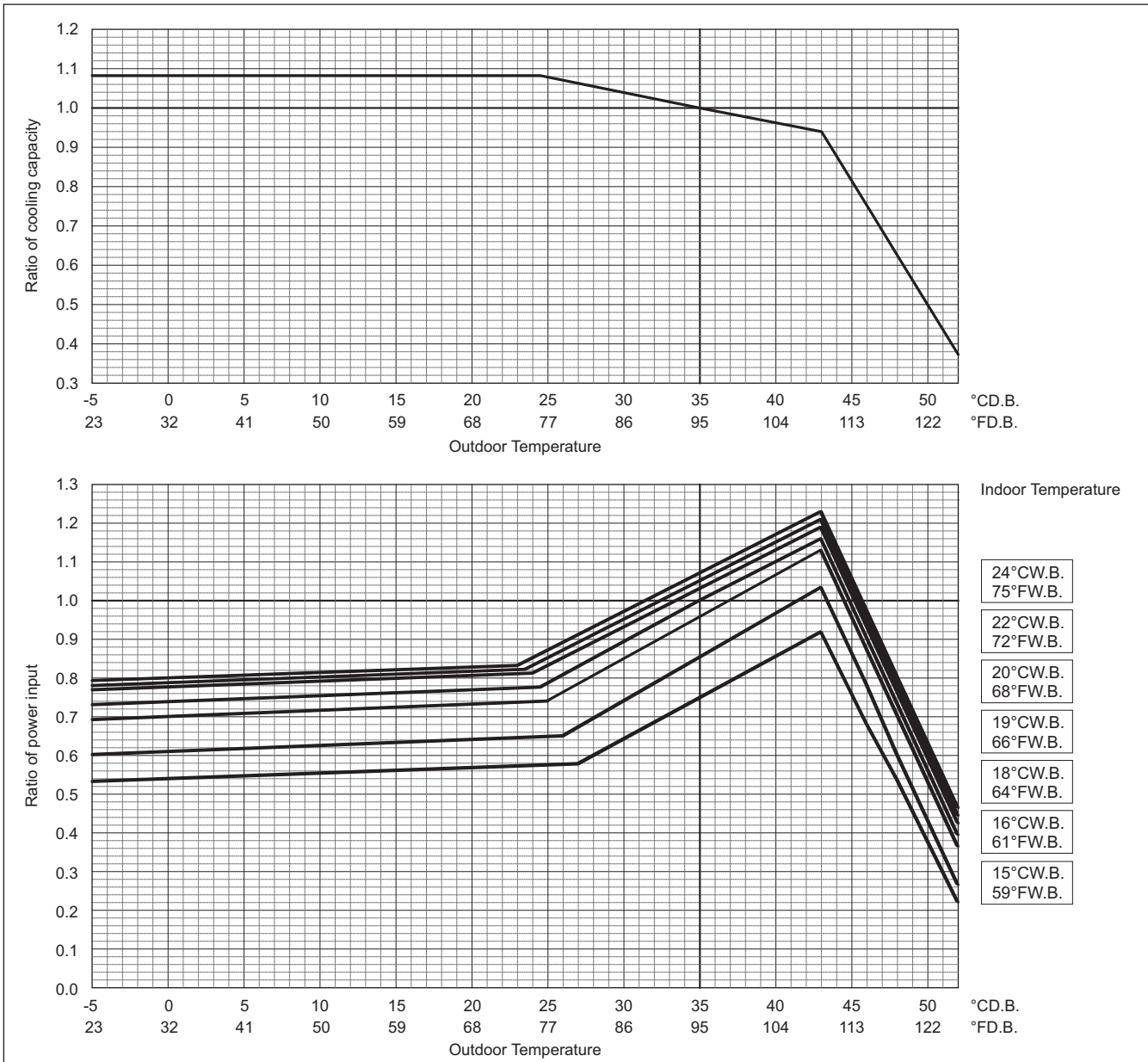


**Outdoor unit temperature correction**

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.



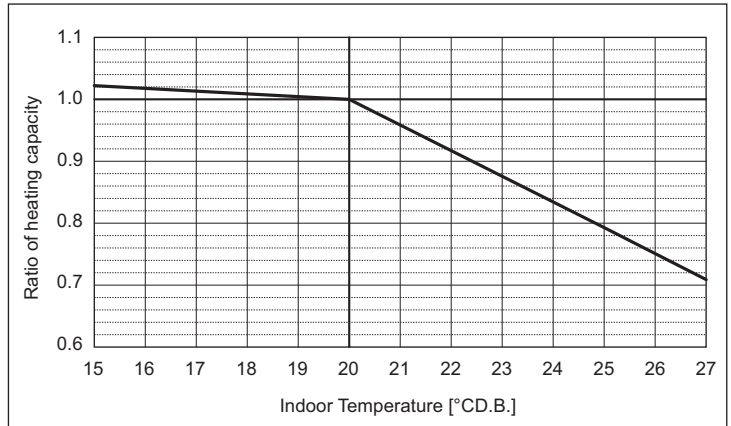
PURY-P-Y(S)NW-A2/TR2/RU2



|                  |                            |         |
|------------------|----------------------------|---------|
| <b>PURY-</b>     | <b>P750YSNW-A2/TR2/RU2</b> |         |
| Heating Capacity | kW                         | 95.0    |
|                  | BTU/h                      | 324,100 |
| Input            | kW                         | 31.35   |

**Indoor unit temperature correction**

To be used to correct indoor unit capacity only

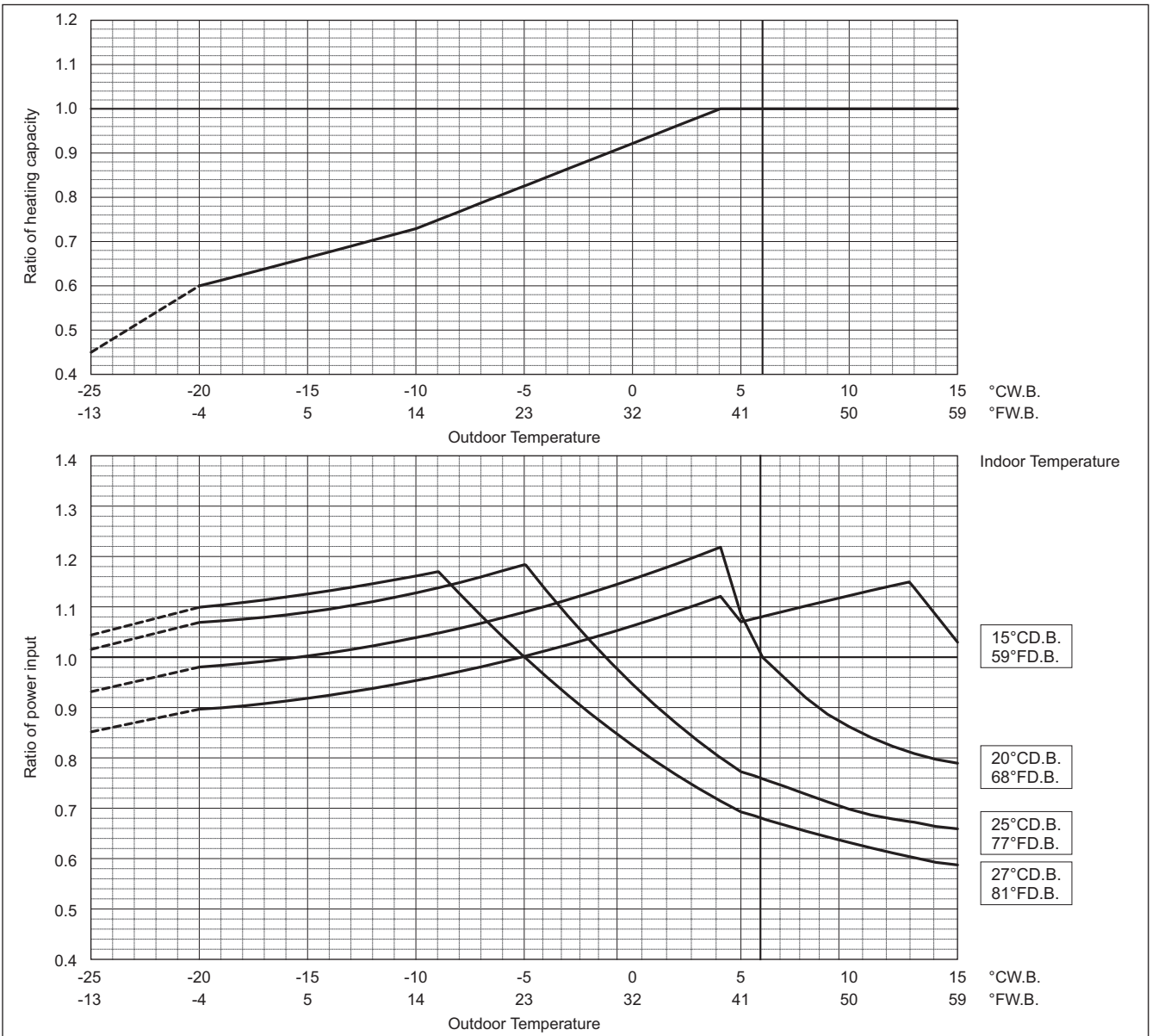


**Outdoor unit temperature correction**

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.



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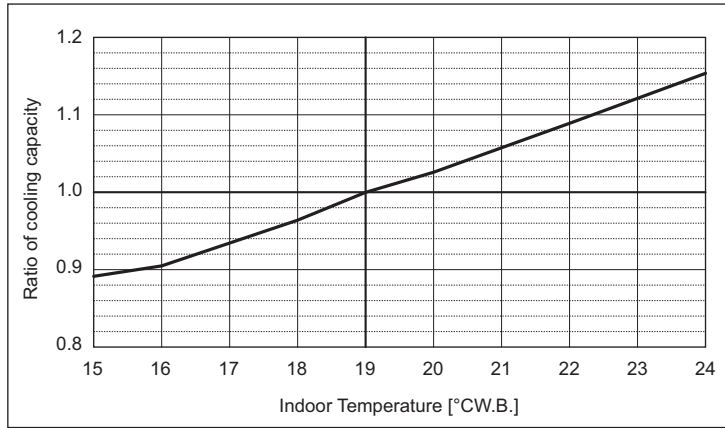
PURY-P-Y(S)NW-A2/TR2/RU2

| PURY-            |       | P800YSNW-A2/TR2/RU2 | P850YSNW-A2/TR2/RU2 | P900YSNW-A2/TR2/RU2 |
|------------------|-------|---------------------|---------------------|---------------------|
| Cooling Capacity | kW    | 90.0                | 95.0                | 100.0               |
|                  | BTU/h | 307,100             | 324,100             | 341,200             |
| Input            | kW    | 40.54               | 40.77               | 40.98               |

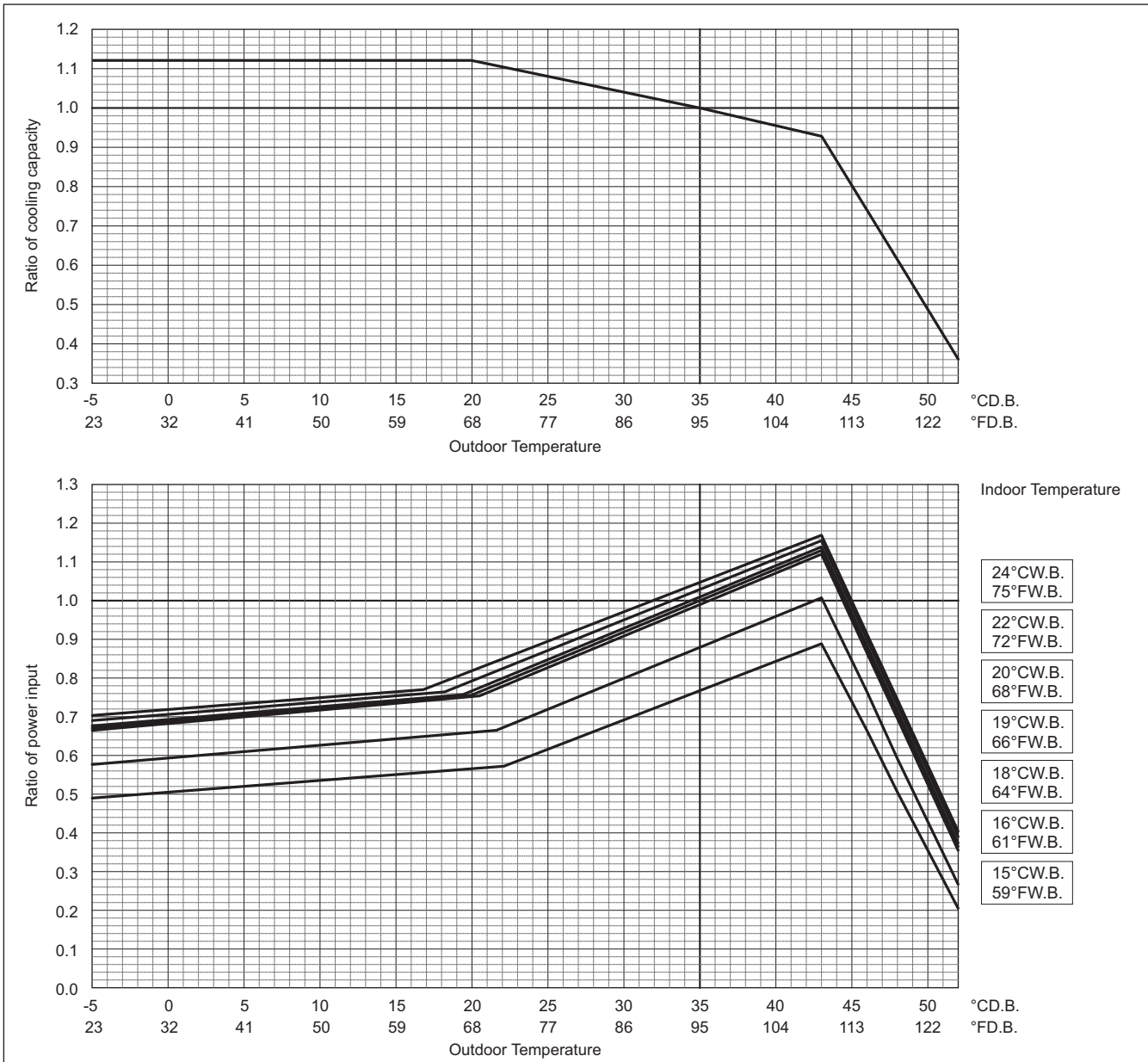
| PURY-            |       | P950YSNW-A2/TR2/RU2 | P1000YSNW-A2/TR2/RU2 |
|------------------|-------|---------------------|----------------------|
| Cooling Capacity | kW    | 106.0               | 112.0                |
|                  | BTU/h | 361,700             | 382,100              |
| Input            | kW    | 43.44               | 45.90                |

**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.



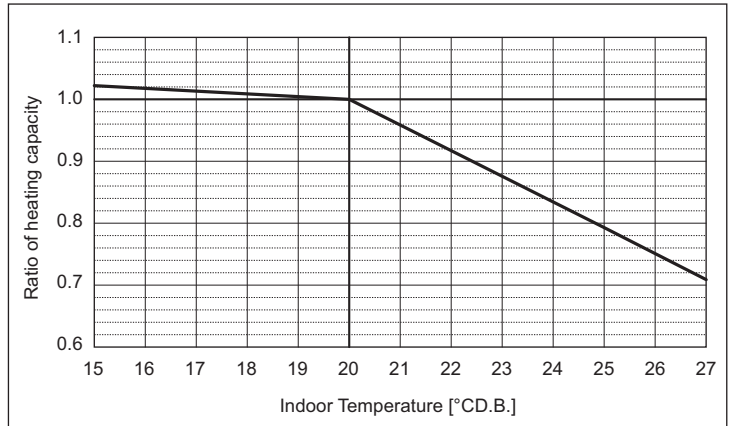
| PURY-            |       | P800YSNW-A2/TR2/RU2 | P850YSNW-A2/TR2/RU2 | P900YSNW-A2/TR2/RU2 |
|------------------|-------|---------------------|---------------------|---------------------|
| Heating Capacity | kW    | 100.0               | 106.0               | 112.0               |
|                  | BTU/h | 341,200             | 361,700             | 382,100             |
| Input            | kW    | 34.36               | 36.55               | 38.75               |

| PURY-            |       | P950YSNW-A2/TR2/RU2 | P1000YSNW-A2/TR2/RU2 |
|------------------|-------|---------------------|----------------------|
| Heating Capacity | kW    | 119.0               | 126.0                |
|                  | BTU/h | 406,000             | 429,900              |
| Input            | kW    | 41.17               | 43.59                |

**Indoor unit temperature correction**

To be used to correct indoor unit capacity only

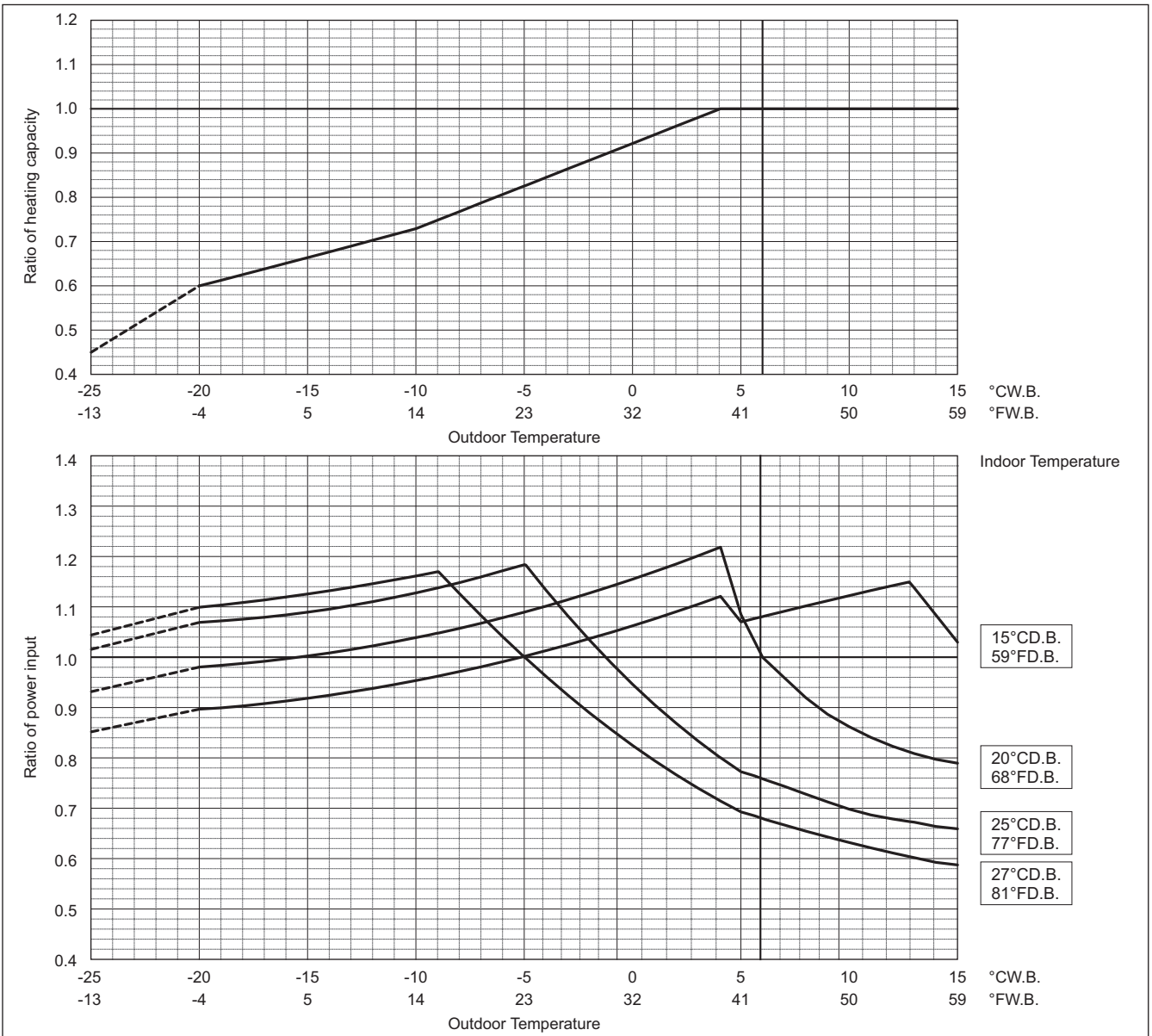


**Outdoor unit temperature correction**

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.

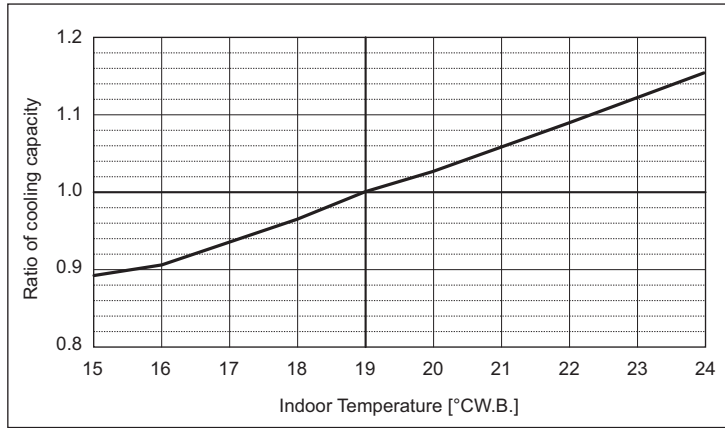


Values in the heating temperature correction diagram in the range below -20°C (-4°F) are reference values and not guaranteed values. Do not use these reference values for selecting outdoor unit models.

When applying product below -20°C (-4°F), consult your design engineer for cold climate application best practices, including the use of a backup source for heating.

| PURY-            |       | P1050YSNW-A2/TR2/RU2 | P1100YSNW-A2/TR2/RU2 |
|------------------|-------|----------------------|----------------------|
| Cooling Capacity | kW    | 116.0                | 120.0                |
|                  | BTU/h | 395,800              | 409,400              |
| Input            | kW    | 49.36                | 53.32                |

**Indoor unit temperature correction**  
To be used to correct indoor unit capacity only

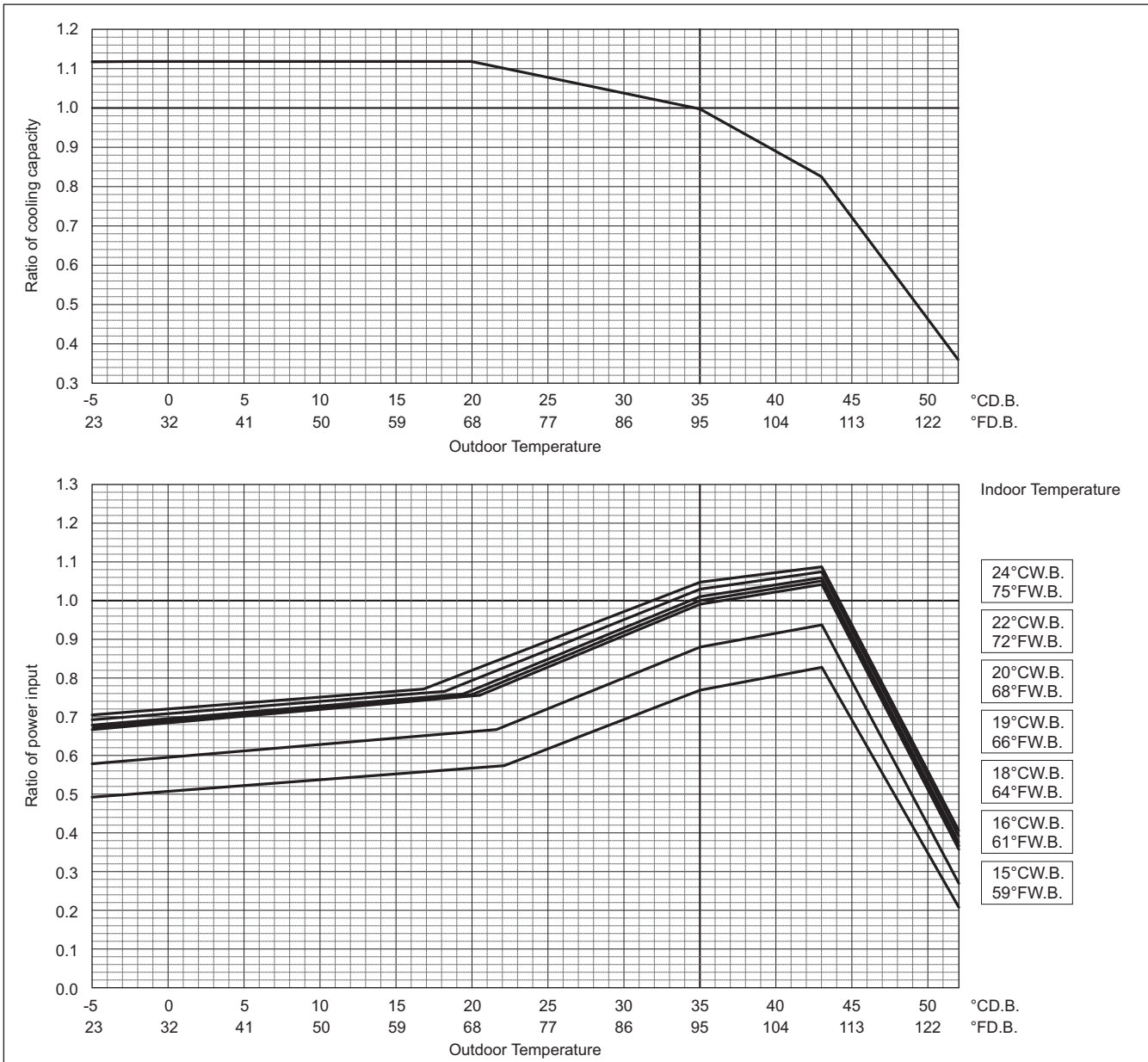


**Outdoor unit temperature correction**

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.

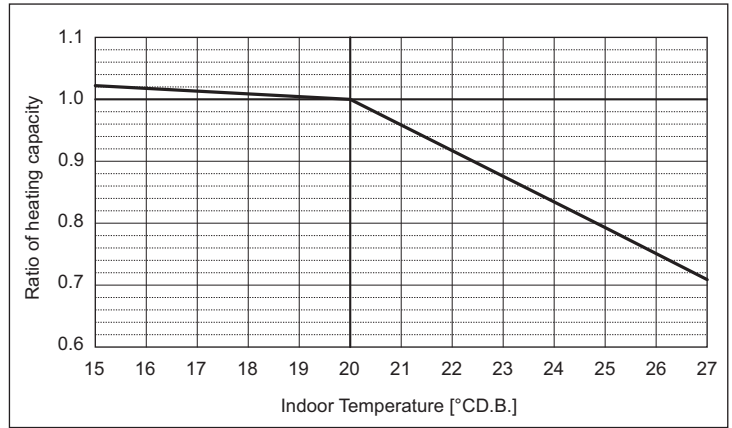


PURY-P-Y(S)NW-A2/TR2/RU2

| PURY-            |       | P1050YSNW-A2/TR2/RU2 | P1100YSNW-A2/TR2/RU2 |
|------------------|-------|----------------------|----------------------|
| Heating Capacity | kW    | 132.0                | 138.0                |
|                  | BTU/h | 450,400              | 470,900              |
| Input            | kW    | 46.97                | 50.54                |

**Indoor unit temperature correction**

To be used to correct indoor unit capacity only

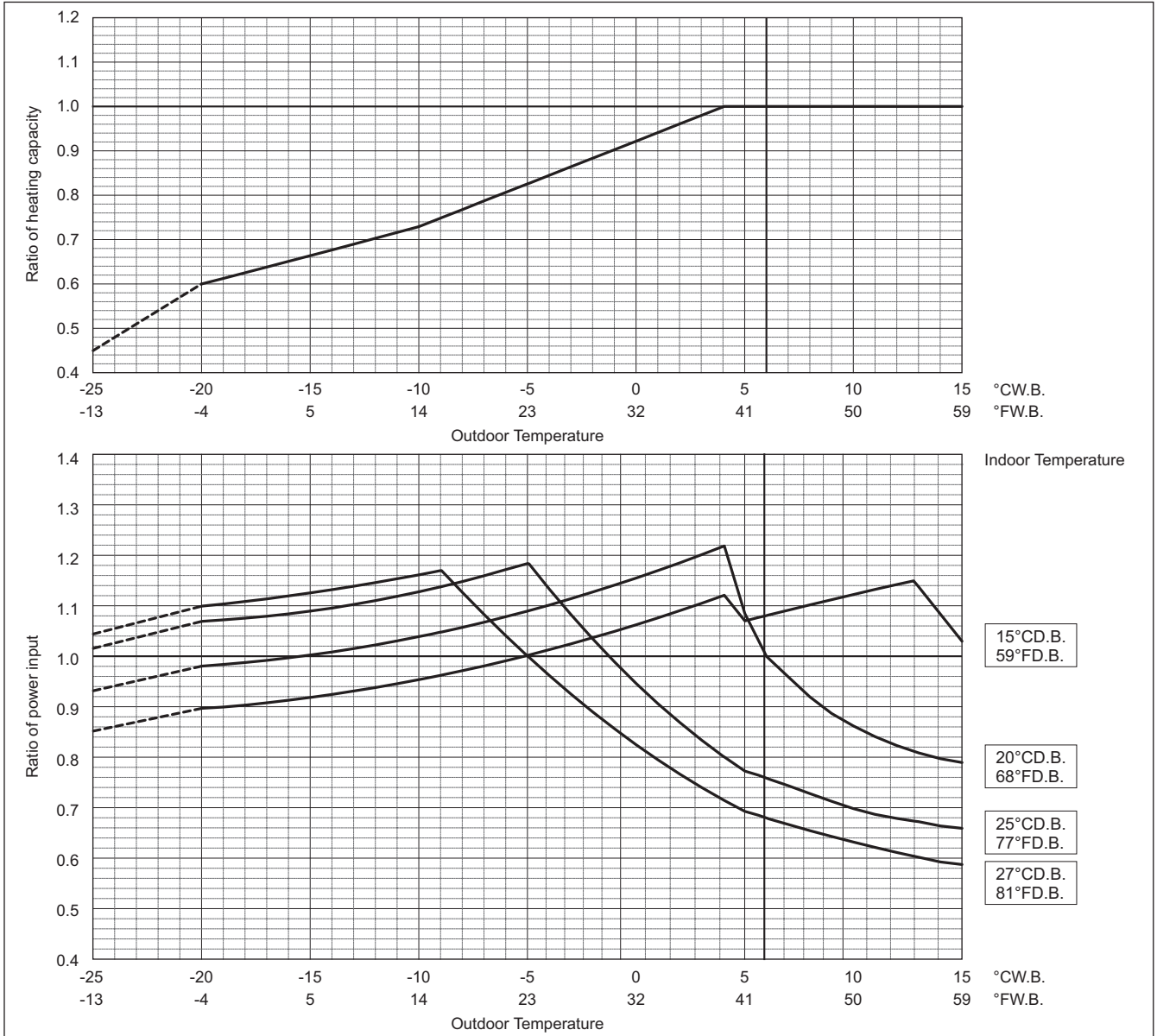


**Outdoor unit temperature correction**

To be used to correct outdoor unit only

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



Values in the heating temperature correction diagram in the range below -20°C (-4°F) are reference values and not guaranteed values. Do not use these reference values for selecting outdoor unit models.

When applying product below -20°C (-4°F), consult your design engineer for cold climate application best practices, including the use of a backup source for heating.

PURY-P-Y(S)NW-A2/TR2/RU2



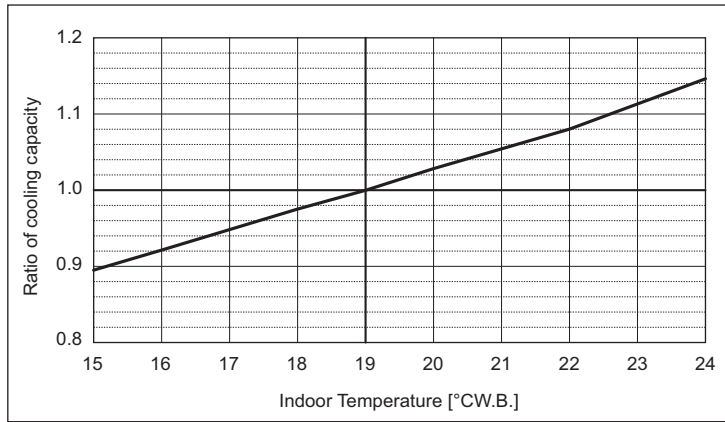
**Correction by temperature (COP Priority Mode only for heating)**

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-            |       | P200YNW-A2/TR2/RU2 | P250YNW-A2/TR2/RU2 |
|------------------|-------|--------------------|--------------------|
| Cooling Capacity | kW    | 22.4               | 28.0               |
|                  | BTU/h | 76,400             | 95,500             |
| Input            | kW    | 6.68               | 10.25              |

**Indoor unit temperature correction**

To be used to correct indoor unit capacity only

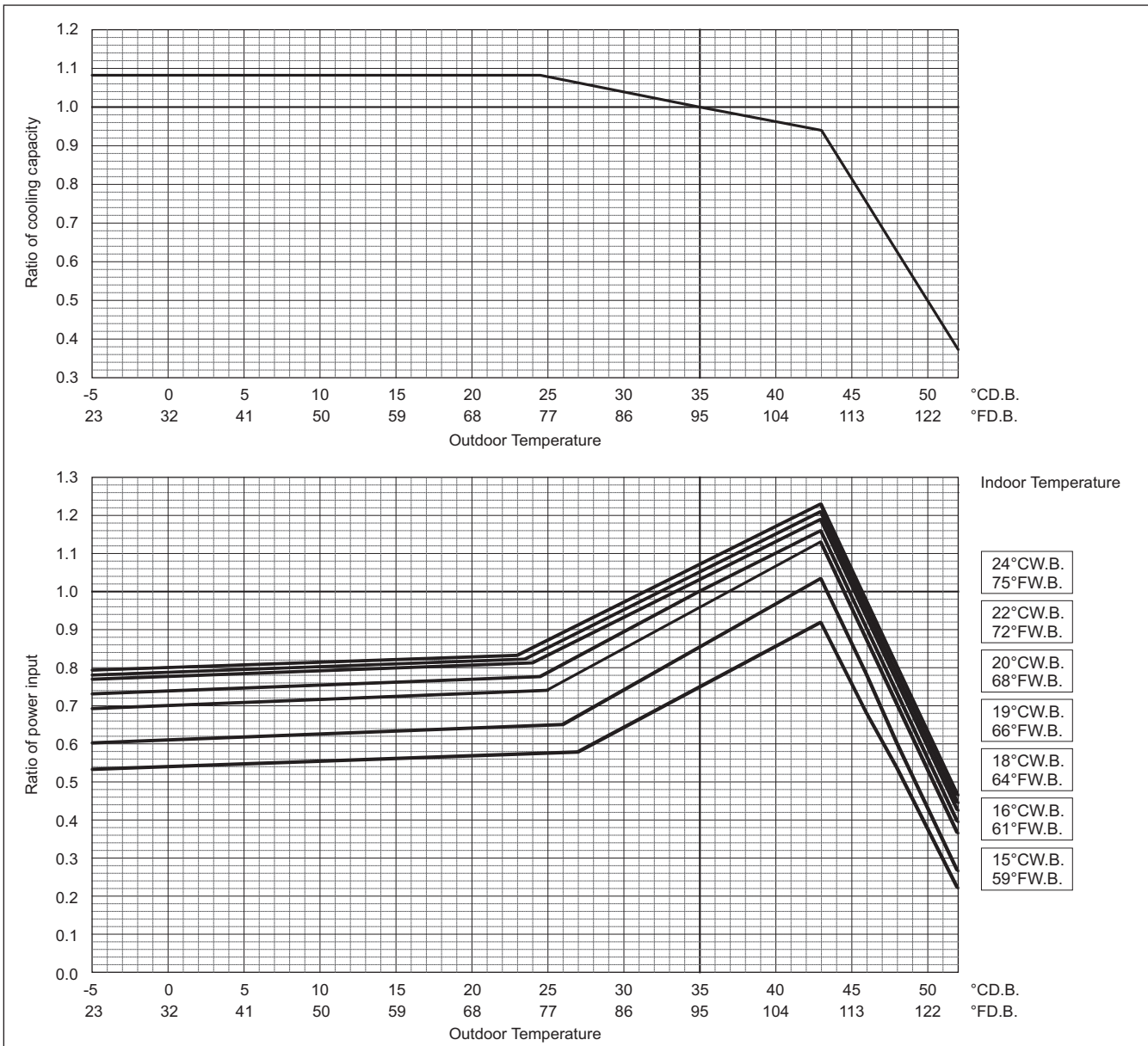


**Outdoor unit temperature correction**

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-P-Y(S)NW-A2/TR2/RU2

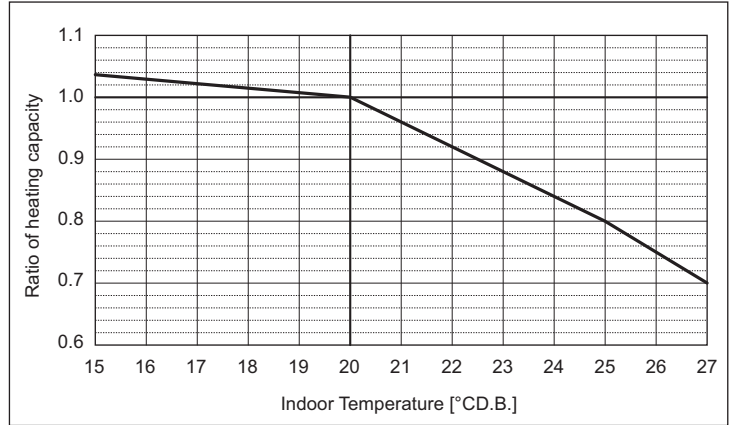


COP Priority Mode

| PURY-            |       | P200YNW-A2/TR2/RU2 | P250YNW-A2/TR2/RU2 |
|------------------|-------|--------------------|--------------------|
| Heating Capacity | kW    | 25.0               | 31.5               |
|                  | BTU/h | 85,300             | 107,500            |
| Input            | kW    | 6.79               | 9.57               |

Indoor unit temperature correction

To be used to correct indoor unit capacity only

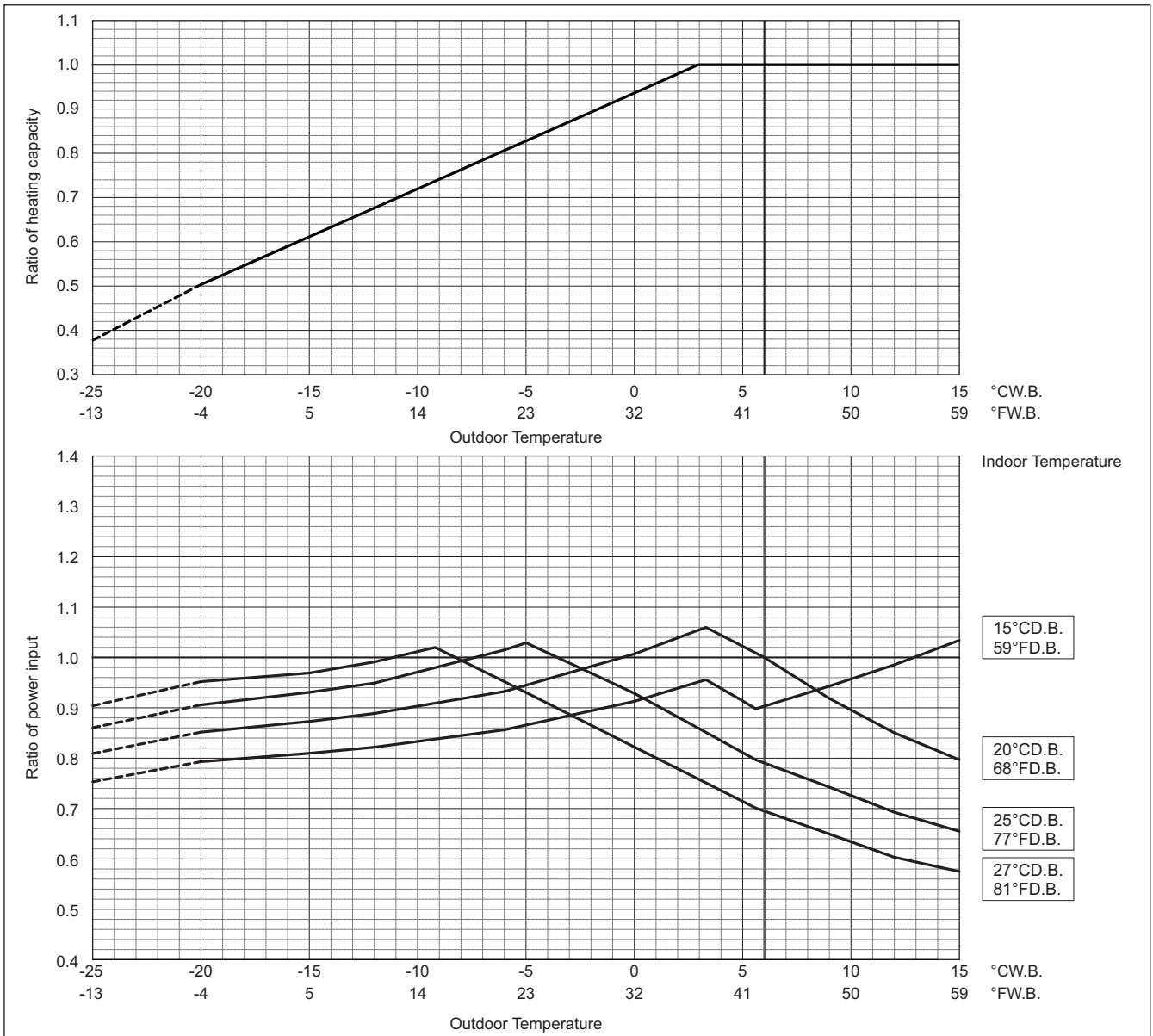


Outdoor unit temperature correction

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.

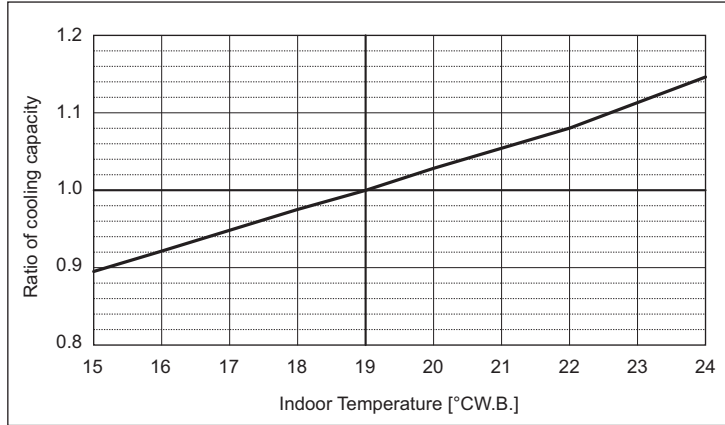


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When applying product below -20°C (-4°F), consult your design engineer for cold climate application best practices, including the use of a backup source for heating.

| PURY-            |       | P300YNW-A2/TR2/RU2 | P350YNW-A2/TR2/RU2 |
|------------------|-------|--------------------|--------------------|
| Cooling Capacity | kW    | 33.5               | 40.0               |
|                  | BTU/h | 114,300            | 136,500            |
| Input            | kW    | 11.75              | 14.92              |

**Indoor unit temperature correction**  
To be used to correct indoor unit capacity only

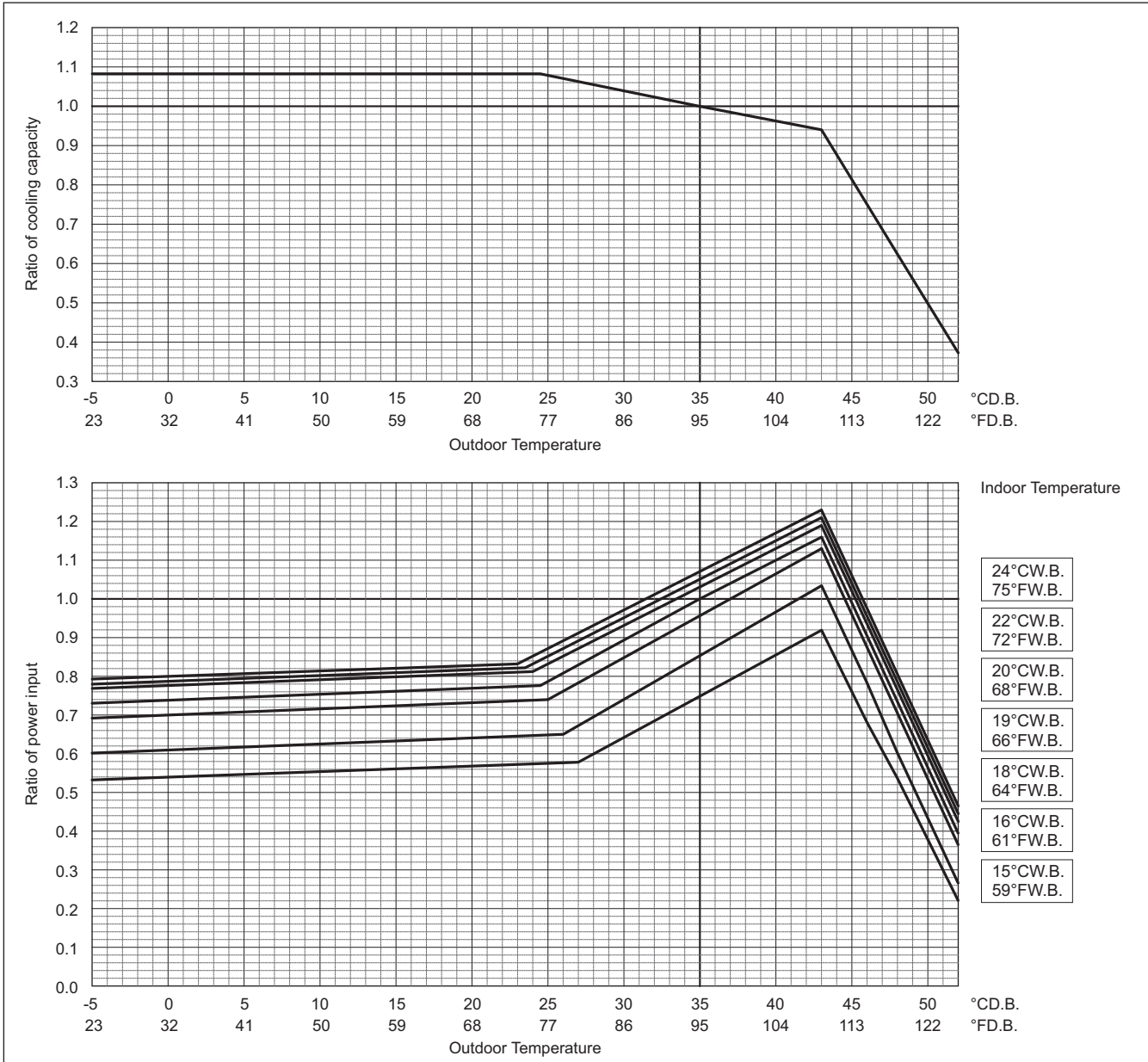


**Outdoor unit temperature correction**

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.



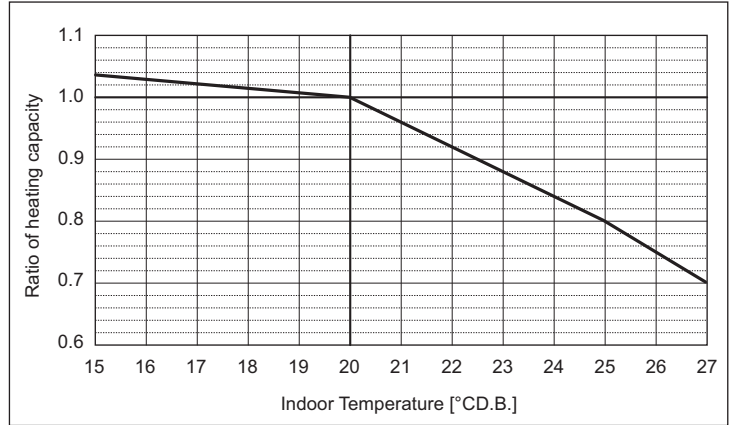
PURY-P-Y(S)NW-A2/TR2/RU2

COP Priority Mode

| PURY-            |       | P300YNW-A2/TR2/RU2 | P350YNW-A2/TR2/RU2 |
|------------------|-------|--------------------|--------------------|
| Heating Capacity | kW    | 33.5               | 45.0               |
|                  | BTU/h | 114,300            | 153,500            |
| Input            | kW    | 9.62               | 13.88              |

Indoor unit temperature correction

To be used to correct indoor unit capacity only

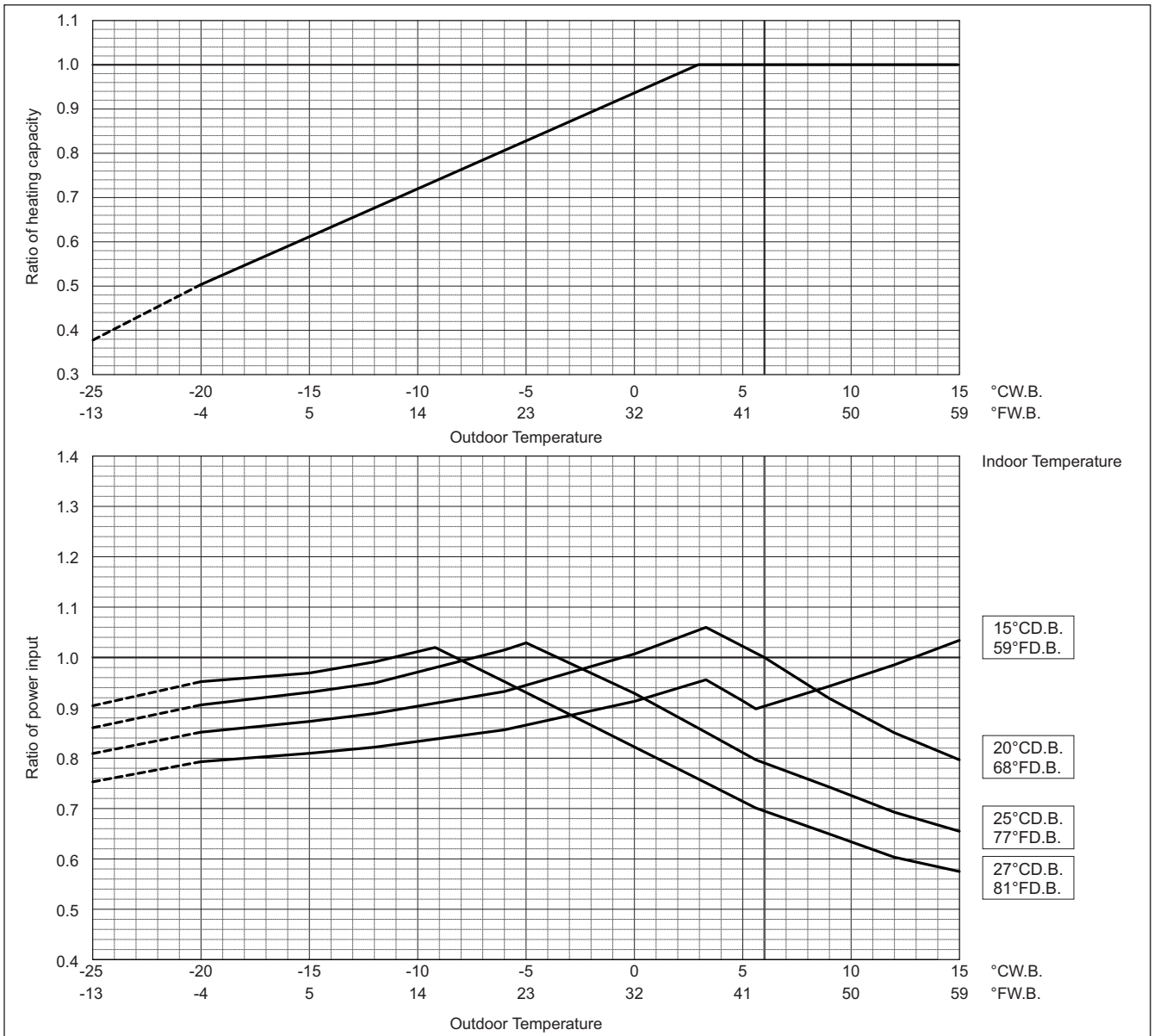


Outdoor unit temperature correction

To be used to correct outdoor unit only

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



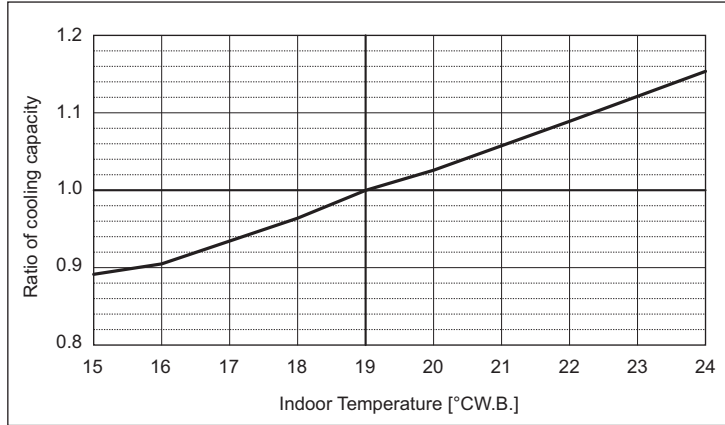
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PURY-P-Y(S)NW-A2/TR2/RU2

| PURY-            |       | P400YNW-A2/TR2/RU2 | P450YNW-A2/TR2/RU2 | P500YNW-A2/TR2/RU2 |
|------------------|-------|--------------------|--------------------|--------------------|
| Cooling Capacity | kW    | 45.0               | 50.0               | 56.0               |
|                  | BTU/h | 153,500            | 170,600            | 191,100            |
| Input            | kW    | 19.65              | 19.84              | 22.22              |

**Indoor unit temperature correction**  
To be used to correct indoor unit capacity only

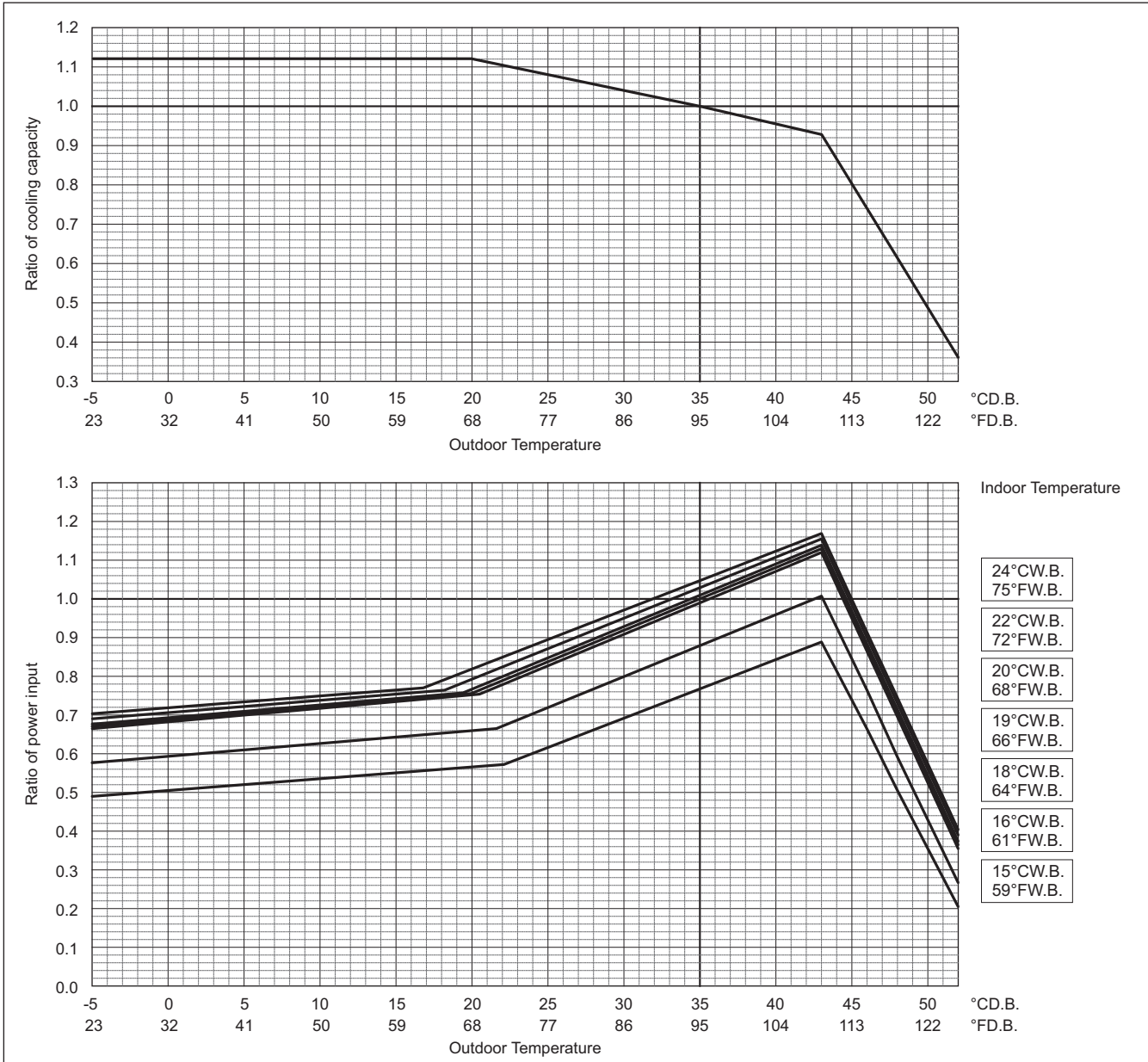


**Outdoor unit temperature correction**

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.



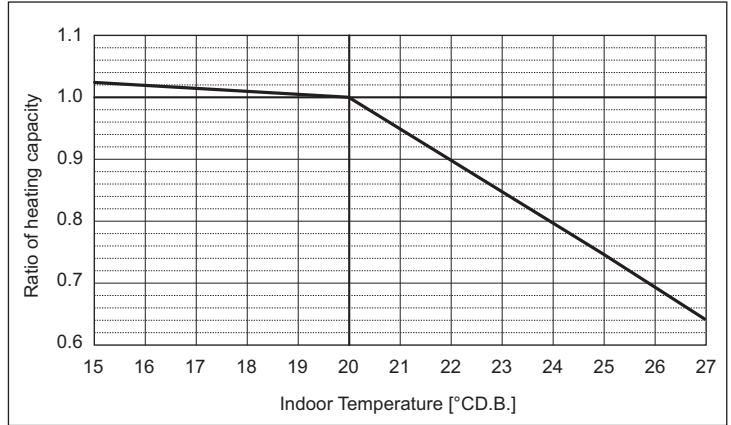
PURY-P-Y(S)NW-A2/TR2/RU2

COP Priority Mode

| PURY-            |       | P400YNW-A2/TR2/RU2 | P450YNW-A2/TR2/RU2 | P500YNW-A2/TR2/RU2 |
|------------------|-------|--------------------|--------------------|--------------------|
| Heating Capacity | kW    | 50.0               | 56.0               | 63.0               |
|                  | BTU/h | 170,600            | 191,100            | 215,000            |
| Input            | kW    | 16.66              | 18.79              | 21.14              |

Indoor unit temperature correction

To be used to correct indoor unit capacity only

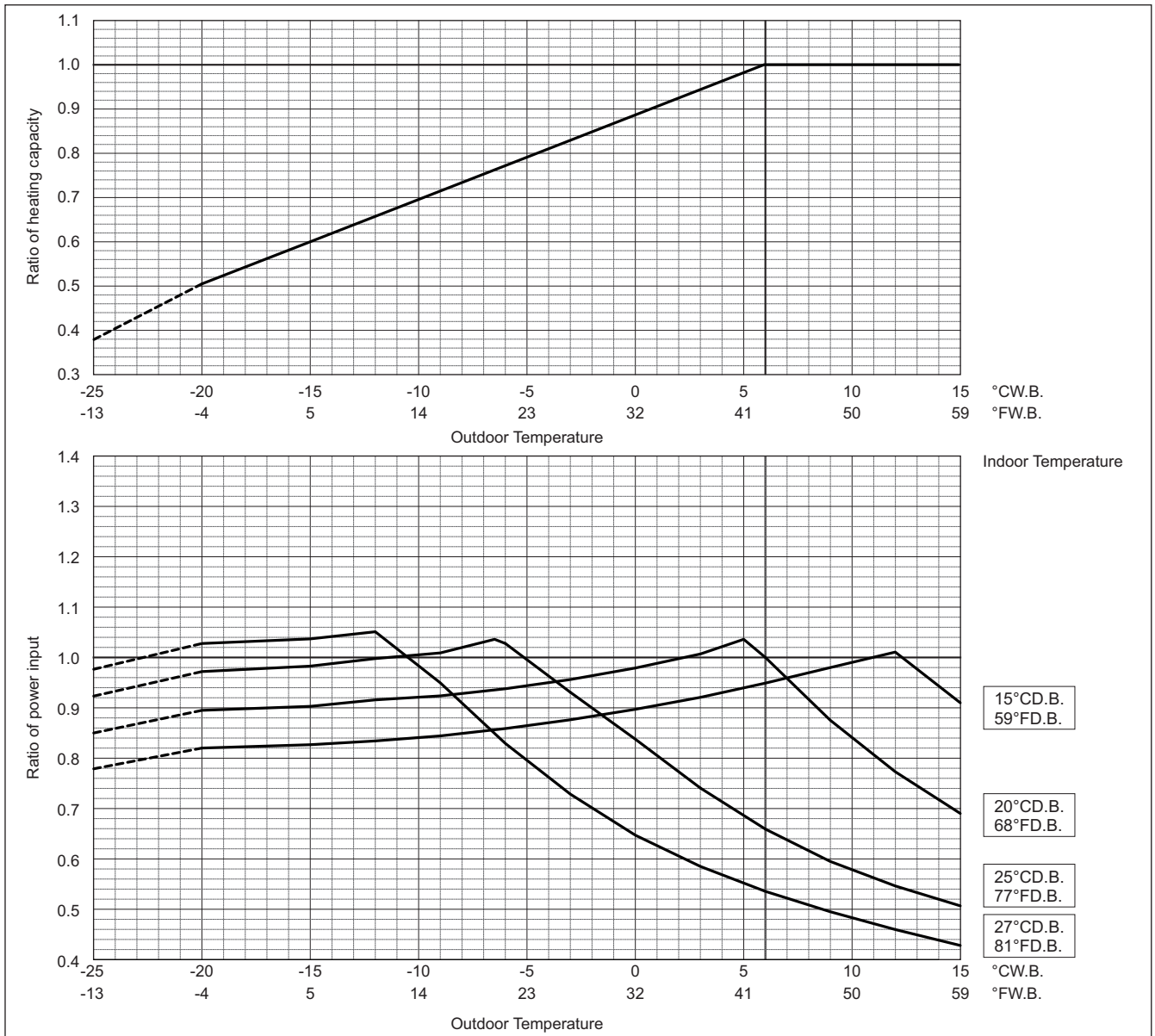


Outdoor unit temperature correction

To be used to correct outdoor unit only

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



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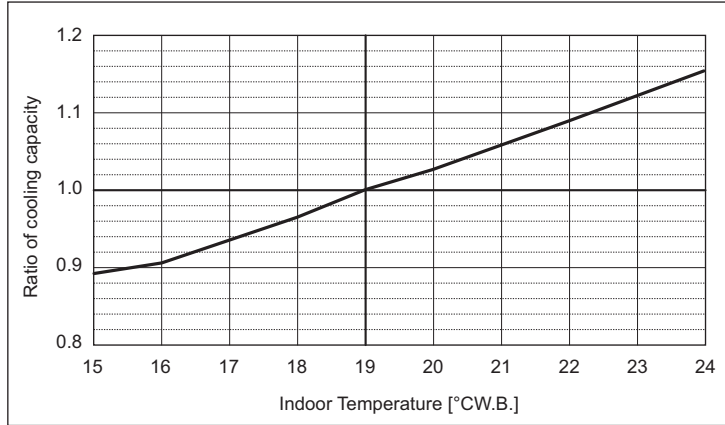
When applying product below -20°C (-4°F), consult your design engineer for cold climate application best practices, including the use of a backup source for heating.

PURY-P-Y(S)NW-A2/TR2/RU2



|                  |       |                           |
|------------------|-------|---------------------------|
| <b>PURY-</b>     |       | <b>P550YNW-A2/TR2/RU2</b> |
| Cooling Capacity | kW    | 60.0                      |
|                  | BTU/h | 204,700                   |
| Input            | kW    | 25.86                     |

**Indoor unit temperature correction**  
To be used to correct indoor unit capacity only

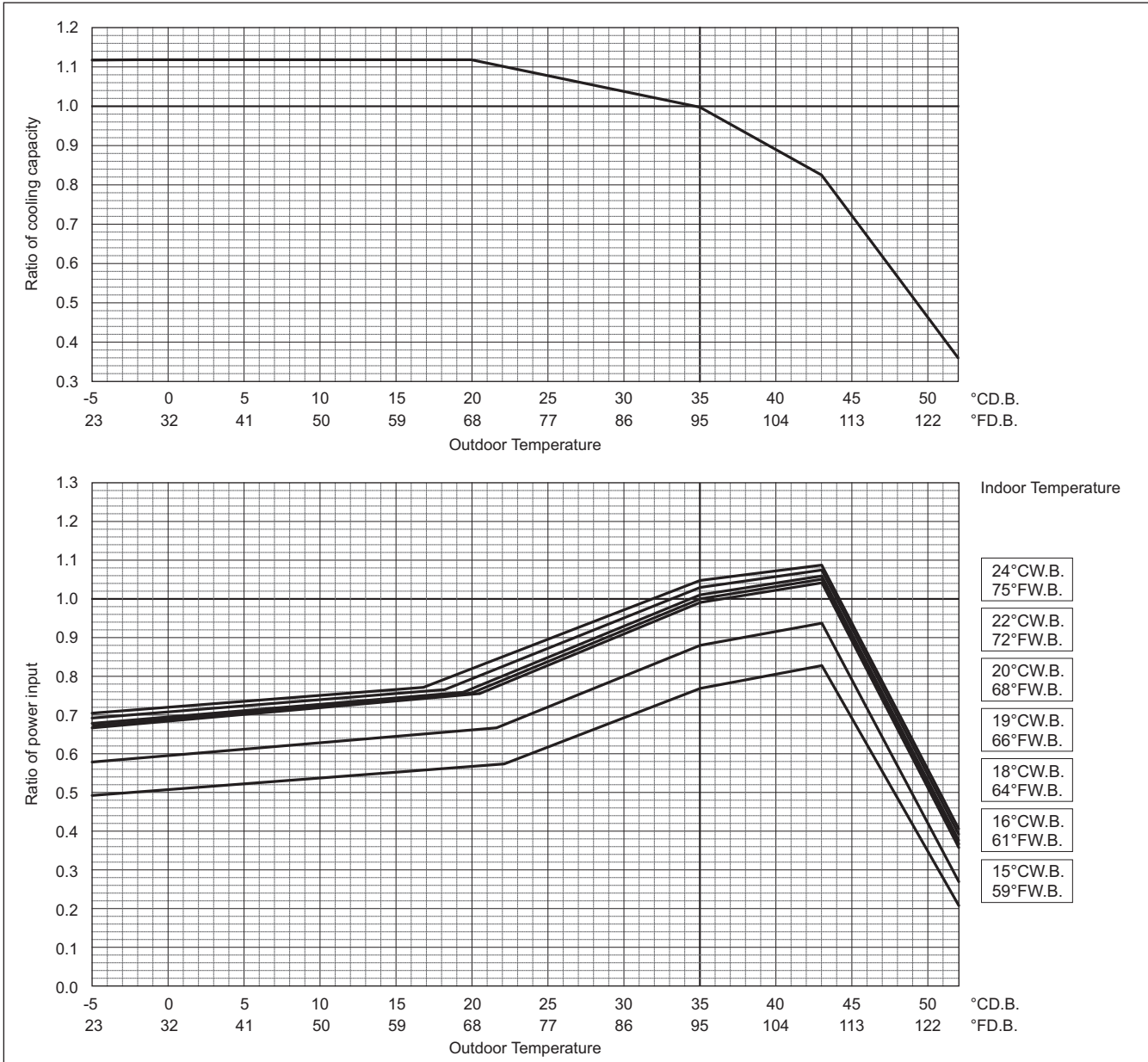


**Outdoor unit temperature correction**

To be used to correct outdoor unit only

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



PURY-P-Y(S)NW-A2/TR2/RU2

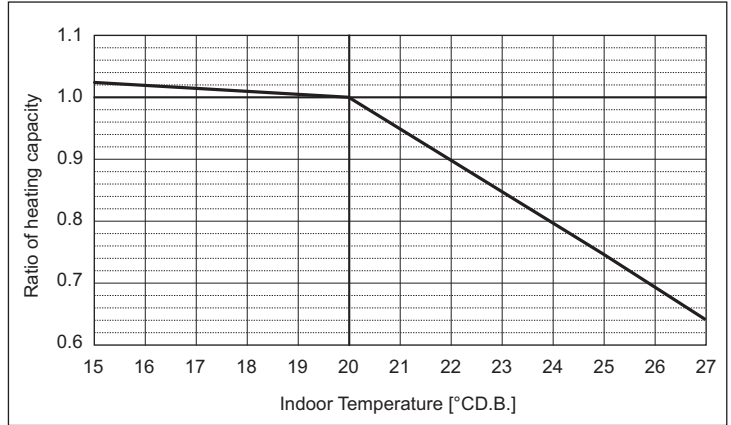


COP Priority Mode

|                  |       |                           |
|------------------|-------|---------------------------|
| <b>PURY-</b>     |       | <b>P550YNW-A2/TR2/RU2</b> |
| Heating Capacity | kW    | 69.0                      |
|                  | BTU/h | 235,400                   |
| Input            | kW    | 24.55                     |

**Indoor unit temperature correction**

To be used to correct indoor unit capacity only

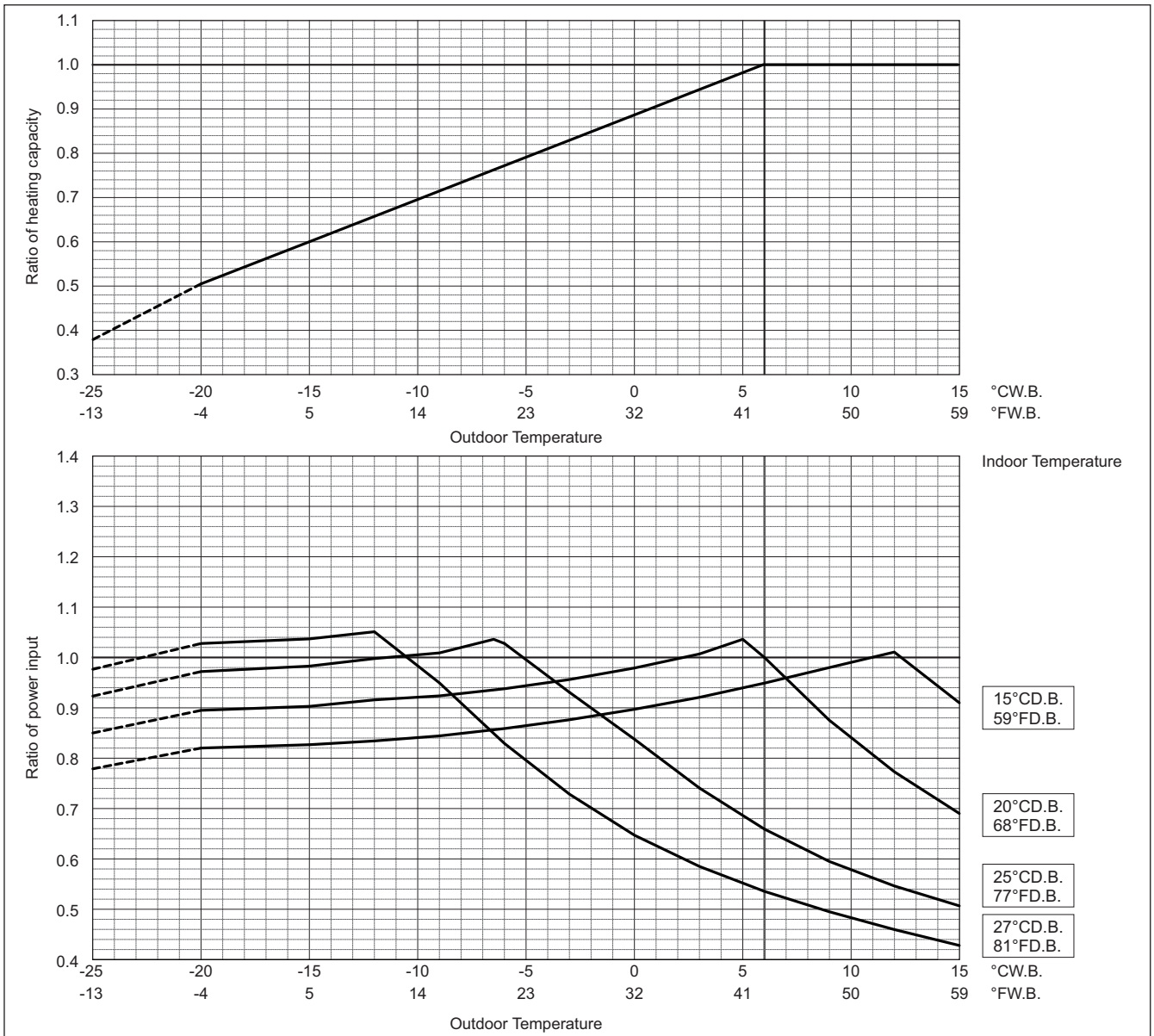


**Outdoor unit temperature correction**

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.

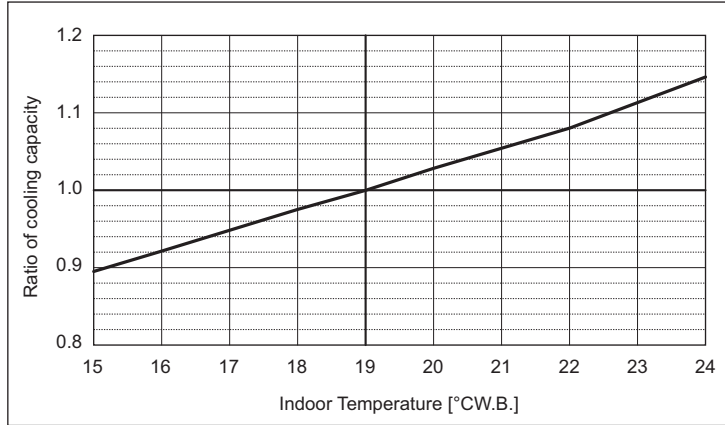


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| PURY-            |       | P400YSNW-A2/TR2/RU2 | P450YSNW-A2/TR2/RU2 | P500YSNW-A2/TR2/RU2 |
|------------------|-------|---------------------|---------------------|---------------------|
| Cooling Capacity | kW    | 44.8                | 50.4                | 56.0                |
|                  | BTU/h | 152,900             | 172,000             | 191,100             |
| Input            | kW    | 13.78               | 17.08               | 21.13               |

**Indoor unit temperature correction**  
To be used to correct indoor unit capacity only

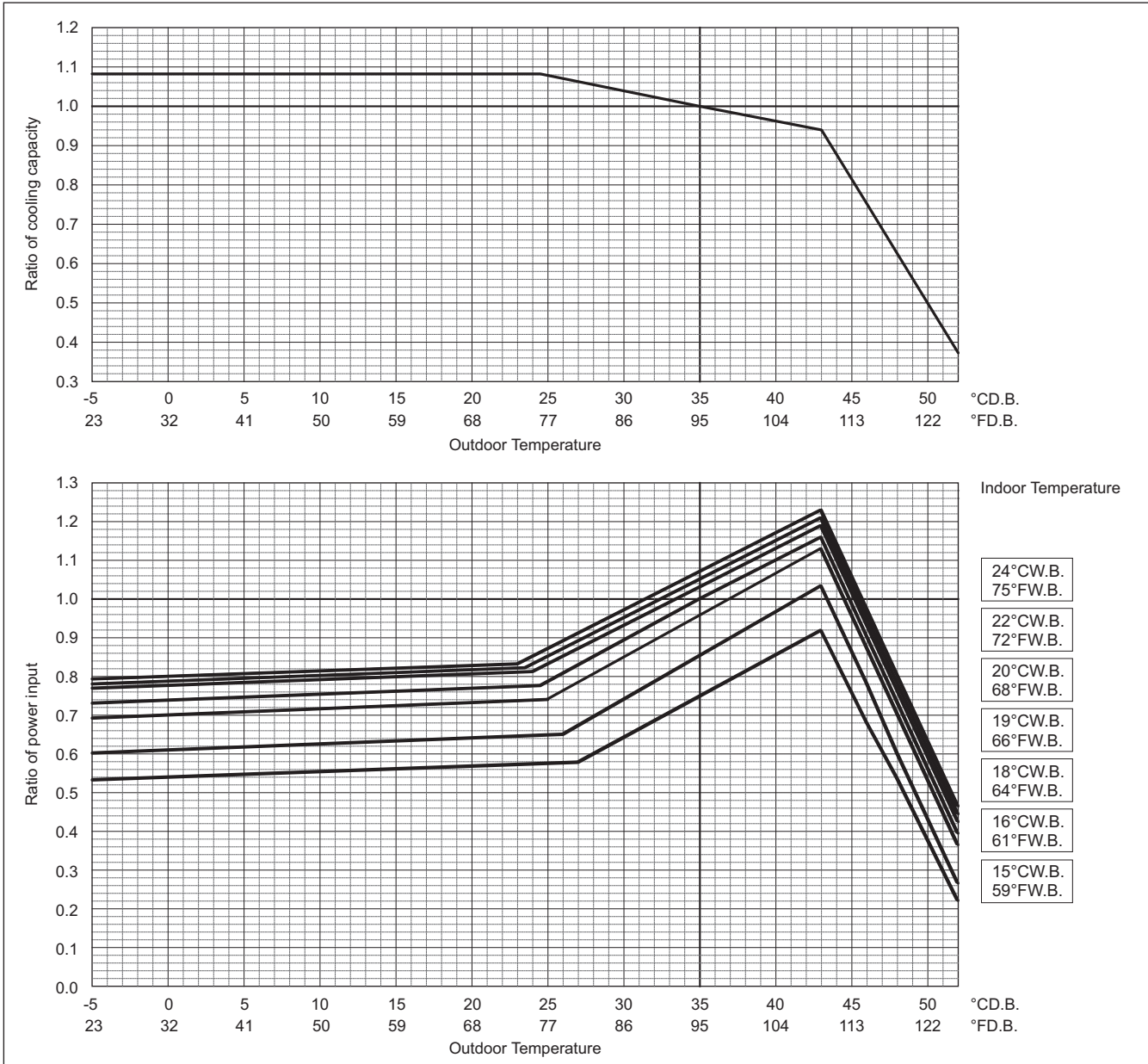


**Outdoor unit temperature correction**

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.



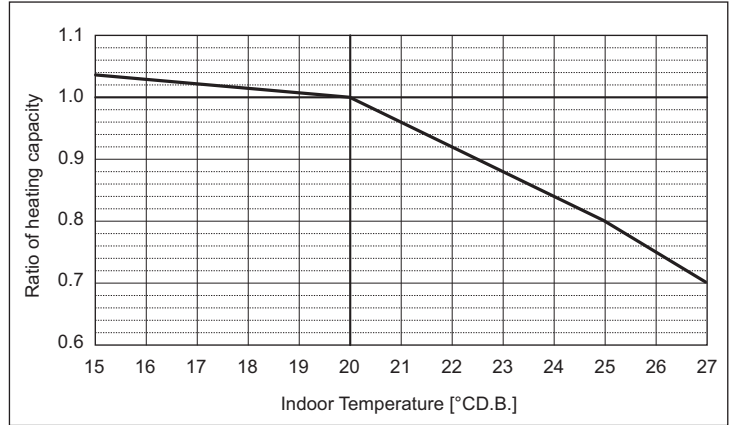
PURY-P-Y(S)NW-A2/TR2/RU2

COP Priority Mode

|                  | PURY- | P400YSNW-A2/TR2/RU2 | P450YSNW-A2/TR2/RU2 | P500YSNW-A2/TR2/RU2 |
|------------------|-------|---------------------|---------------------|---------------------|
| Heating Capacity | kW    | 50.0                | 56.5                | 63.0                |
|                  | BTU/h | 170,600             | 192,800             | 215,000             |
| Input            | kW    | 14.00               | 16.71               | 19.74               |

Indoor unit temperature correction

To be used to correct indoor unit capacity only

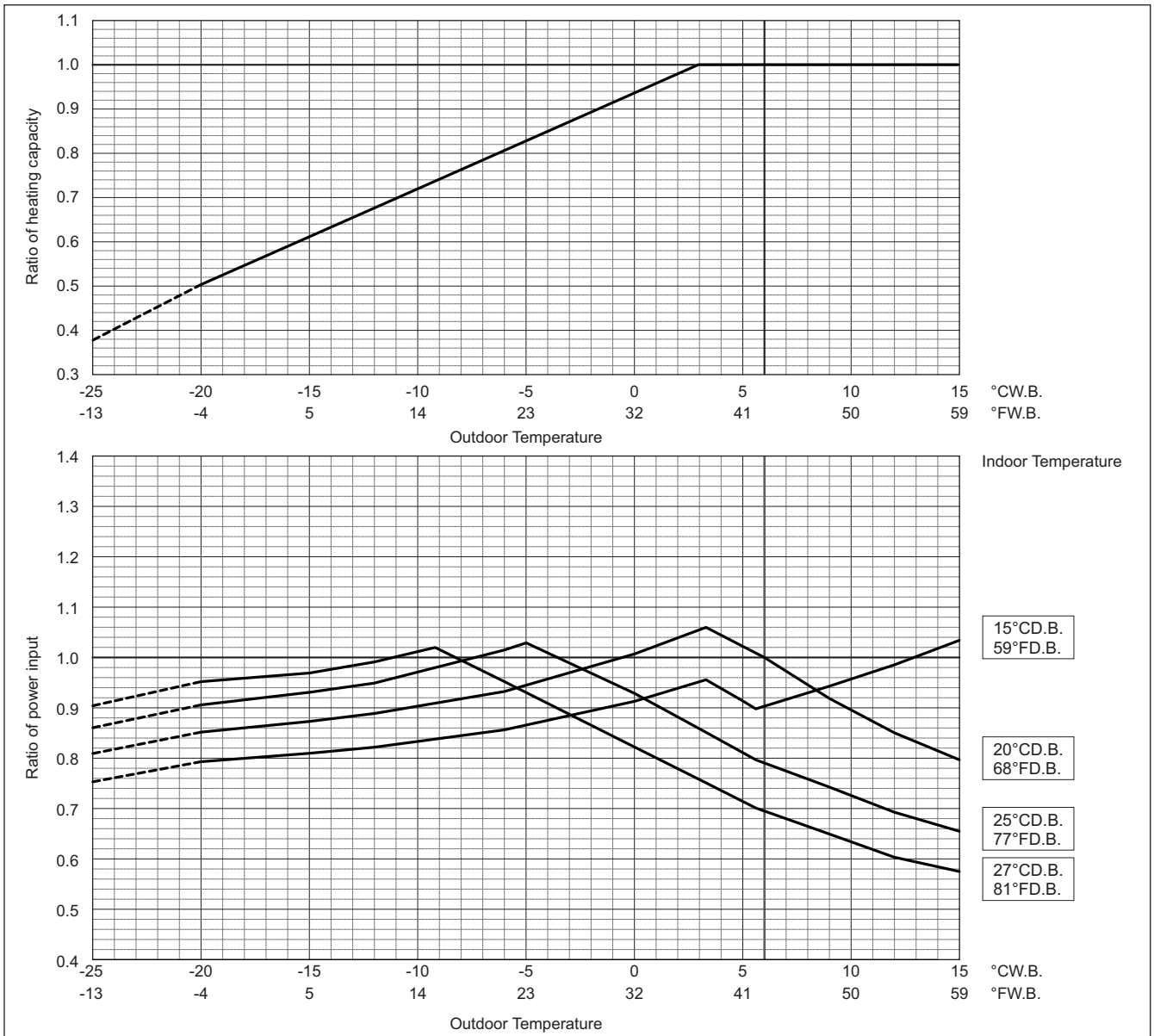


Outdoor unit temperature correction

To be used to correct outdoor unit only

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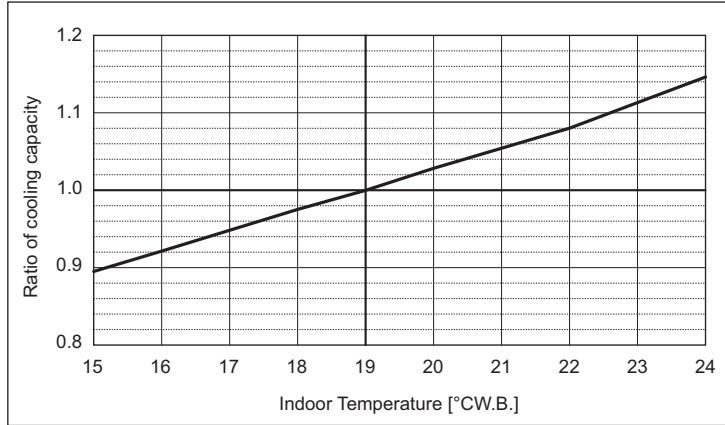
PURY-P-Y(S)NW-A2/TR2/RU2

PURY-P-Y(S)NW-A2/TR2/RU2

| PURY-            |       | P550YSNW-A2/TR2/RU2 | P600YSNW-A2/TR2/RU2 | P650YSNW-A2/TR2/RU2 |
|------------------|-------|---------------------|---------------------|---------------------|
| Cooling Capacity | kW    | 61.5                | 67.0                | 73.5                |
|                  | BTU/h | 209,800             | 228,600             | 250,800             |
| Input            | kW    | 22.69               | 24.27               | 27.42               |

| PURY-            |       | P700YSNW-A2/TR2/RU2 |
|------------------|-------|---------------------|
| Cooling Capacity | kW    | 80.0                |
|                  | BTU/h | 273,000             |
| Input            | kW    | 30.76               |

**Indoor unit temperature correction**  
To be used to correct indoor unit capacity only

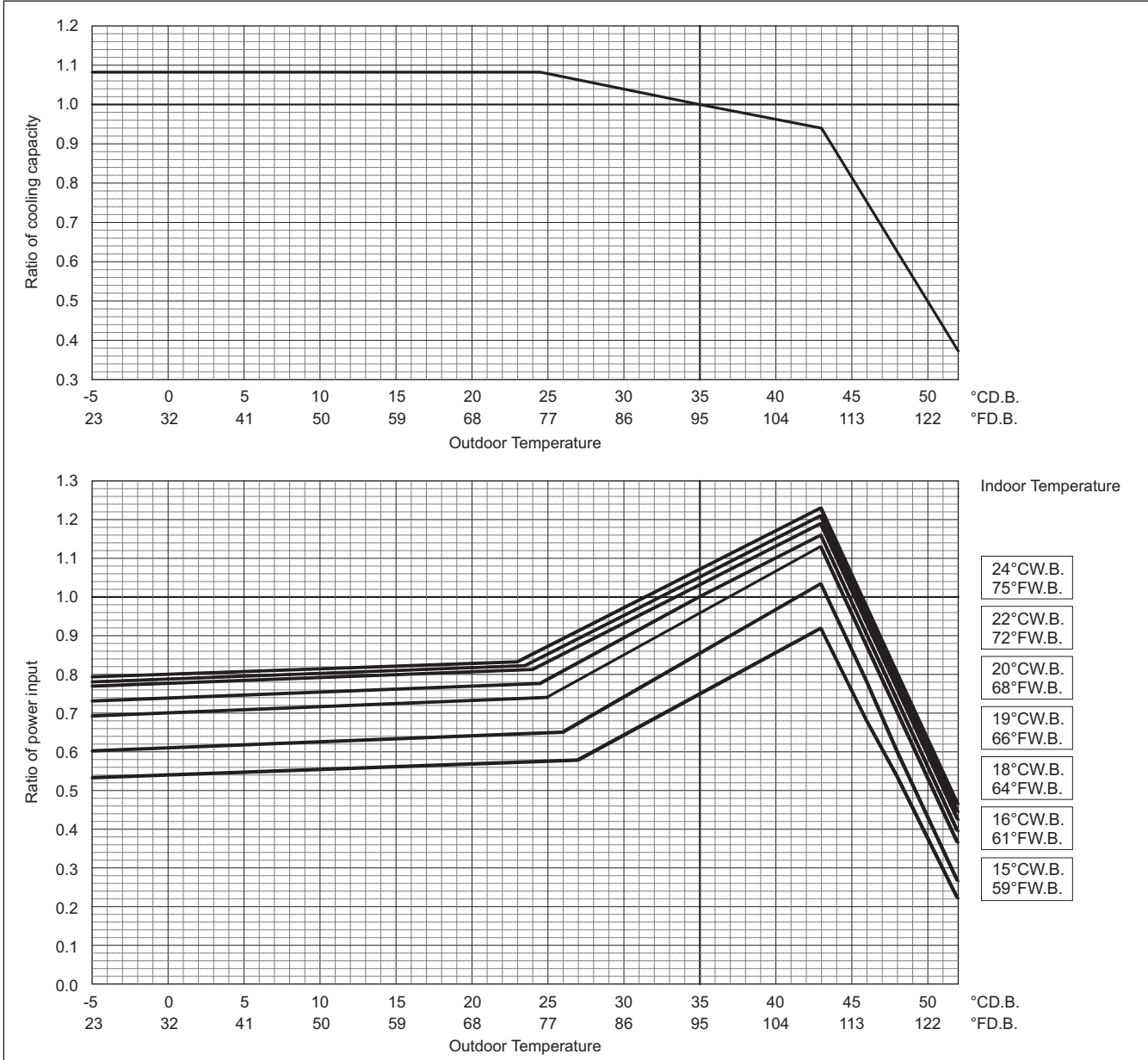


**Outdoor unit temperature correction**

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

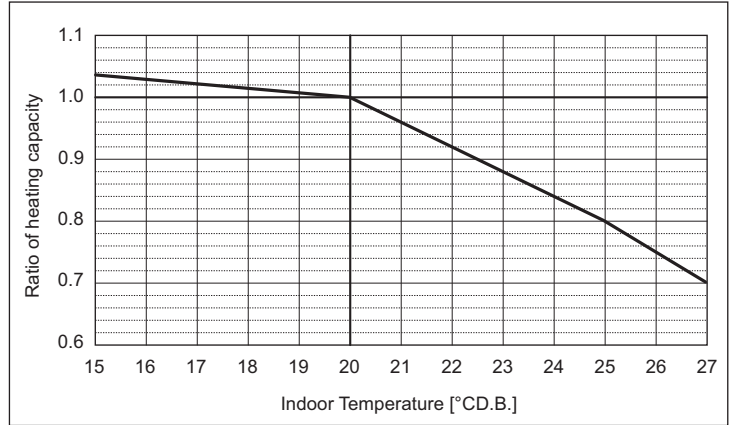
| PURY-            |       | P550YSNW-A2/TR2/RU2 | P600YSNW-A2/TR2/RU2 | P650YSNW-A2/TR2/RU2 |
|------------------|-------|---------------------|---------------------|---------------------|
| Heating Capacity | kW    | 65.0                | 67.0                | 78.5                |
|                  | BTU/h | 221,800             | 228,600             | 267,800             |
| Input            | kW    | 19.81               | 19.81               | 24.07               |

| PURY-            |       | P700YSNW-A2/TR2/RU2 |
|------------------|-------|---------------------|
| Heating Capacity | kW    | 90.0                |
|                  | BTU/h | 307,100             |
| Input            | kW    | 28.66               |

Indoor unit temperature correction

To be used to correct indoor unit capacity only

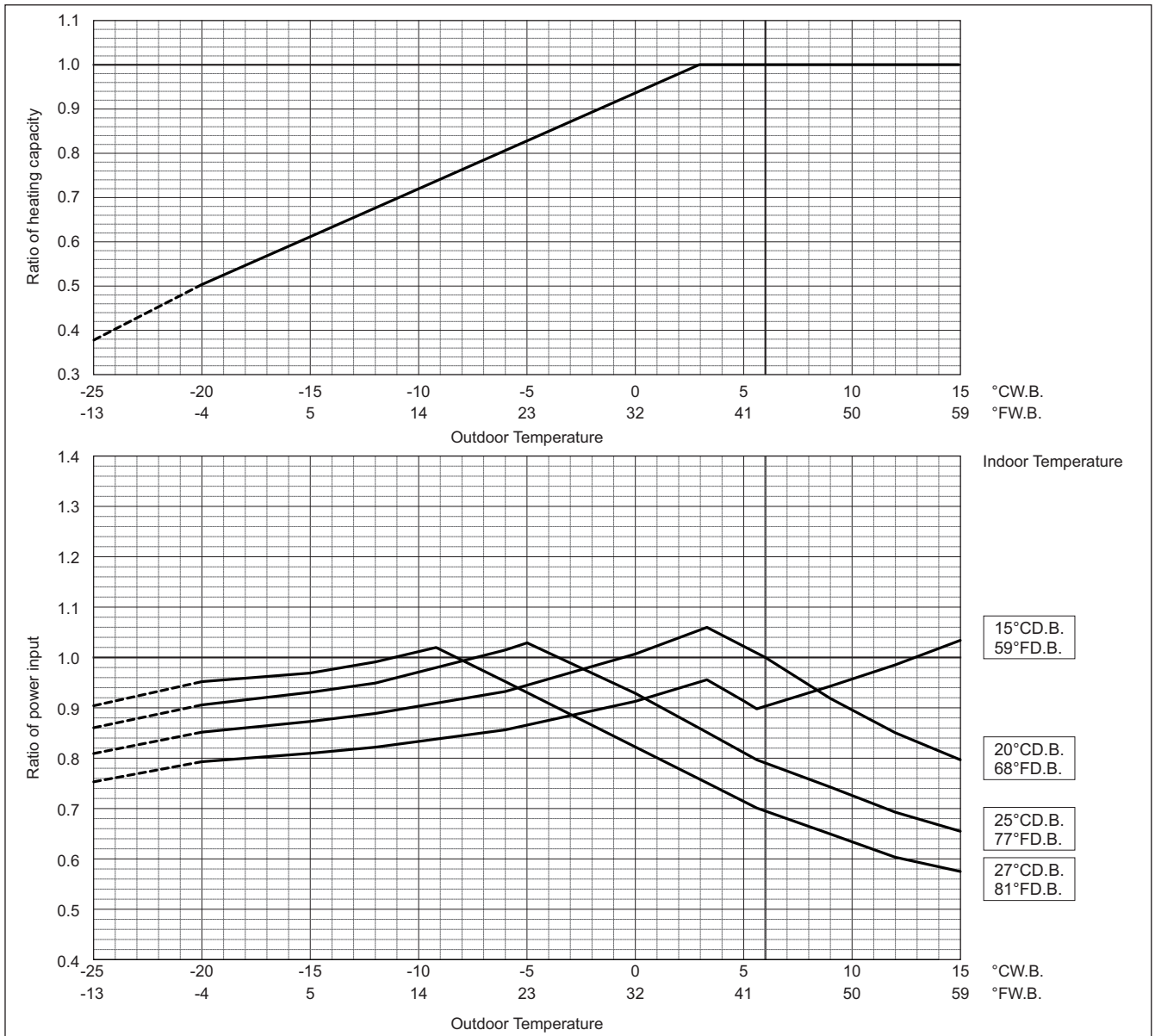


Outdoor unit temperature correction

To be used to correct outdoor unit only

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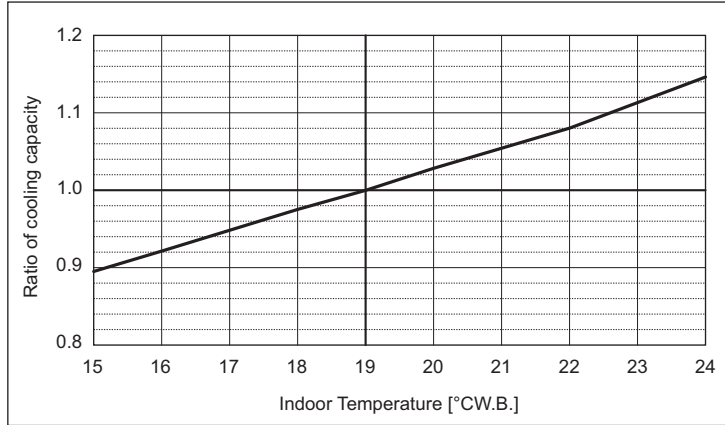
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| PURY-            |       | P750YSNW-A2/TR2/RU2 |
|------------------|-------|---------------------|
| Cooling Capacity | kW    | 85.0                |
|                  | BTU/h | 290,000             |
| Input            | kW    | 35.26               |

**Indoor unit temperature correction**  
To be used to correct indoor unit capacity only

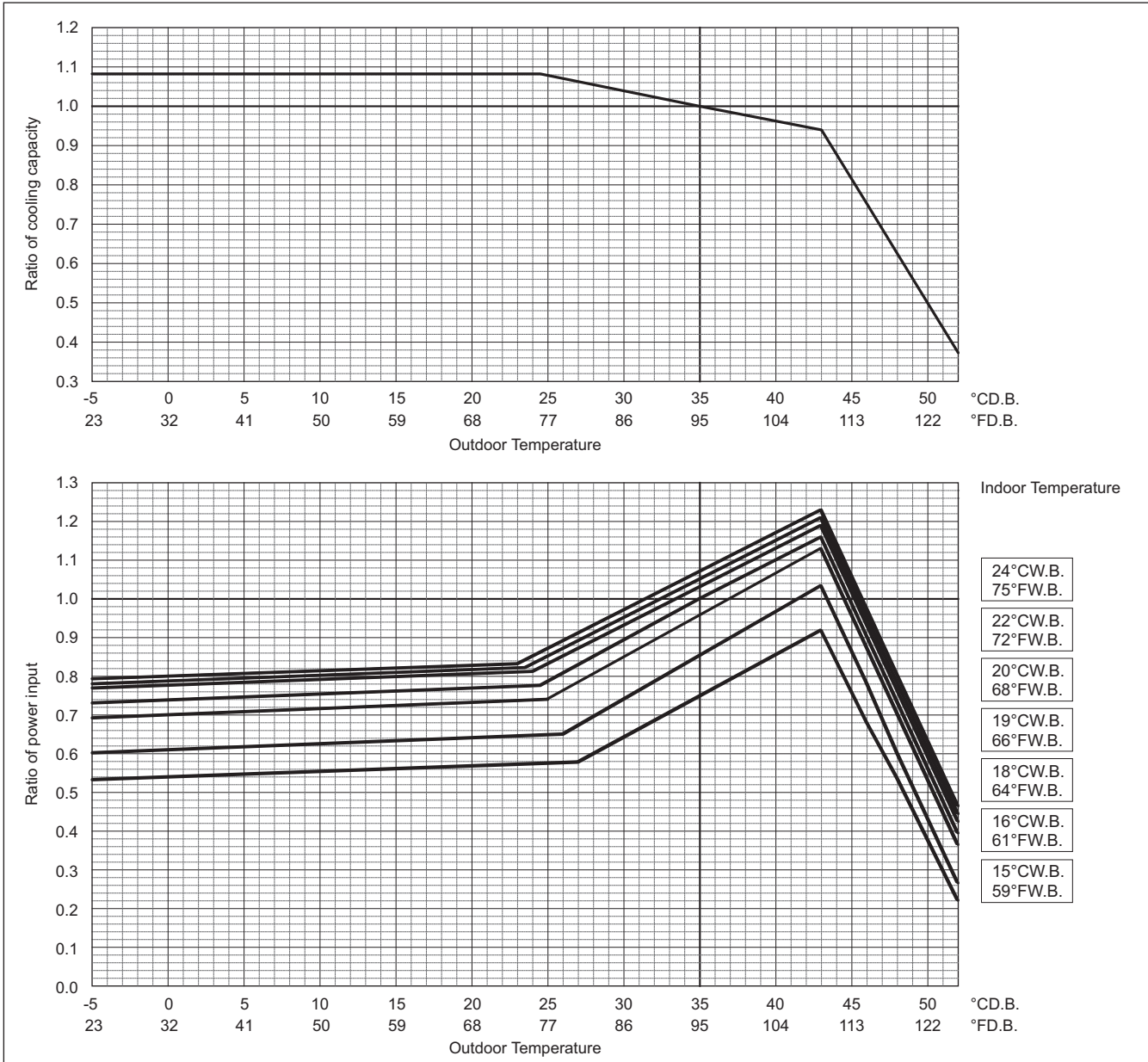


**Outdoor unit temperature correction**

To be used to correct outdoor unit only

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



PURY-P-Y(S)NW-A2/TR2/RU2

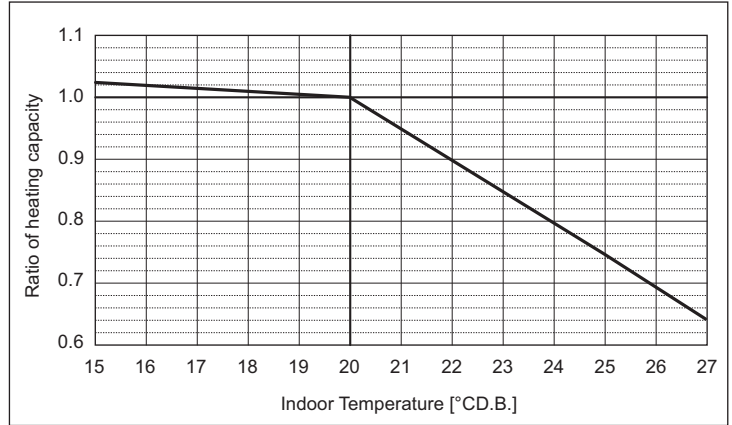


COP Priority Mode

|                  |       |                            |
|------------------|-------|----------------------------|
| <b>PUR-</b>      |       | <b>P750YSNW-A2/TR2/RU2</b> |
| Heating Capacity | kW    | 95.0                       |
|                  | BTU/h | 324,100                    |
| Input            | kW    | 31.35                      |

**Indoor unit temperature correction**

To be used to correct indoor unit capacity only

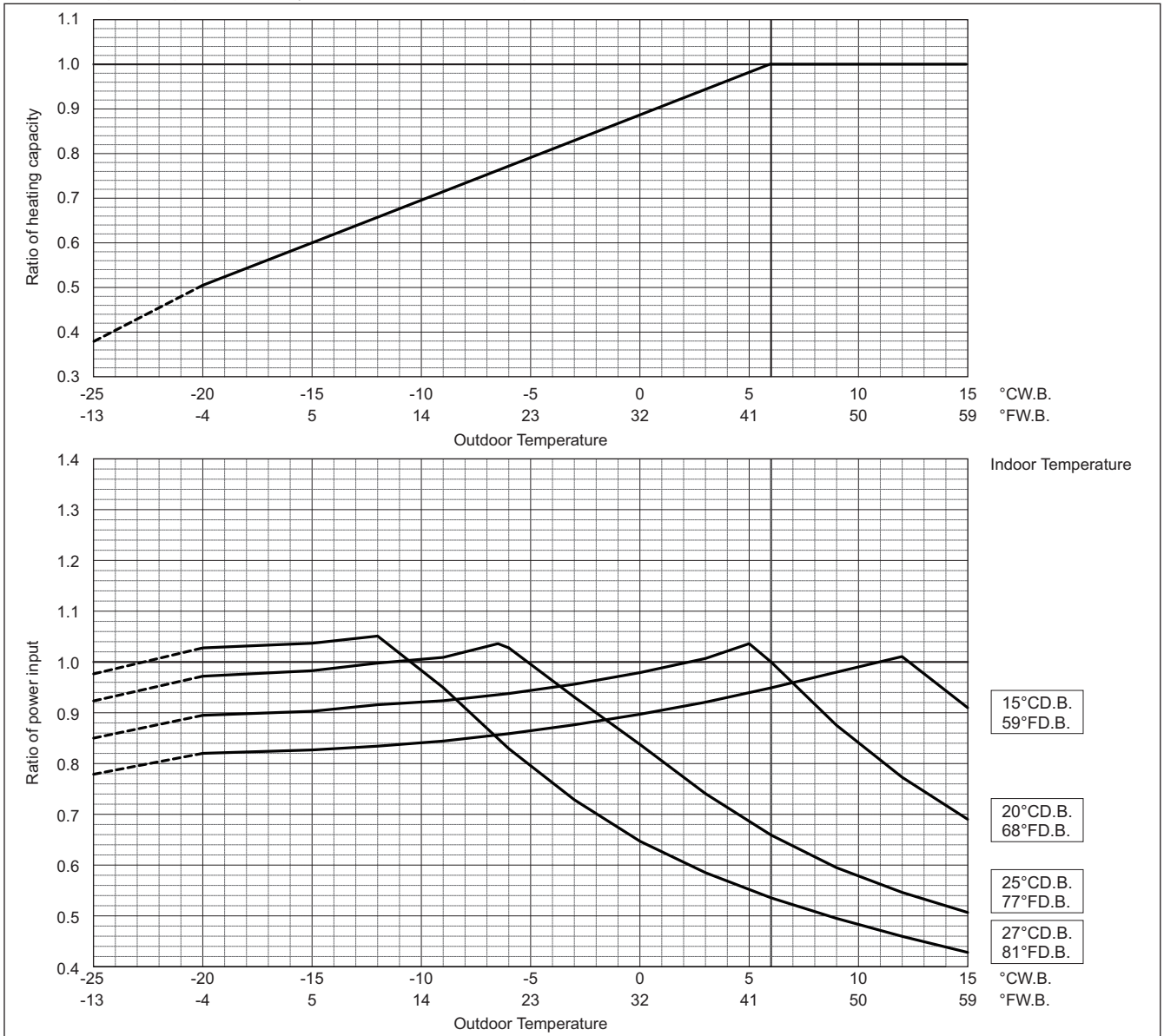


**Outdoor unit temperature correction**

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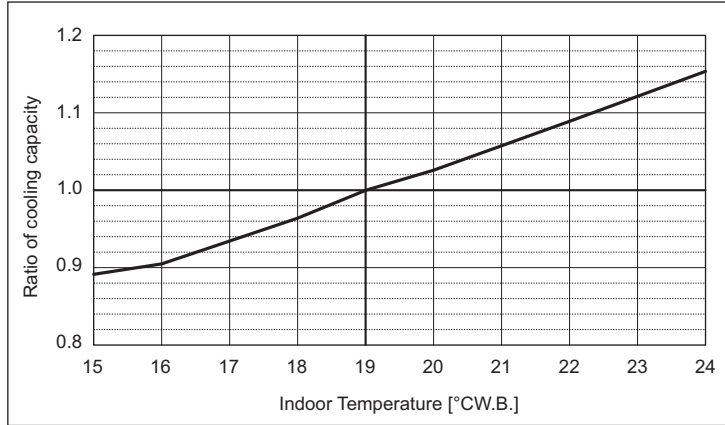
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PUR-P-Y(S)NW-A2/TR2/RU2

| PURY-            | P800YSNW-A2/TR2/RU2 | P850YSNW-A2/TR2/RU2 | P900YSNW-A2/TR2/RU2 |
|------------------|---------------------|---------------------|---------------------|
| Cooling Capacity | kW 90.0             | 95.0                | 100.0               |
|                  | BTU/h 307,100       | 324,100             | 341,200             |
| Input            | kW 40.54            | 40.77               | 40.98               |

| PURY-            | P950YSNW-A2/TR2/RU2 | P1000YSNW-A2/TR2/RU2 |
|------------------|---------------------|----------------------|
| Cooling Capacity | kW 106.0            | 112.0                |
|                  | BTU/h 361,700       | 382,100              |
| Input            | kW 43.44            | 45.90                |

**Indoor unit temperature correction**  
To be used to correct indoor unit capacity only

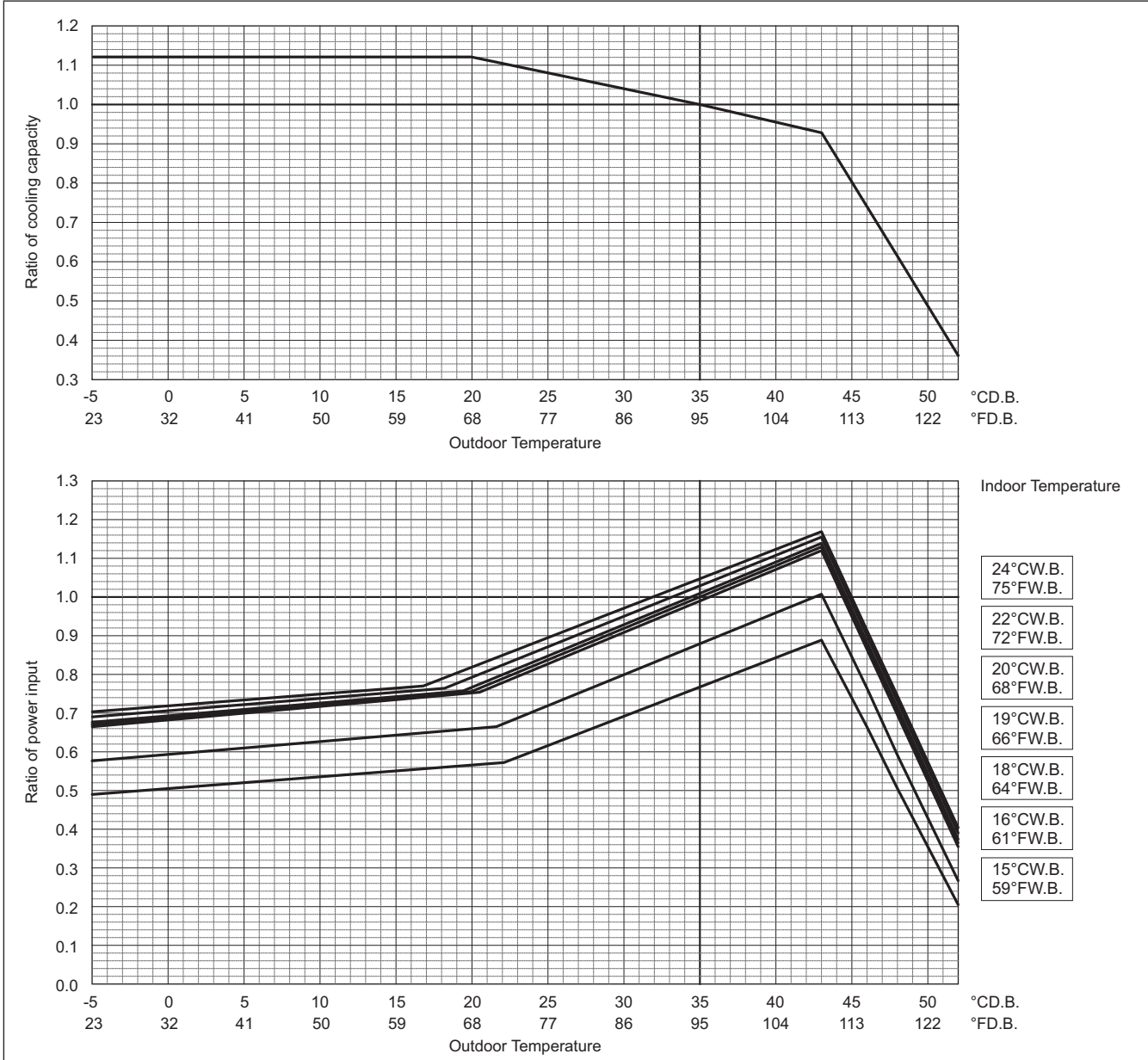


**Outdoor unit temperature correction**

To be used to correct outdoor unit only

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COP Priority Mode

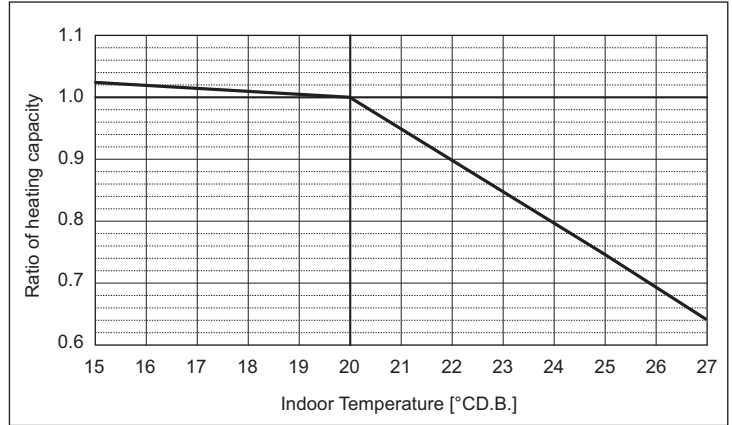
| PURY-            |       | P800YSNW-A2/TR2/RU2 | P850YSNW-A2/TR2/RU2 | P900YSNW-A2/TR2/RU2 |
|------------------|-------|---------------------|---------------------|---------------------|
| Heating Capacity | kW    | 100.0               | 106.0               | 112.0               |
|                  | BTU/h | 341,200             | 361,700             | 382,100             |
| Input            | kW    | 34.36               | 36.55               | 38.75               |

| PURY-            |       | P950YSNW-A2/TR2/RU2 | P1000YSNW-A2/TR2/RU2 |
|------------------|-------|---------------------|----------------------|
| Heating Capacity | kW    | 119.0               | 126.0                |
|                  | BTU/h | 406,000             | 429,900              |
| Input            | kW    | 41.17               | 43.59                |

Indoor unit temperature correction

To be used to correct indoor unit capacity only

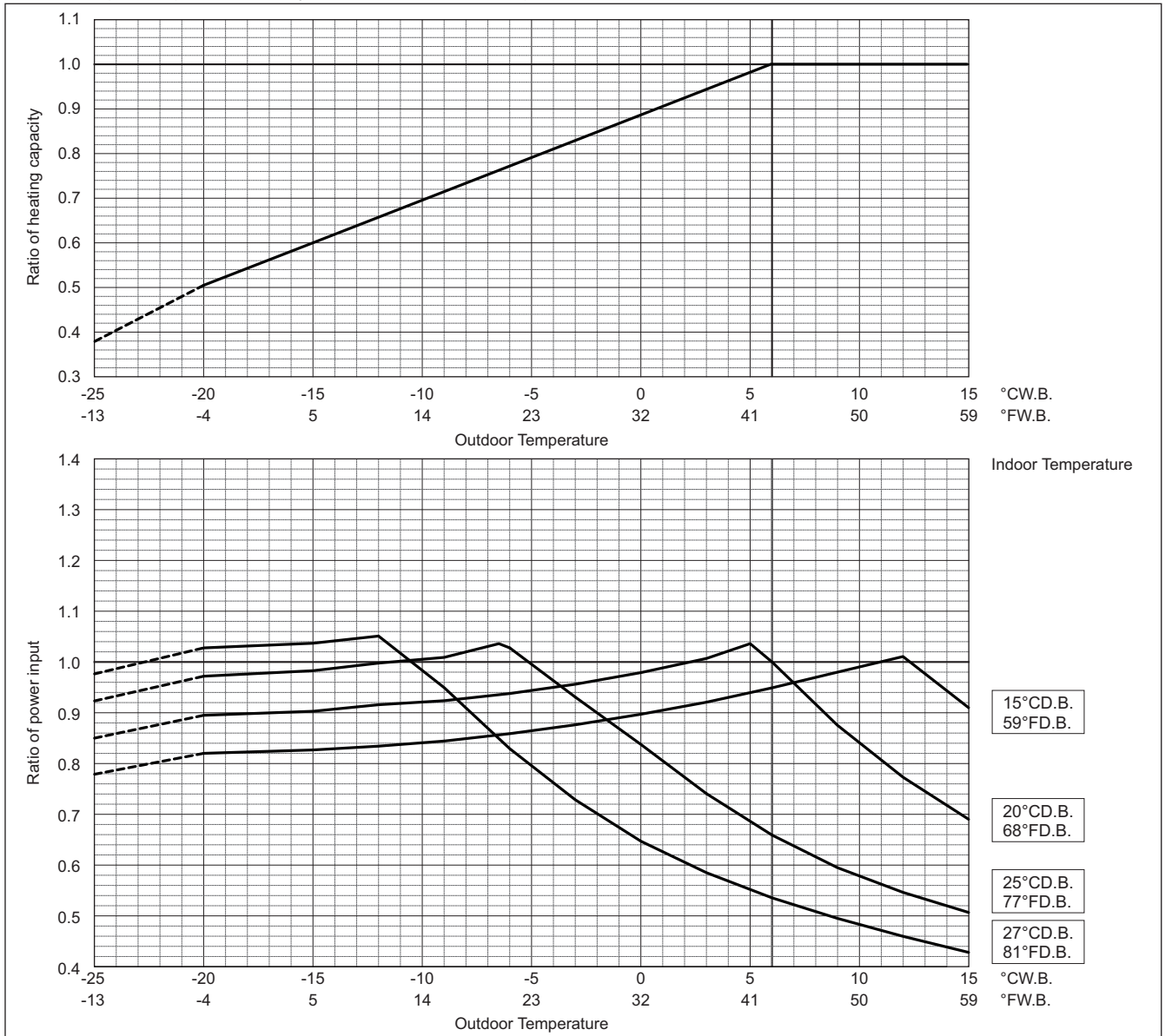


Outdoor unit temperature correction

To be used to correct outdoor unit only

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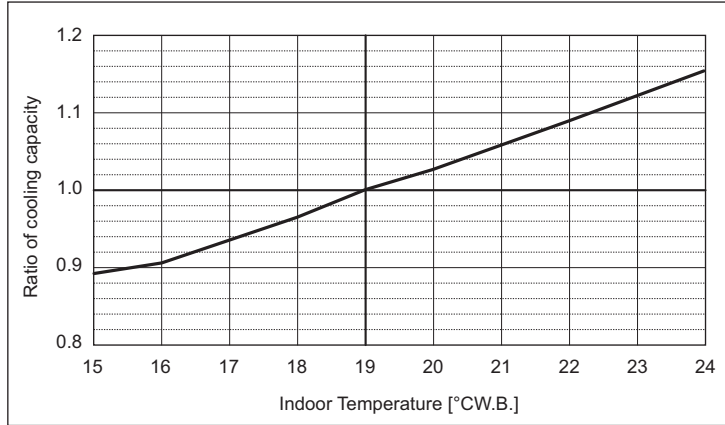
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PURY-P-Y(S)NW-A2/TR2/RU2

| PURY-            |       | P1050YSNW-A2/TR2/RU2 | P1100YSNW-A2/TR2/RU2 |
|------------------|-------|----------------------|----------------------|
| Cooling Capacity | kW    | 116.0                | 120.0                |
|                  | BTU/h | 395,800              | 409,400              |
| Input            | kW    | 49.36                | 53.32                |

**Indoor unit temperature correction**  
To be used to correct indoor unit capacity only

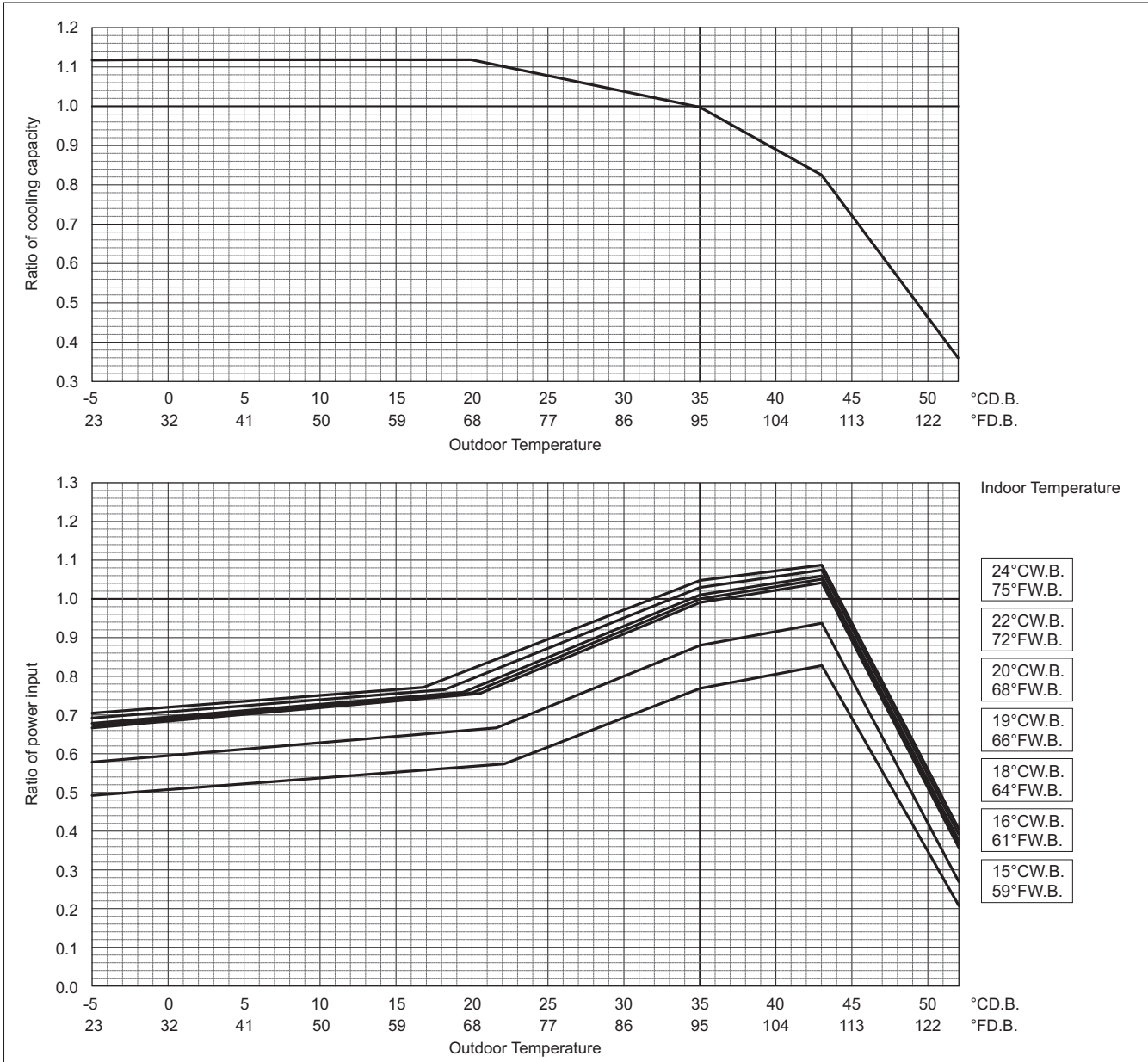


**Outdoor unit temperature correction**

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.



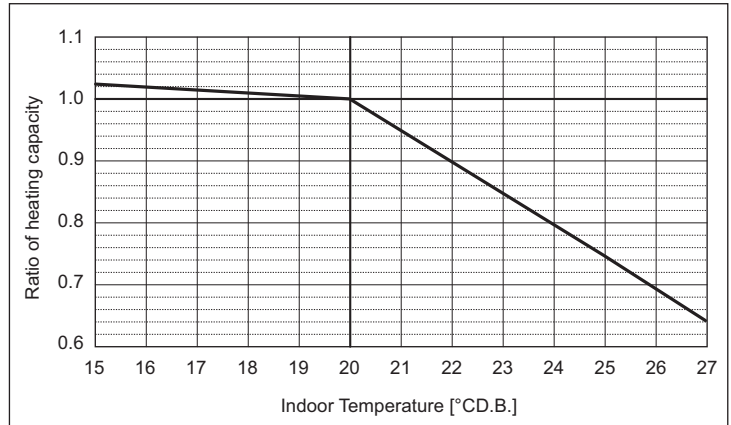
PURY-P-Y(S)NW-A2/TR2/RU2

COP Priority Mode

|                  | PURY- | P1050YSNW-A2/TR2/RU2 | P1100YSNW-A2/TR2/RU2 |
|------------------|-------|----------------------|----------------------|
| Heating Capacity | kW    | 132.0                | 138.0                |
|                  | BTU/h | 450,400              | 470,900              |
| Input            | kW    | 46.97                | 50.54                |

Indoor unit temperature correction

To be used to correct indoor unit capacity only

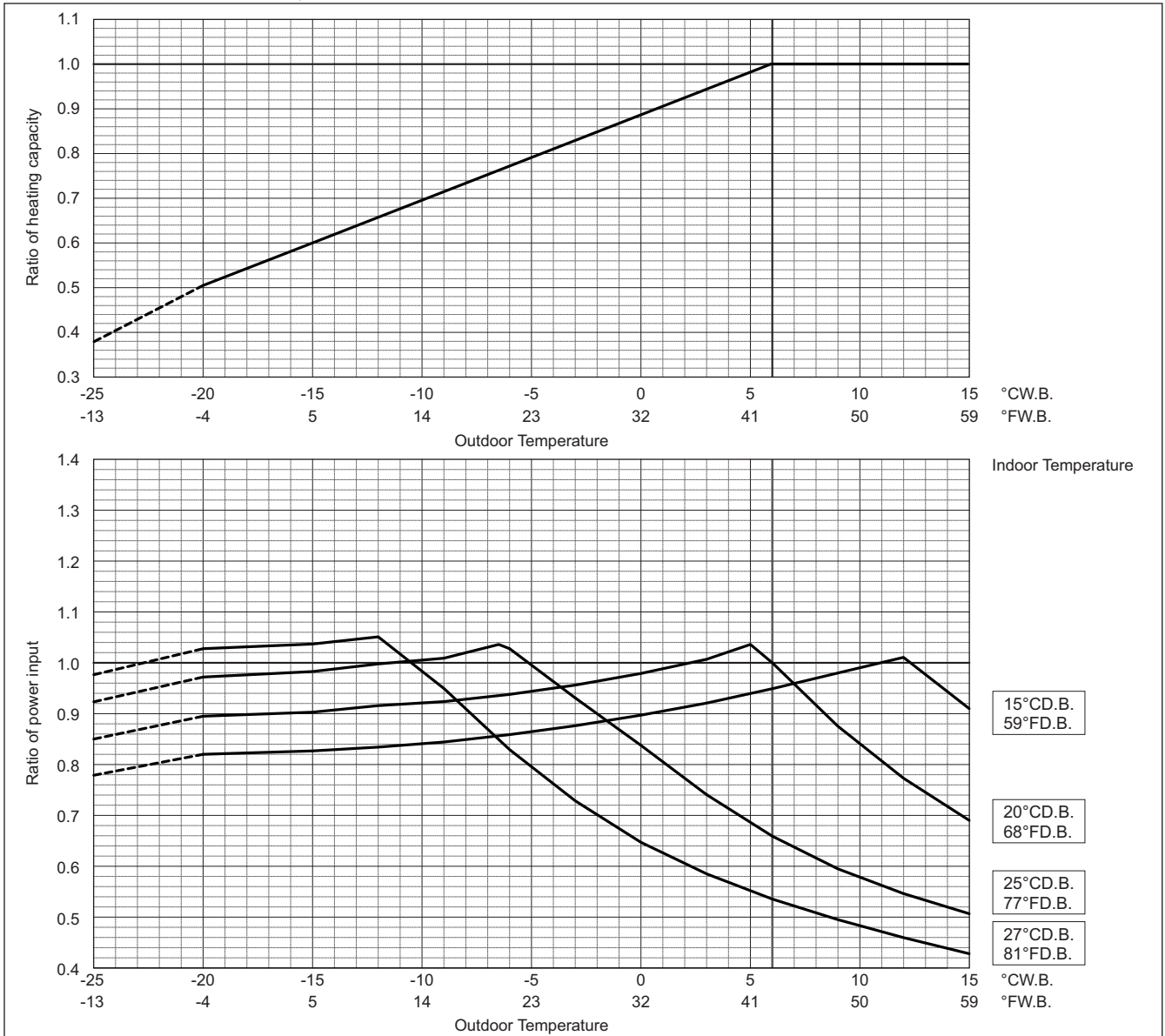


Outdoor unit temperature correction

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.



Values in the heating temperature correction diagram in the range below -20°C (-4°F) are reference values and not guaranteed values. Do not use these reference values for selecting outdoor unit models.

When applying product below -20°C (-4°F), consult your design engineer for cold climate application best practices, including the use of a backup source for heating.

PURY-P-Y(S)NW-A2/TR2/RU2



8-3. Correction by total indoor

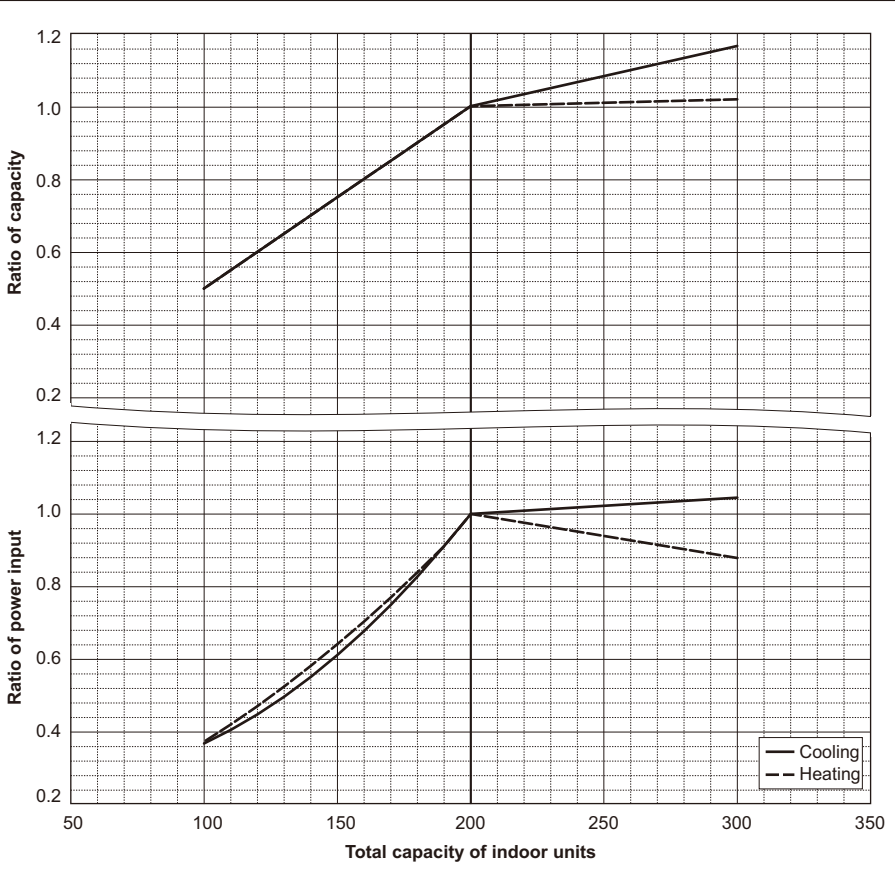
CITY MULTI system has different capacities and inputs when many combinations of indoor units with different total capacities are connected. Using following tables, the maximum capacity can be found to ensure the system is installed with enough capacity for a particular application.

PURY-P-Y(S)NW-A2/TR2/RU2

| PURY-P200YNW-A2/TR2/RU2 |       |        |
|-------------------------|-------|--------|
| Cooling Capacity        | kW    | 22.4   |
|                         | BTU/h | 76,400 |
| Input                   | kW    | 6.68   |

| PURY-P200YNW-A2/TR2/RU2 |       |        |
|-------------------------|-------|--------|
| Heating Capacity        | kW    | 25.0   |
|                         | BTU/h | 85,300 |
| Input                   | kW    | 6.79   |

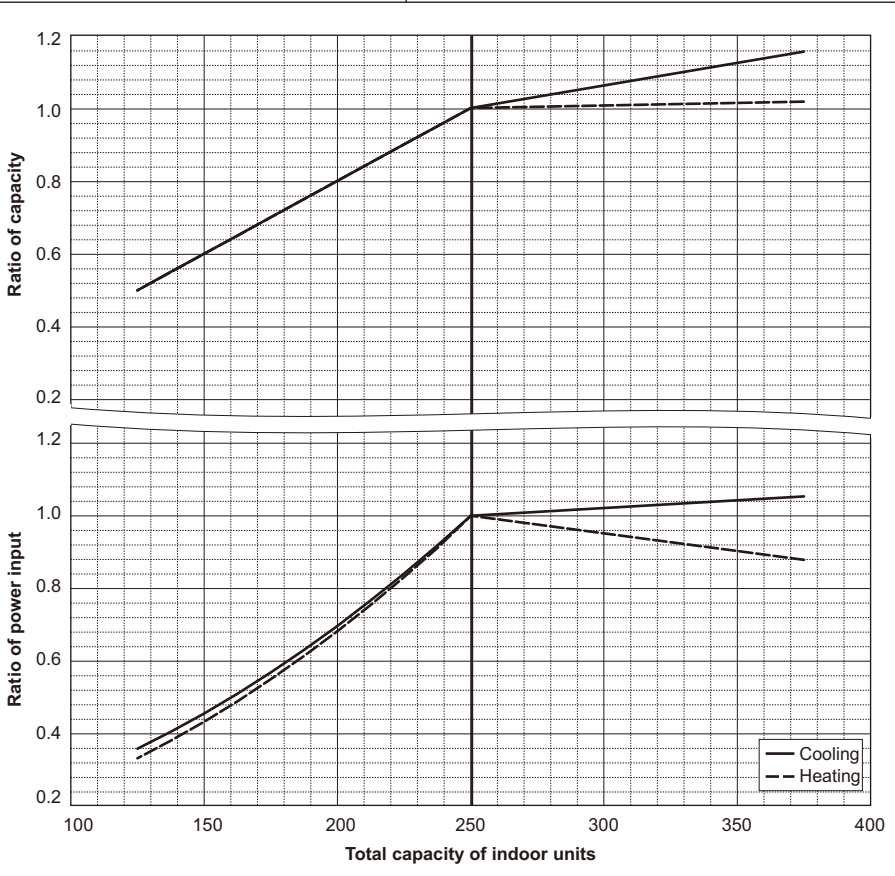
PURY-P200YNW-A2/TR2/RU2



| PURY-P250YNW-A2/TR2/RU2 |       |        |
|-------------------------|-------|--------|
| Cooling Capacity        | kW    | 28.0   |
|                         | BTU/h | 95,500 |
| Input                   | kW    | 10.25  |

| PURY-P250YNW-A2/TR2/RU2 |       |         |
|-------------------------|-------|---------|
| Heating Capacity        | kW    | 31.5    |
|                         | BTU/h | 107,500 |
| Input                   | kW    | 9.57    |

PURY-P250YNW-A2/TR2/RU2

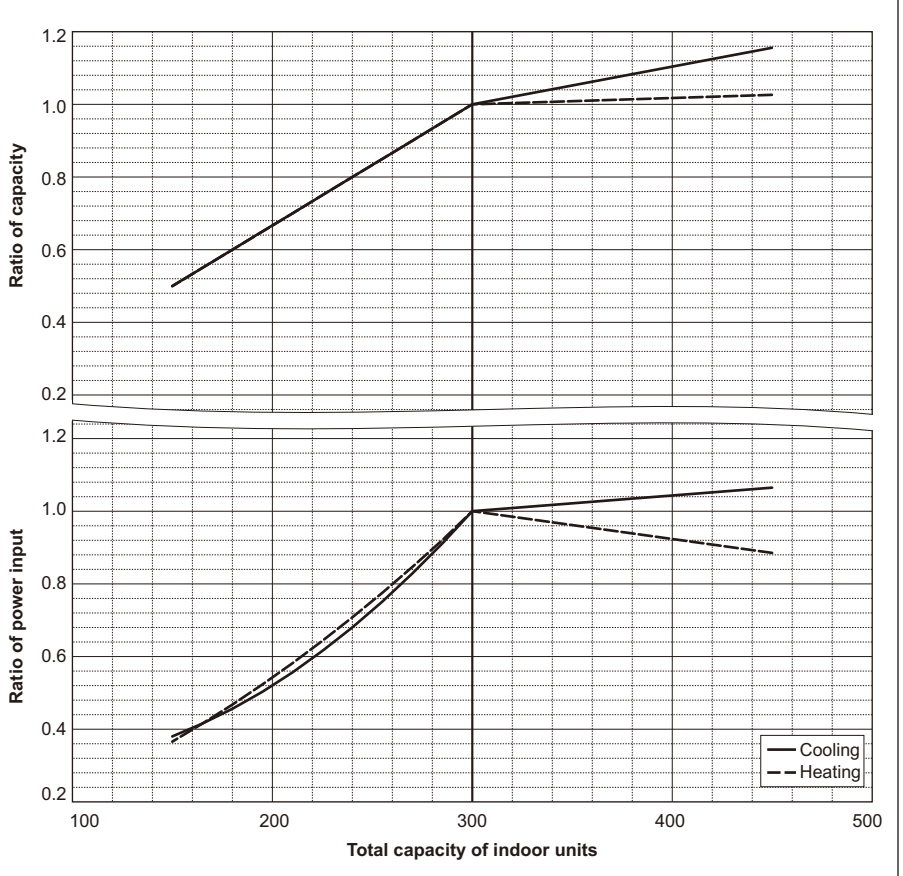




| PURY-P300YNW-A2/TR2/RU2 |       |         |
|-------------------------|-------|---------|
| Cooling Capacity        | kW    | 33.5    |
|                         | BTU/h | 114,300 |
| Input                   | kW    | 11.75   |

| PURY-P300YNW-A2/TR2/RU2 |       |         |
|-------------------------|-------|---------|
| Heating Capacity        | kW    | 33.5    |
|                         | BTU/h | 114,300 |
| Input                   | kW    | 9.62    |

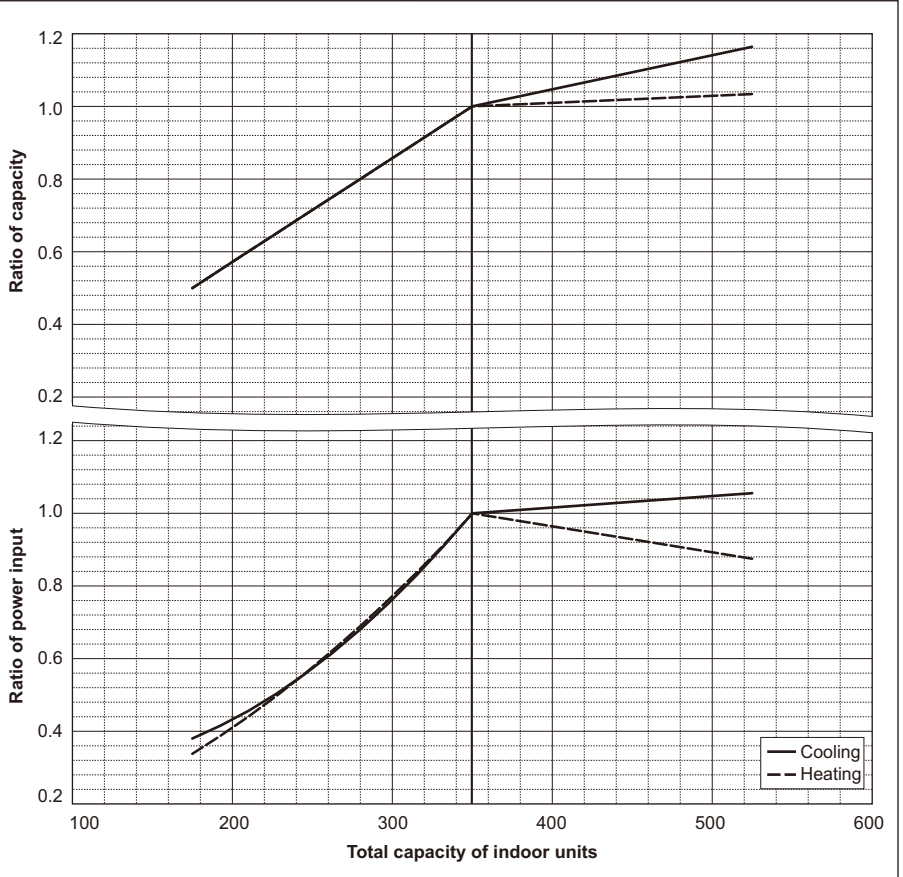
PURY-P300YNW-A2/TR2/RU2



| PURY-P350YNW-A2/TR2/RU2 |       |         |
|-------------------------|-------|---------|
| Cooling Capacity        | kW    | 40.0    |
|                         | BTU/h | 136,500 |
| Input                   | kW    | 14.92   |

| PURY-P350YNW-A2/TR2/RU2 |       |         |
|-------------------------|-------|---------|
| Heating Capacity        | kW    | 45.0    |
|                         | BTU/h | 153,500 |
| Input                   | kW    | 13.88   |

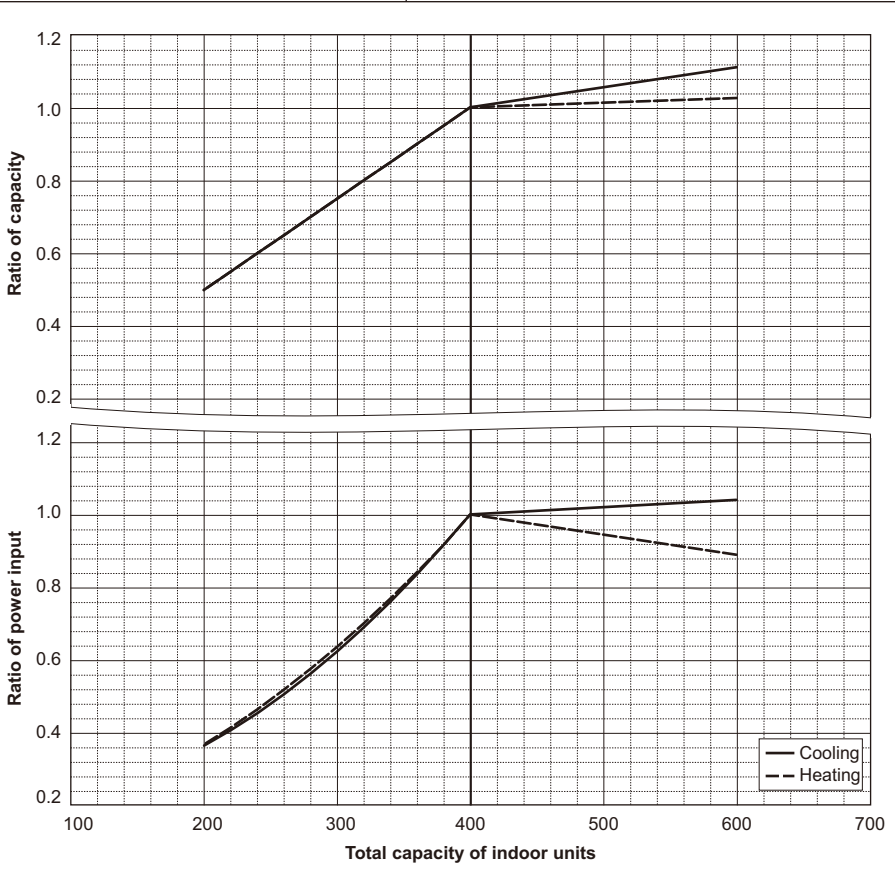
PURY-P350YNW-A2/TR2/RU2



| PURY-P400YNW-A2/TR2/RU2 |       |         |
|-------------------------|-------|---------|
| Cooling Capacity        | kW    | 45.0    |
|                         | BTU/h | 153,500 |
| Input                   | kW    | 19.65   |

| PURY-P400YNW-A2/TR2/RU2 |       |         |
|-------------------------|-------|---------|
| Heating Capacity        | kW    | 50.0    |
|                         | BTU/h | 170,600 |
| Input                   | kW    | 16.66   |

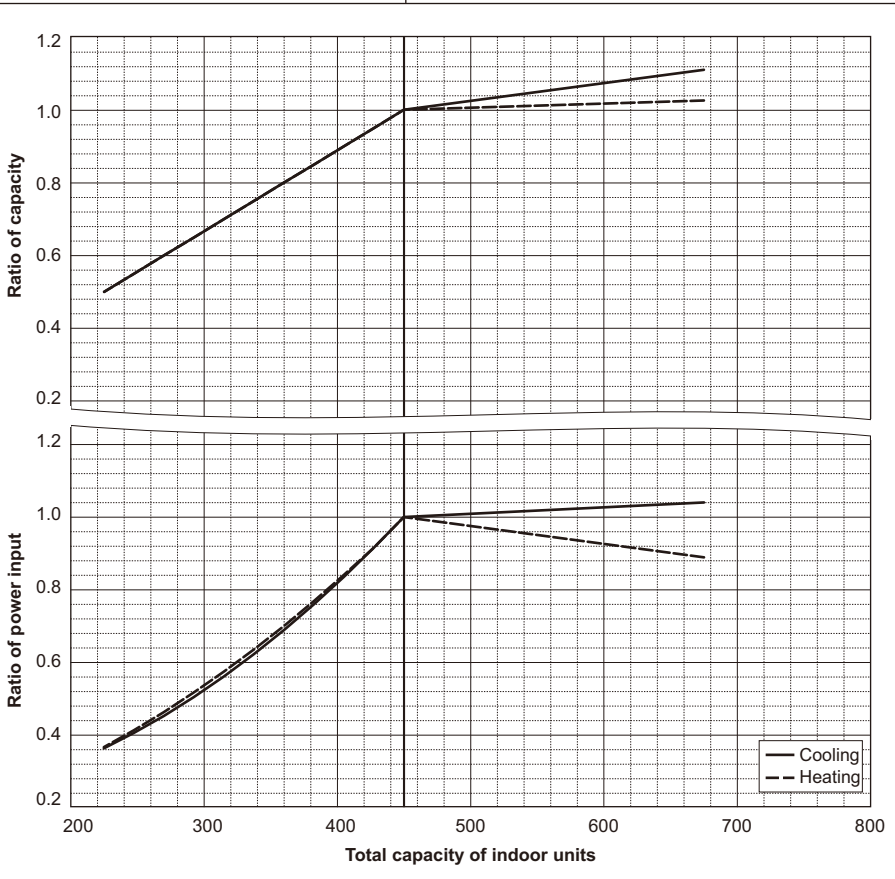
PURY-P400YNW-A2/TR2/RU2



| PURY-P450YNW-A2/TR2/RU2 |       |         |
|-------------------------|-------|---------|
| Cooling Capacity        | kW    | 50.0    |
|                         | BTU/h | 170,600 |
| Input                   | kW    | 19.84   |

| PURY-P450YNW-A2/TR2/RU2 |       |         |
|-------------------------|-------|---------|
| Heating Capacity        | kW    | 56.0    |
|                         | BTU/h | 191,100 |
| Input                   | kW    | 18.79   |

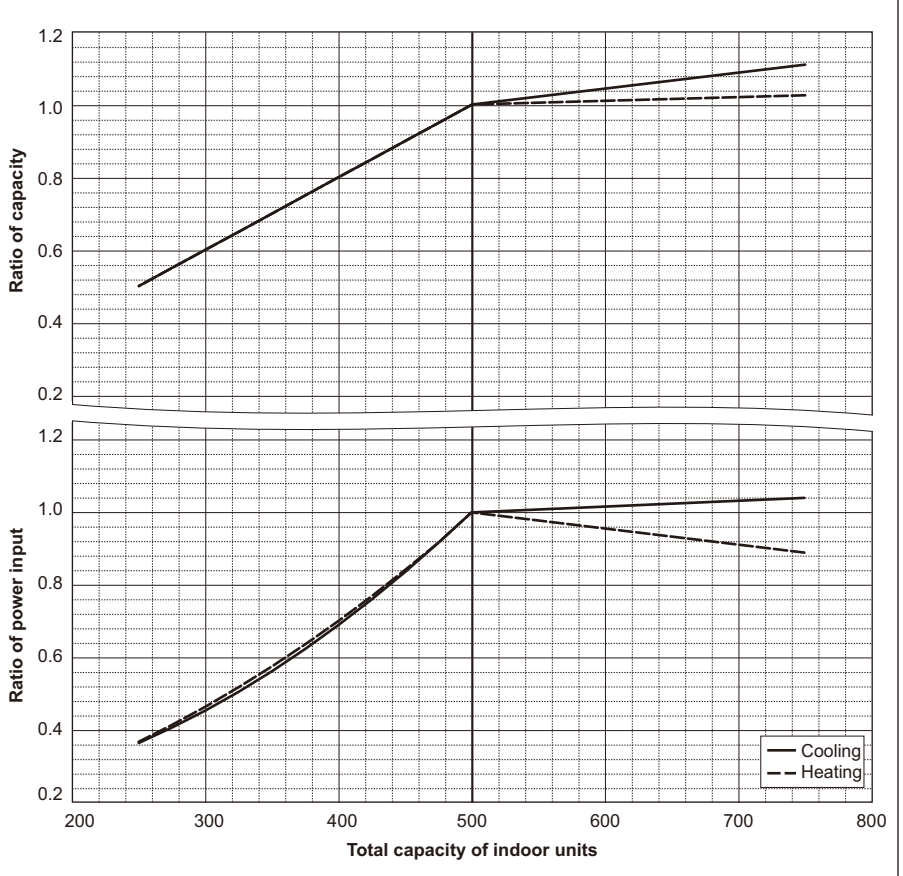
PURY-P450YNW-A2/TR2/RU2



| PURY-P500YNW-A2/TR2/RU2 |       |         |
|-------------------------|-------|---------|
| Cooling Capacity        | kW    | 56.0    |
|                         | BTU/h | 191,100 |
| Input                   | kW    | 22.22   |

| PURY-P500YNW-A2/TR2/RU2 |       |         |
|-------------------------|-------|---------|
| Heating Capacity        | kW    | 63.0    |
|                         | BTU/h | 215,000 |
| Input                   | kW    | 21.14   |

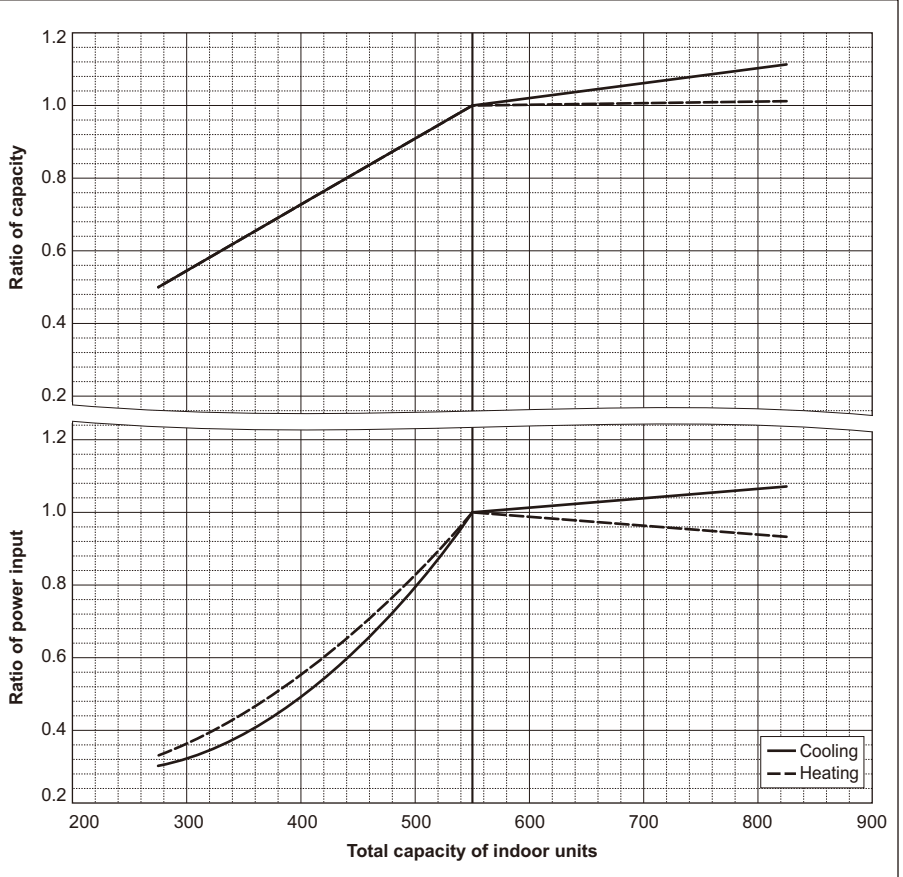
PURY-P500YNW-A2/TR2/RU2



| PURY-P550YNW-A2/TR2/RU2 |       |         |
|-------------------------|-------|---------|
| Cooling Capacity        | kW    | 60.0    |
|                         | BTU/h | 204,700 |
| Input                   | kW    | 25.86   |

| PURY-P550YNW-A2/TR2/RU2 |       |         |
|-------------------------|-------|---------|
| Heating Capacity        | kW    | 69.0    |
|                         | BTU/h | 235,400 |
| Input                   | kW    | 24.55   |

PURY-P550YNW-A2/TR2/RU2

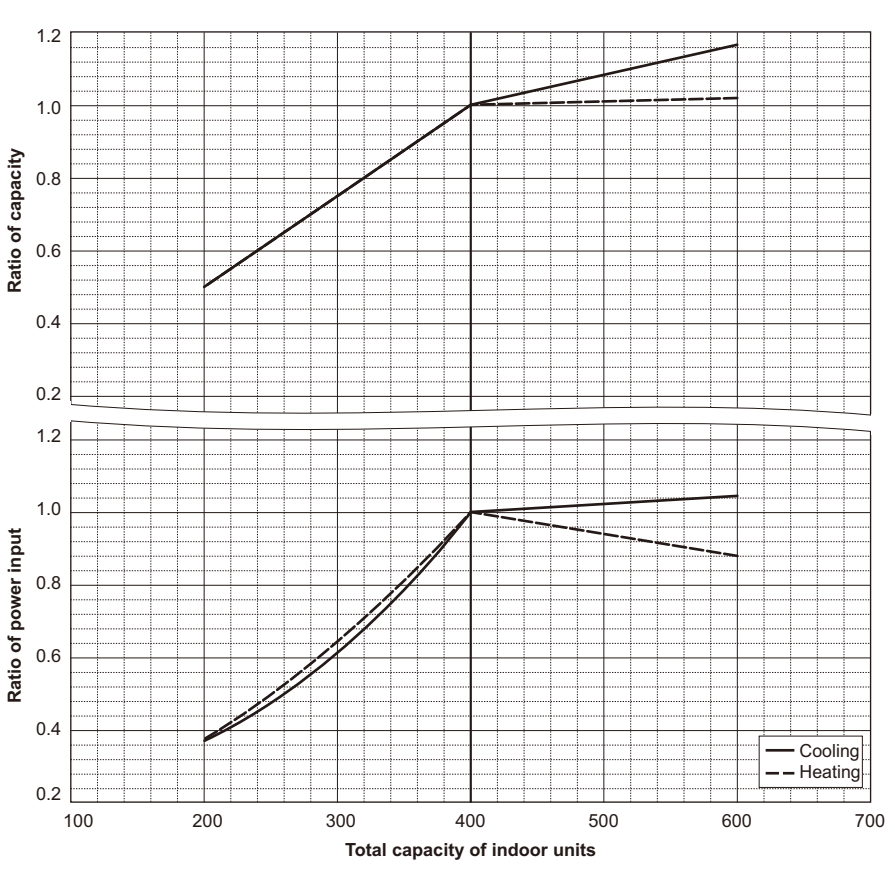


PURY-P-Y(S)NW-A2/TR2/RU2

| PURY-P400YSNW-A2/TR2/RU2 |       |         |
|--------------------------|-------|---------|
| Cooling Capacity         | kW    | 44.8    |
|                          | BTU/h | 152,900 |
| Input                    | kW    | 13.78   |

| PURY-P400YSNW-A2/TR2/RU2 |       |         |
|--------------------------|-------|---------|
| Heating Capacity         | kW    | 50.0    |
|                          | BTU/h | 170,600 |
| Input                    | kW    | 14.00   |

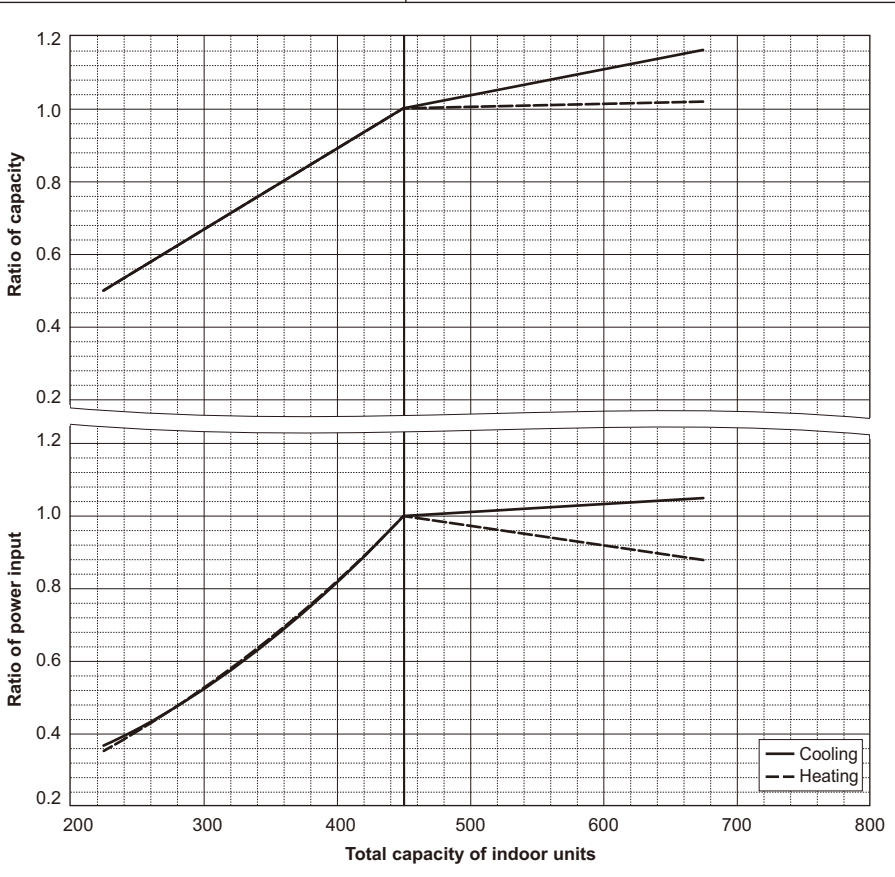
PURY-P400YSNW-A2/TR2/RU2



| PURY-P450YSNW-A2/TR2/RU2 |       |         |
|--------------------------|-------|---------|
| Cooling Capacity         | kW    | 50.4    |
|                          | BTU/h | 172,000 |
| Input                    | kW    | 17.08   |

| PURY-P450YSNW-A2/TR2/RU2 |       |         |
|--------------------------|-------|---------|
| Heating Capacity         | kW    | 56.5    |
|                          | BTU/h | 192,800 |
| Input                    | kW    | 16.71   |

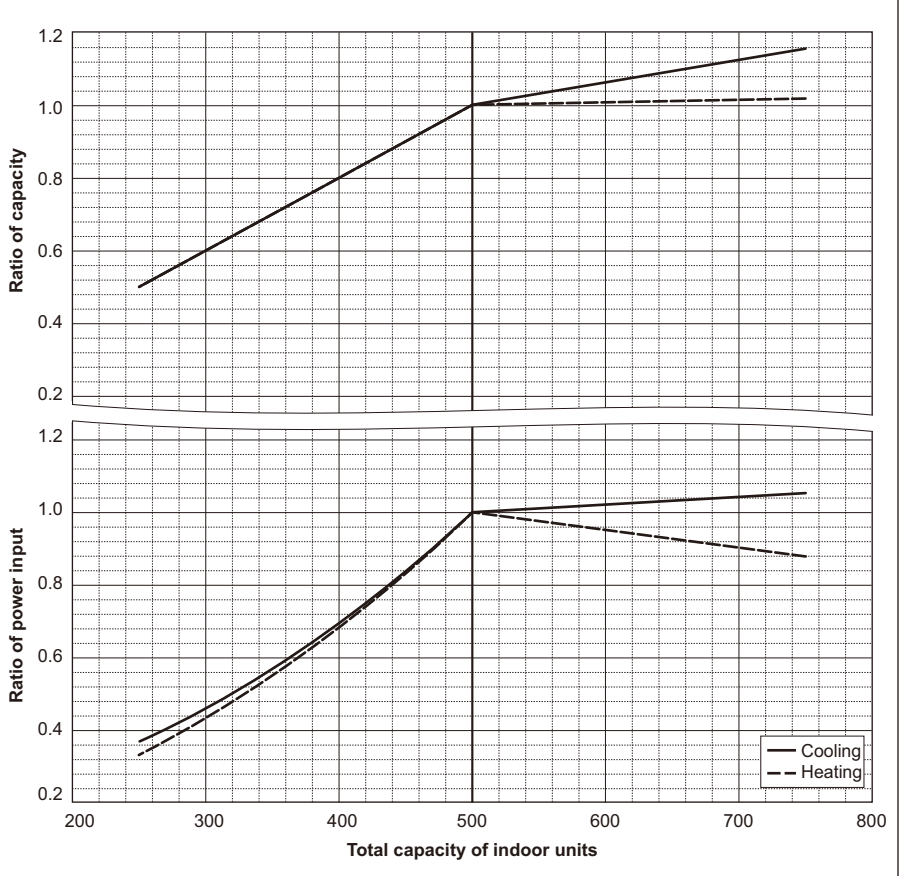
PURY-P450YSNW-A2/TR2/RU2



| PURY-P500YSNW-A2/TR2/RU2 |       |         |
|--------------------------|-------|---------|
| Cooling Capacity         | kW    | 56.0    |
|                          | BTU/h | 191,100 |
| Input                    | kW    | 21.13   |

| PURY-P500YSNW-A2/TR2/RU2 |       |         |
|--------------------------|-------|---------|
| Heating Capacity         | kW    | 63.0    |
|                          | BTU/h | 215,000 |
| Input                    | kW    | 19.74   |

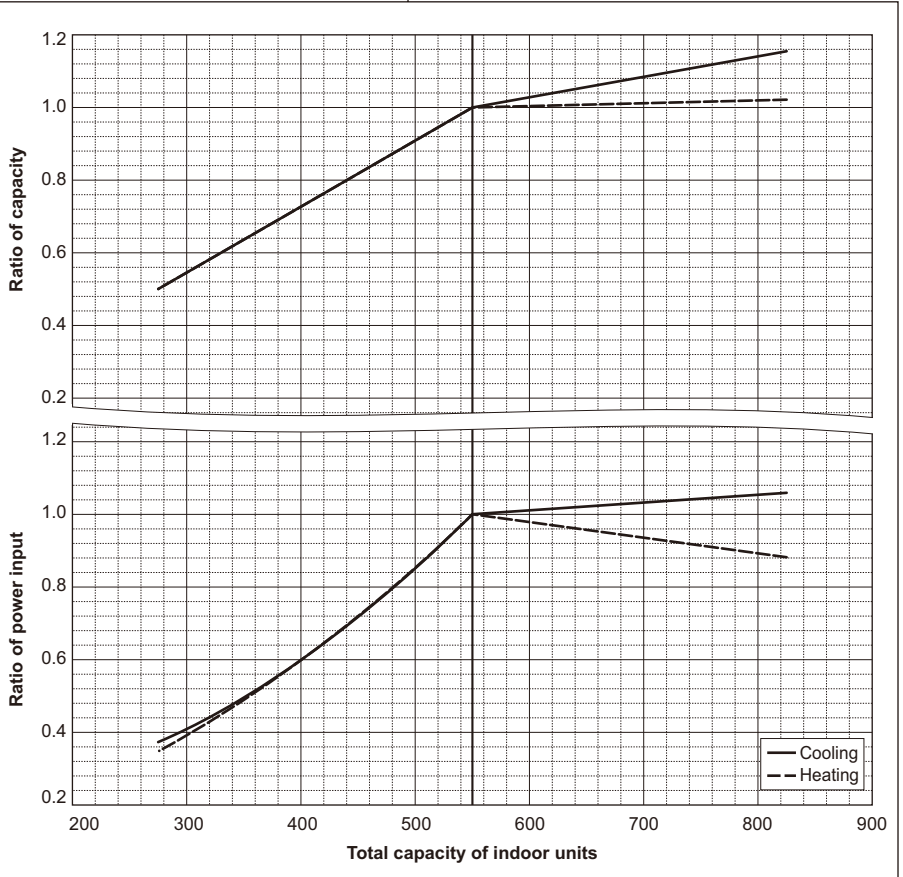
PURY-P500YSNW-A2/TR2/RU2



| PURY-P550YSNW-A2/TR2/RU2 |       |         |
|--------------------------|-------|---------|
| Cooling Capacity         | kW    | 61.5    |
|                          | BTU/h | 209,800 |
| Input                    | kW    | 22.69   |

| PURY-P550YSNW-A2/TR2/RU2 |       |         |
|--------------------------|-------|---------|
| Heating Capacity         | kW    | 65.0    |
|                          | BTU/h | 221,800 |
| Input                    | kW    | 19.81   |

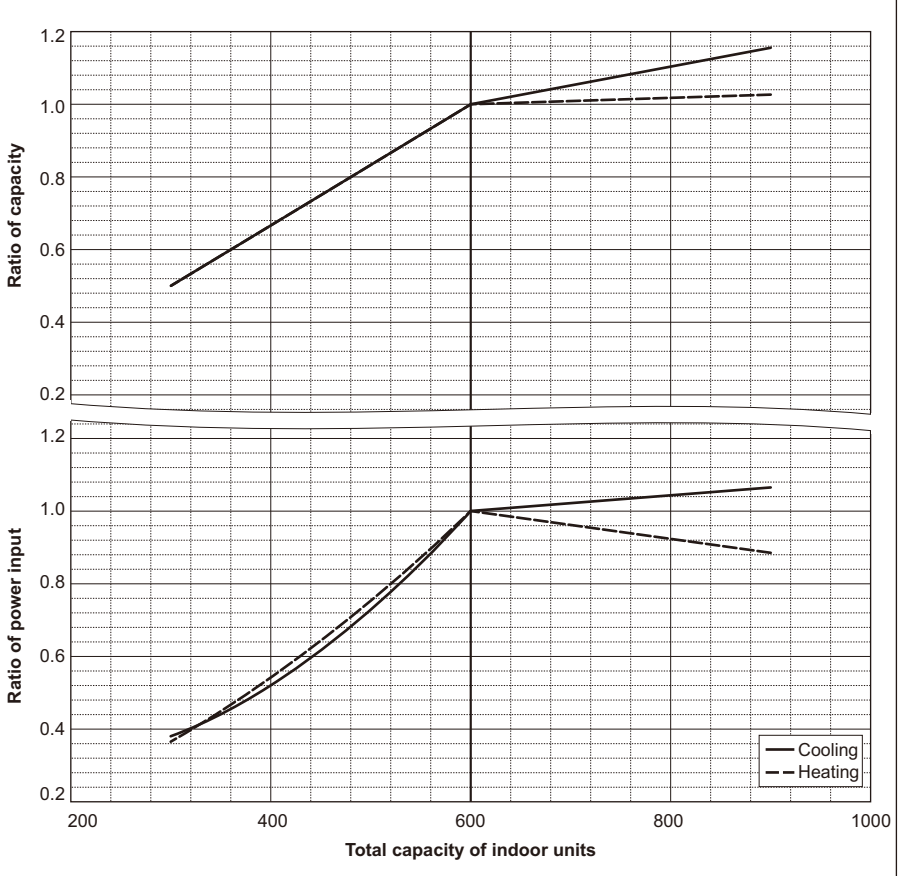
PURY-P550YSNW-A2/TR2/RU2



| PURY-P600YSNW-A2/TR2/RU2 |       |         |
|--------------------------|-------|---------|
| Cooling Capacity         | kW    | 67.0    |
|                          | BTU/h | 228,600 |
| Input                    | kW    | 24.27   |

| PURY-P600YSNW-A2/TR2/RU2 |       |         |
|--------------------------|-------|---------|
| Heating Capacity         | kW    | 67.0    |
|                          | BTU/h | 228,600 |
| Input                    | kW    | 19.81   |

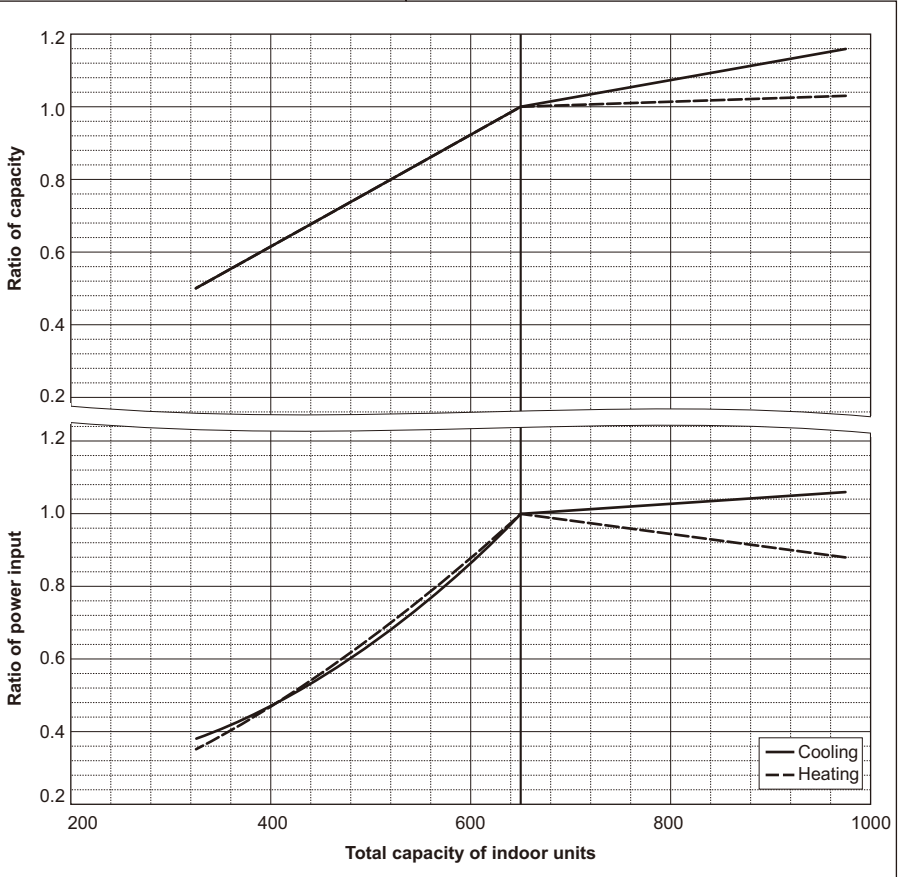
PURY-P600YSNW-A2/TR2/RU2



| PURY-P650YSNW-A2/TR2/RU2 |       |         |
|--------------------------|-------|---------|
| Cooling Capacity         | kW    | 73.5    |
|                          | BTU/h | 250,800 |
| Input                    | kW    | 27.42   |

| PURY-P650YSNW-A2/TR2/RU2 |       |         |
|--------------------------|-------|---------|
| Heating Capacity         | kW    | 78.5    |
|                          | BTU/h | 267,800 |
| Input                    | kW    | 24.07   |

PURY-P650YSNW-A2/TR2/RU2

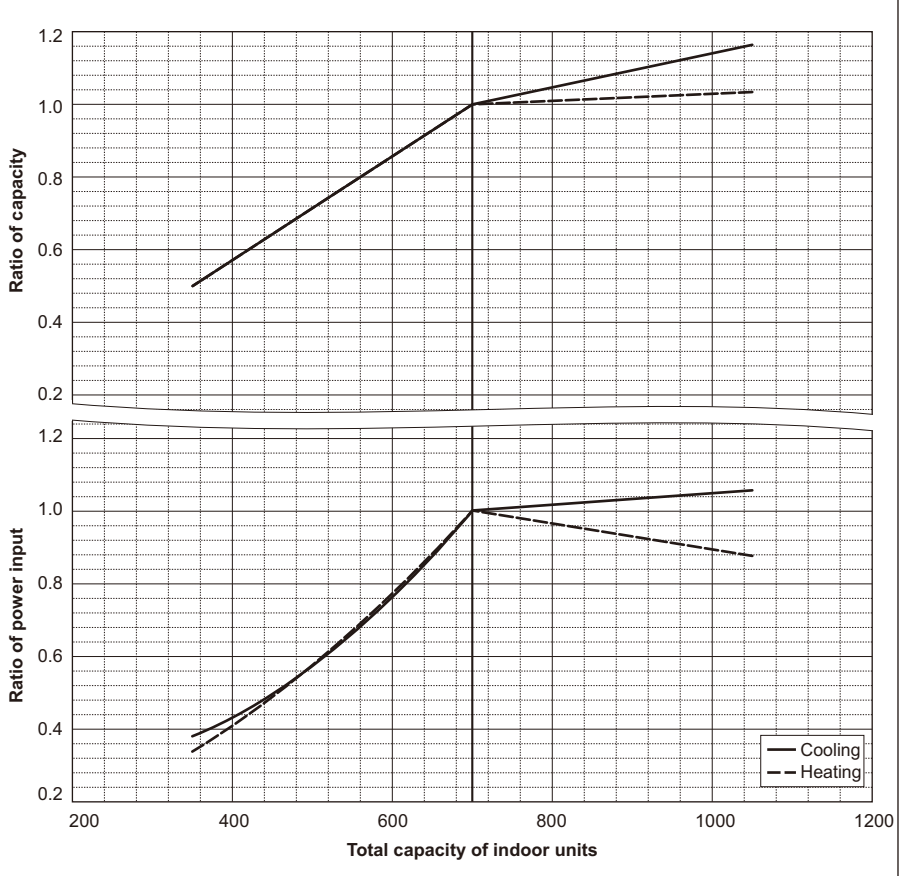




| PURY-P700YSNW-A2/TR2/RU2 |       |         |
|--------------------------|-------|---------|
| Cooling Capacity         | kW    | 80.0    |
|                          | BTU/h | 273,000 |
| Input                    | kW    | 30.76   |

| PURY-P700YSNW-A2/TR2/RU2 |       |         |
|--------------------------|-------|---------|
| Heating Capacity         | kW    | 90.0    |
|                          | BTU/h | 307,100 |
| Input                    | kW    | 28.66   |

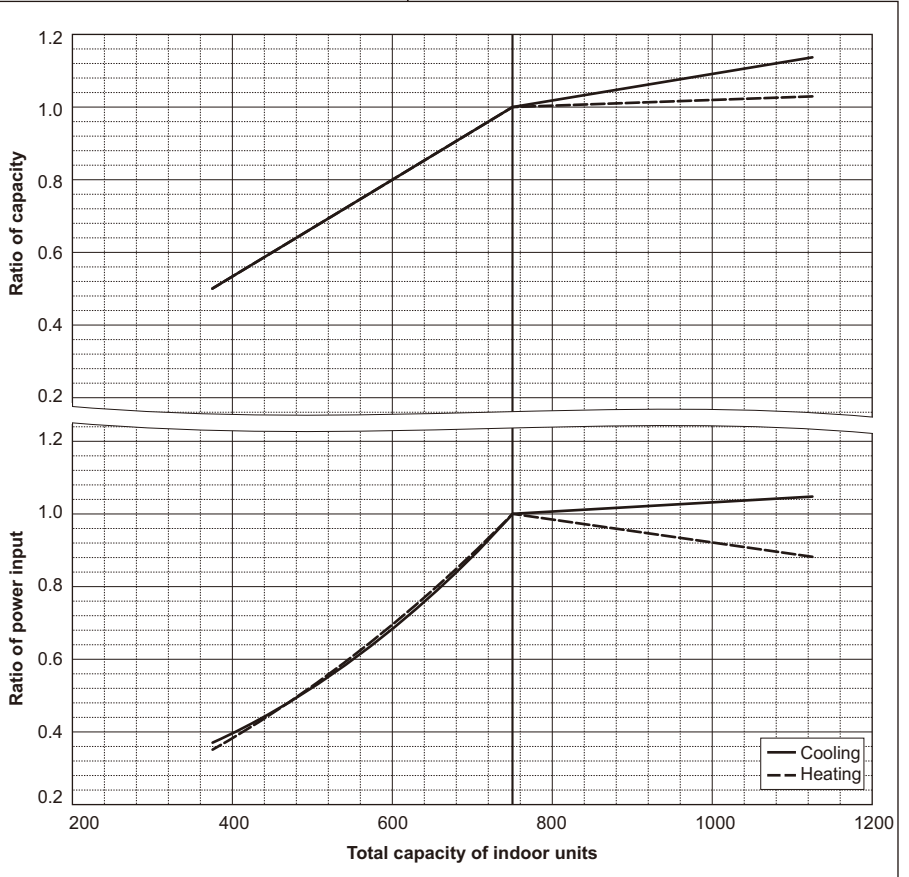
PURY-P700YSNW-A2/TR2/RU2



| PURY-P750YSNW-A2/TR2/RU2 |       |         |
|--------------------------|-------|---------|
| Cooling Capacity         | kW    | 85.0    |
|                          | BTU/h | 290,000 |
| Input                    | kW    | 35.26   |

| PURY-P750YSNW-A2/TR2/RU2 |       |         |
|--------------------------|-------|---------|
| Heating Capacity         | kW    | 95.0    |
|                          | BTU/h | 324,100 |
| Input                    | kW    | 31.35   |

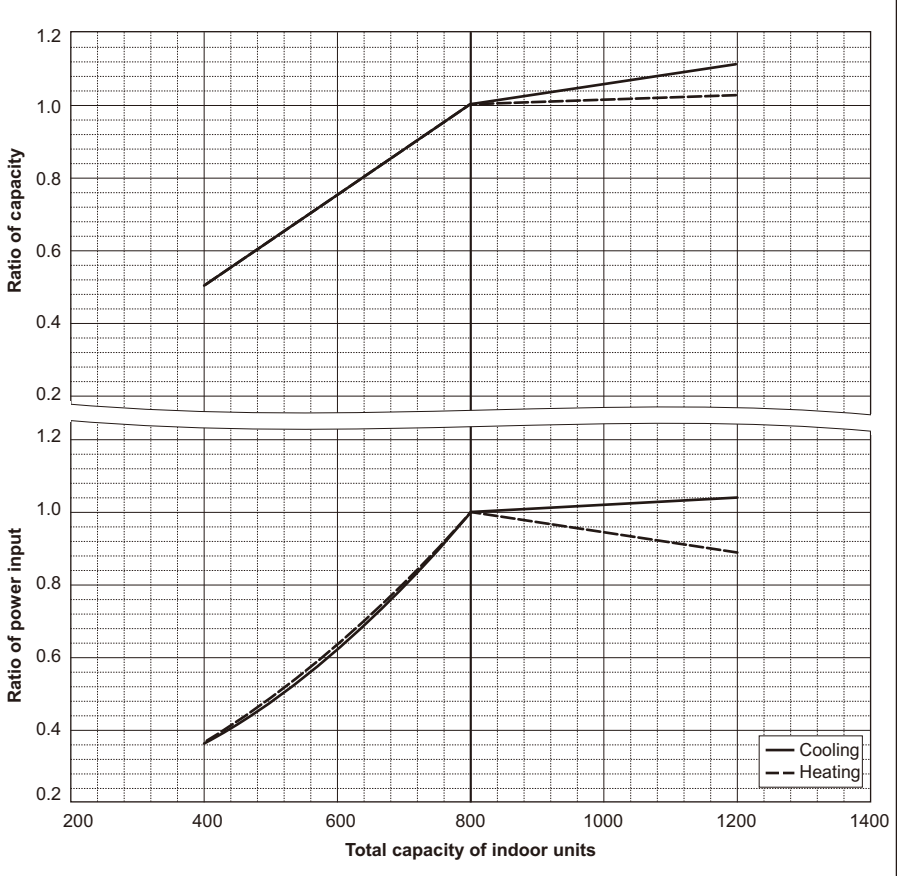
PURY-P750YSNW-A2/TR2/RU2



| PURY-P800YSNW-A2/TR2/RU2 |       |         |
|--------------------------|-------|---------|
| Cooling Capacity         | kW    | 90.0    |
|                          | BTU/h | 307,100 |
| Input                    | kW    | 40.54   |

| PURY-P800YSNW-A2/TR2/RU2 |       |         |
|--------------------------|-------|---------|
| Heating Capacity         | kW    | 100.0   |
|                          | BTU/h | 341,200 |
| Input                    | kW    | 34.36   |

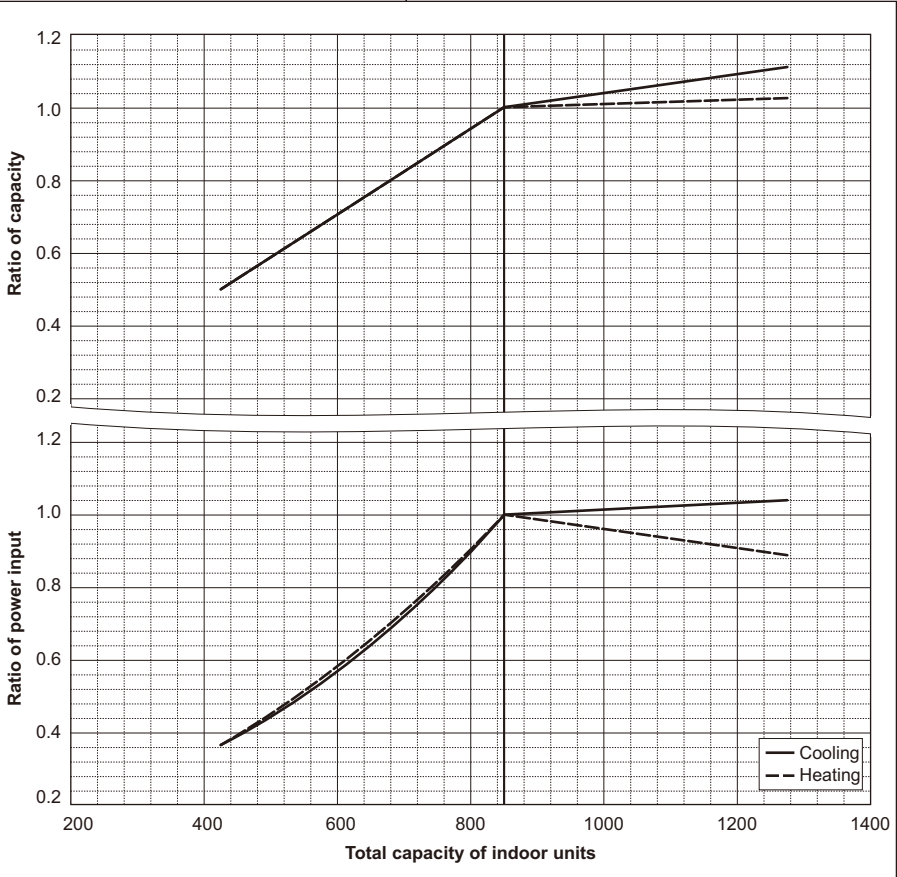
PURY-P800YSNW-A2/TR2/RU2



| PURY-P850YSNW-A2/TR2/RU2 |       |         |
|--------------------------|-------|---------|
| Cooling Capacity         | kW    | 95.0    |
|                          | BTU/h | 324,100 |
| Input                    | kW    | 40.77   |

| PURY-P850YSNW-A2/TR2/RU2 |       |         |
|--------------------------|-------|---------|
| Heating Capacity         | kW    | 106.0   |
|                          | BTU/h | 361,700 |
| Input                    | kW    | 36.55   |

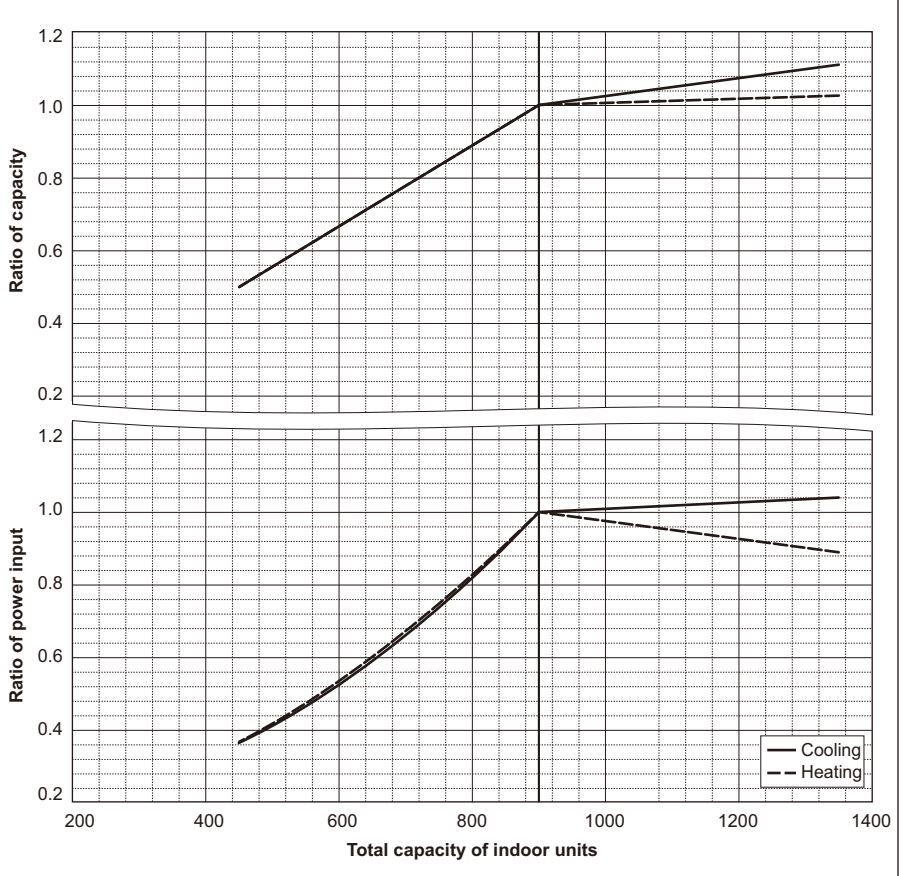
PURY-P850YSNW-A2/TR2/RU2



| PURY-P900YSNW-A2/TR2/RU2 |       |         |
|--------------------------|-------|---------|
| Cooling Capacity         | kW    | 100.0   |
|                          | BTU/h | 341,200 |
| Input                    | kW    | 40.98   |

| PURY-P900YSNW-A2/TR2/RU2 |       |         |
|--------------------------|-------|---------|
| Heating Capacity         | kW    | 112.0   |
|                          | BTU/h | 382,100 |
| Input                    | kW    | 38.75   |

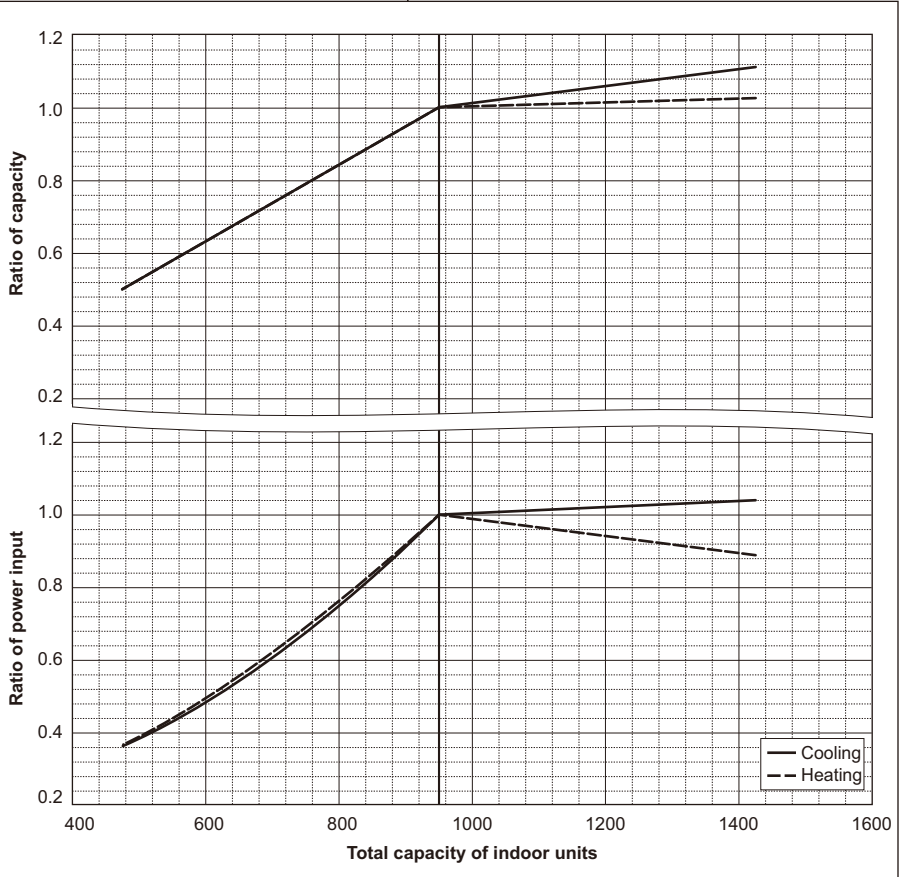
PURY-P900YSNW-A2/TR2/RU2



| PURY-P950YSNW-A2/TR2/RU2 |       |         |
|--------------------------|-------|---------|
| Cooling Capacity         | kW    | 106.0   |
|                          | BTU/h | 361,700 |
| Input                    | kW    | 43.44   |

| PURY-P950YSNW-A2/TR2/RU2 |       |         |
|--------------------------|-------|---------|
| Heating Capacity         | kW    | 119.0   |
|                          | BTU/h | 406,000 |
| Input                    | kW    | 41.17   |

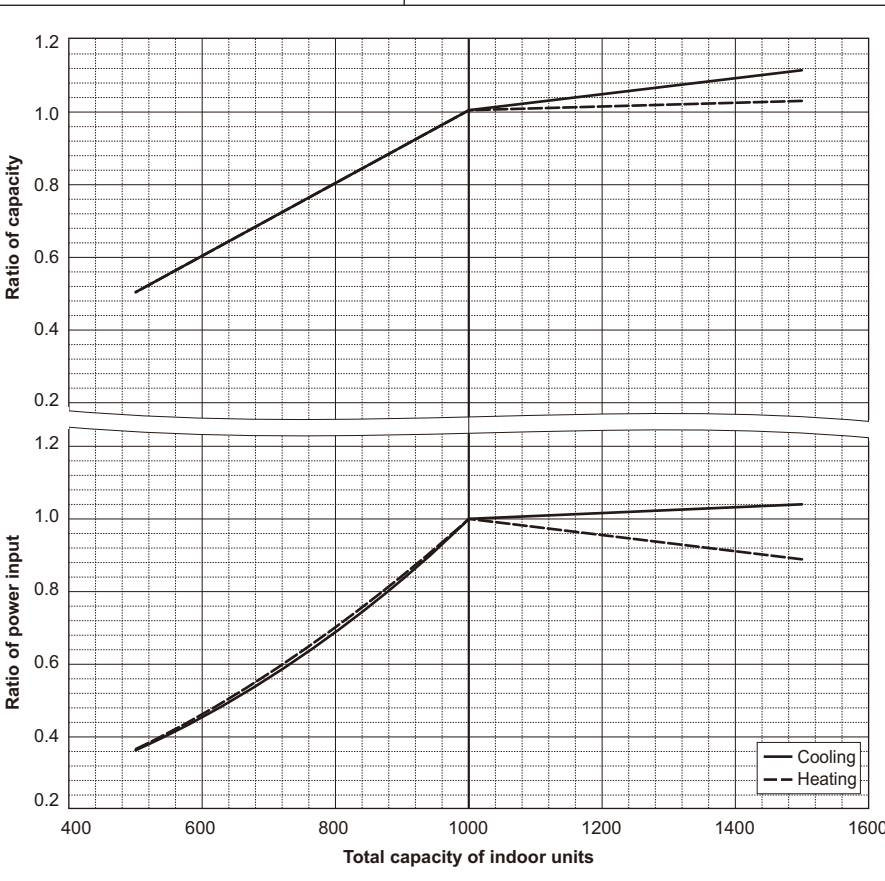
PURY-P950YSNW-A2/TR2/RU2



| PURY-P1000YSNW-A2/TR2/RU2 |       |         |
|---------------------------|-------|---------|
| Cooling Capacity          | kW    | 112.0   |
|                           | BTU/h | 382,100 |
| Input                     | kW    | 45.90   |

| PURY-P1000YSNW-A2/TR2/RU2 |       |         |
|---------------------------|-------|---------|
| Heating Capacity          | kW    | 126.0   |
|                           | BTU/h | 429,900 |
| Input                     | kW    | 43.59   |

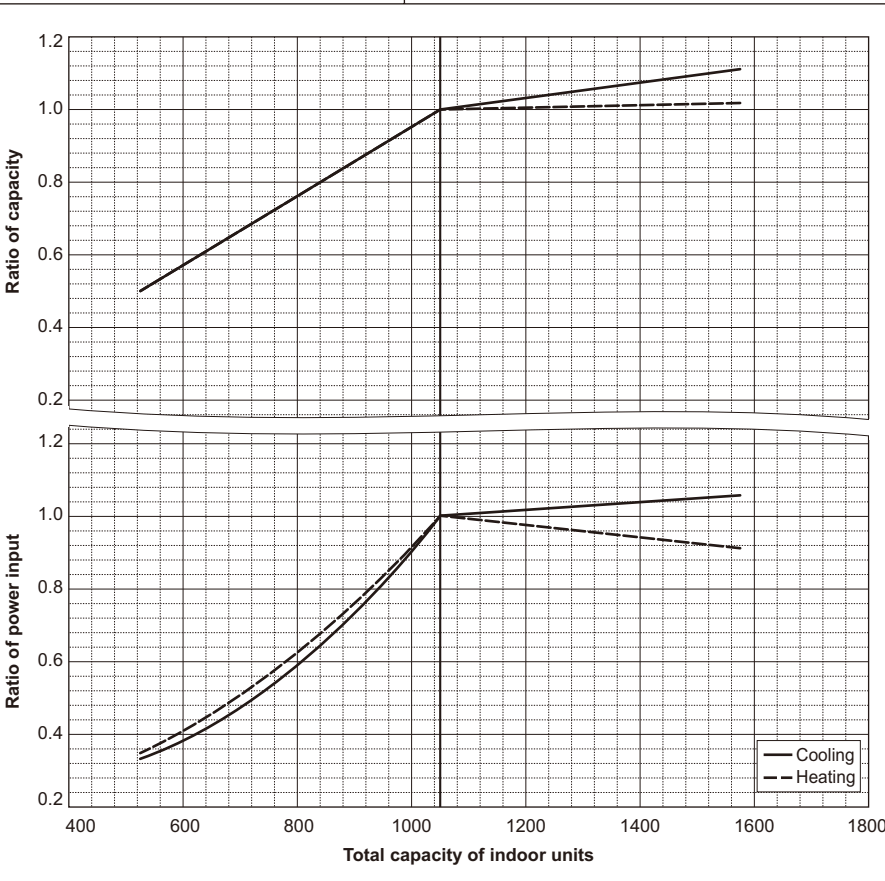
PURY-P1000YSNW-A2/TR2/RU2



| PURY-P1050YSNW-A2/TR2/RU2 |       |         |
|---------------------------|-------|---------|
| Cooling Capacity          | kW    | 116.0   |
|                           | BTU/h | 395,800 |
| Input                     | kW    | 49.36   |

| PURY-P1050YSNW-A2/TR2/RU2 |       |         |
|---------------------------|-------|---------|
| Heating Capacity          | kW    | 132.0   |
|                           | BTU/h | 450,400 |
| Input                     | kW    | 46.97   |

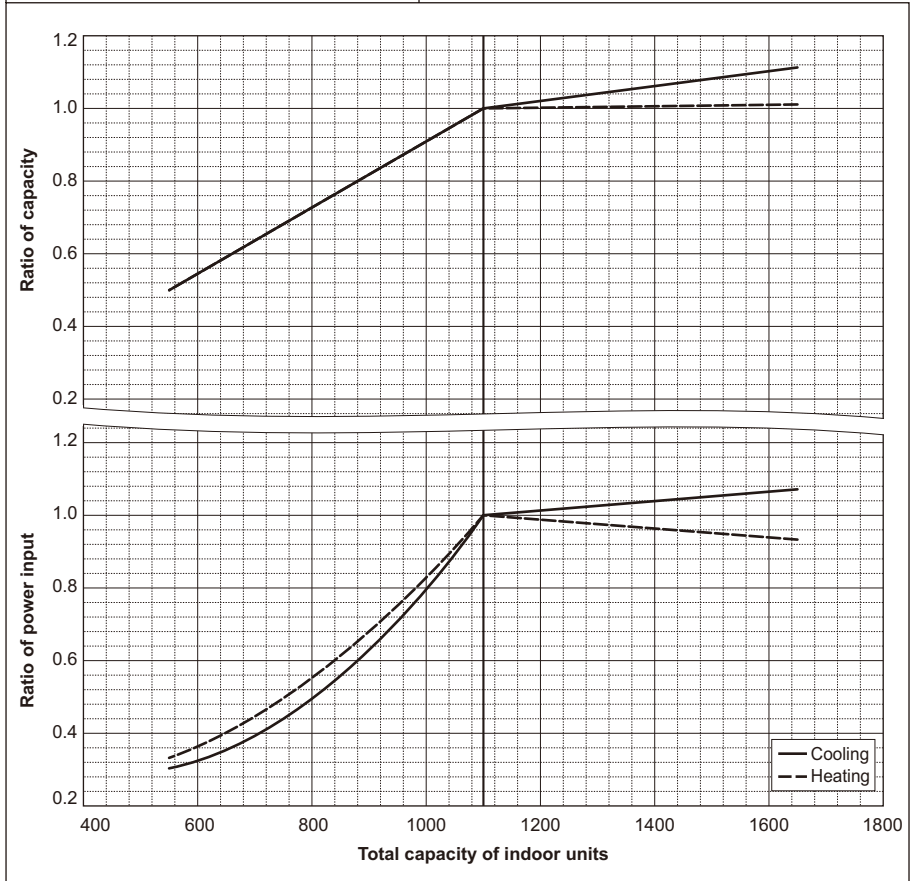
PURY-P1050YSNW-A2/TR2/RU2



| PURY-P1100YSNW-A2/TR2/RU2 |       |         |
|---------------------------|-------|---------|
| Cooling Capacity          | kW    | 120.0   |
|                           | BTU/h | 409,400 |
| Input                     | kW    | 53.32   |

| PURY-P1100YSNW-A2/TR2/RU2 |       |         |
|---------------------------|-------|---------|
| Heating Capacity          | kW    | 138.0   |
|                           | BTU/h | 470,900 |
| Input                     | kW    | 50.54   |

PURY-P1100YSNW-A2/TR2/RU2



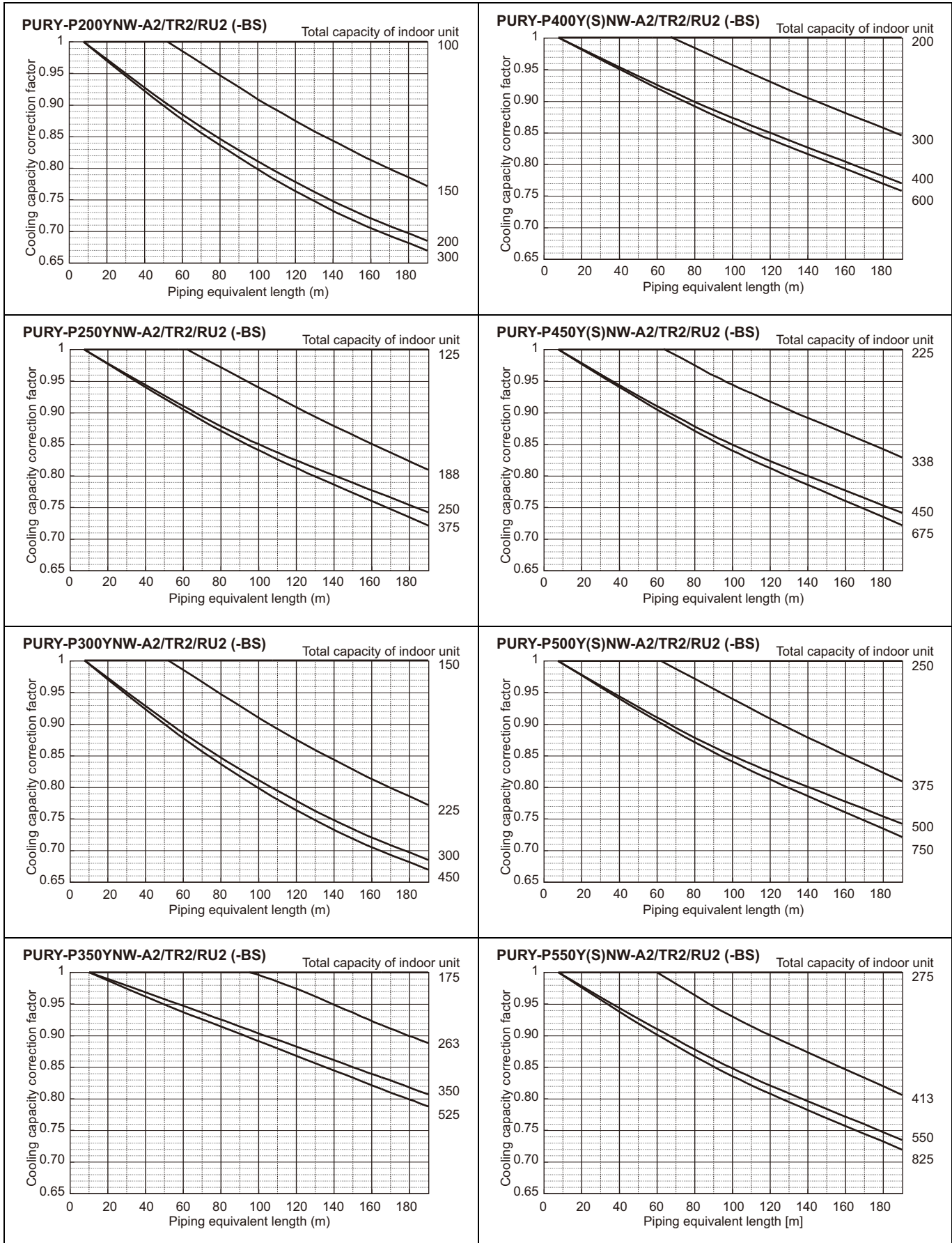
PURY-P-Y(S)NW-A2/TR2/RU2

8-4. Correction by refrigerant piping length

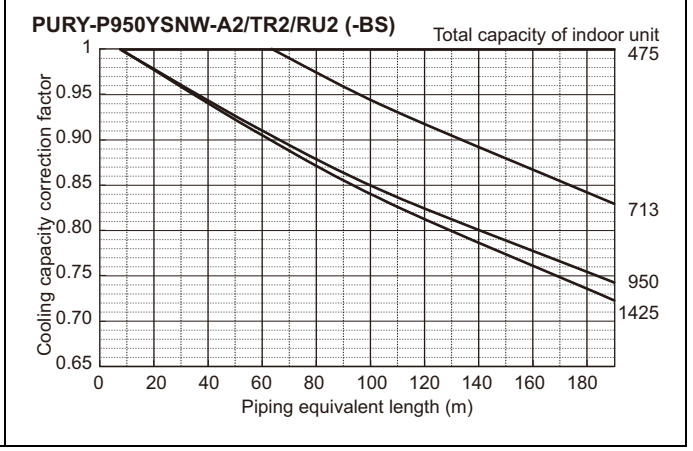
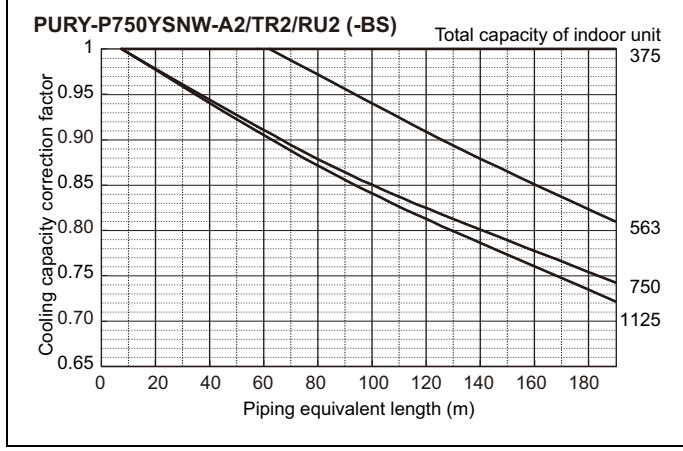
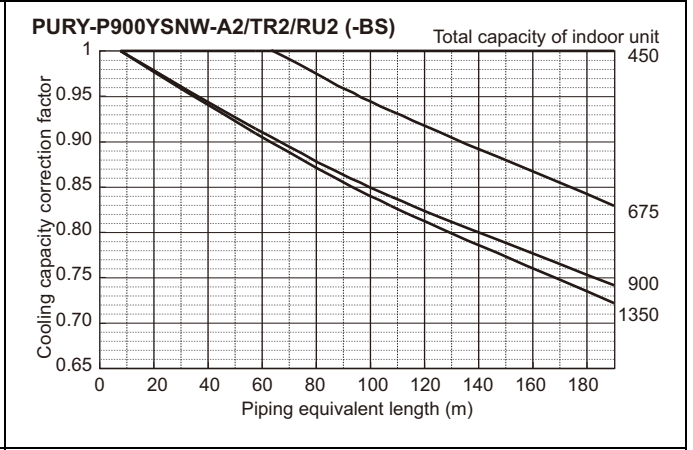
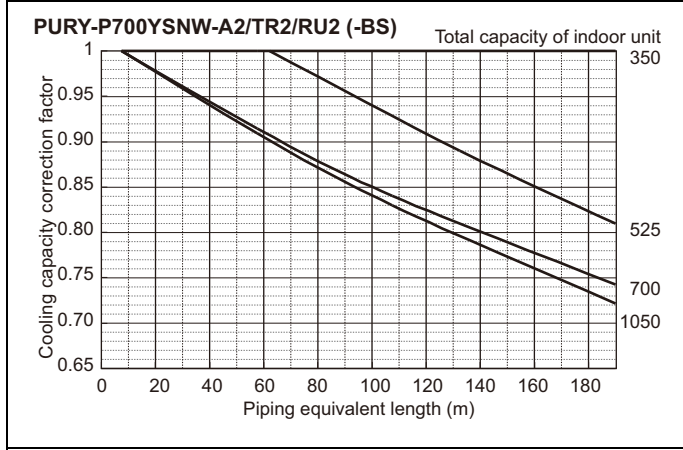
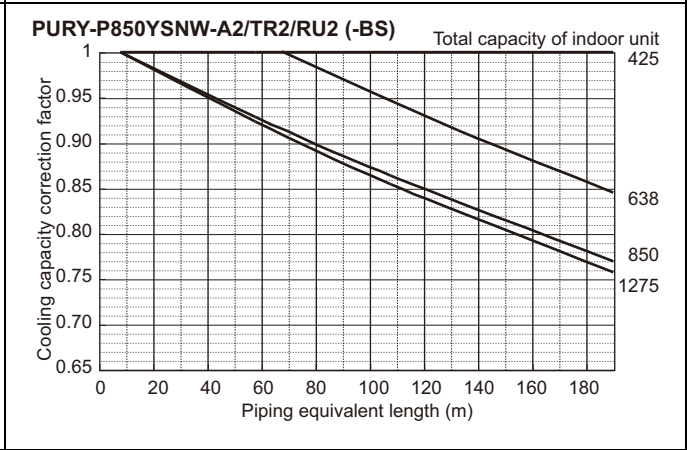
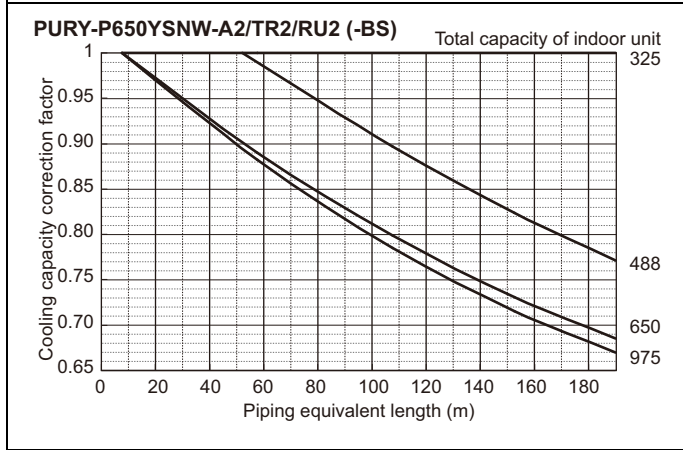
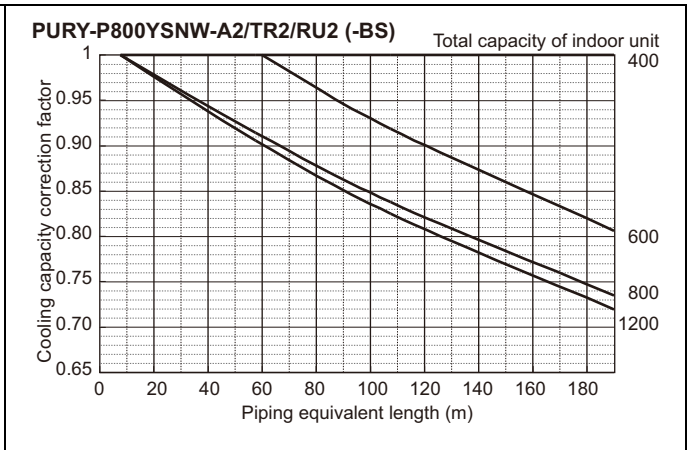
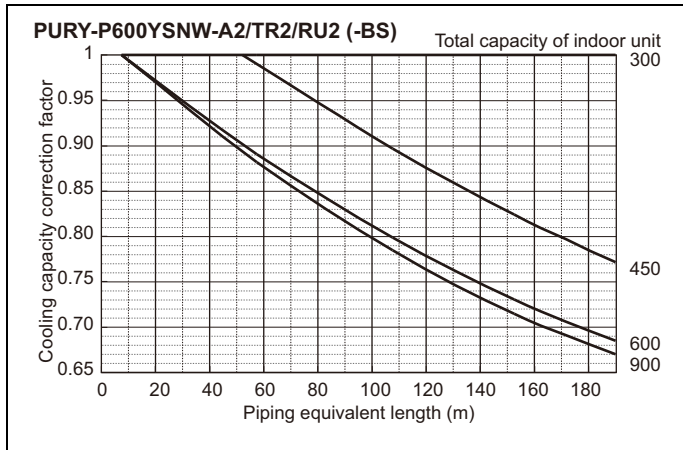
CITY MULTI system can extend the piping flexibly within its limitation for the actual situation. However, a decrease of cooling/heating capacity could happen correspondently. Using following correction factor according to the equivalent length of the piping shown at 8-4-1 and 8-4-2, the capacity can be observed. 8-4-3 shows how to obtain the equivalent length of piping.

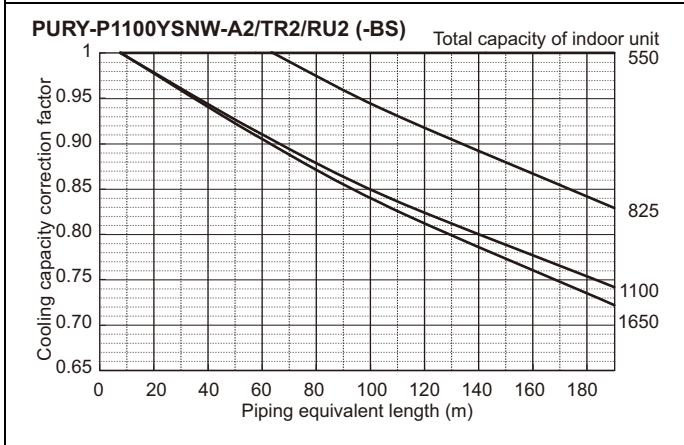
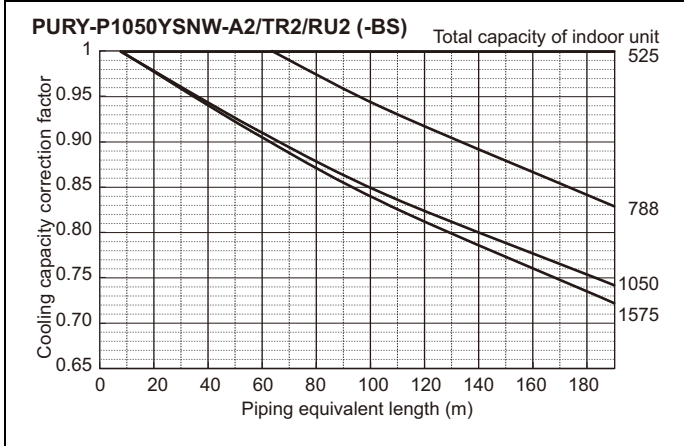
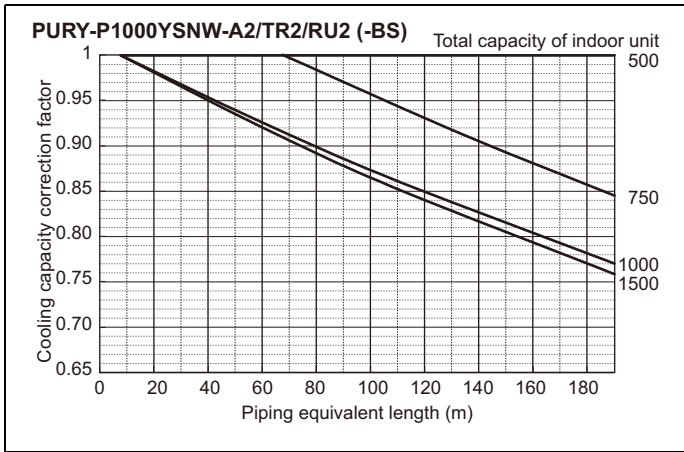
8-4-1. Cooling capacity correction

PURY-P-Y(S)NW-A2/TR2/RU2

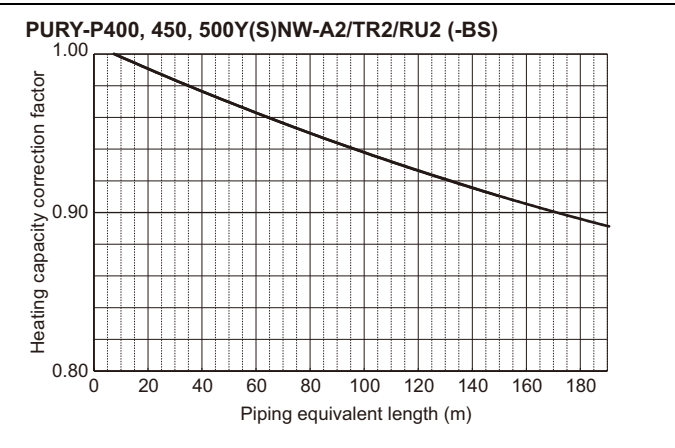
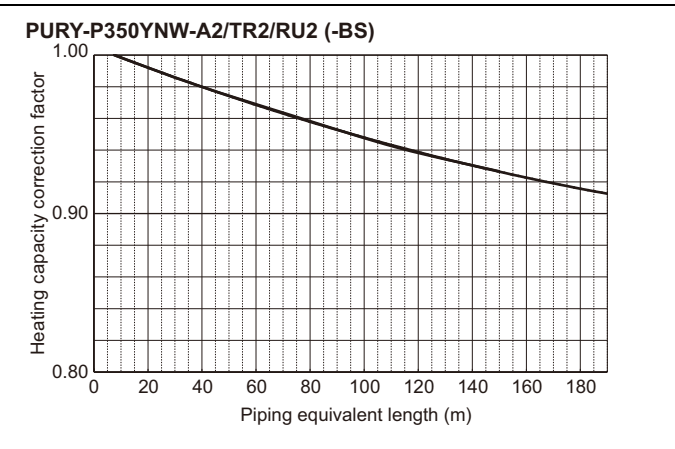
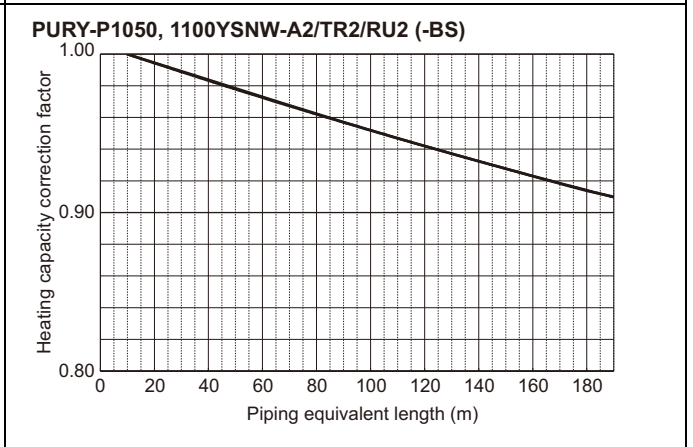
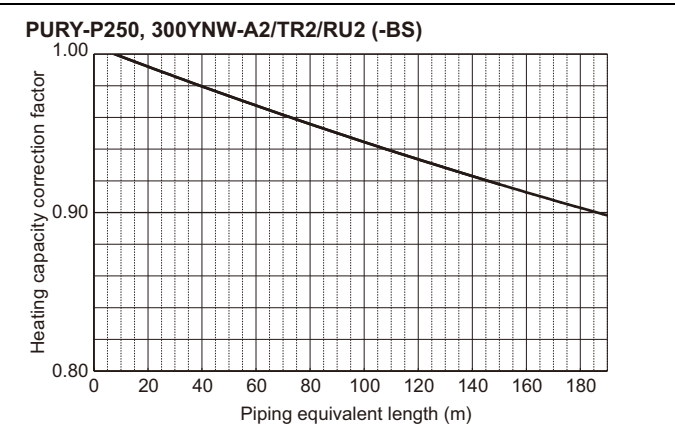
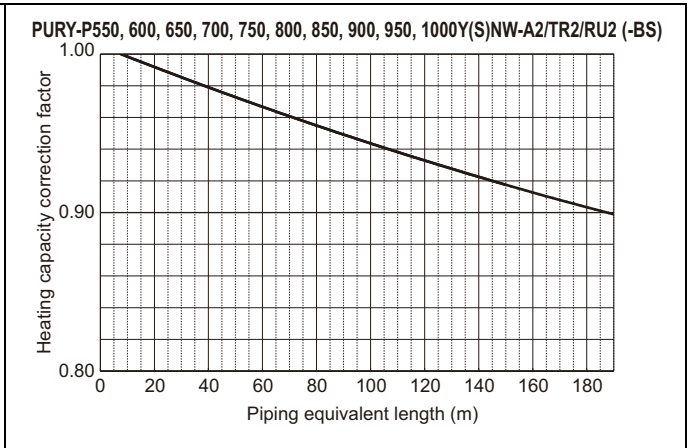
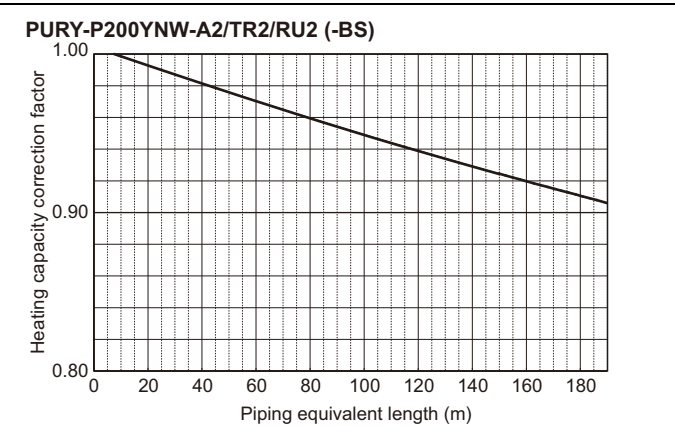








8-4-2. Heating capacity correction



PURY-P-Y(S)NW-A2/TR2/RU2

### 8-4-3. How to obtain the equivalent piping length

#### 1. PURY-P200YNW-A2/TR2/RU2 (-BS)

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

#### 2. PURY-P250, 300YNW-A2/TR2/RU2 (-BS)

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

#### 3. PURY-P350YNW-A2/TR2/RU2 (-BS)

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

#### 4. PURY-P400, 450, 500, 550, 600, 650Y(S)NW-A2/TR2/RU2 (-BS)

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

#### 5. PURY-P700, 750, 800YSNW-A2/TR2/RU2 (-BS)

Equivalent length = (Actual piping length to the farthest indoor unit) + (0.70 × number of bends in the piping) m

#### 6. PURY-P850, 900, 950, 1000, 1050, 1100YSNW-A2/TR2/RU2 (-BS)

Equivalent length = (Actual piping length to the farthest indoor unit) + (0.80 × number of bends in the piping) m

### 8-5. Correction by port counts of the BC controller

Indoor unit sizes P200 and P250 must be connected to 2 ports on the BC controller.

Indoor unit sizes from P/M100 to P/M140 should normally be connected to 2 ports on the BC controller (set BC controller DIP-SW 4-6 to its ON position).

In cases whereby indoor unit sizes from P/M100 to P/M140 or total capacity indoor units from P/M81 to P/M140 are connected to only 1port on the BC controller (set BC controller DIP-SW 4-6 to its OFF position), the cooling capacity of the outdoor unit should be multiplied by a correction factor of **0.97**.

### 8-6. 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 frosting and defrosting

| 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-P200YNW-A2/TR2/RU2 (-BS)    | 1.00 | 0.95 | 0.84 | 0.83 | 0.83 | 0.87 | 0.90 | 0.95 | 0.95 | 0.95 | 0.95 |
| PURY-P250YNW-A2/TR2/RU2 (-BS)    | 1.00 | 0.95 | 0.84 | 0.83 | 0.83 | 0.87 | 0.90 | 0.95 | 0.95 | 0.95 | 0.95 |
| PURY-P300YNW-A2/TR2/RU2 (-BS)    | 1.00 | 0.93 | 0.82 | 0.80 | 0.82 | 0.86 | 0.90 | 0.90 | 0.95 | 0.95 | 0.95 |
| PURY-P350YNW-A2/TR2/RU2 (-BS)    | 1.00 | 0.93 | 0.85 | 0.83 | 0.84 | 0.86 | 0.90 | 0.90 | 0.95 | 0.95 | 0.95 |
| PURY-P400Y(S)NW-A2/TR2/RU2 (-BS) | 1.00 | 0.95 | 0.90 | 0.87 | 0.88 | 0.89 | 0.90 | 0.95 | 0.95 | 0.95 | 0.95 |
| PURY-P450Y(S)NW-A2/TR2/RU2 (-BS) | 1.00 | 0.98 | 0.89 | 0.87 | 0.89 | 0.90 | 0.92 | 0.95 | 0.95 | 0.95 | 0.95 |
| PURY-P500Y(S)NW-A2/TR2/RU2 (-BS) | 1.00 | 0.98 | 0.89 | 0.86 | 0.89 | 0.90 | 0.92 | 0.95 | 0.95 | 0.95 | 0.95 |
| PURY-P550Y(S)NW-A2/TR2/RU2 (-BS) | 1.00 | 0.94 | 0.87 | 0.86 | 0.87 | 0.88 | 0.90 | 0.90 | 0.93 | 0.93 | 0.93 |
| PURY-P600YSNW-A2/TR2/RU2 (-BS)   | 1.00 | 0.94 | 0.84 | 0.86 | 0.87 | 0.88 | 0.90 | 0.90 | 0.93 | 0.93 | 0.93 |
| PURY-P650YSNW-A2/TR2/RU2 (-BS)   | 1.00 | 0.94 | 0.84 | 0.86 | 0.87 | 0.88 | 0.90 | 0.90 | 0.93 | 0.93 | 0.93 |
| PURY-P700YSNW-A2/TR2/RU2 (-BS)   | 1.00 | 0.98 | 0.89 | 0.88 | 0.89 | 0.90 | 0.92 | 0.95 | 0.95 | 0.95 | 0.95 |
| PURY-P750YSNW-A2/TR2/RU2 (-BS)   | 1.00 | 0.98 | 0.89 | 0.88 | 0.89 | 0.90 | 0.92 | 0.95 | 0.95 | 0.95 | 0.95 |
| PURY-P800YSNW-A2/TR2/RU2 (-BS)   | 1.00 | 0.98 | 0.89 | 0.88 | 0.89 | 0.90 | 0.92 | 0.95 | 0.95 | 0.95 | 0.95 |
| PURY-P850YSNW-A2/TR2/RU2 (-BS)   | 1.00 | 0.98 | 0.89 | 0.88 | 0.89 | 0.90 | 0.92 | 0.95 | 0.95 | 0.95 | 0.95 |
| PURY-P900YSNW-A2/TR2/RU2 (-BS)   | 1.00 | 0.98 | 0.89 | 0.88 | 0.89 | 0.90 | 0.92 | 0.95 | 0.95 | 0.95 | 0.95 |
| PURY-P950YSNW-A2/TR2/RU2 (-BS)   | 1.00 | 0.98 | 0.89 | 0.87 | 0.89 | 0.90 | 0.92 | 0.95 | 0.95 | 0.95 | 0.95 |
| PURY-P1000YSNW-A2/TR2/RU2 (-BS)  | 1.00 | 0.98 | 0.89 | 0.86 | 0.89 | 0.90 | 0.92 | 0.95 | 0.95 | 0.95 | 0.95 |
| PURY-P1050YSNW-A2/TR2/RU2 (-BS)  | 1.00 | 0.96 | 0.88 | 0.86 | 0.88 | 0.89 | 0.91 | 0.93 | 0.94 | 0.94 | 0.94 |
| PURY-P1100YSNW-A2/TR2/RU2 (-BS)  | 1.00 | 0.94 | 0.87 | 0.86 | 0.87 | 0.88 | 0.90 | 0.90 | 0.93 | 0.93 | 0.93 |

#### Note

- ♦ The high humidity condition (e.g., a foggy atmosphere) which causes frost forming on the heat exchanger will worsen the heating performance of the unit.
- ♦ The snow blowing to the heat exchanger will worsen the heating performance of the unit. Install a snow hood as a preventive measure.

### 8-7. Correction at evaporation-temperature (ET) control

When the target evaporation temperature is changed, the capacity or the power input can be calculated by multiplying the correction factor shown in the table below.

| ET *1             | °C          | 6    | 9    | 11   | 14   |
|-------------------|-------------|------|------|------|------|
| Correction factor | Capacity    | 0.90 | 0.83 | 0.71 | 0.55 |
|                   | Power Input | 0.90 | 0.72 | 0.54 | 0.36 |

\*1 The evaporation temperature in operation may be different from the preset target evaporation temperature because it depends on such factors as the unit protection control.

The capacity and power input could also fluctuate.

\*2 Use the table above which indicates the unit properties as a reference

9-1. JOINT and REDUCER

CITY MULTI units can be easily connected by using Joint sets and Reducer sets provided by Mitsubishi Electric. Refer to section "Piping Design" or the Installation Manual that comes with the Joint set or Reducer set for how to install the Joint set or Reducer set.

**CMY-Y102SS-G2** mm

For Gas pipe:

For Liquid pipe:

\*Pipe diameter is indicated by inside diameter.

**CMY-Y102LS-G2** mm

For Gas pipe:

For Liquid pipe:

\*Pipe diameter is indicated by inside diameter.

**CMY-R101S-G** mm

<Accessory>

- Cover ..... 1 Pcs.
- Band ..... 3 Pcs.

Note. Pipe diameter is indicated by inside diameter.

**CMY-R102S-G** mm

<Accessory>

- Cover ..... 1 Pcs.
- Band ..... 3 Pcs.

Note. Pipe diameter is indicated by inside diameter.

**CMY-R201S-G** mm

**For High pressure**

**For Low pressure**

**For Liquid line**

<Accessory>  
 • Cover .....3 Pcs.  
 Note. Pipe diameter is indicated by inside diameter.

**CMY-R202S-G** mm

**For High pressure**

**For Low pressure**

**For Liquid line**

<Accessory>  
 • Cover .....3 Pcs.  
 Note. Pipe diameter is indicated by inside diameter.

**CMY-R203S-G** mm

**For High pressure**

**For Low pressure**

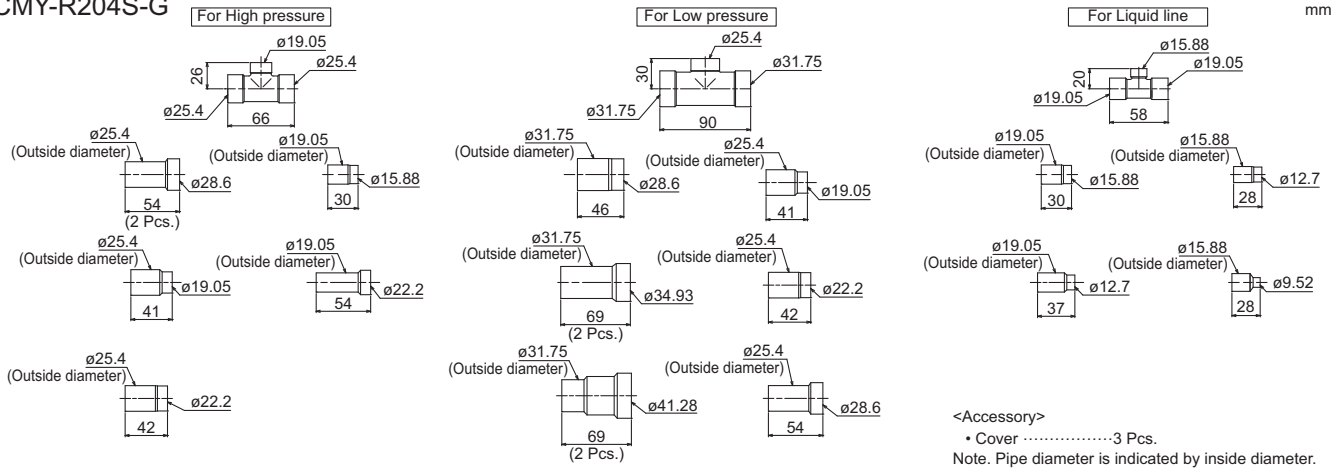
**For Liquid line**

<Accessory>  
 • Cover .....3 Pcs.  
 Note. Pipe diameter is indicated by inside diameter.



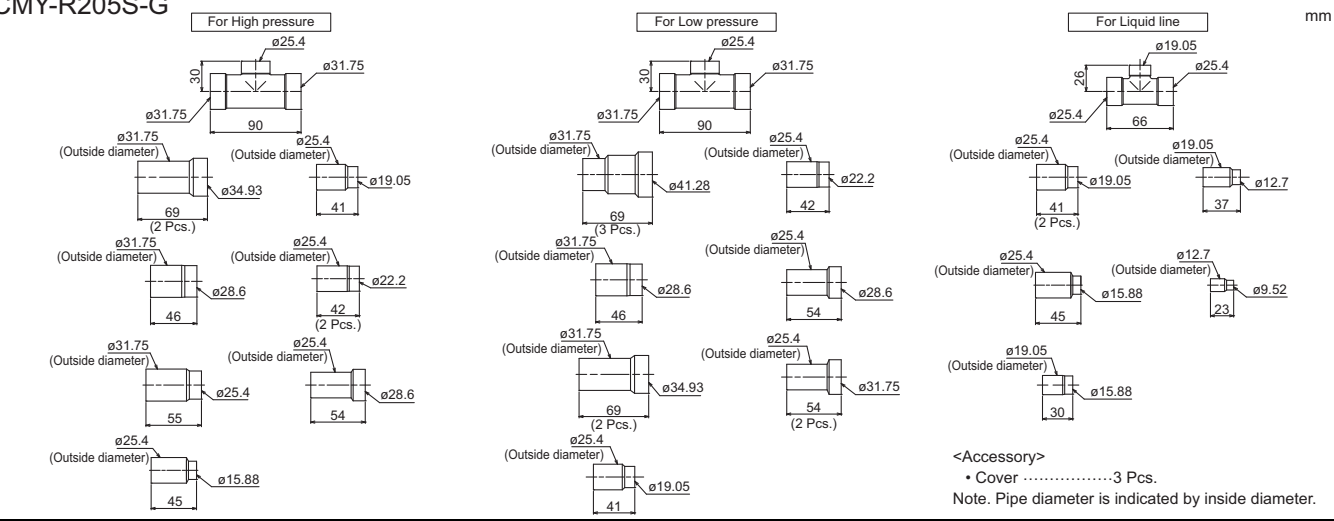
CMY-R204S-G

mm



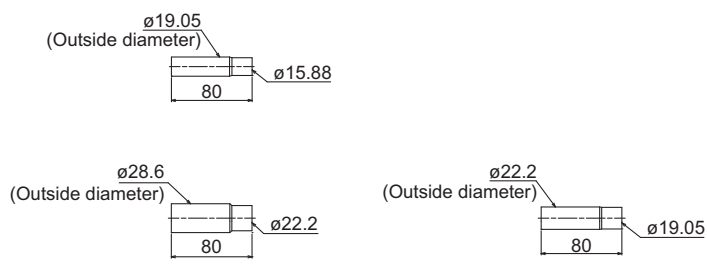
CMY-R205S-G

mm



CMY-R301S-G

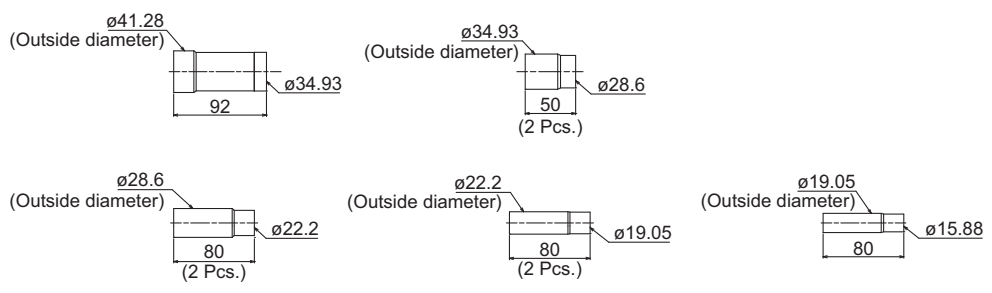
mm



Note. Pipe diameter is indicated by inside diameter.

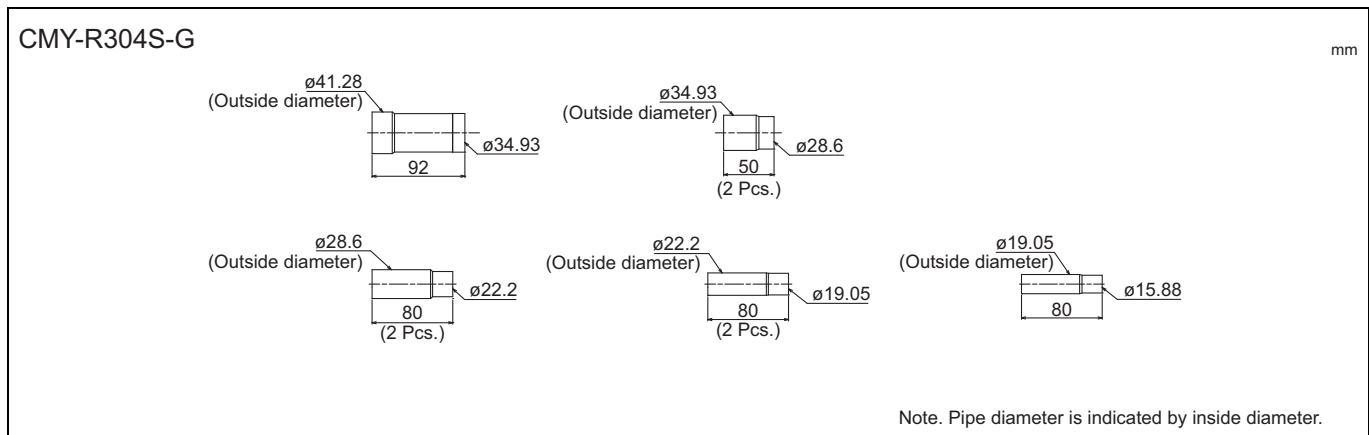
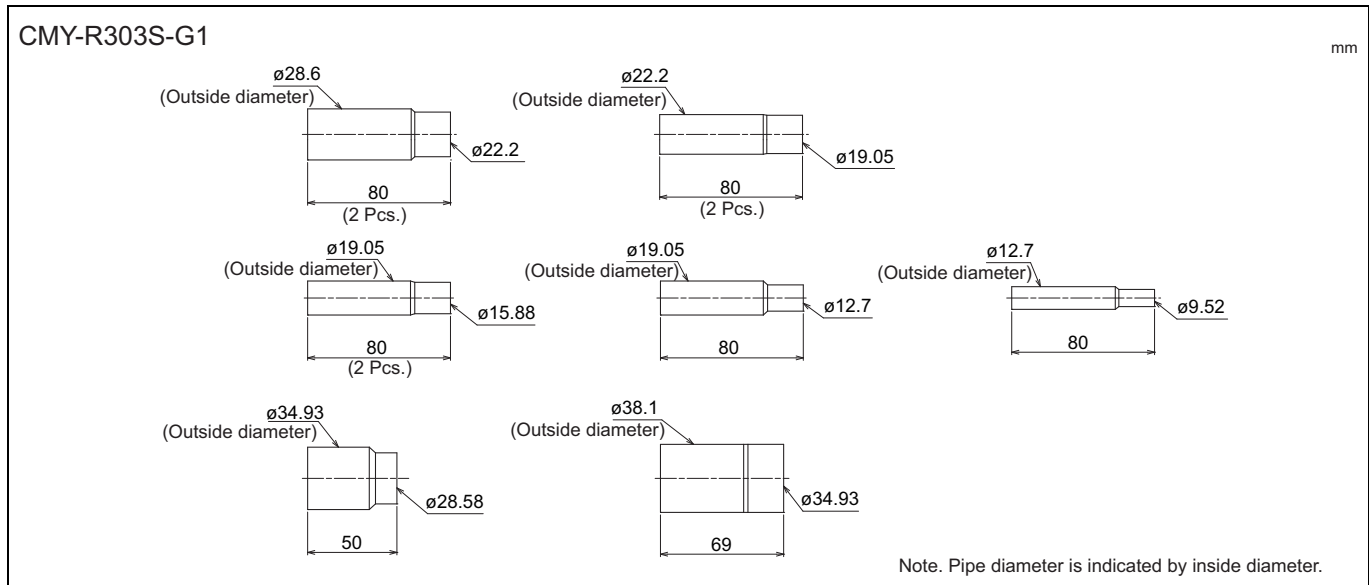
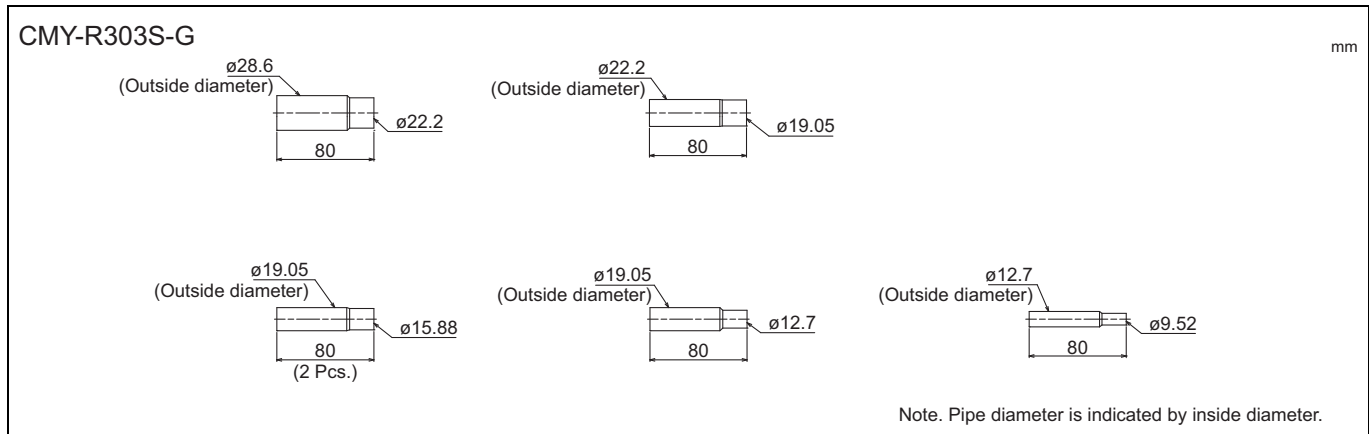
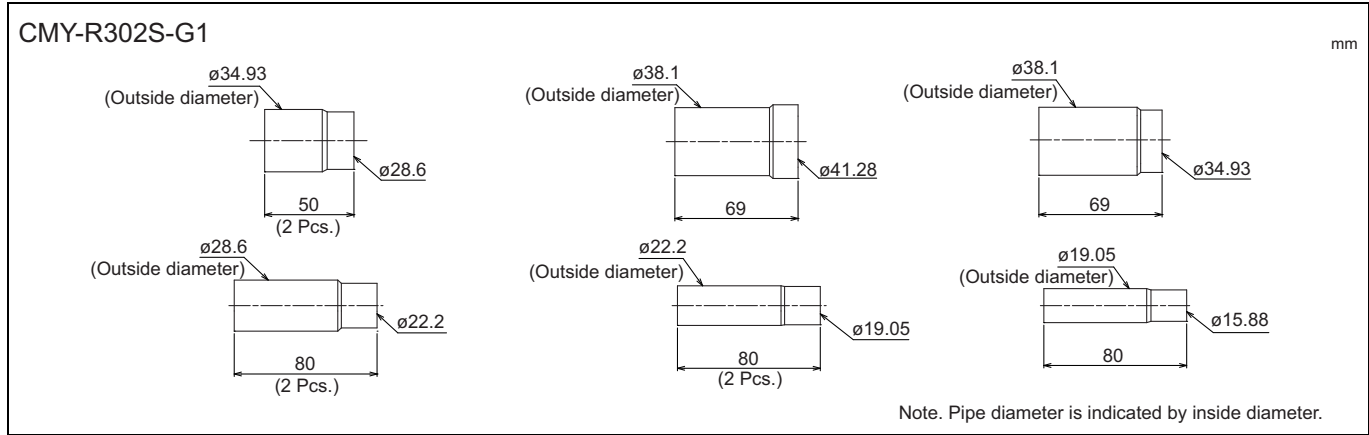
CMY-R302S-G

mm



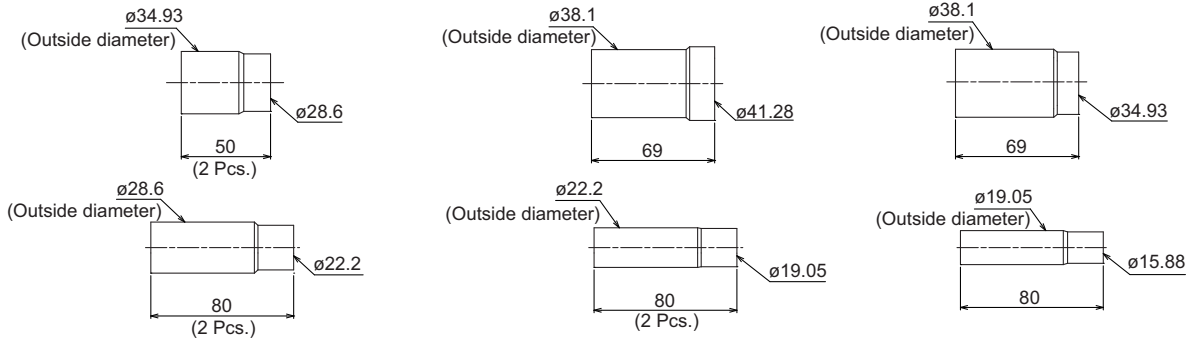
Note. Pipe diameter is indicated by inside diameter.

PURY-P-Y(S)NW-A2/TR2/RU2



CMY-R304S-G1

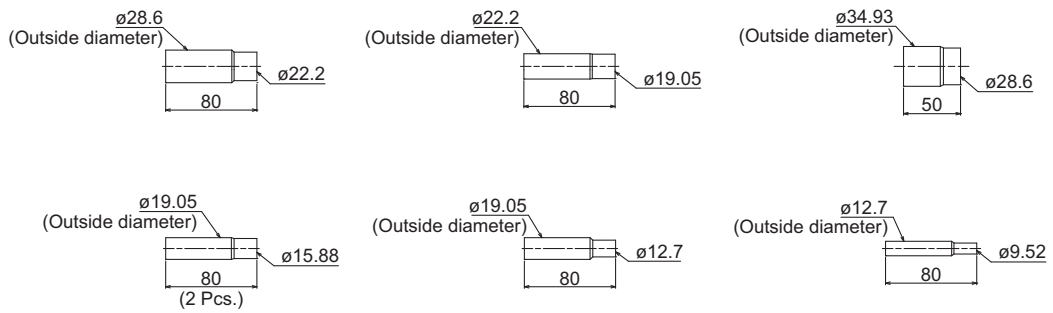
mm



Note. Pipe diameter is indicated by inside diameter.

CMY-R305S-G

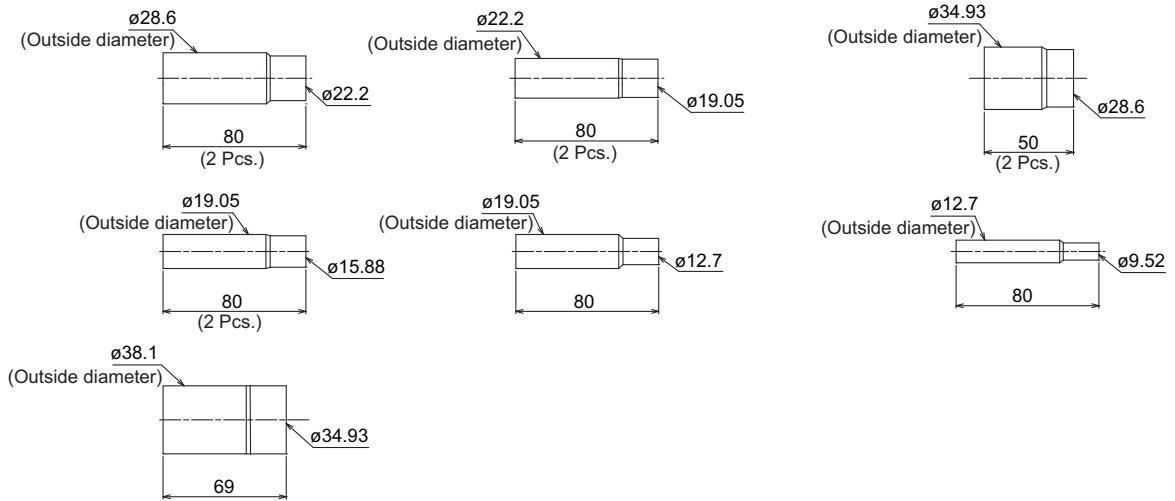
mm



Note. Pipe diameter is indicated by inside diameter.

CMY-R305S-G1

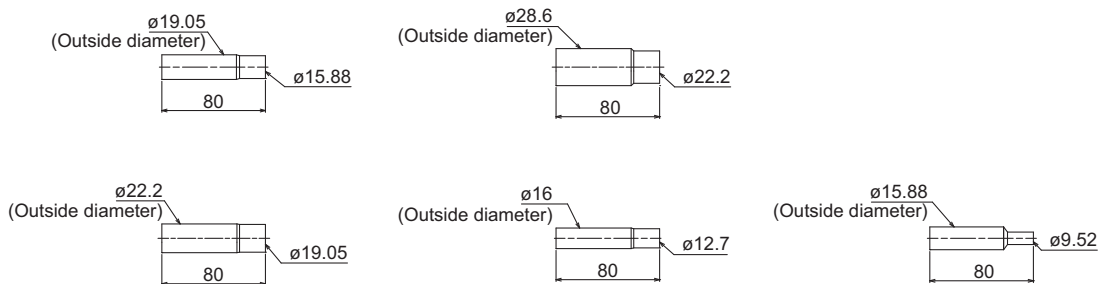
mm



Note. Pipe diameter is indicated by inside diameter.

CMY-R306S-G

mm



Note. Pipe diameter is indicated by inside diameter.

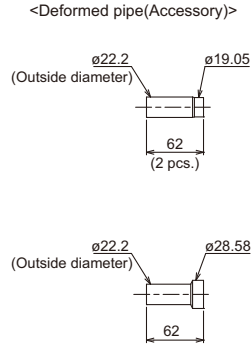
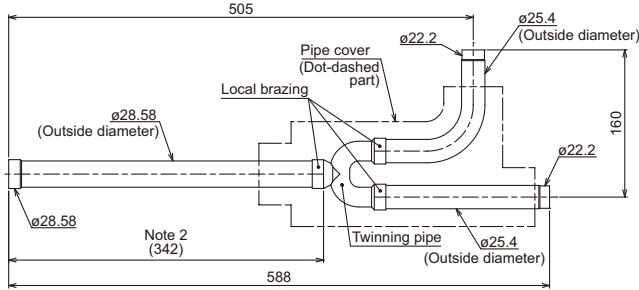
9-2. OUTDOOR TWINNING KIT

The following optional Outdoor Twinning Kit is needed to use to combine multiple refrigerant pipes. Refer to section "Piping Design" for the details of selecting a proper twinning kit.

PURY-P-Y(S)NW-A2/TR2/RU2

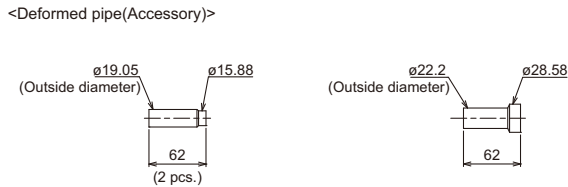
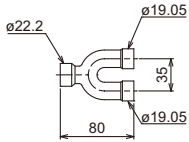
CMY-R100VBK4

Low-pressure twinning pipe



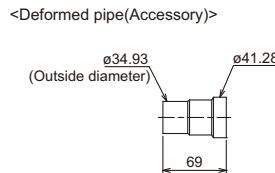
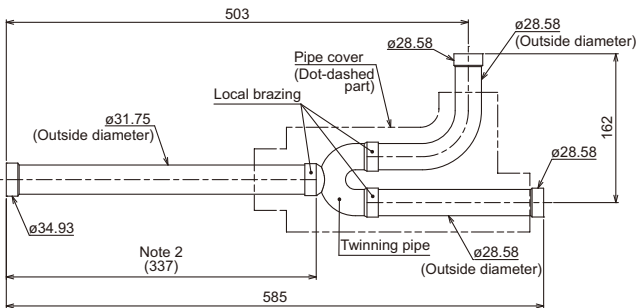
- Note 1. Refer to the figure below for the installation position of the twinning pipe.  
The Twinning pipe must be installed horizontally using a level vessel to avoid unit damage.
- 
2. Use the attached pipe to braze the port-opening of the twinning pipe.  
3. Pipe diameter is indicated by inside diameter.

High-pressure twinning pipe



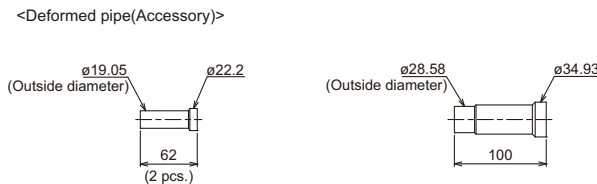
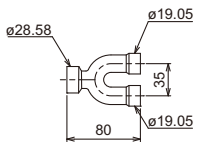
CMY-R200VBK4

Low-pressure twinning pipe

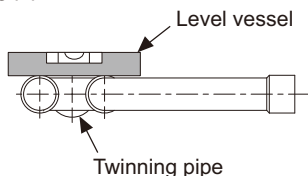


- Note 1. Refer to the figure below for the installation position of the twinning pipe.  
The Twinning pipe must be installed horizontally using a level vessel to avoid unit damage.
- 
2. Use the attached pipe to braze the port-opening of the twinning pipe.  
3. Pipe diameter is indicated by inside diameter.

High-pressure twinning pipe



- Note 1. Refer to the figure below for the installation position of the twinning pipe.  
The Twinning pipe must be installed horizontally using a level vessel to avoid unit damage.



2. Use the attached pipe to braze the port-opening of the twinning pipe.  
3. Pipe diameter is indicated by inside diameter.  
4. Only use the twinning pipe by Mitsubishi (optional parts).

9-3. JOINT KIT "CMY-R160-J1" FOR BC CONTROLLER

Joint kit "CMY-R160-J1" for BC controller is used to combine 2 ports of the BC controller at a PURY/PQRY system so as to enable down-stream Indoor capacity above P/M80 as shown in Fig. 1.

The Joint kit include following items:

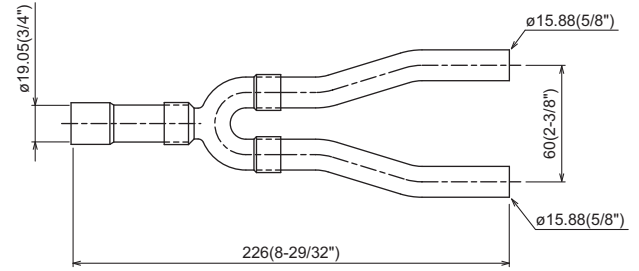
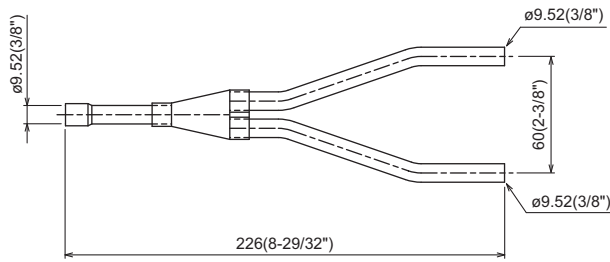
|                |                      |                      |           |                  |                     |        |                    |                     |
|----------------|----------------------|----------------------|-----------|------------------|---------------------|--------|--------------------|---------------------|
| ① Instruction  | ② Joint pipe (Small) | ③ Joint pipe (Large) | ④ Cover 1 | ⑤ Cover 2        | ⑥ Cover 3           | ⑦ Band | ⑧ Reducer 1        | ⑨ Reducer 2         |
|                |                      |                      |           |                  |                     |        |                    |                     |
| This sheet 1pc | 1pc                  | 1pc                  | 2pcs      | 1pc for gas side | 1pc for liquid side | 8pcs   | OD19.05-ID22.2 1pc | OD19.05-ID15.88 1pc |

Please prepare the following items in the field. ① Tape for insulation material sealing ② Extension pipe for refrigerant circuit

② Joint pipe (for liquid side)

③ Joint pipe (for gas side)

mm (in.)



1. Designing CMY-R160-J1 to a PURY/PQRY system

The maximum down-stream Indoor capacity for 1 port of BC controller is P/M80. When the down-stream Indoor capacity is above P/M80, Joint kit CMY-R160-J1 is needed to combined 2 ports of BC controller to enlarge the capacity, like Group 2 and 3 in Fig. 1.

Maximum 3 Indoor units are allowed to connect to 1 port of BC controller or 2 combined ports of BC controller using CMY-R160-J1.

When connecting Indoor units to 1 port of BC controller or 2 combined ports of BC controller using CMY-R160-J1 or CMY-Y102SS-G2 is applicable, like Group 1 and 2 in Fig. 1

Caution: Mixed cooling and heating mode at the same time for Indoor units connecting to 1 port or 2 combined ports is not available.

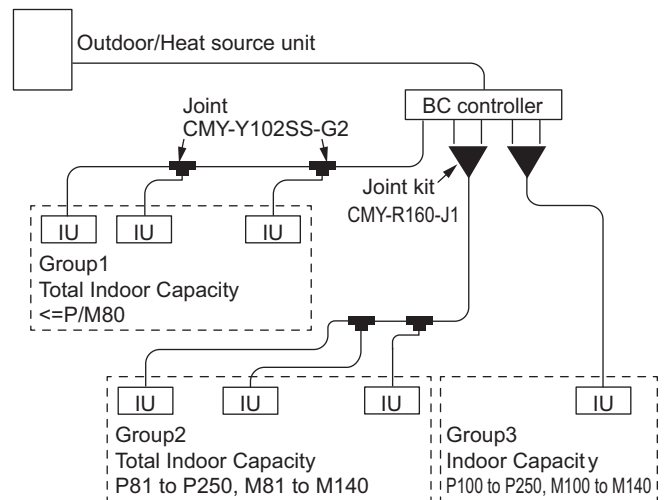


Fig.1. CMY-R160-J1 applying scheme

2. Piping at the installation site

The connection of CMY-R160-J1 to BC controller and pipe leading to Indoor units is referable to Fig. 2. Non-oxidized brazing is necessary. All piping must be careful to avoid foreign material getting inside.

After piping and air-tight testing, insulation work to the Joint and pipe should be done. Details is available at the Installation Manual.

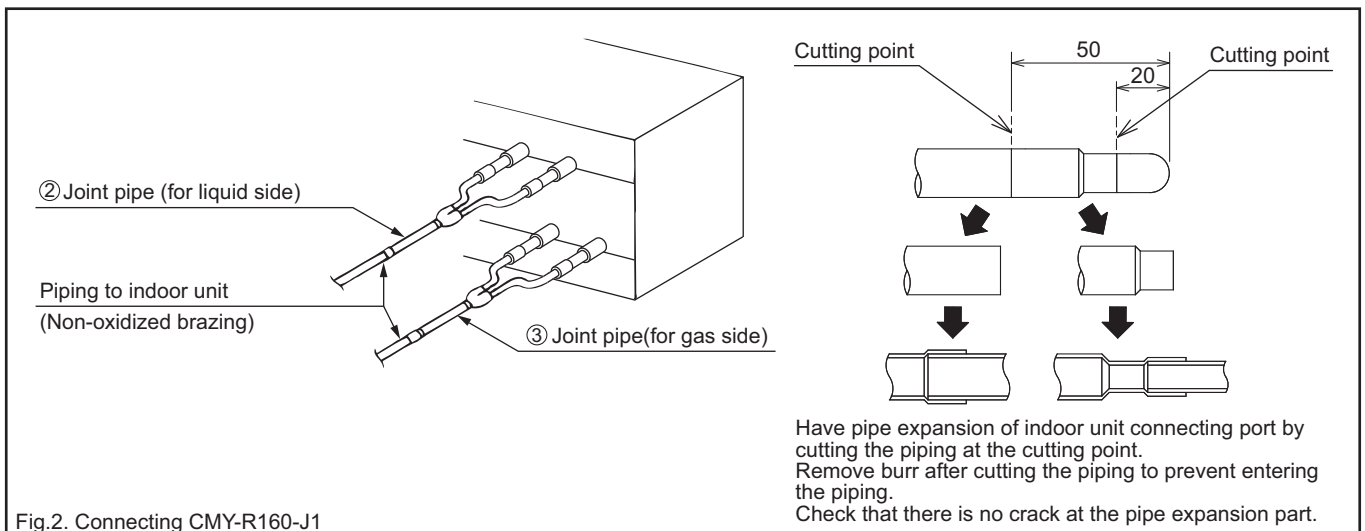


Fig.2. Connecting CMY-R160-J1

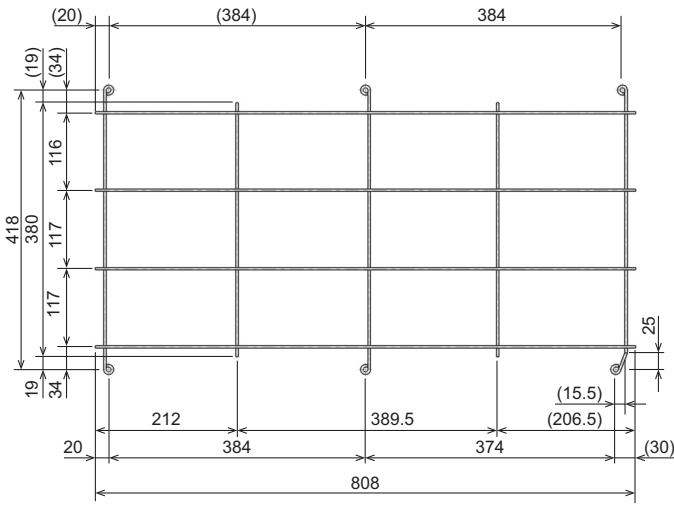
9-4. FIN GUARD

PURY-P-Y(S)NW-A2/TR2/RU2

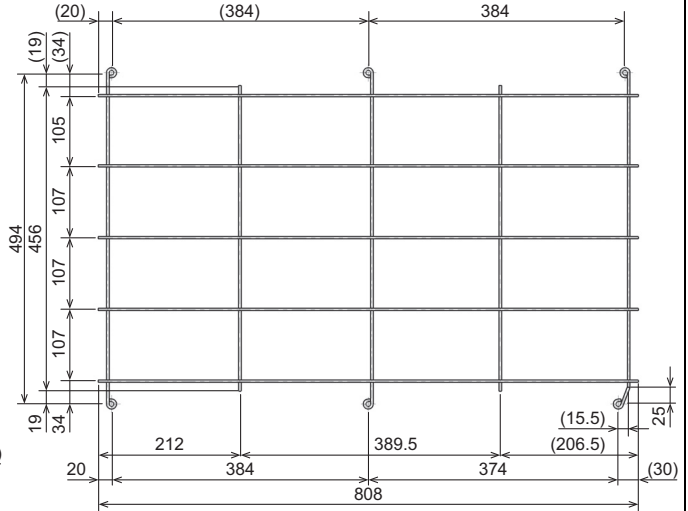
PAC-FG01S-E

For side surfaces of S and L modules (a set of two pieces)

■Left side of the unit



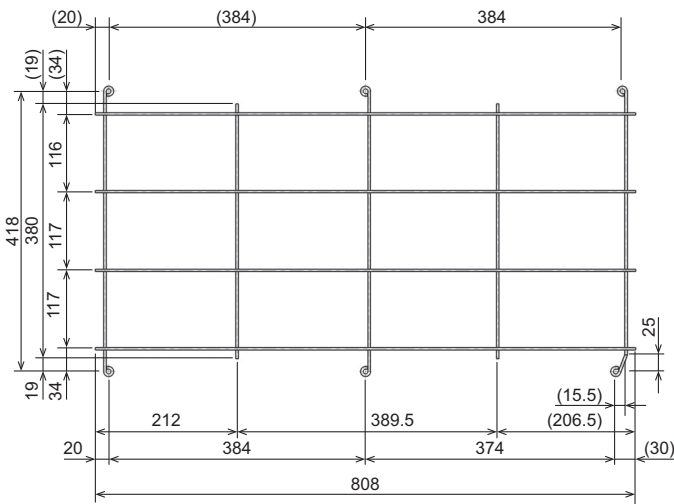
■Right side of the unit



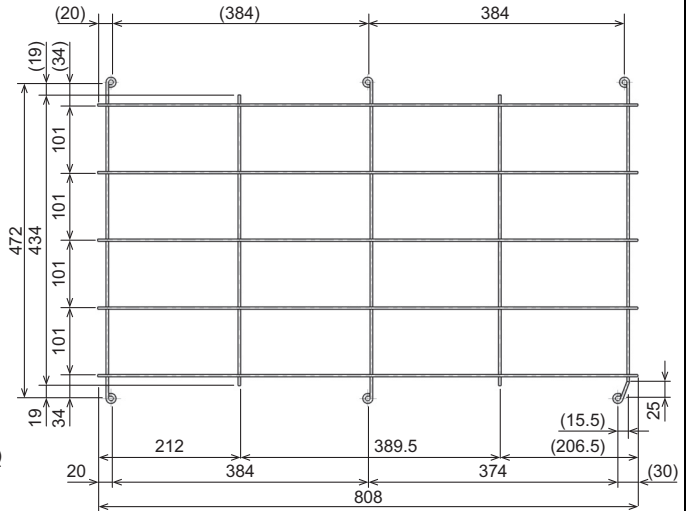
PAC-FG02S-E

For side surfaces of XL modules (a set of two pieces)

■Left side of the unit

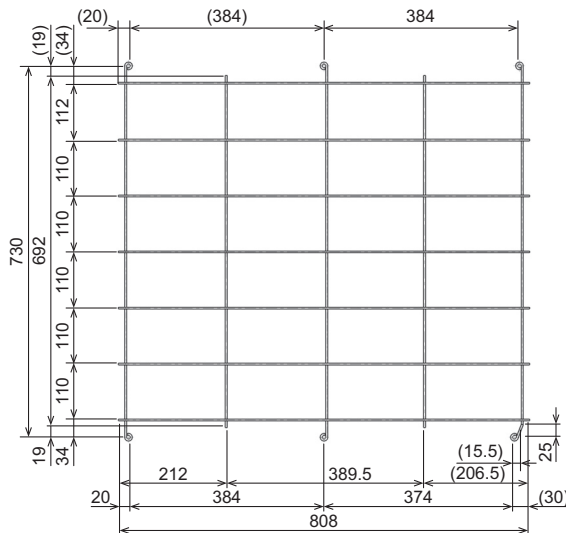


■Right side of the unit



PAC-FG01B-E

For rear surface of S module





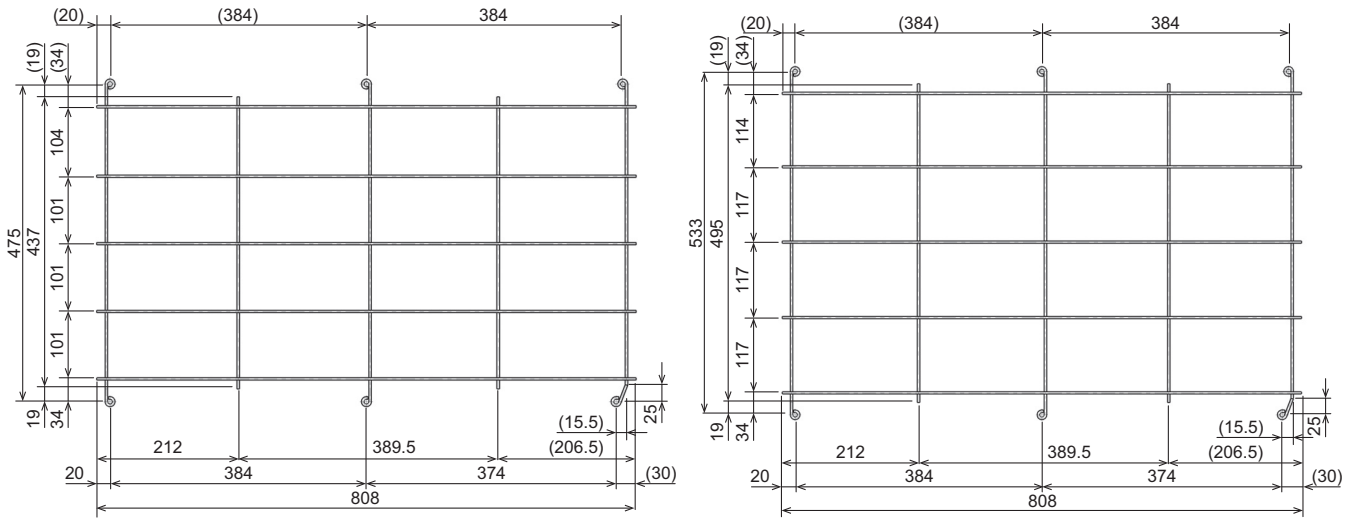
PAC-FG02B-E

For rear surface of L module (a set of two pieces)

mm

■ Behind the unit (left)

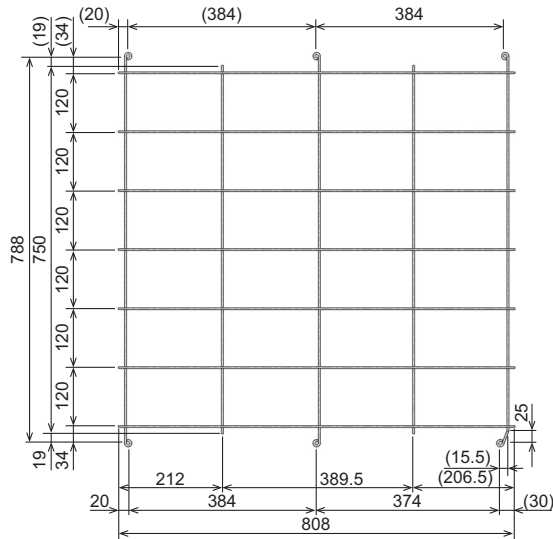
■ Behind the unit (right)



PAC-FG03B-E

For rear surface of XL module (a set of two pieces of the same type)

mm

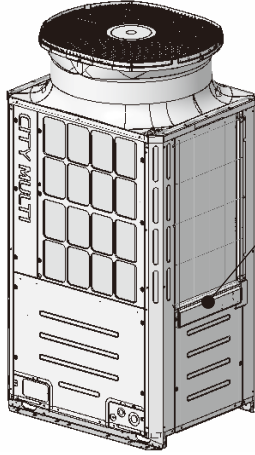


9-5. PANEL HEATER

If there is a risk that the drain water will freeze inside the outdoor unit, the installation of a panel heater is recommended. For details, refer to the panel heater Installation Manual.

PURY-P-Y(S)NW-A2/TR2/RU2

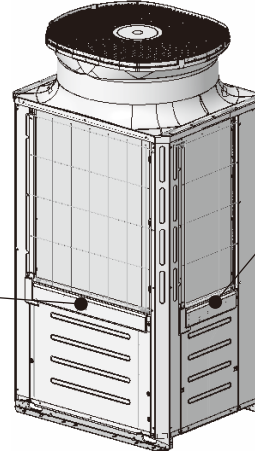
PAC-PH01EHY-E (for S module)



Front view

PANEL HEATER R

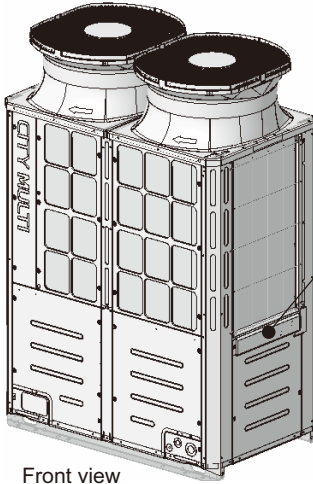
PANEL HEATER B



Rear view

PANEL HEATER L

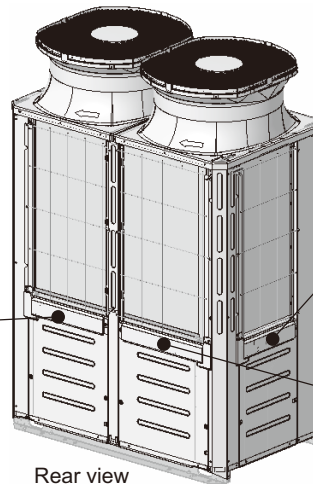
PAC-PH02EHY-E (for L module)



Front view

PANEL HEATER R

PANEL HEATER BR

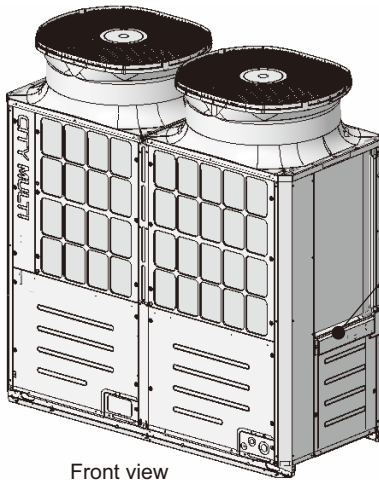


Rear view

PANEL HEATER L

PANEL HEATER BL

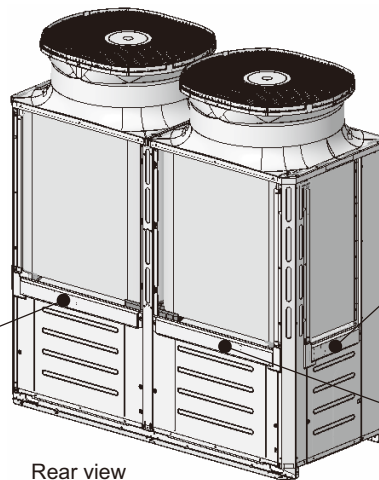
PAC-PH03EHY-E (for XL module)



Front view

PANEL HEATER R

PANEL HEATER BR



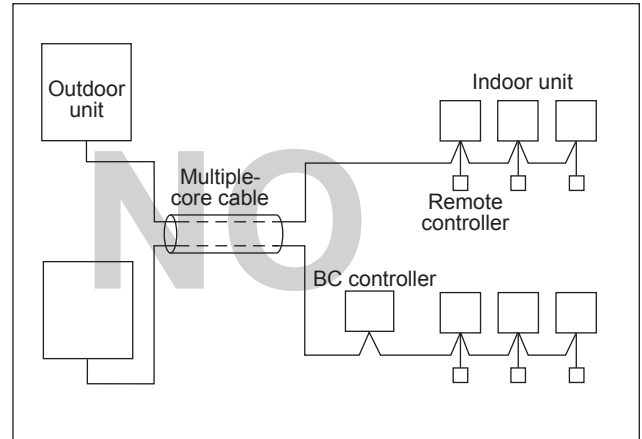
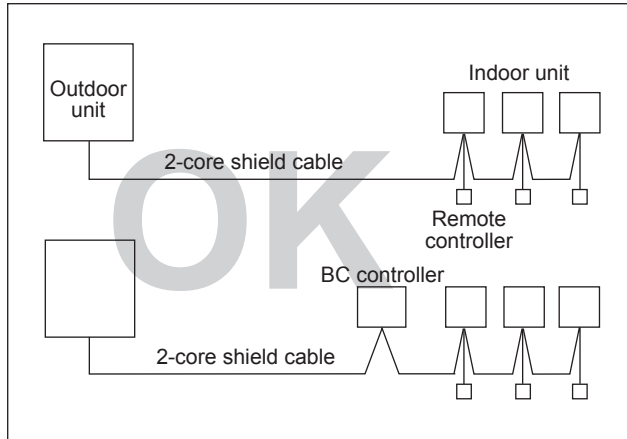
Rear view

PANEL HEATER L

PANEL HEATER BL

## 10-1. General cautions

- ① Follow ordinance of your governmental organization for technical standard related to electrical equipment, wiring regulations, and guidance of each electric power company.
- ② Wiring for control (hereinafter referred to as transmission cable) shall be (50mm[1-5/8in.] or more) apart from power source wiring so that it is not influenced by electric noise from power source wiring. (Do not insert transmission cable and power source wire in the same conduit.)
- ③ Be sure to provide designated grounding work to outdoor unit.
- ④ Give some allowance to wiring for electrical part box of indoor and outdoor units, because the box is sometimes removed at the time of service work.
- ⑤ Never connect 380~415V(220~240V) power source to terminal block of transmission cable. If connected, electrical parts will be damaged.
- ⑥ Use 2-core shield cable for transmission cable. If transmission cables of different systems are wired with the same multiple-core cable, the resultant poor transmitting and receiving will cause erroneous operations.
- ⑦ When extending the transmission line, make sure to extend the shield cable as well.



10-2. Power supply for Outdoor unit

10-2-1. Electrical characteristics of Outdoor unit at cooling mode

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

PURY-P-Y(S)NW-A2/TR2/RU2

| PURY-P-Y(S)NW-A2/TR2/RU2       | 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-P200YNW-A2/TR2/RU2(-BS)   | -                            | 50/60 | 380<br>400<br>415 | Max:456V<br>Min:342V | 16.1         | 5.0            | 8              | 0.92        | 11.2/10.7/10.3  | 11.4/10.8/10.4 |
| PURY-P250YNW-A2/TR2/RU2(-BS)   | -                            |       |                   |                      | 21.4         | 8.0            | 8              | 0.92        | 17.3/16.4/15.8  | 16.1/15.3/14.7 |
| PURY-P300YNW-A2/TR2/RU2(-BS)   | -                            |       |                   |                      | 23.4         | 9.2            | 8              | 0.92        | 19.8/18.8/18.1  | 16.2/15.4/14.8 |
| PURY-P350YNW-A2/TR2/RU2(-BS)   | -                            |       |                   |                      | 27.6         | 12.0           | 8              | 0.46+0.46   | 25.1/23.9/23.0  | 23.4/22.2/21.4 |
| PURY-P400YNW-A2/TR2/RU2(-BS)   | -                            |       |                   |                      | 35.1         | 16.1           | 8              | 0.46+0.46   | 33.1/31.5/30.3  | 28.1/26.7/25.7 |
| PURY-P450YNW-A2/TR2/RU2(-BS)   | -                            |       |                   |                      | 39.0         | 16.2           | 8              | 0.46+0.46   | 33.4/31.8/30.6  | 31.7/30.1/29.0 |
| PURY-P500YNW-A2/TR2/RU2(-BS)   | -                            |       |                   |                      | 43.2         | 17.4           | 8              | 0.92+0.92   | 37.5/35.6/34.3  | 35.6/33.9/32.6 |
| PURY-P550YNW-A2/TR2/RU2(-BS)   | -                            |       |                   |                      | 51.4         | 20.5           | 8              | 0.92+0.92   | 43.6/41.4/39.9  | 41.4/39.3/37.9 |
| PURY-P400YSNW-A2/TR2/RU2(-BS)  | PURY-P200YNW-A2/TR2/RU2(-BS) |       |                   |                      | 16.1         | 5.0            | 8              | 0.92        | 23.2/22.0/21.3  | 23.6/22.4/21.6 |
|                                | PURY-P200YNW-A2/TR2/RU2(-BS) |       |                   |                      | 16.1         | 5.0            | 8              | 0.92        |                 |                |
| PURY-P450YSNW-A2/TR2/RU2(-BS)  | PURY-P250YNW-A2/TR2/RU2(-BS) |       |                   |                      | 21.4         | 8.0            | 8              | 0.92        | 28.8/27.3/26.4  | 28.2/26.7/25.8 |
|                                | PURY-P200YNW-A2/TR2/RU2(-BS) |       |                   |                      | 16.1         | 5.0            | 8              | 0.92        |                 |                |
| PURY-P500YSNW-A2/TR2/RU2(-BS)  | PURY-P250YNW-A2/TR2/RU2(-BS) |       |                   |                      | 21.4         | 8.0            | 8              | 0.92        | 35.6/33.8/32.6  | 33.3/31.6/30.5 |
|                                | PURY-P250YNW-A2/TR2/RU2(-BS) |       |                   |                      | 21.4         | 8.0            | 8              | 0.92        |                 |                |
| PURY-P550YSNW-A2/TR2/RU2(-BS)  | PURY-P300YNW-A2/TR2/RU2(-BS) |       |                   |                      | 23.4         | 9.2            | 8              | 0.92        | 38.3/36.3/35.0  | 33.4/31.7/30.6 |
|                                | PURY-P250YNW-A2/TR2/RU2(-BS) |       |                   |                      | 21.4         | 8.0            | 8              | 0.92        |                 |                |
| PURY-P600YSNW-A2/TR2/RU2(-BS)  | PURY-P300YNW-A2/TR2/RU2(-BS) |       |                   |                      | 23.4         | 9.2            | 8              | 0.92        | 40.9/38.9/37.5  | 33.4/31.7/30.6 |
|                                | PURY-P300YNW-A2/TR2/RU2(-BS) |       |                   |                      | 23.4         | 9.2            | 8              | 0.92        |                 |                |
| PURY-P650YSNW-A2/TR2/RU2(-BS)  | PURY-P350YNW-A2/TR2/RU2(-BS) |       |                   |                      | 27.6         | 12.0           | 8              | 0.46+0.46   | 46.2/43.9/42.3  | 40.6/38.6/37.2 |
|                                | PURY-P300YNW-A2/TR2/RU2(-BS) |       |                   |                      | 23.4         | 9.2            | 8              | 0.92        |                 |                |
| PURY-P700YSNW-A2/TR2/RU2(-BS)  | PURY-P350YNW-A2/TR2/RU2(-BS) |       |                   |                      | 27.6         | 12.0           | 8              | 0.46+0.46   | 51.9/49.3/47.5  | 48.3/45.9/44.3 |
|                                | PURY-P350YNW-A2/TR2/RU2(-BS) |       |                   |                      | 27.6         | 12.0           | 8              | 0.46+0.46   |                 |                |
| PURY-P750YSNW-A2/TR2/RU2(-BS)  | PURY-P400YNW-A2/TR2/RU2(-BS) |       |                   |                      | 35.1         | 16.1           | 8              | 0.46+0.46   | 59.5/56.5/54.5  | 52.9/50.2/48.4 |
|                                | PURY-P350YNW-A2/TR2/RU2(-BS) |       |                   |                      | 27.6         | 12.0           | 8              | 0.46+0.46   |                 |                |
| PURY-P800YSNW-A2/TR2/RU2(-BS)  | PURY-P400YNW-A2/TR2/RU2(-BS) |       |                   |                      | 35.1         | 16.1           | 8              | 0.46+0.46   | 68.4/65.0/62.6  | 58.0/55.1/53.1 |
|                                | PURY-P400YNW-A2/TR2/RU2(-BS) |       |                   |                      | 35.1         | 16.1           | 8              | 0.46+0.46   |                 |                |
| PURY-P850YSNW-A2/TR2/RU2(-BS)  | PURY-P450YNW-A2/TR2/RU2(-BS) |       |                   |                      | 39.0         | 16.2           | 8              | 0.46+0.46   | 68.8/65.3/63.0  | 61.7/58.6/56.4 |
|                                | PURY-P400YNW-A2/TR2/RU2(-BS) |       |                   |                      | 35.1         | 16.1           | 8              | 0.46+0.46   |                 |                |
| PURY-P900YSNW-A2/TR2/RU2(-BS)  | PURY-P450YNW-A2/TR2/RU2(-BS) |       |                   |                      | 39.0         | 16.2           | 8              | 0.46+0.46   | 69.1/65.7/63.3  | 65.4/62.1/59.8 |
|                                | PURY-P450YNW-A2/TR2/RU2(-BS) |       |                   |                      | 39.0         | 16.2           | 8              | 0.46+0.46   |                 |                |
| PURY-P950YSNW-A2/TR2/RU2(-BS)  | PURY-P500YNW-A2/TR2/RU2(-BS) |       |                   |                      | 43.2         | 17.4           | 8              | 0.92+0.92   | 73.3/69.6/67.1  | 69.5/66.0/63.6 |
|                                | PURY-P450YNW-A2/TR2/RU2(-BS) |       |                   |                      | 39.0         | 16.2           | 8              | 0.46+0.46   |                 |                |
| PURY-P1000YSNW-A2/TR2/RU2(-BS) | PURY-P500YNW-A2/TR2/RU2(-BS) | 43.2  | 17.4              | 8                    | 0.92+0.92    | 77.4/73.6/70.9 | 73.5/69.9/67.3 |             |                 |                |
|                                | PURY-P500YNW-A2/TR2/RU2(-BS) | 43.2  | 17.4              | 8                    | 0.92+0.92    |                |                |             |                 |                |
| PURY-P1050YSNW-A2/TR2/RU2(-BS) | PURY-P550YNW-A2/TR2/RU2(-BS) | 51.4  | 20.5              | 8                    | 0.92+0.92    | 83.3/79.1/76.2 | 79.2/75.3/72.6 |             |                 |                |
|                                | PURY-P500YNW-A2/TR2/RU2(-BS) | 43.2  | 17.4              | 8                    | 0.92+0.92    |                |                |             |                 |                |
| PURY-P1100YSNW-A2/TR2/RU2(-BS) | PURY-P550YNW-A2/TR2/RU2(-BS) | 51.4  | 20.5              | 8                    | 0.92+0.92    | 90.0/85.5/82.4 | 85.3/81.0/78.1 |             |                 |                |
|                                | PURY-P550YNW-A2/TR2/RU2(-BS) | 51.4  | 20.5              | 8                    | 0.92+0.92    |                |                |             |                 |                |

## 10-3. Power cable specifications

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

|              | Model                   | Minimum wire thickness (mm <sup>2</sup> ) |        |        | Ground-fault interrupter *1 | Local switch (A) |      | Breaker for wiring (A)<br>(Non-fuse breaker) | Max. Permissive<br>System Impedance |
|--------------|-------------------------|---|--------|--------|-----------------------------|------------------|------|--|-------------------------------------|
|              |                         | Main cable                                | Branch | Ground |                             | Capacity         | Fuse |  |                                     |
| Outdoor unit | PURY-P200YNW-A2/TR2/RU2 | 4.0                                       | -      | 4.0    | 30A 100mA 0.1sec. or less   | 25               | 25   | 30   | *2                                  |
|              | PURY-P250YNW-A2/TR2/RU2 | 4.0                                       | -      | 4.0    | 30A 100mA 0.1sec. or less   | 32               | 32   | 30   | *2                                  |
|              | PURY-P300YNW-A2/TR2/RU2 | 4.0                                       | -      | 4.0    | 30A 100mA 0.1sec. or less   | 32               | 32   | 30   | *2                                  |
|              | PURY-P350YNW-A2/TR2/RU2 | 6.0                                       | -      | 6.0    | 40A 100mA 0.1sec. or less   | 40               | 40   | 40   | 0.26Ω                               |
|              | PURY-P400YNW-A2/TR2/RU2 | 10.0                                      | -      | 10.0   | 60A 100mA 0.1sec. or less   | 63               | 63   | 60   | 0.20Ω                               |
|              | PURY-P450YNW-A2/TR2/RU2 | 10.0                                      | -      | 10.0   | 60A 100mA 0.1sec. or less   | 63               | 63   | 60   | 0.18Ω                               |
|              | PURY-P500YNW-A2/TR2/RU2 | 10.0                                      | -      | 10.0   | 60A 100mA 0.1sec. or less   | 63               | 63   | 60   | 0.16Ω                               |
|              | PURY-P550YNW-A2/TR2/RU2 | 10.0                                      | -      | 10.0   | 60A 100mA 0.1sec. or less   | 63               | 63   | 60   | 0.14Ω                               |

\*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

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.
7. For details on indoor unit wiring and breaker for current leakage, refer to the indoor unit Instruction Book and Installation Manual.

**⚠ 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  $S_{sc}$  is greater than or equal to  $S_{sc}(*2)$  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  $S_{sc}$  greater than or equal to  $S_{sc}(*2)$ .

$S_{sc}(*2)$

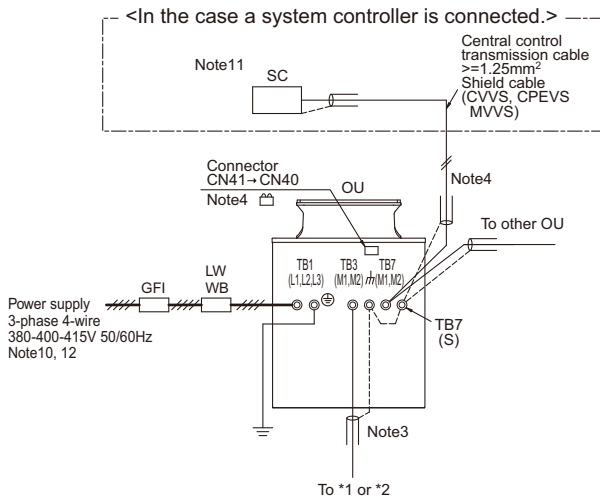
| Model          | PURY-P200YNW<br>-A2/TR2/RU2 | PURY-P250YNW<br>-A2/TR2/RU2 | PURY-P300YNW<br>-A2/TR2/RU2 | PURY-P350YNW<br>-A2/TR2/RU2 | PURY-P400YNW<br>-A2/TR2/RU2 | PURY-P450YNW<br>-A2/TR2/RU2 | PURY-P500YNW<br>-A2/TR2/RU2 | PURY-P550YNW<br>-A2/TR2/RU2 |
|----------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|
| $S_{sc}$ (MVA) | 1.25                        | 1.66                        | 1.82                        | 2.14                        | 2.72                        | 3.03                        | 3.35                        | 3.99                        |

10-4. Power supply examples

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

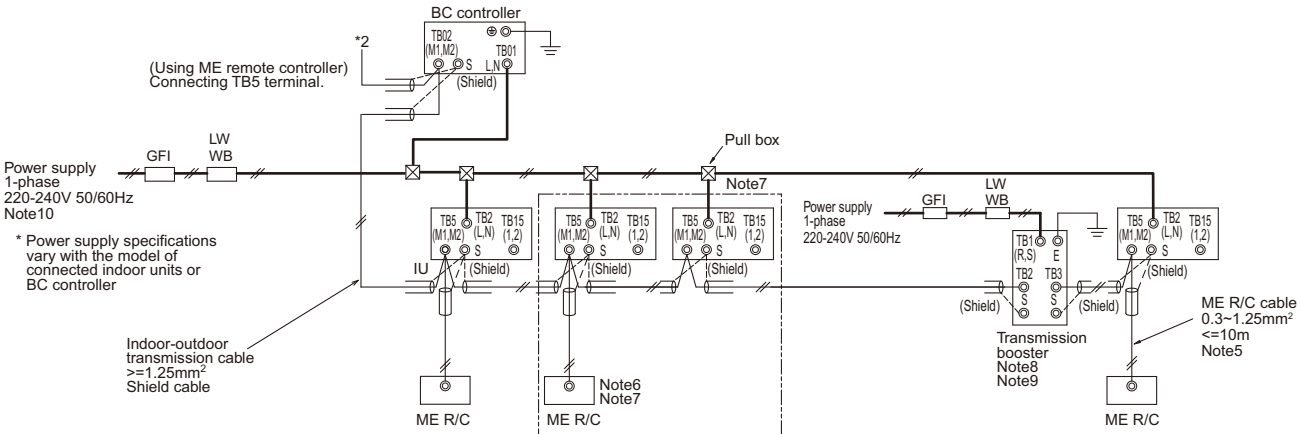
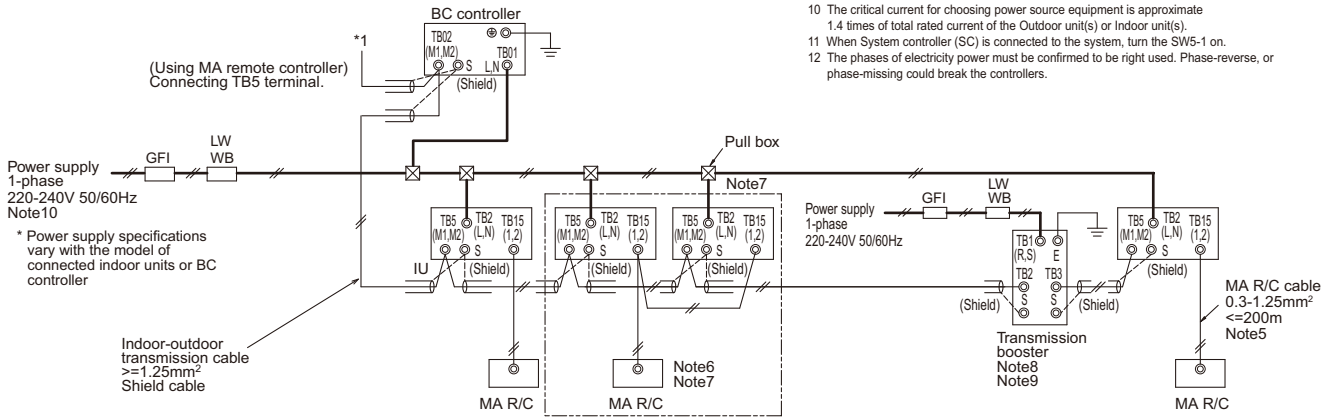
10-4-1. PURY-P200, 250, 300, 350, 400, 450, 500, 550YNW-A2/TR2/RU2

PURY-P-Y(S)NW-A2/TR2/RU2



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-4XMAA ("X" represents 0 or later) 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 11-4. "Address setting".
- 8 Indoor board consumes power from TB3. The power balance should be considered according to System Design 11-3. "System configuration restrictions".
- 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 | Model                   | Ground-fault interrupter<br>*1, *2, *4 | Local switch |                  | Wiring breaker *4<br>(NFB) | Minimum Wire thickness |                     |
|--------|-------------------------|--|--------------|------------------|----------------------------|------------------------|---------------------|
|        |                         |  | BKC<br><A>   | OCP*3, *4<br><A> |                            | Power wire<br><mm²>    | Earth wire<br><mm²> |
| GFI    | PURY-P200YNW-A2/TR2/RU2 | 30A 100mA 0.1sec. or less              | 25           | 25               | 30                         | 4                      | 4                   |
| LW     | PURY-P250YNW-A2/TR2/RU2 | 30A 100mA 0.1sec. or less              | 32           | 32               | 30                         | 4                      | 4                   |
| BKC    | PURY-P300YNW-A2/TR2/RU2 | 30A 100mA 0.1sec. or less              | 32           | 32               | 30                         | 4                      | 4                   |
| OCP    | PURY-P350YNW-A2/TR2/RU2 | 40A 100mA 0.1sec. or less              | 40           | 40               | 40                         | 6                      | 6                   |
| WB     | PURY-P400YNW-A2/TR2/RU2 | 60A 100mA 0.1sec. or less              | 63           | 63               | 60                         | 10                     | 10                  |
| NFB    | PURY-P450YNW-A2/TR2/RU2 | 60A 100mA 0.1sec. or less              | 63           | 63               | 60                         | 10                     | 10                  |
| OU     | PURY-P500YNW-A2/TR2/RU2 | 60A 100mA 0.1sec. or less              | 63           | 63               | 60                         | 10                     | 10                  |
| IU     | PURY-P550YNW-A2/TR2/RU2 | 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.

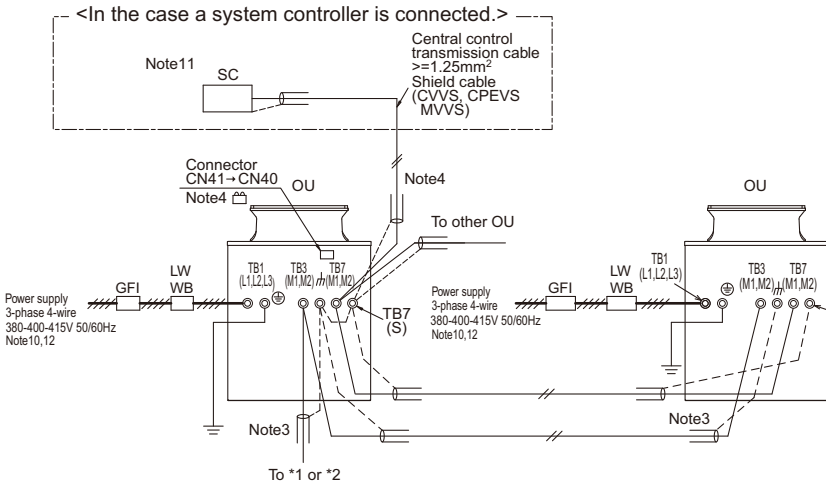
\*3 It shows data for B-type fuse of the breaker for current leakage.

\*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.

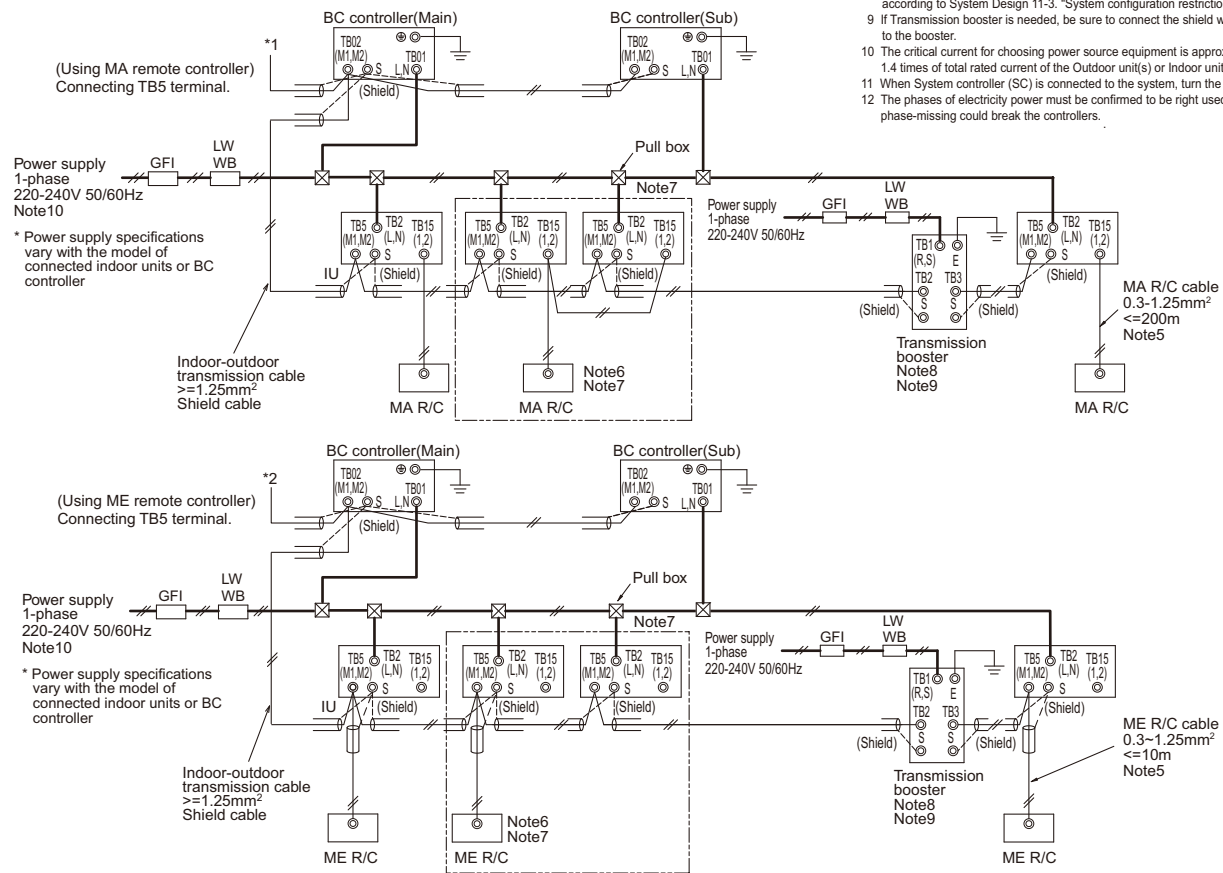
Depending on the importance of the system, separate the power supply system or take protective coordination of breakers.



The local standards and/or regulations is applicable at a higher priority.  
 10-4-2. PURY-P400, 450, 500, 550, 600, 650, 700, 750, 800, 850, 900, 950, 1000, 1050, 1100YSNW-A2/TR2/RU2



- Note:
- The transmission cable is not-polarity double-wire.
  - Symbol © means a screw terminal for wiring.
  - 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.
  - 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.
  - 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 extended using a M-NET cable (>=1.25mm²) when the length is counted in the M-Net length.
  - MA remote controller and ME remote controller should not be grouped together. When a PAR-CT01MA or PAR-4XMAA ("X" represents 0 or later) is connected to a group, no other MA remote controllers can be connected to the same group.
  - 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 11-4. "Address setting".
  - Indoor board consumes power from TB3. The power balance should be considered according to System Design 11-3. "System configuration restrictions".
  - If Transmission booster is needed, be sure to connect the shield wires to the both sides to the booster.
  - 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).
  - When System controller (SC) is connected to the system, turn the SW5-1 on.
  - The phases of electricity power must be confirmed to be right used. Phase-reverse, or phase-missing could break the controllers.



| Symbol | Model                    | Ground-fault interrupter<br>*1, *2, *4 | Local switch              |                  | Wiring breaker *4<br>(NFB)<br><A> | Minimum Wire thickness |                     |    |
|--------|--------------------------|--|---------------------------|------------------|-----------------------------------|------------------------|---------------------|----|
|        |                          |  | BKC<br><A>                | OCP*3, *4<br><A> |                                   | Power wire<br><mm²>    | Earth wire<br><mm²> |    |
| GFI    | Ground-fault interrupter | PURY-P200YNW-A2/TR2/RU2                | 30A 100mA 0.1sec. or less | 25               | 25                                | 30                     | 4                   | 4  |
| LW     | Local switch             | PURY-P250YNW-A2/TR2/RU2                | 30A 100mA 0.1sec. or less | 32               | 32                                | 30                     | 4                   | 4  |
| BKC    | Breaker capacity         | PURY-P300YNW-A2/TR2/RU2                | 30A 100mA 0.1sec. or less | 32               | 32                                | 30                     | 4                   | 4  |
| OCP    | Over-current protector   | PURY-P350YNW-A2/TR2/RU2                | 40A 100mA 0.1sec. or less | 40               | 40                                | 40                     | 6                   | 6  |
| WB     | Wiring breaker           | PURY-P400YNW-A2/TR2/RU2                | 60A 100mA 0.1sec. or less | 63               | 63                                | 60                     | 10                  | 10 |
| NFB    | Non-fuse breaker         | PURY-P450YNW-A2/TR2/RU2                | 60A 100mA 0.1sec. or less | 63               | 63                                | 60                     | 10                  | 10 |
| OU     | Outdoor unit             | PURY-P500YNW-A2/TR2/RU2                | 60A 100mA 0.1sec. or less | 63               | 63                                | 60                     | 10                  | 10 |
| IU     | Indoor unit              | PURY-P550YNW-A2/TR2/RU2                | 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.

PURY-P-Y(S)NW-A2/TR2/RU2

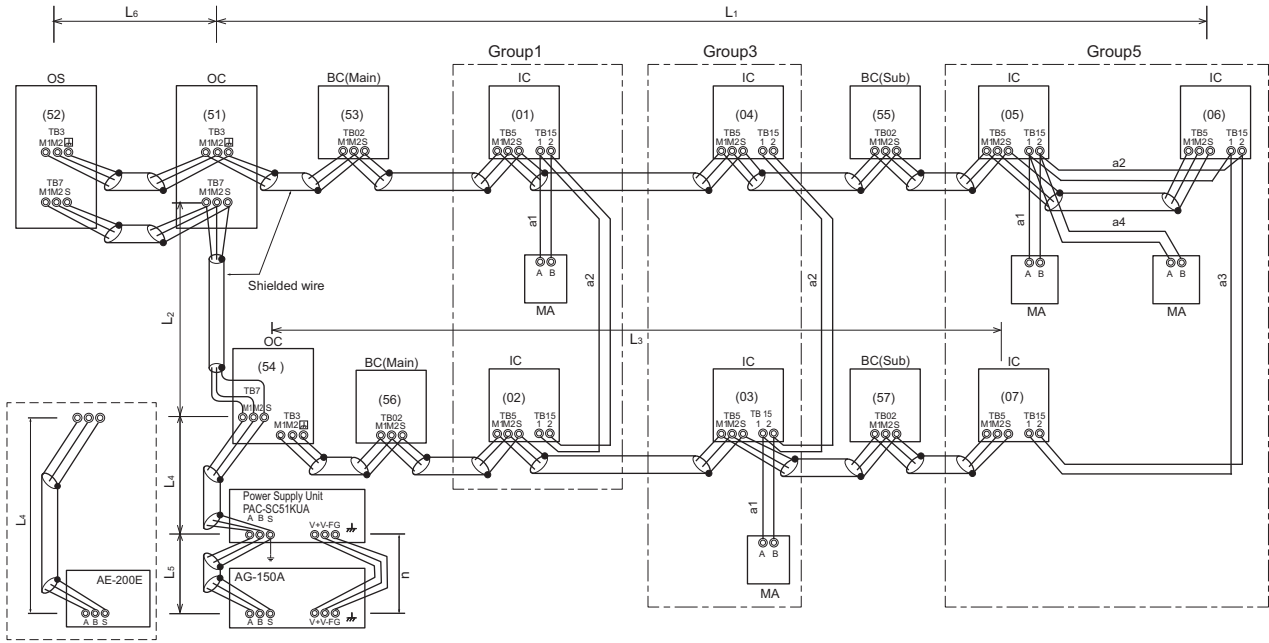
### 11-1. Transmission cable length limitation

#### 11-1-1. Using MA Remote controller

Long transmission cable causes voltage down, therefore, the length limitation should be obeyed to secure proper transmission.

|  |  |  |  |
|--|--|--|--|
| Max. length via Outdoor (M-NET cable)        | $L1+L2+L3, L1+L2+L4+L5, L3+L4+L5, L6+L2+L3, L6+L2+L4+L5$ | $\leq 500\text{m}(1000\text{m}^*1)[1640\text{ft.}(3280\text{ft.}^*1)]$ | 1.25mm <sup>2</sup> [AWG16] or thicker |
| Max. length to Outdoor (M-NET cable)         | $L1+L6, L3, L2+L4+L6, L5$                                | $\leq 200\text{m}[656\text{ft.}]$                                      | 1.25mm <sup>2</sup> [AWG16] or thicker |
| Max. length from MA to Indoor for each group | $a1+a2, a1+a2+a3+a4$                                     | $\leq 200\text{m}[656\text{ft.}]$                                      | 0.3-1.25 mm <sup>2</sup> [AWG22-16]    |
| 24VDC to AG-150A                             | n  | $\leq 50\text{m}[164\text{ft.}]$                                       | 0.75-2.0 mm <sup>2</sup> [AWG18-14]    |

\*1 When the wiring length exceeds 500 m (1640 ft), consult the sales office.



OC, OS: Outdoor unit controller; IC: Indoor unit controller; MA: MA remote controller

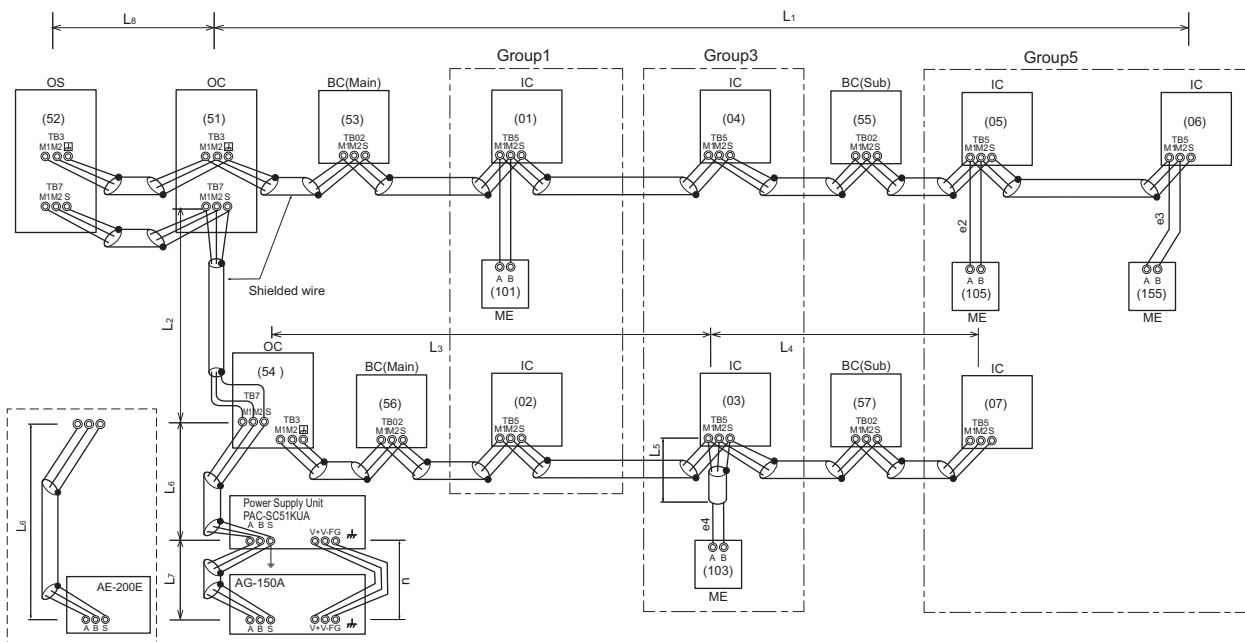
#### 11-1-2. Using ME Remote controller

Long transmission cable causes voltage down, therefore, the length limitation should be obeyed to secure proper transmission.

|                                       |  |  |  |
|---------------------------------------|--|--|--|
| Max. length via Outdoor (M-NET cable) | $L1+L2+L3+L4, L1+L2+L6+L7, L1+L2+L3+L5, L3+L4+L6+L7, L8+L2+L3+L4, L8+L2+L3+L5, L8+L2+L6+L7, L3+L5+L6+L7$ | $\leq 500\text{m}(1000\text{m}^*1)[1640\text{ft.}(3280\text{ft.}^*1)]$ | 1.25mm <sup>2</sup> [AWG16] or thicker |
| Max. length to Outdoor (M-NET cable)  | $L1+L8, L3+L4, L2+L6+L8, L7, L3+L5$  | $\leq 200\text{m}[656\text{ft.}]$                                      | 1.25mm <sup>2</sup> [AWG16] or thicker |
| Max. length from ME to Indoor         | $e1, e2, e3, e4$   | $\leq 10\text{m}[32\text{ft.}]^*2$                                     | 0.3-1.25 mm <sup>2</sup> [AWG22-16] *2 |
| 24VDC to AG-150A                      | n  | $\leq 50\text{m}[164\text{ft.}]$                                       | 0.75-2.0 mm <sup>2</sup> [AWG18-14]    |

\*1 When the wiring length exceeds 500 m (1640 ft), consult the sales office.

\*2. If the length from ME to Indoor exceed 10m, use 1.25 mm<sup>2</sup> [AWG16] shielded cable, but the total length should be counted into Max. length via Outdoor.



OC, OS: Outdoor unit controller; IC: Indoor unit controller; ME: ME remote controller

PURY-P-Y(S)NW-A2/TR2/RU2

## 11-2. Transmission cable specifications

|               | Transmission cables (Li)                       | M-NET remote controller cables (ei)  | MA Remote controller cables (ai)          |
|---------------|--|--|---|
| Type of cable | Shielding wire (2-core)<br>CVVS, CPEVS or MVVS | Sheathed 2-core cable (unshielded) CVV   |   |
| Cable size    | More than 1.25 mm <sup>2</sup> [AWG16]         | 0.3 ~ 1.25 mm <sup>2</sup> [AWG22~16]  | 0.3 ~ 1.25 mm <sup>2</sup> [AWG22 ~ 16]*1 |
| Remarks       | Max length: within 200 m                       | When 10 m [32ft] is exceeded, use cables with the same specification as transmission cables. | Max length: 200 m [656ft]                 |

\*1 To wire PAR-CT01MA, PAR-4XMAA ("X" represents 0 or later), and Simple MA remote controller, use a wire with a diameter of 0.3 mm<sup>2</sup> [AWG22].

CVVS, MVVS: PVC insulated PVC sheathed shielded control cable  
CPEVS: PE insulated PVC sheathed shielded communication cable  
CVV: PVC insulated PVC sheathed control cable

**11-3. System configuration restrictions**

**11-3-1. Common restrictions for the CITY MULTI system**

For each Outdoor/Heat source unit, the maximum connectable quantity of Indoor unit is specified at its Specifications table.

- A) 1 Group of Indoor units can have 1-16 Indoor units;  
\*OA processing unit GUF-RD(H) is considered as Indoor unit.
- B) Maximum 2 remote controllers for 1 group;  
\*MA/ME remote controllers cannot be present together in 1group.  
\*When a PAR-CT01MA or PAR-4XMAA ("X" represents 0 or later) is connected to a group, no other MA remote controllers can be connected to the same group.
- C) 1 Lossnay unit can interlock maximum 16 Indoor units; 1 Indoor unit can interlock only 1 Lossnay unit.
- D) Maximum 3 System controllers are connectable when connecting to TB3 of the Outdoor/Heat source unit.
- E) A maximum of 6 system controller are connectable to TB3 and TB7 of Outdoor/Heat source unit.
- F) 4 System controllers or more are connectable when connecting to TB7 of the Outdoor/Heat source unit, if the transmission power is supplied by the power supply unit PAC-SC51KUA.  
\*System controller connected as described in D) would have a risk that the failure of connected Outdoor/Heat source unit would stop power supply to the System controller.

**11-3-2. Ensuring proper communication power and the number of connected units for M-NET**

In order to ensure proper communication among Outdoor/Heat source unit, Indoor unit, Lossnay, OA processing unit GUF-RD(H), and Controllers, the transmission power situation for the M-NET should be observed. In some cases, Transmission booster should be used. Taking the power consumption of Indoor unit as 1, the equivalent power consumption or supply of others are listed at Table 1 and Table 2.

Both the transmission line for centralized controller and indoor-outdoor transmission line must meet the conditions listed below. (Both conditions a) and b) must be met.)

- a) [Total equivalent power consumption] ≤ [The equivalent power supply]
- b) [Total equivalent number of units (Table 1)] ≤ [40]

Table 1 The equivalent power consumption and the equivalent number of units

| Category   | Model   | The equivalent power consumption | The equivalent number of units |
|--|---|----------------------------------|--------------------------------|
| CITY MULTI indoor unit<br>OA unit<br>CITY MULTI connection kit<br>Air handling unit controller | Except for the models indicated by *2<br>PEFY-AF2500, 3000, 4000, 5000, 6000MH<br>GUF-50, 100<br>PAC-LV11M-J<br>PAC-AH125, 140, 250, 500M-J | 1                                | 1                              |
| CITY MULTI indoor unit *2  | PDFY-P100VM-E-RE  | 2                                | 2                              |
| BC controller  | CMB-P/M   | 2                                | 1                              |
| HBC  | CMB-WP<br>CMB-WM-V-AA/AB  | 2                                | 1                              |
|  | CMB-WM-F-AA<br>CMB-WM-V-BB  | 2                                | 2                              |
|  |   |                                  |                                |
| Hydro unit   | CMH-WM-V-A  | 2                                | 1                              |
| PWFY *1  | P100VM-E-BU   | 6                                | 1                              |
|  | P200VM-E1-AU<br>P200VM-E2-AU  | 5                                | 1                              |
|  | (E)P100VM-E1-AU<br>(E)P100VM-E2-AU<br>P140VM-E1-AU<br>P140VM-E2-AU  | 1                                | 1                              |
|  |   |                                  |                                |
| PFAV   | P250, 300, 500, 600VM-E(-F)   | 1                                | 1                              |
|  | P750, 900VM-E(-F)   | 2                                | 2                              |
| PFV, PEV   | P200, 250, 400, 500YM-A   | 1                                | 1                              |
| MA remote controller/Lossnay   | PAR-CT01MA<br>PAR-21, 31, 32, 33, 40, 41MA<br>PAC-YT52CRA<br>PAR-FA32MA<br>LGH<br>PZ-60, 61, 62DR-E<br>PZ-43SMF-E                           | 0                                | 0                              |
| ME remote controller   | PAR-U02MEDA   | 0.5                              | 1                              |
|  | PZ-52SF   | 0.25                             | 1                              |
| System controller  | AE-200E/AE-50E/EW-50E<br>LM-AP  | 0                                | 0                              |
|  | AG-150A<br>EB-50GU-J<br>PAC-IF01AHC-J   | 0.5                              | 1                              |
|  | AT-50B  | 1.5                              | 5                              |
|  | PAC-YG60MCA<br>PAC-YG66DCA<br>PAC-YG63MCA   | 0.25                             | 1                              |
|  |   |                                  |                                |
| ON/OFF controller  | PAC-YT40ANRA  | 1                                | 1                              |
| MN converter   | CMS-MNG-E   | 2                                | 1                              |
| Outdoor/Heat source unit   | TB7 power consumption   | 0                                | 0                              |
| System control interface   | MAC-333IF-E   | 0                                | 0                              |
| A-M converter  | PAC-SF83MA-E  |                                  |                                |

\*1 PWFY cannot be connected to PUMY model.

Table 2 The equivalent power supply

| Category                 | Model                                   | The equivalent power supply |          |  |
|--------------------------|---|-----------------------------|----------|--|
| Transmission Booster     | PAC-SF46EPA-G                           | 25 *1                       |          |  |
| Power supply unit        | PAC-SC51KUA                             | 5                           |          |  |
| Expansion controller     | PAC-YG50ECA                             | 6                           |          |  |
| BM ADAPTER               | BAC-HD150                               | 6                           |          |  |
| System controller        | AE-200E/AE-50E                          | 0.75                        |          |  |
|                          | EW-50E                                  | 1.5                         |          |  |
|                          | LM-AP                                   | 0                           |          |  |
| Outdoor/Heat source unit |   | TB3 and TB7 total           | TB7 only | TB3 only                               |
|                          | Outdoor unit except S-Series and TKA *2 | 32 *1                       | 6        | 32 *1-equivalent power supplied to TB7 |
|                          | S-Series outdoor unit                   | 12 *1                       | 0        | 12 *1                                  |
|                          | S-Series outdoor unit (YBM)             | 32 *1                       | 0        | 32 *1                                  |
|                          | TKA outdoor unit                        | 32 *1                       | - *3     | 32 *1                                  |

\*1 When one or more indoor units listed below is connected, subtract 3 from the equivalent power supply.

Table 3

| Category                     | Model  |
|------------------------------|--|
| Indoor unit                  | Sized P200/P250  |
|                              | PEFY-AF4000/5000/6000MH, PFFY-P400/500YM-E, PFFY-P400/500YMH-C |
|                              | PFFY-P300/600YM-E-F, PFFY-P300/600YM-C-F, PDFY-P100VM-E-RE     |
|                              |  |
| Air handling unit controller | PAC-AH250/500M-J   |
| PFAV                         | PFAV-P500/600/750/900VM-E(-F)                                  |
| PFV                          | PFV-P400/500YM-A   |
| PEV                          | PEV-P400/500YM-A   |

\*2 If PAC-SC51KUA is used to supply power at TB7 side, no power supply need from Outdoor/Heat source unit at TB7, Connector TB3 itself will therefore have 32.

\*3 Do not supply power to TB7 from TKA outdoor units.  
Use PAC-SC51KUA or PAC-SF46EPA-G when connecting an M-NET device to TB7.

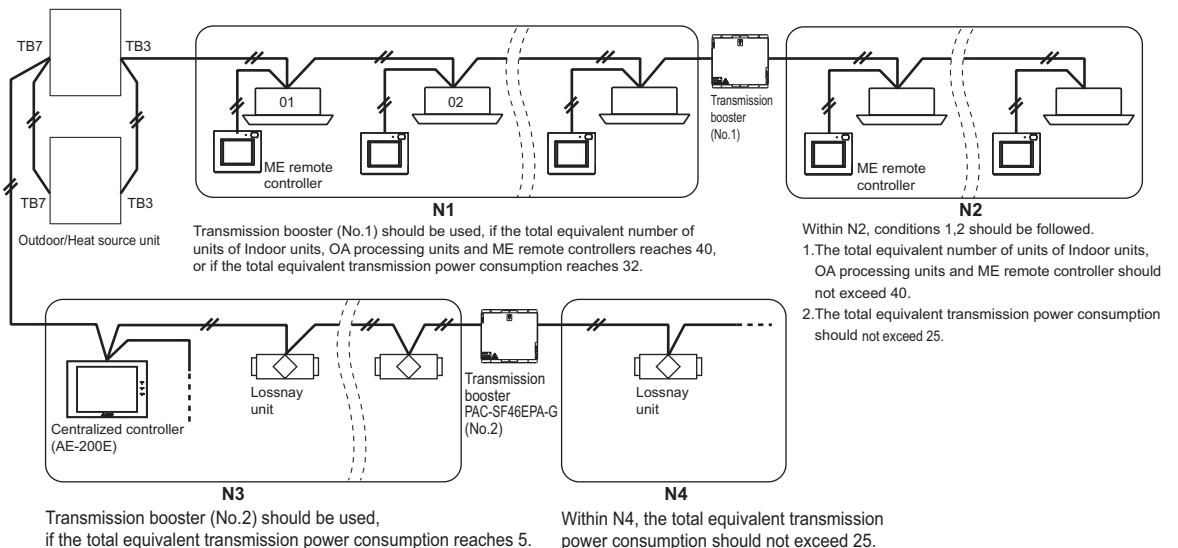
With the equivalent power consumption values and the equivalent number of units in Table 1 and Table 2, PAC-SF46EPA-G can be designed into the air-conditioner system to ensure proper system communication according to (A), (B), (C).

- (A) Firstly, count from TB3 at TB3 side the total equivalent number of units of Indoor units, OA processing units, ME remote controller, and System controllers. If the total equivalent number of units reaches 40, a PAC-SF46EPA-G should be set.
- (B) Secondly, count from TB7 side to TB3 side the total transmission power consumption. If the total equivalent power supply reaches 32, a PAC-SF46EPA-G should be set. Yet, if a PAC-SC51KUA or another controller with a built-in power supply, such as PAC-YG50ECA, is used to supply power at TB7 side, count from TB3 side only.
- (C) Thirdly, count from TB7 at TB7 side the total transmission power consumption, If the total equivalent power supply for only TB7 reaches 6, a PAC-SF46EPA-G should be set. Also, count from TB7 at TB7 side the total equivalent number of units of System controllers, and so on. If the total equivalent number of units reaches 40, a PAC-SF46EPA-G should be set.

\* The equivalent power supply of S-Series outdoor unit is 12.

\* When one or more indoor units listed in Table 3 is connected, subtract 3 from the equivalent power supply.

■ System example



### 11-3-3. Ensuring proper power supply to System controller

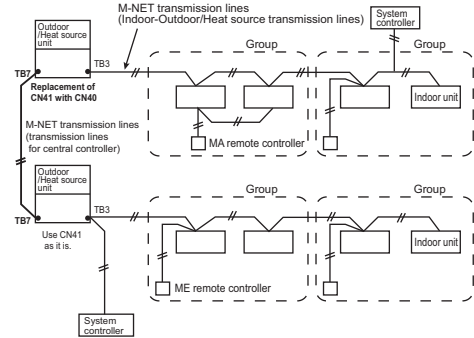
The power to System controller (excluding AE-200E, AE-50E, EW-50E, LM-AP) is supplied via M-NET transmission line. M-NET transmission line at TB7 side is called Centralized control transmission line while one at TB3 side is called Indoor-Outdoor/Heat source transmission line. There are 4 ways to supply power to the System controller .

- A) Connecting to TB3 of the Outdoor/Heat source unit and receiving power from the Outdoor/Heat source unit.
- B) Connecting to TB7 of the Outdoor/Heat source unit and receiving power from the Outdoor/Heat source unit.  
(Not applicable to the PUMY model)
- C) Connecting to TB7 of the Outdoor/Heat source unit but receiving power from power supply unit PAC-SC51KUA.
- D) Connecting to TB7 of the Outdoor/Heat source unit and receiving power from system controllers (AE-200E, AE-50E, EW-50E, LM-AP).

#### 11-3-3-A. When connecting to TB3 of the Outdoor/Heat source unit and receiving power from the Outdoor/Heat source unit.

Maximum 3 System controllers can be connected to TB3.  
If there is more than 1 Outdoor/Heat source unit, it is necessary to replace power supply switch connector CN41 with CN40 on one Outdoor/Heat source unit.

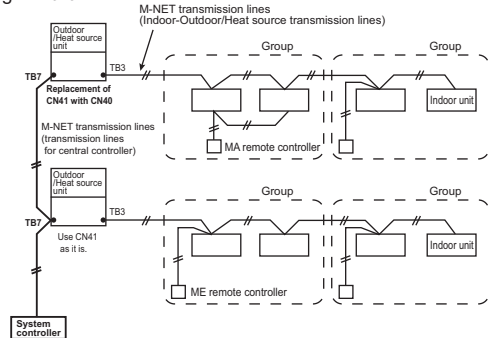
Fig. 11-3-3-A



#### 11-3-3-B. When connecting to TB7 of the Outdoor/Heat source unit and receiving power from the Outdoor/Heat source unit. (Not applicable to the PUMY model)

A maximum of 6 system controller are connectable to TB3 and TB7 of Outdoor/Heat source unit. (Not applicable to the PUMY model)  
It is necessary to replace power supply switch connector CN41 with CN40 on one Outdoor/Heat source unit.

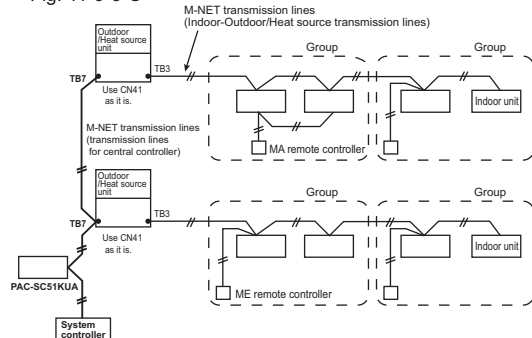
Fig. 11-3-3-B



#### 11-3-3-C. When connecting to TB7 of the Outdoor/Heat source unit but receiving power from PAC-SC51KUA.

When feeding power to the system controller from the power-supply unit PAC-SC51KUA, leave the power jumper connected to the CN41 of the outdoor/heat-source unit as it is (factory setting). The equivalent power consumption of a controller that is connectable to a PAC-SC51KUA is "5" as shown in Table 2. When connecting a system controller with an equivalent power consumption of greater than 5, use a transmission booster PAC-SF46EPA-G.

Fig. 11-3-3-C

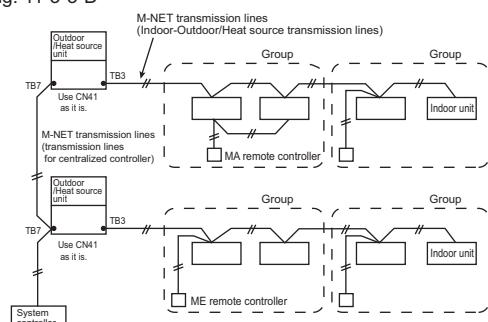


#### 11-3-3-D. When connecting to TB7 of the Outdoor/Heat source unit and receiving power from system controllers (AE-200E, AE-50E, EW-50E, LM-AP).

System controllers (AE-200E, AE-50E, EW-50E, LM-AP) have a built-in function to supply power to the M-NET transmission lines, so no power needs to be supplied to the M-NET transmission lines from the Outdoor/Heat source units or from PAC-SC51KUA.

When feeding power to the system controller from the power-supply unit PAC-SC51KUA, leave the power jumper connected to the CN41 of the outdoor/heat-source unit as it is (factory setting). Refer to 11-3-2 for information about the power-supply capacity of each system controller (EW-50E, LM-AP) to the sub system controllers.

Fig. 11-3-3-D





**11-3-4. Power supply to LM-AP**

1-phase 220-240VAC power supply is needed.

The power supply unit PAC-SC51KUA is not necessary when connecting only the LM-AP. Yet, make sure to change the power supply changeover connector CN41 to CN40 on the LM-AP.

**11-3-5. Power supply to expansion controller**

1-phase 100-240VAC power supply is needed.

The power supply unit PAC-SC51KUA is not necessary.

The expansion controller supplies power through TB3, which equals 6 indoor units. (refer to Table 2)

**11-3-6. Power supply to BM ADAPTER**

1-phase 100-240VAC power supply is needed.

The power supply unit PAC-SC51KUA is not necessary when only BM ADAPTER is connected.

Yet, make sure to move the power jumper from CN41 to CN40 on the BM ADAPTER.

**11-3-7. Power supply to AE-200E/AE-50E/EW-50E**

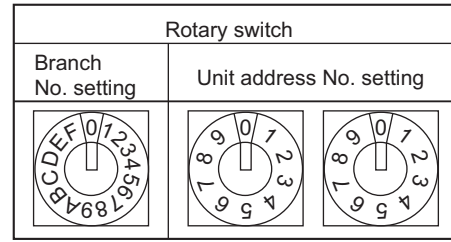
1-phase 100-240VAC power supply is needed.

The power supply unit PAC-SC51KUA is not necessary when connecting only the AE-200E/AE-50E/EW-50E.

## 11-4. Address setting

### 11-4-1. Switch operation

In order to constitute CITY MULTI in a complete system, switch operation for setting the unit address No. and connection No. is required.



- ① Address No. of outdoor unit, indoor unit and remote controller.  
The address No. is set at the address setting board.  
In the case of R2 system, it is necessary to set the same No. at the branch No. switch of indoor unit as that of the BC controller connected. (When connecting two or more branches, use the lowest branch No.)

- ② Caution for switch operations
  - Be sure to shut off power source before switch setting. If operated with power source on, switch can not operate properly.
  - No units with identical unit address shall exist in one whole air conditioner system. If set erroneously, the system can not operate.

- ③ MA remote controller
  - When connecting only one remote controller to one group, it is always the main remote controller.  
When connecting two remote controllers to one group, set one remote controller as the main remote controller and the other as the sub remote controller.
  - The factory setting is "Main".

PAR-4XMAA ("X" represents 0 or later), PAR-CT01MA  
The MA remote controller does not have the switches listed above.  
Refer to the installation manual for the function setting.





































#### PAC-YT52CRA

##### Setting the dip switches

There are switches on the back of the top case. Remote controller Main/Sub and other function settings are performed using these switches. Ordinarily, only change the Main/Sub setting of SW1.  
(The factory settings are ON for SW1, 2, and 3 and OFF for SW4.)

| SW No. | SW contents Main                     | ON      | OFF        | Comment   |
|--------|--------------------------------------|---------|------------|---|
| 1      | Remote controller Main/Sub setting   | Main    | Sub        | Set one of the two remote controllers at one group to "ON".                             |
| 2      | Temperature display units setting    | Celsius | Fahrenheit | When the temperature is displayed in [Fahrenheit], set to "OFF".                        |
| 3      | Cooling/heating display in AUTO mode | Yes     | No         | When you do not want to display "Cooling" and "Heating" in the AUTO mode, set to "OFF". |
| 4      | Indoor temperature display           | Yes     | No         | When you want to display the indoor temperature, set to "ON".                           |

11-4-2. Rule of setting address

| Unit   | Address setting  | Example   | Note  |  |
|--|--|---|---|--|
| Indoor unit<br>System control interface (MAC-333IF-E)<br>A-M converter (PAC-SF83MA-E)<br>Air handling unit controller (PAC-AH125, 140, 250, 500M-J)<br>CITY MULTI connection Kit (PAC-LV11M-J) | 01 ~ 50  |       | Use the most recent address within the same group of indoor units. Make the indoor units address connected to the BC controller (Sub) larger than the indoor units address connected to the BC controller (Main).<br>If applicable, set the sub BC controllers in an PURY system in the following order:<br>(1) Indoor unit to be connected to the BC controller (Main)<br>(2) Indoor unit to be connected to the BC controller (No.1 Sub)<br>(3) Indoor unit to be connected to the BC controller (No.2 Sub)<br>Set the address so that (1)<(2)<(3)<br>A maximum of 12 BC controllers are connectable. |  |
| 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"   |  |
| BC controller (Main)   | 52 ~ 99, 100   |       | The address of outdoor unit + 1<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"   |  |
| BC controller (Sub)  | 52 ~ 99, 100   |       | Lowest address within the indoor units connected to the BC controller (Sub) plus 50.  |  |
| Local remote controller  | ME Remote controller (Main)                                | 101 ~ 150<br>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<br>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>EB-50GU-J<br>EW-50E<br>AT-50B | 000, 201 ~ 250  |      | * AT-50B cannot be set to "000".   |
|  | PAC-YG50ECA  | 000, 201 ~ 250  |      | * Settings are made on the initial screen of AG-150A.  |
|  | BAC-HD150  | 000, 201 ~ 250  |      | * Settings are made with setting tool of BM ADAPTER.   |
|  | LMAP04-E   | 201 ~ 250<br>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<br>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.

11-4-3. System examples

Factory setting

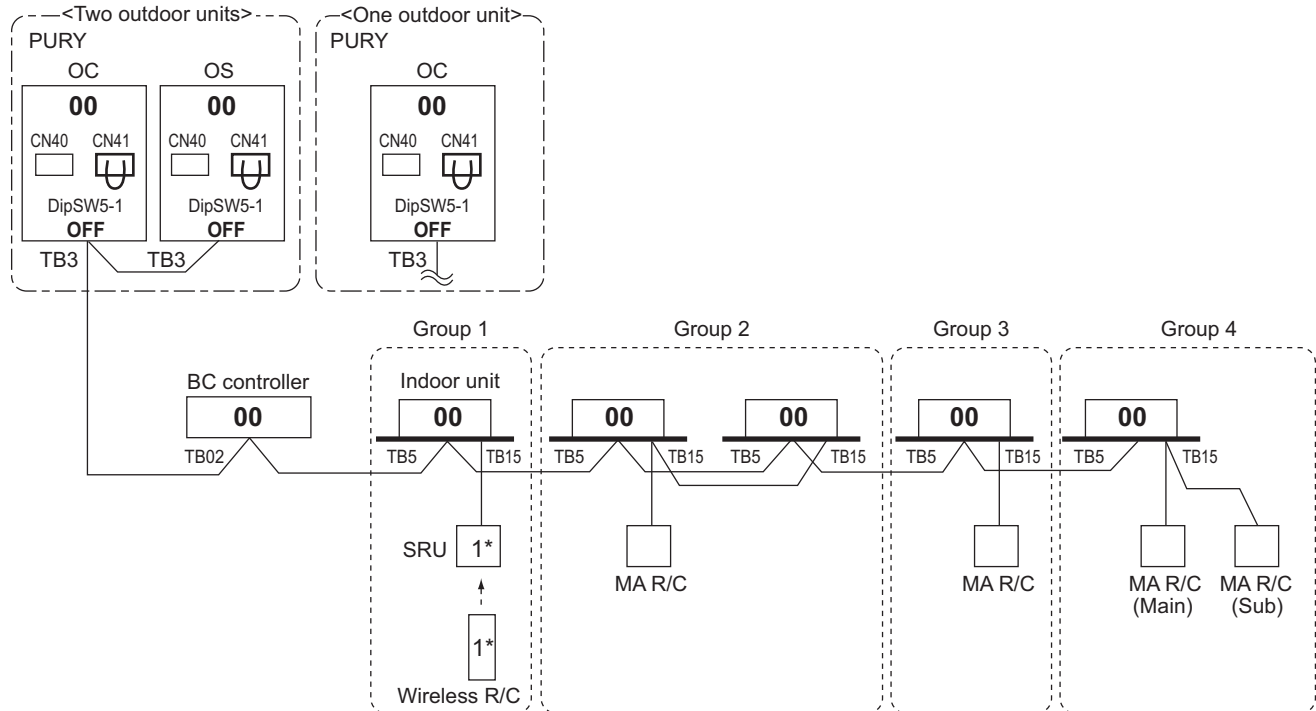
Original switch setting of the outdoors, indoors, controllers, LM-AP and BM ADAPTER at shipment is as follows.

- Outdoor unit : Address: 00, CN41: ON (Jumper), DipSW5-1: OFF
- Indoor unit : Address: 00
- BC controller : Address: 00
- ME remote controller : Address: 101
- LM-AP : Address: 247, CN41: ON (Jumper), DipSW1-2: OFF
- BM ADAPTER : Address: 000, CN41: ON (Jumper)
- AE-200E/AE-50E/EW-50E : Address: 000, CN21: ON (Jumper)

Setting at the site

- DipSW5-1(Outdoor) : When the System Controller is used, all the Dip SW5-1 at the outdoor units should be set to "ON". \* Dip SW5-1 remains OFF when only LM-AP is used.
- DipSW 4-1 and 4-6 (BC controller) : Set DipSW 4-6 to ON at BC controller, in case of connected Indoor unit sized P100-P250 with 2 ports. It is also possible to connect Indoor unit sized P100-P140 with 1 port (set DipSW 4-1 and 4-6 to OFF).
- DipSW1-2(LM-AP) : When the LM-AP is used together with System Controller, DipSW1-2 at the LM-AP should be set to "ON".
- CN40/CN41 : Change jumper from CN41 to CN 40 at outdoor control board will activate central transmission power supply to TB7;  
(Change jumper at only one outdoor unit when activating the transmission power supply without using a power supply unit.)  
Change jumper from CN41 to CN 40 at LM-AP/BM ADAPTER will activate transmission power supply to LM-AP/BM ADAPTER itself;  
Power supply unit is recommended to use for a system having more than 1 outdoor unit, because the central transmission power supply from TB7 of one of outdoor units is risking that the outdoor unit failure may let down the whole system controller system.
- CN21(AE-200E/AE-50E/EW-50E) : Activates the power supply to M-NET transmission line from AE-200E/AE-50E/EW-50E (CN21: ON (power supplied), OFF (power not supplied))

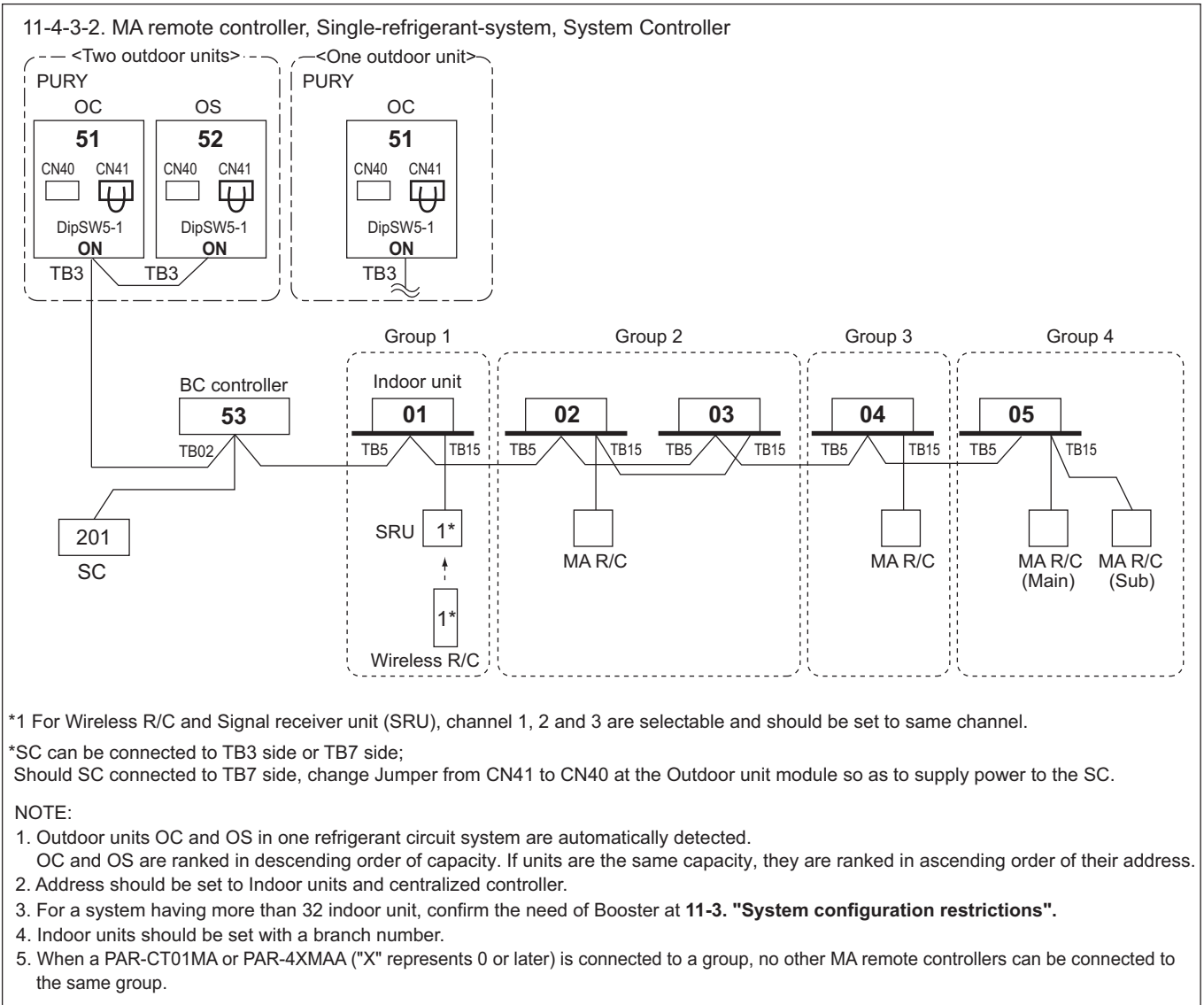
11-4-3-1. MA remote controller, Single-refrigerant-system, No System Controller



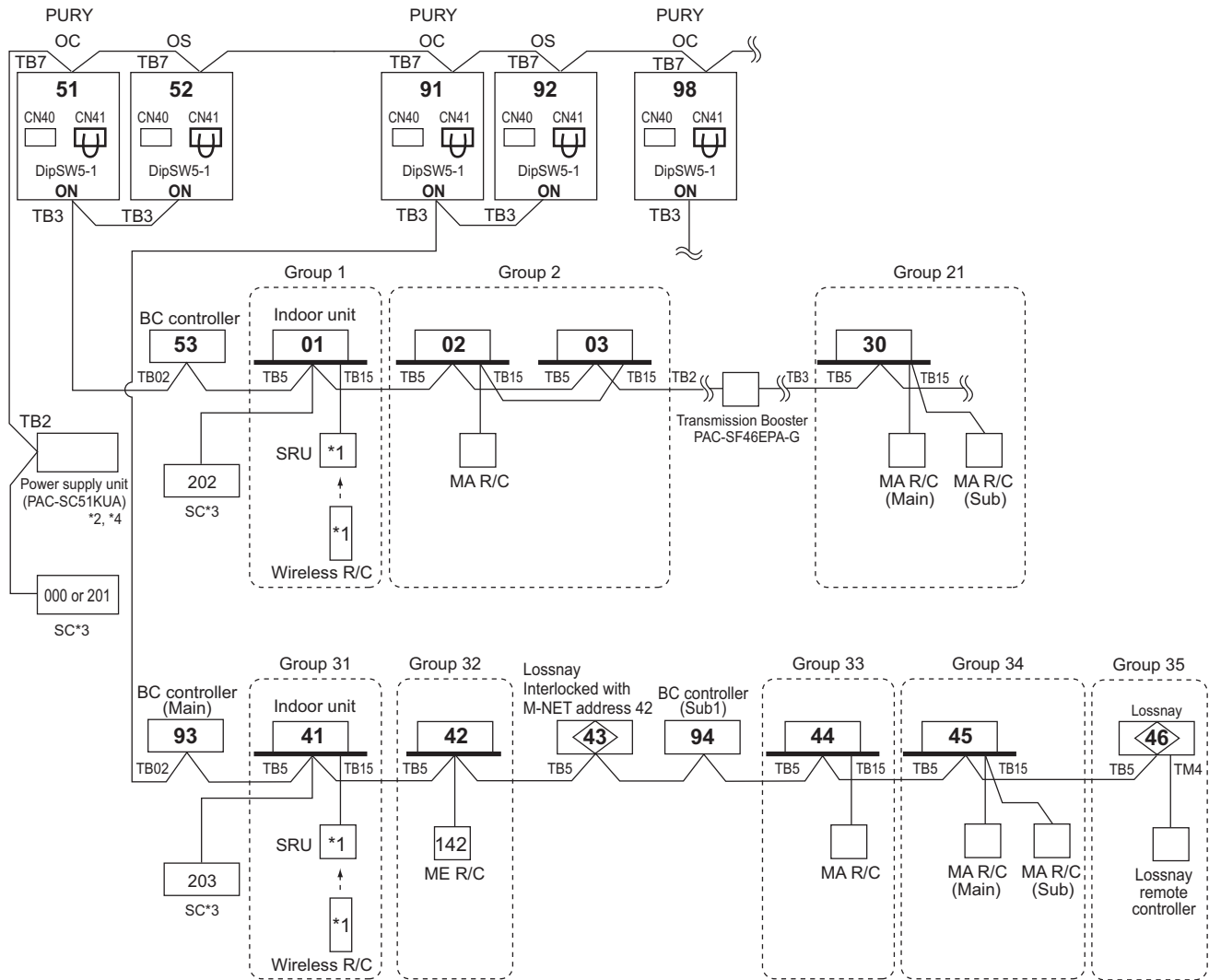
\*1 For Wireless R/C and Signal receiver unit (SRU), channel 1, 2 and 3 are selectable and should be set to same channel.

NOTE:

1. Outdoor units OC and OS in one refrigerant circuit system are automatically detected.  
OC and OS are ranked in descending order of capacity. If units are the same capacity, they are ranked in ascending order of their address.
2. No address setting is needed.
3. For a system having more than 32 indoor unit, confirm the need of Booster at 11-3. "System configuration restrictions".
4. Indoor units should be set with a branch number.
5. Address setting is required if a sub BC controller is connected.
6. When a PAR-CT01MA or PAR-4XMAA ("X" represents 0 or later) is connected to a group, no other MA remote controllers can be connected to the same group.



11-4-3-3. MA remote controller, Multi-refrigerant-system, System Controller at TB7/TB3 side, Booster for long M-NET wiring



\*1 For Wireless R/C and Signal receiver unit (SRU), channel 1, 2 and 3 are selectable and should be set to same channel.

\*2 System controller should connect to TB7 at Outdoor and use power supply unit together in Multi-Refrigerant-System.

For AE-200E, AE-50E, and EW-50E the power supply unit PAC-SC51KUA is unused.

\*3 When multiple system controllers are connected in the system, set the controller with more functions than others as a "main" controller and others as "sub".

AE-200E, AE-50E, and EW-50E are for exclusive use as a "main" system controller and cannot be used as a "sub" system controller.

Make the setting to only one of the system controllers for "prohibition of operation from local remote controller".

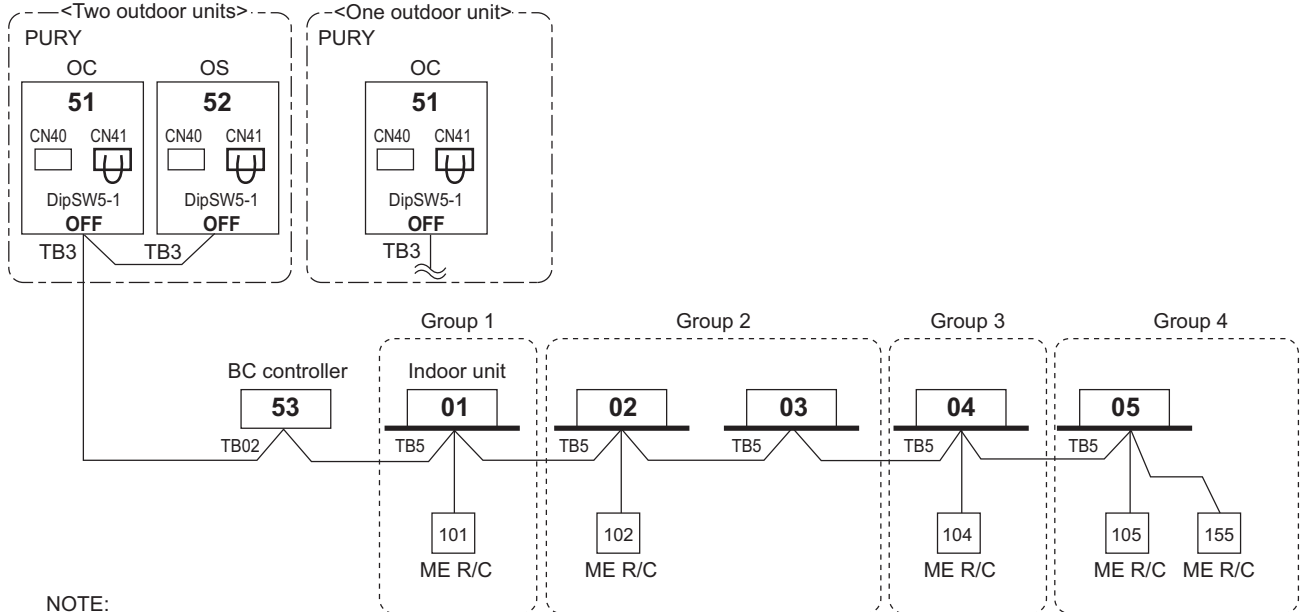
\*4 The power supply unit is not necessary for AE-200E, AE-50E, EW-50E, and LM-AP.

NOTE:

- Outdoor units OC and OS in one refrigerant circuit system are automatically detected.  
OC and OS are ranked in descending order of capacity. If units are the same capacity, they are ranked in ascending order of their address.
- Address should be set to Indoor units, Lossnay, and system controller.
- M-NET power is supplied by the Outdoor unit at TB3, while Indoor unit and ME remote controller consume the M-NET power for transmission use. The power balance is needed to consider for long M-NET wiring. Details refer to 11-3. "System configuration restrictions".
- Indoor units should be set with a branch number.
- Assign an address to each of the sub BC controllers which equals the sum of the smallest address of the indoor units that are connected to each sub BC controller and 50.
- When a PAR-CT01MA or PAR-4XMAA ("X" represents 0 or later) is connected to a group, no other MA remote controllers can be connected to the same group.



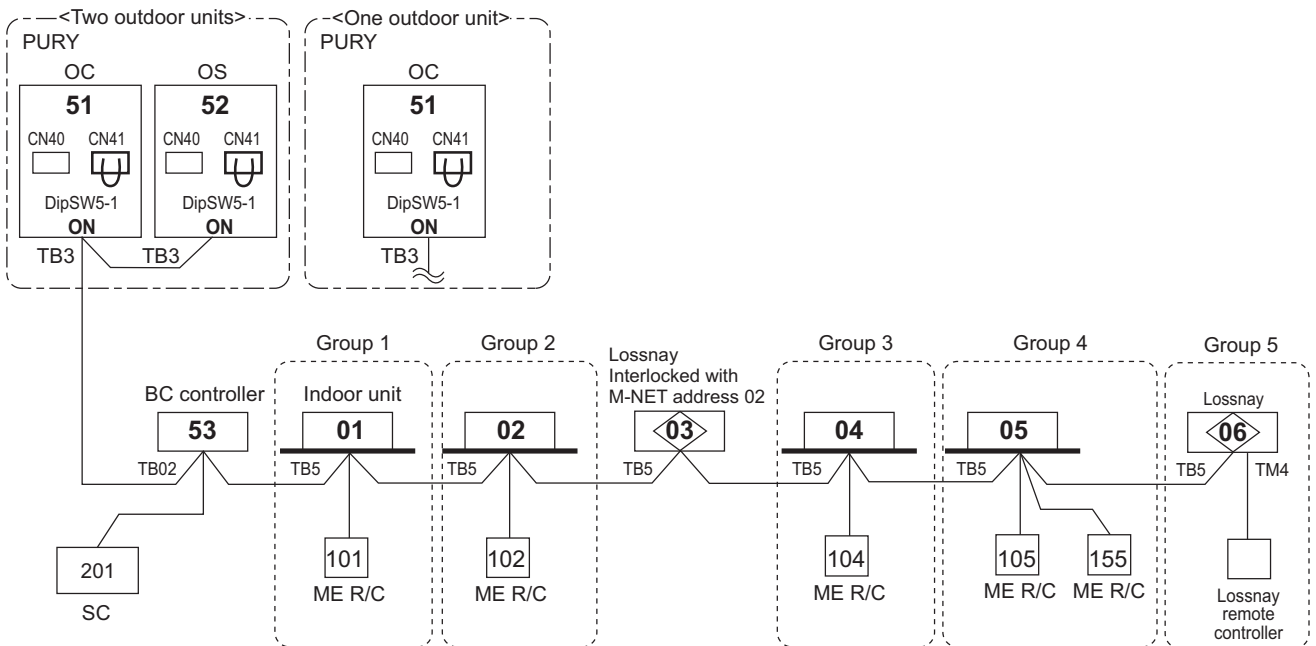
11-4-3-4. ME remote controller, Single-refrigerant-system, No system controller



NOTE:

1. Outdoor units OC and OS in one refrigerant circuit system are automatically detected. OC and OS are ranked in descending order of capacity. If units are the same capacity, they are ranked in ascending order of their address.
2. Address should be set to Indoor units and ME remote controllers.
3. M-NET power is supplied by the Outdoor unit at TB3, while Indoor unit and ME RC consume the M-NET power for transmission use. The power balance is needed to consider for long M-NET wiring. Details refer to 11-3. "System configuration restrictions".
4. Indoor units should be set with a branch number.

11-4-3-5. ME remote controller, Single-refrigerant-system, System controller, Lossnay



\*SC can be connected to TB3 side or TB7 side;

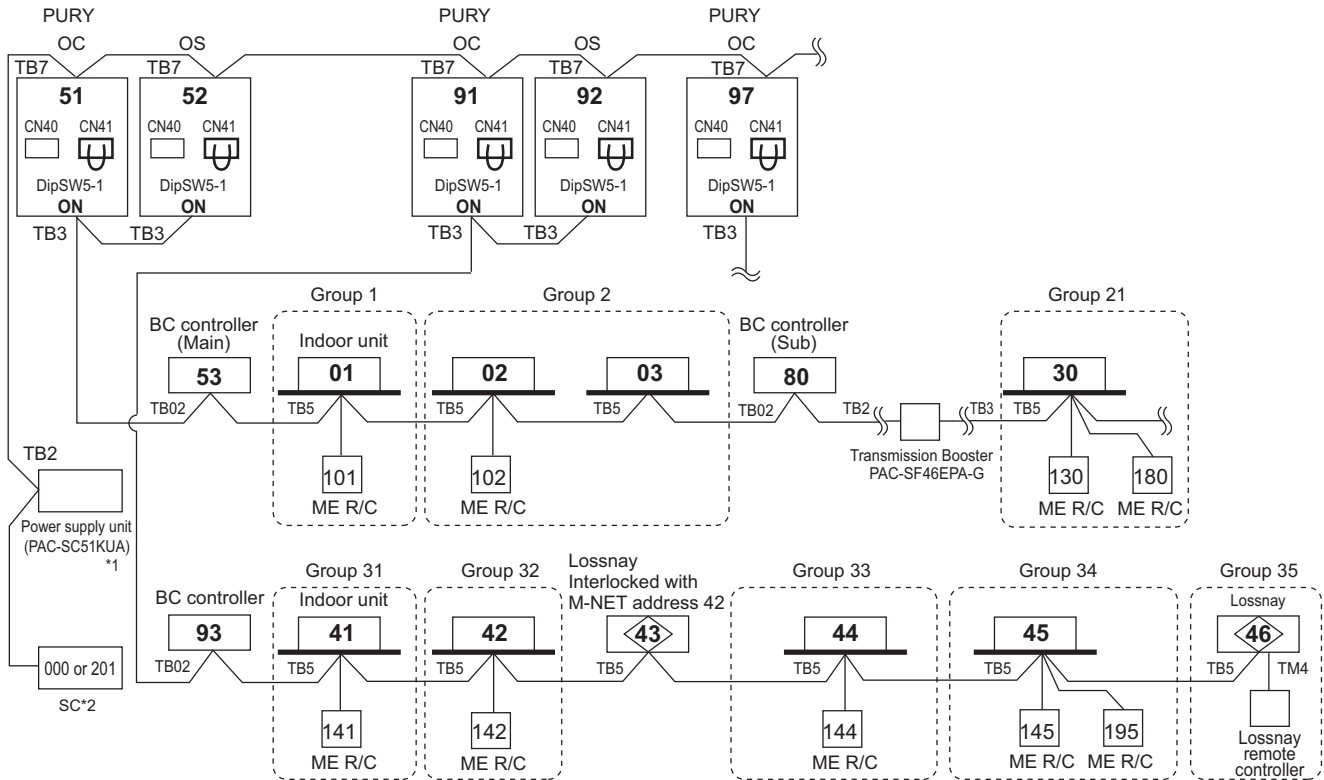
Should SC connected to TB7 side, change Jumper from CN41 to CN40 at the Outdoor unit module so as to supply power to the SC.

NOTE:

1. Outdoor units OC and OS in one refrigerant circuit system are automatically detected. OC and OS are ranked in descending order of capacity. If units are the same capacity, they are ranked in ascending order of their address.
2. Address should be set to Indoor units, Lossnay, centralized controller, and ME remote controllers.
3. For a system having more than 32 indoor unit, confirm the need of Booster at 11-3. "System configuration restrictions".
4. Indoor units should be set with a branch number.

PURY-P-Y(S)NW-A2/TR2/RU2

11-4-3-6. ME remote controller, Multi-refrigerant-system, System Controller at TB7 side, Lossnay, Booster for long M-NET wiring



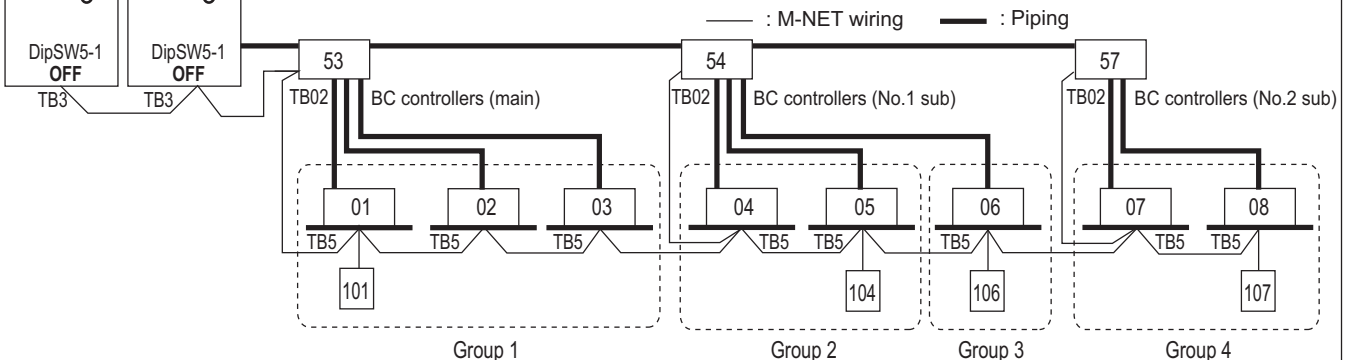
- \*1 System controller should connect to TB7 at Outdoor and use power supply unit together in Multi-Refrigerant-System.  
For AE-200E, AE-50E, and EW-50E the power supply unit PAC-SC51KUA is unused.
- \*2 When multiple system controllers are connected in the system, set the controller with more functions than others as a "main" controller and others as "sub".  
AE-200E, AE-50E, and EW-50E are for exclusive use as a "main" system controller and cannot be used as a "sub" system controller.  
Make the setting to only one of the system controllers for "prohibition of operation from local remote controller".

NOTE:

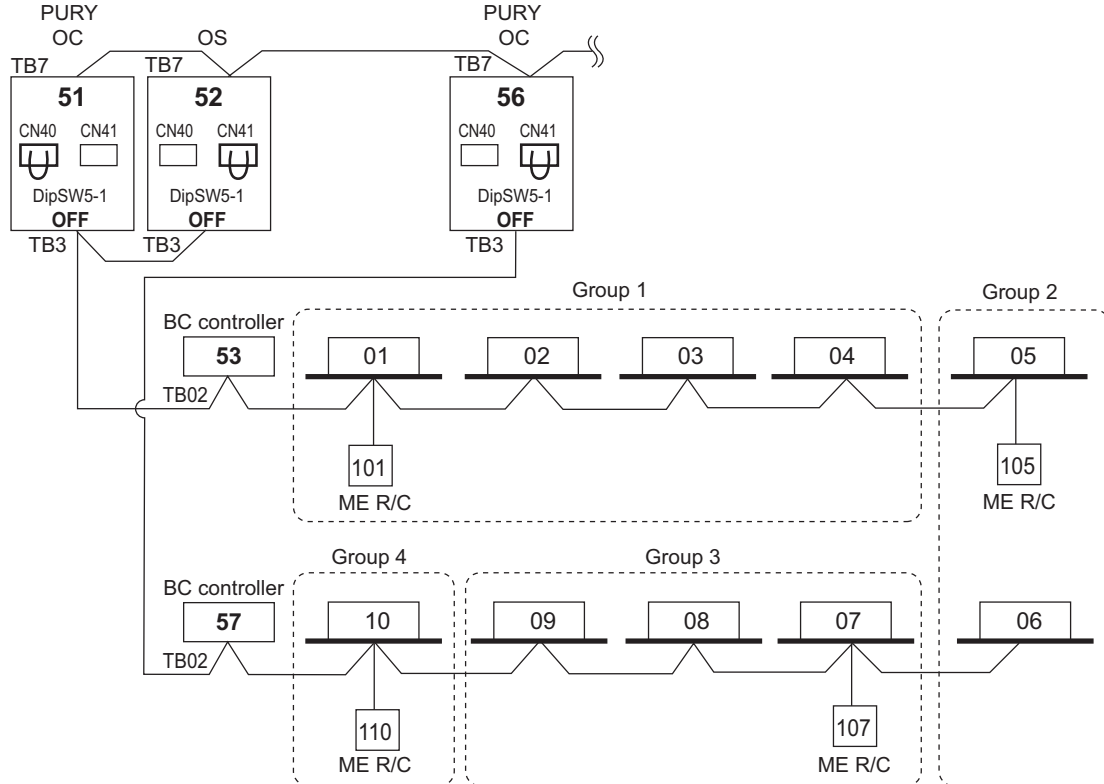
1. Outdoor units OC and OS in one refrigerant circuit system are automatically detected.  
OC and OS are ranked in descending order of capacity. If units are the same capacity, they are ranked in ascending order of their address.
2. M-NET power is supplied by the Outdoor unit at TB3, while Indoor unit and ME RC consume the M-NET power for transmission use.  
The power balance is needed to consider for long M-NET wiring. Details refer to 11-3. "System configuration restrictions".
3. Indoor units should be set with a branch number.
4. Assign an address to each of the sub BC controllers which equals the sum of the smallest address of the indoor units that are connected to each sub BC controller and 50.  
When the address assigned to sub BC controller overlaps those of any other units including outdoor units (OC/OS) or main BC controller, sub BC controller will be given priority to have the address.

11-4-3-7. Example: BC, BC sub

- NOTE
- Indoor units should be set with a branch number.
  - BC (main) address = O/U address + 1
  - BC (sub) address = Lowest address within the indoor units connected to the BC controller (sub) + 50
  - If applicable, set the sub BC controllers in an PURY system in the following order:
    - (1) Indoor unit to be connected to the BC controller (Main)
    - (2) Indoor unit to be connected to the BC controller (No.1 Sub)
    - (3) Indoor unit to be connected to the BC controller (No.2 Sub)
 Set the address so that (1)<(2)<(3)  
 A maximum of 12 BC controllers are connectable.



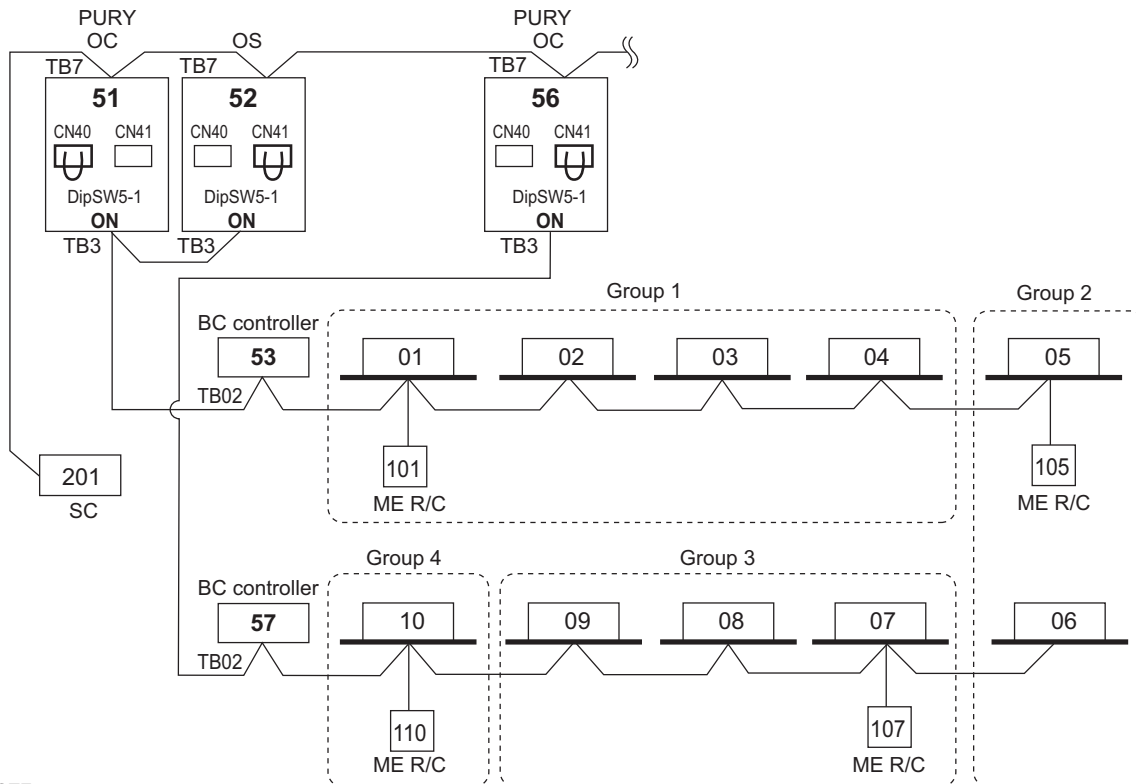
11-4-3-8. ME remote controller, Multi-refrigerant-system, No Power supply unit



NOTE

- It is necessary to change the connector to CN40 on the outdoor unit control board (only one outdoor unit) when the group is set between other refrigerant systems.
- It is necessary to set on the remote controller by manual when group sets on the different refrigerant system. Please refer to remote controller installation manual.

11-4-3-9. ME remote controller, Multi-refrigerant-system, System Controller at TB7 side, No Power supply unit



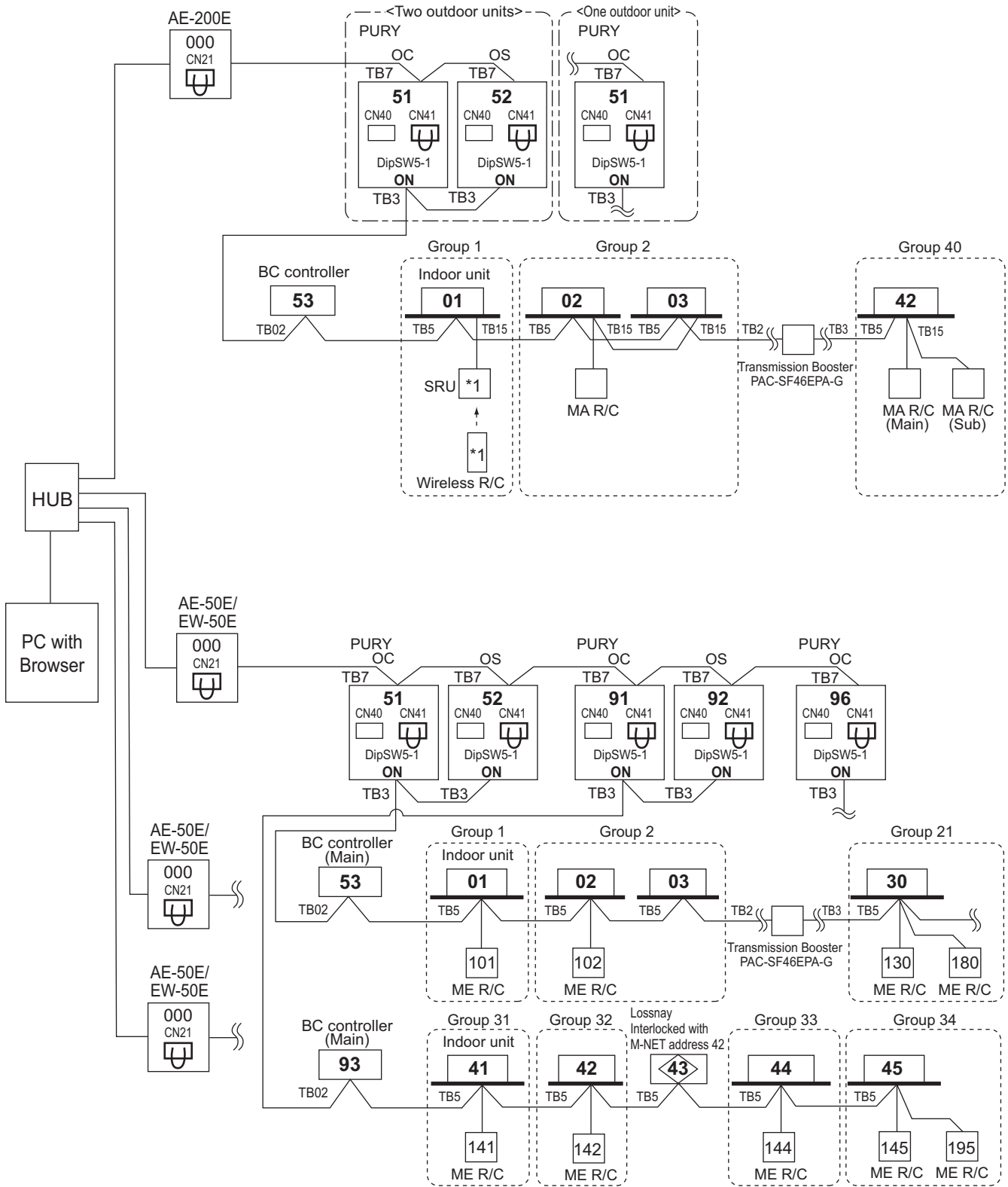
NOTE

- It is necessary to change the connector to CN40 on the outdoor unit control board (only one outdoor unit) when the group is set between other refrigerant systems.
- It is necessary to set on the remote controller by manual when group sets on the different refrigerant system. Please refer to remote controller installation manual.

11-4-3-10. AE-200E+AE-50E/EW-50E

AE-200E can control max. 200 indoor units/via AE-50E/EW-50E.

PURY-P-Y(S)NW-A2/TR2/RU2

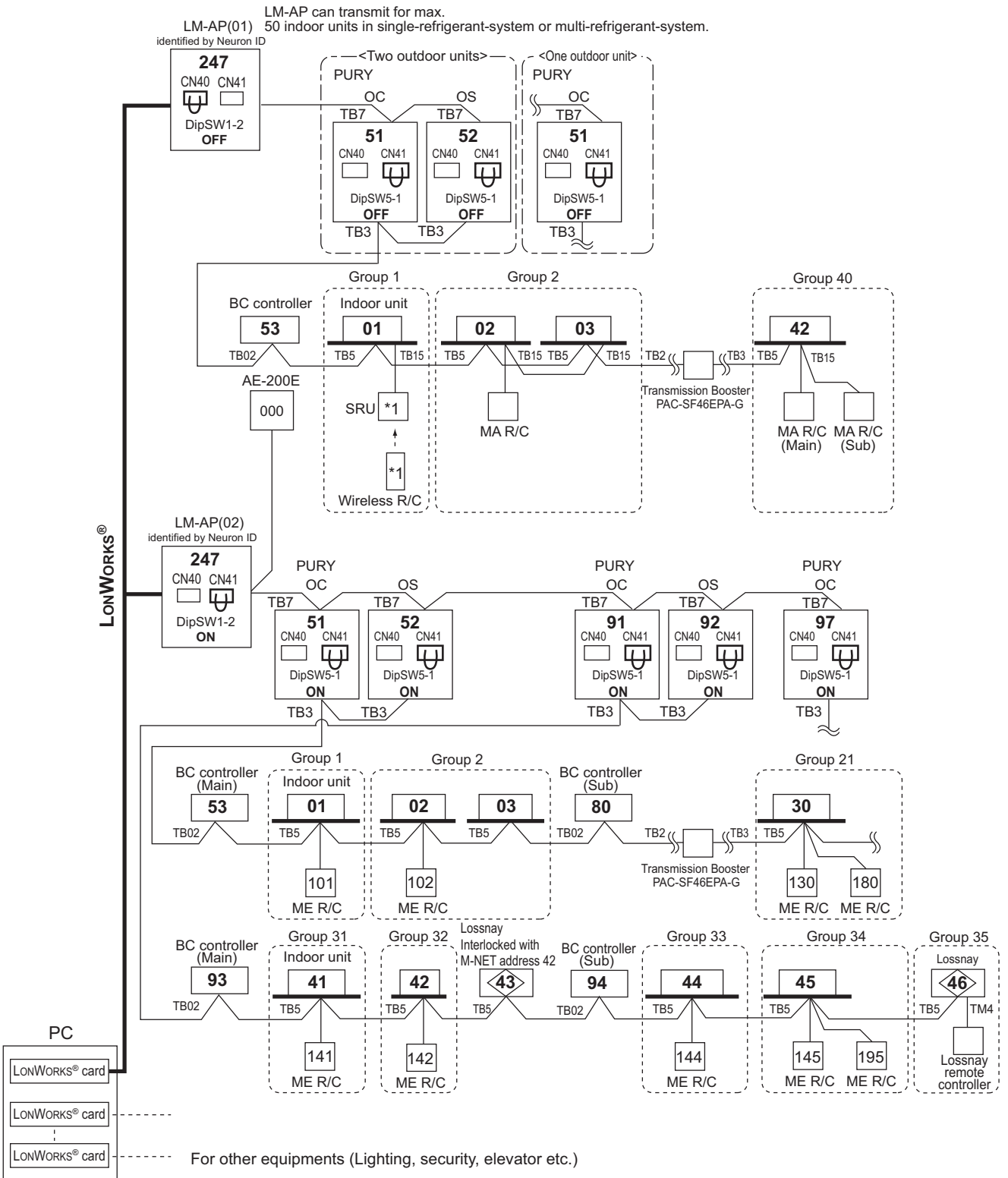


\*1 For Wireless R/C and Signal receiver unit (SRU), channel 1, 2 and 3 are selectable and should be set to same channel.

\*2 When a PAR-CT01MA or PAR-4XMAA ("X" represents 0 or later) is connected to a group, no other MA remote controllers can be connected to the same group.

11-4-3-11. LM-AP

LM-AP can transmit for max. 50 indoor units;  
 If system controller (SC) is used, DipSW1-2 at LM-AP and DipSW5-1 at Outdoor unit should set to "ON".  
 Change Jumper from CN41 to CN40 to activate power supply to LM-AP itself for those LM-AP connected without system controller (SC).



\*1 For Wireless R/C and Signal receiver unit (SRU), channel 1, 2 and 3 are selectable and should be set to same channel.

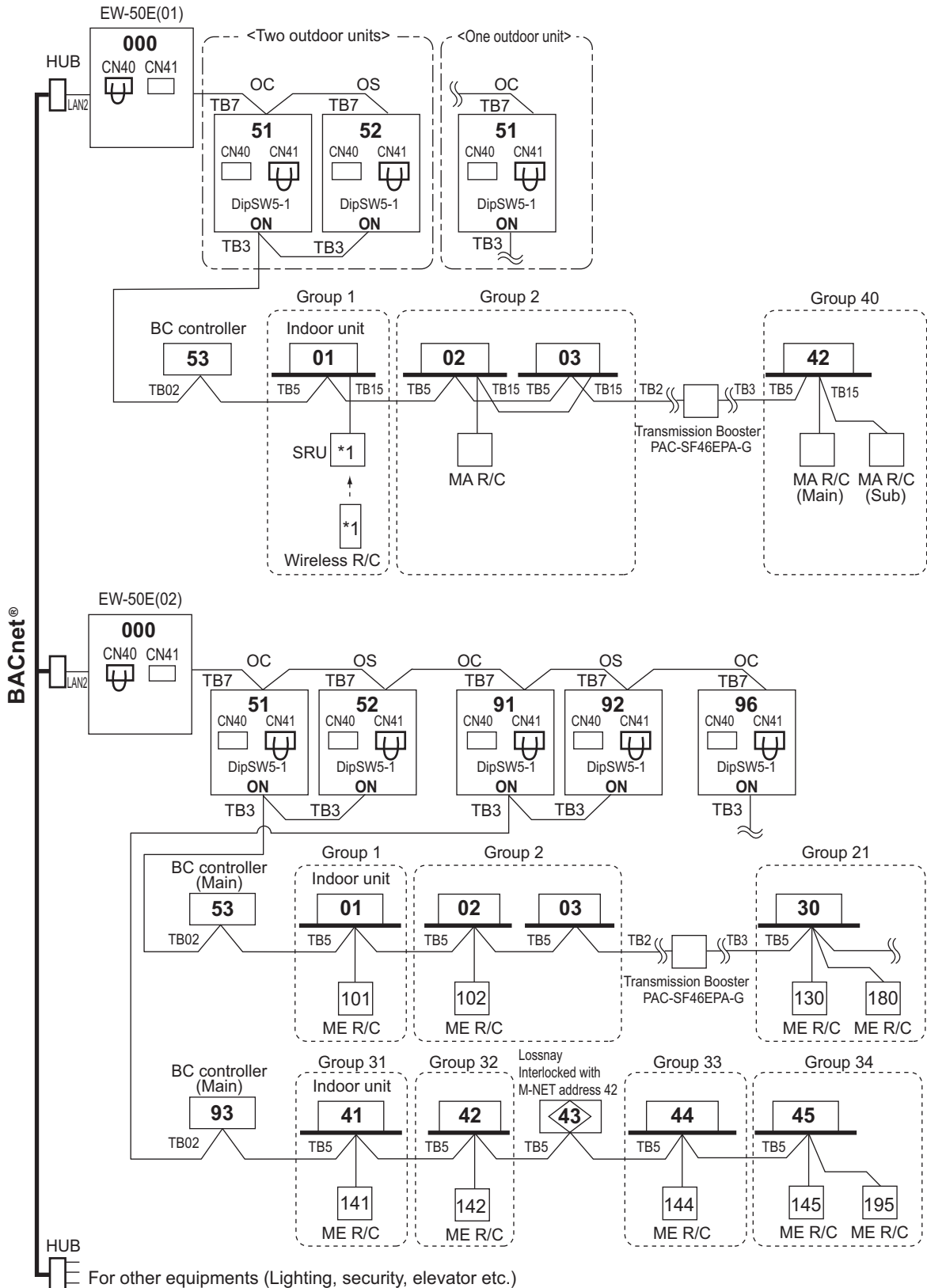
\*2 When a PAR-CT01MA or PAR-4XMAA ("X" represents 0 or later) is connected to a group, no other MA remote controllers can be connected to the same group.

PURY-P-Y(S)NW-A2/TR2/RU2

11-4-3-12. BACnet®

**EW-50E (AE-200E) can control up to 50 units/groups (including Lossnay).**

\*To use the BACnet® function on EW-50E (AE-200E), BACnet® license registration is required.



\*1 For Wireless R/C and Signal receiver unit (SRU), channel 1, 2 and 3 are selectable and should be set to same channel.

\*2 When a PAR-CT01MA or PAR-4XMAA ("X" represents 0 or later) is connected to a group, no other MA remote controllers can be connected to the same group.



12-1. R410A Piping material

Refrigerant pipe for 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 R410A 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 Table1, 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 R410A CITY MULTI.

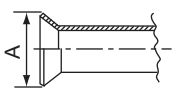
| Size (mm) | Size (inch) | Radial thickness (mm) | Radial thickness (mil) | Pipe type      |
|-----------|-------------|-----------------------|------------------------|----------------|
| ø6.35     | ø1/4"       | 0.8                   | [32]                   | Type-O         |
| ø9.52     | ø3/8"       | 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 R410A 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.

Flare

Due to the relative higher operation pressure of R410A compared to R22, the flare connection should follow dimensions mentioned below so as to achieve enough the air-tightness.

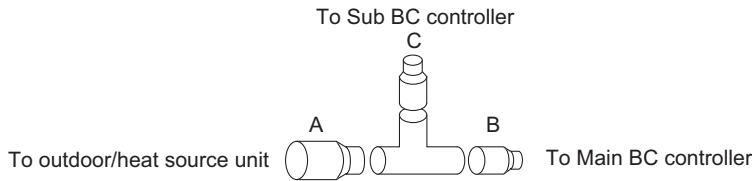
| Flare pipe  | Pipe size     | A (For R410A) (mm[in.]) | Flare nut  | Pipe size     | B (For R410A) (mm[in.]) |
|---|---------------|-------------------------|--|---------------|-------------------------|
|  | ø6.35 [1/4"]  | 9.1                     |  | ø6.35 [1/4"]  | 17.0                    |
|   | ø9.52 [3/8"]  | 13.2                    |  | ø9.52 [3/8"]  | 22.0                    |
|   | ø12.70 [1/2"] | 16.6                    |  | ø12.70 [1/2"] | 26.0                    |
|   | ø15.88 [5/8"] | 19.7                    |  | ø15.88 [5/8"] | 29.0                    |
|   | ø19.05 [3/4"] | 24.0                    |  | ø19.05 [3/4"] | 36.0                    |

**Procedures for installing the branched pipes**

Refer to the instructions that came with the branched pipe kit (separately sold) for details.

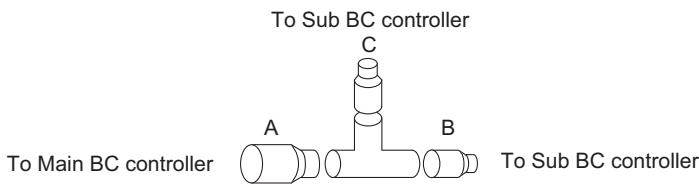
[1] Branches on the indoor-unit side

- Restriction on installing the 2-Branch Joint Pipe CMY-R101/102S-G on the low-pressure piping (for P-J type, P-JA type, P-KA type, and P-KB type)



-Regarding the 2-Branch Joint Pipe on the low-pressure piping, A and B must be installed horizontally, and C must be installed upward higher than the horizontal plane of A and B.

- Restriction on installing the 2-Branch Joint Pipe CMY-R201/202/203/204/205S-G on the high-pressure piping, low-pressure piping, and liquid piping.

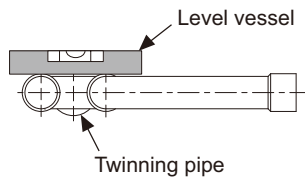


-Regarding the 2-Branch Joint Pipe on the high-pressure/low-pressure/liquid piping, A and B must be installed horizontally, and C must be installed upward higher than the horizontal plane of A and B.

[2] Branches on the outdoor/heat source-unit side

Note. Refer to the figure below for the installation position of the twinning pipe.

The Twinning pipe must be installed horizontally using a level vessel to avoid unit damage.



- Minimum length of the straight section of the pipe before the branched pipes  
Always use the pipes supplied in the branched pipe kit, and make sure the straight section of the pipe immediately before it connects to the branched pipe is at least 500 mm (19-11/16 in.). Failure to do so may damage the unit.

PURY-P-Y(S)NW-A2/TR2/RU2

## 12-2. Piping Design

### 12-2-1. IF 16 ports or less are in use, i.e., if only one BC controller is in use with no sub BC controller

"BC controller," "BC controller (Main)," and "BC controller (Sub)" that appear in this section refer to the P-J type, P-JA type, P-KA type, and P-KB type.

Note1. No Header usable on PURV system.

Note2. Indoor unit sized P100-P250/M100-M140 should be connected to BC controller via Y shape joint CMY-R160-J1 ; If the system consists only of PEFY-P50, 63, 71, 80, 100VMHS2-E models of indoor units, connect to the BC controller via Y-shape joint CMY-R160-J1.

Note3. Indoor unit sized P100-P250/M100-M140 does NOT share BC controller ports with other Indoor units ;

Note4. As bents cause pressure loss on transportation of refrigerant, fewer bents design is better ; Piping length needs to consider the actual length and equivalent length which bents are counted.

Equivalent piping length (m)=Actual piping length+"M" x Number of bent.

Note5. Set DIP-SW 4-6 to ON of BC controller, in case of connected Indoor unit sized P100-P250/M100-M140 with 2 ports. If the system consists only of PEFY-P50, 63, 71, 80, 100VMHS2-E models of indoor units, set the dipswitches SW4-1 and SW4-6 on the BC controller to ON.

Note6. It is also possible to connect indoor unit sized P/M100-P/M140 with 1 port (set DIP-SW 4-1 and 4-6 to OFF). PEFY-P50, 63, 71, 80, 100VMHS2-E models of indoor units can be connected to the system using a single port. However, the cooling capacity decreases a little (For details, refer to the chapter OUTDOOR UNITS, 8-5. Correction by port counts of the BC controller).

Note7. Do not connect multiple indoor units to the same port when operating each of them in different mode (cooling, heating, stop, and thermo-off). In case of connecting multiple indoor units to the same port, connecting all indoor units to one remote controller and switching SW1-1 ON in the all connected indoor units (switch to thermostat built in the remote controller) are recommended.

Note8. Indoor capacity is described as its model size. For example, PEFY-P63VML-E, its capacity is P63.

Note9. Total down-stream Indoor capacity is the summary of the model size of Indoors down-stream. For example, PEFY-P63VML-E + PEFY-P32VML-E: Total Indoor capacity = P63 + P32 = P95.

Note10. To enable the continuous heating mode, set SW4 (848) to ON.

Note11. To connect the BC controller to the main pipe, use the reducer (CMY-R301S-G, CMY-R302S-G, or CMY-R304S-G).

Note12. Install the pipes correctly referring to the section titled "Procedures for installing the branched pipes."

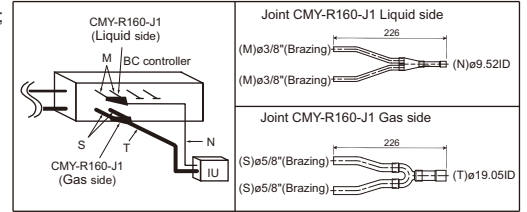


Fig. 12-2-1AA

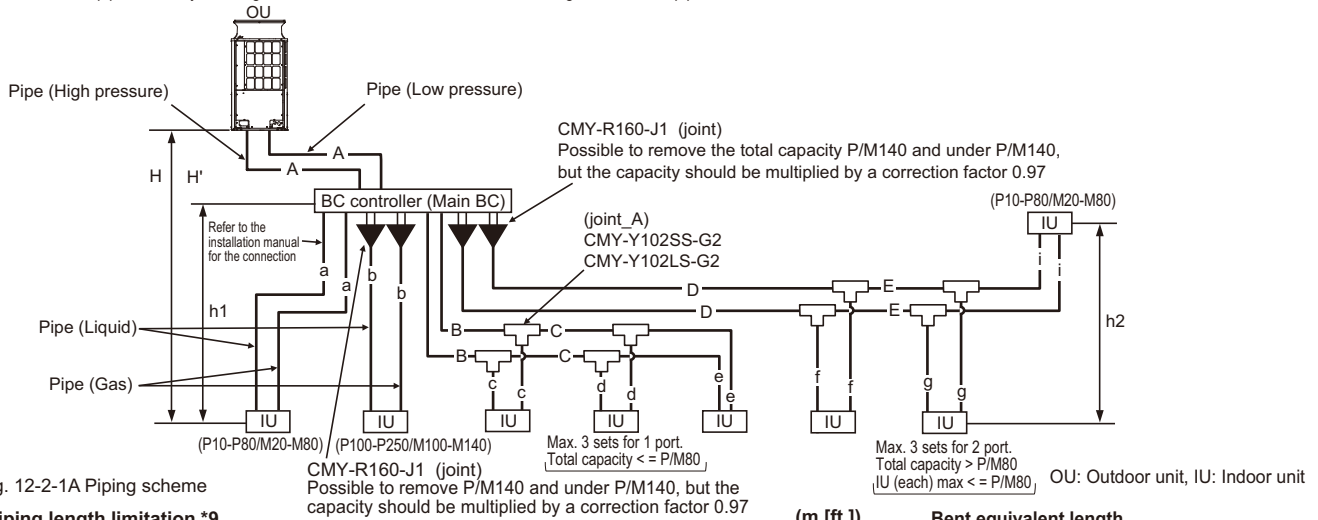


Fig. 12-2-1A Piping scheme

#### Piping length limitation \*9

| Item   | Piping in the figure      | Max. length            | Max. equivalent length |
|--|---------------------------|------------------------|------------------------|
| Total piping length (Total length of high pressure and liquid pipes) | A+B+C+D+E+a+b+c+d+e+f+g+i | *1                     | -                      |
| Farthest IU from OU  | A+D+E+i                   | 165 [541']             | 190 [623']             |
| Distance between OU and BC   | A                         | 110 [360'] *1          | 110 [360'] *1          |
| Farthest IU from BC controller                                       | D+E+i                     | 60 [197'] *2*3         | 60 [197'] *2*3         |
| Height between OU and IU (OU above IU)                               | H                         | 50 [164'] *6           | -                      |
| Height between OU and IU (OU under IU)                               | H'                        | 40 [131'] *7           | -                      |
| Height between IU and BC   | h1                        | 15 [49'] (10 [32']) *4 | -                      |
| Height between IU and IU   | h2                        | 30 [98'] (20 [65']) *5 | -                      |

OU: Outdoor Unit; IU: Indoor Unit; BC: BC controller

\*1. Refer to the section 12-2-7.

\*2. Details refer to Fig. 1.

\*3. When the P200 or P250 model of indoor units are connected to the system, the maximum distance from the BC controller to the farthest indoor unit (indicated as "D + E + i" in the figure is 40 meters.)

\*4. Distance of Indoor sized P200, P250 from BC must be less than 10 m, if any.

\*5. Distance of Indoor sized P200, P250 from IU must be less than 20 m, if any.

\*6. 90 m is available depending on the model and installation conditions.

For more detailed information, contact your local distributor.

\*7. 60 m is available depending on the model and installation conditions.

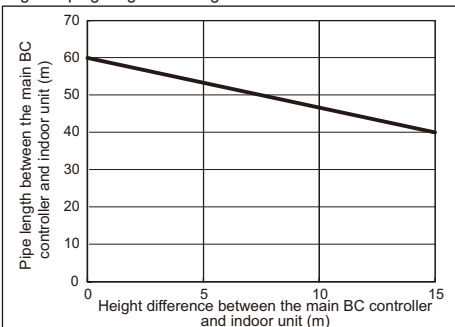
For more detailed information, contact your local distributor.

\*8. When the high pressure piping length is 65 m or less, use ø22.2 (ø7/8) pipe.

When the high pressure piping length exceeds 65 m, use ø22.2 (ø7/8) pipe until 65 m, use ø28.58 (ø1-1/8) pipe for the part that exceeds 65 m.

\*9. Total length of high-pressure pipes and liquid pipes

Fig. 1 Piping length and height between IU and BC controller



#### Bent equivalent length

| Outdoor Model      | m/bent [ft./bent] |
|--------------------|-------------------|
| P200YNW-A2/TR2/RU2 | 0.35 [1.15']      |
| P250YNW-A2/TR2/RU2 | 0.42 [1.38']      |
| P300YNW-A2/TR2/RU2 | 0.42 [1.38']      |
| P350YNW-A2/TR2/RU2 | 0.47 [1.54']      |
| P400YNW-A2/TR2/RU2 | 0.50 [1.64']      |
| P450YNW-A2/TR2/RU2 | 0.50 [1.64']      |
| P500YNW-A2/TR2/RU2 | 0.50 [1.64']      |
| P550YNW-A2/TR2/RU2 | 0.50 [1.64']      |

#### Piping "A" size selection rule (mm [in.])

| Outdoor Model      | Pipe(High pressure) | Pipe(Low pressure) |
|--------------------|---------------------|--------------------|
| P200YNW-A2/TR2/RU2 | ø15.88 [5/8"]       | ø19.05 [3/4"]      |
| P250YNW-A2/TR2/RU2 | ø19.05 [3/4"]       | ø22.20 [7/8"]      |
| P300YNW-A2/TR2/RU2 | ø19.05 [3/4"]       | ø22.20 [7/8"]      |
| P350YNW-A2/TR2/RU2 | ø19.05 [3/4"]       | ø28.58 [1-1/8"]    |
| P400YNW-A2/TR2/RU2 | ø22.20 [7/8"]       | ø28.58 [1-1/8"]    |
| P450YNW-A2/TR2/RU2 | ø22.20 [7/8"]       | ø28.58 [1-1/8"]    |
| P500YNW-A2/TR2/RU2 | ø22.20 [7/8"]       | ø28.58 [1-1/8"]    |
| P550YNW-A2/TR2/RU2 | ø22.20 [7/8"] *8    | ø28.58 [1-1/8"]    |

#### Piping "B", "C", "D", "E" size selection rule (mm [in.])

| Total down-stream Indoor capacity | Pipe(Liquid) | Pipe(Gas)     |
|-----------------------------------|--------------|---------------|
| P/M140 or less                    | ø9.52 [3/8"] | ø15.88 [5/8"] |
| P/M141-P/M200                     | ø9.52 [3/8"] | ø19.05 [3/4"] |
| P/M201-P/M250                     | ø9.52 [3/8"] | ø22.20 [7/8"] |

#### Piping "a", "b", "c", "d", "e", "f", "g", "i" size selection rule (mm [in.])

| Indoor Unit size                       | Pipe(Liquid) | Pipe(Gas)     |
|--|--------------|---------------|
| P10 to P50, M20 to M50, GUF-50RD(H)    | ø6.35 [1/4"] | ø12.70 [1/2"] |
| P63 to P140, M63 to M140, GUF-100RD(H) | ø9.52 [3/8"] | ø15.88 [5/8"] |
| P200                                   | ø9.52 [3/8"] | ø19.05 [3/4"] |
| P250                                   | ø9.52 [3/8"] | ø22.20 [7/8"] |

#### Selection criteria for joints\_A

| Total down-stream Indoor capacity | Joint         |
|-----------------------------------|---------------|
| -P/M200                           | CMY-Y102SS-G2 |
| P/M201-P/M250                     | CMY-Y102LS-G2 |

### 12-2-2. IF more than 16 ports are in use, or if there is more than one BC controller in use for one outdoor unit

"BC controller," "BC controller (Main)," and "BC controller (Sub)" that appear in this section refer to the P-J type, P-JA type, P-KA type, and P-KB type.

- Note1. No Header usable on PURY system.
- Note2. Indoor unit sized P100-P250/M100-M140 should be connected to BC controller via Y shape joint CMY-R160-J1 ; If the system consists only of PEFY-P50, 63, 71, 80, 100VMHS2-E models of indoor units, connect to the BC controller via Y-shape joint CMY-R160-J1.
- Note3. Indoor unit sized P100-P250/M100-M140 does NOT share BC controller ports with other Indoor units ;
- Note4. As bents cause pressure loss on transportation of refrigerant, fewer bents design is better ; Piping length needs to consider the actual length and equivalent length which bents are counted. Equivalent piping length (m)=Actual piping length+"M" x Number of bent.
- Note5. Set DIP-SW 4-6 to ON of BC controller, in case of connected Indoor unit sized P100-P250/M100-M140 with 2 ports. If the system consists only of PEFY-P50, 63, 71, 80, 100VMHS2-E models of indoor units, set the dipswitches SW4-1 and SW4-6 on the BC controller to ON.
- Note6. It is also possible to connect Indoor unit sized P/M100-P/M140 with 1 port (set DIP-SW 4-1 and 4-6 to OFF). PEFY-P50, 63, 71, 80, 100VMHS2-E models of indoor units can be connected to the system using a single port. However, the cooling capacity decreases a little (For details, refer to the chapter OUTDOOR UNITS, 8-5. Correction by port counts of the BC controller).
- Note7. Do not connect multiple indoor units to the same port when operating each of them in different mode (cooling, heating, stop, and thermo-off). In case of connecting multiple indoor units to the same port, connecting all indoor units to one remote controller and switching SW1-1 ON in the all connected indoor units (switch to thermostat built in the remote controller) are recommended.
- Note8. The maximum total capacity of indoor units that can be connected to each sub BC controller CMB-M\*V-KB1 is 350.
- Note9. Indoor capacity is described as its model size. For example, PEFY-P63VML-E, its capacity is P63.
- Note10. Total down-stream Indoor capacity is the summary of the model size of Indoors down-stream. For example, PEFY-P63VML-E + PEFY-P32VML-E : Total Indoor capacity = P63 + P32 = P95.
- Note11. To enable the continuous heating mode, set SW4 (848) to ON.
- Note12. To connect the BC controller to the main pipe, use the reducer (CMY-R301S-G, CMY-R302S-G, or CMY-R304S-G).
- Note13. To connect the sub BC controller to the main BC controller, use the reducer (CMY-R303S-G, CMY-R305S-G, or CMY-R306S-G).
- Note14. Install the pipes correctly referring to the section titled "Procedures for installing the branched pipes."

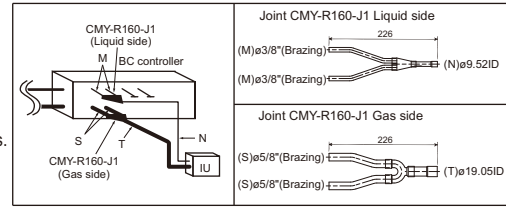


Fig. 12-2-2AA

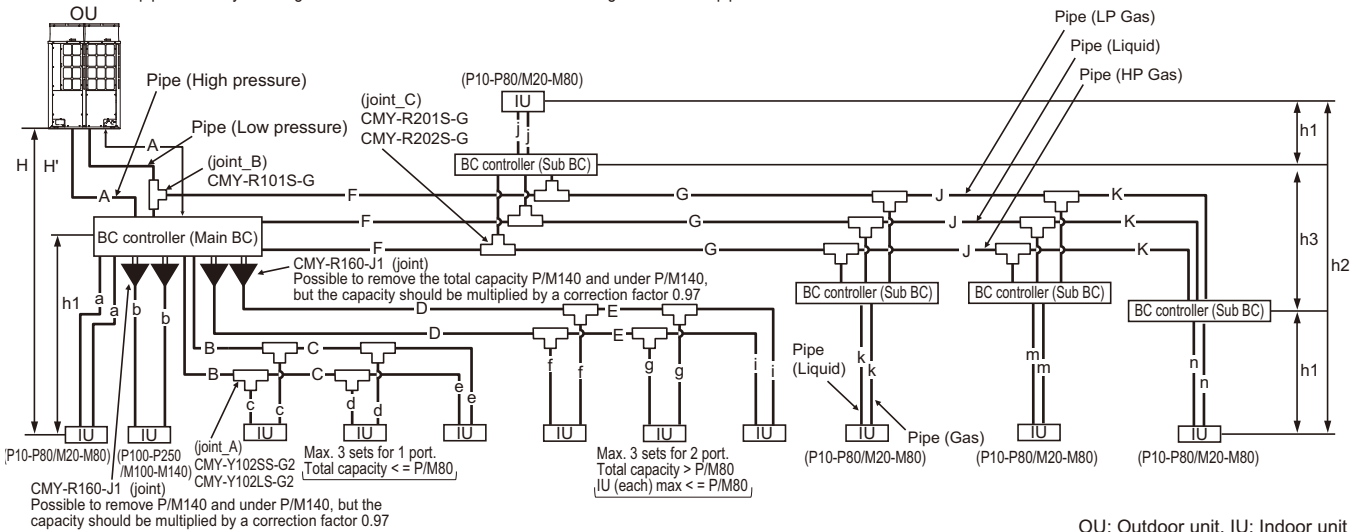


Fig. 12-2-2A Piping scheme

#### Piping length limitation \*11

| Item   | Piping in the figure                      | Max. length            | Max. equivalent length (m [ft.]) |
|--|---|------------------------|----------------------------------|
| Total piping length (Total length of high pressure and liquid pipes) | A+B+C+D+E+F+G+J+K+a+b+c+d+e+f+g+i+j+k+m+n | *1                     | -                                |
| Farthest IU from OU  | A+F+G+J+K+n                               | 165 [541']             | 190 [623']                       |
| Distance between OU and BC   | A   | 110 [360'] *1          | 110 [360'] *1                    |
| Farthest IU from BC controller                                       | D+E+i                                     | 60 [197'] *2*3         | 60 [197'] *2*3                   |
| Farthest IU from BC controller via Sub BC controller                 | F+G+J+K+n                                 | 90 [295'] *9           | 90 [295'] *9                     |
| Height between OU and IU (OU above IU)                               | H   | 50 [164'] *7           | -                                |
| Height between OU and IU (OU under IU)                               | H'  | 40 [131'] *8           | -                                |
| Height between IU and BC   | h1  | 15 [49'] (10 [32']) *4 | -                                |
| Height between IU and IU   | h2  | 30 [98'] (20 [65']) *5 | -                                |
| Height between BC(Main or Sub) and BC(Sub)                           | h3  | 15 [49'] (10 [32']) *6 | -                                |

OU: Outdoor Unit; IU: Indoor Unit; BC: BC controller

- \*1. Refer to the section 12-2-7.
- \*2. Details refer to Fig. 2.
- \*3. When the P200 or P250 model of indoor units are connected to the system, the maximum distance from the BC controller to the farthest indoor unit (indicated as "D + E + i" in the figure is 40 meters.)
- \*4. Distance of Indoor sized P200, P250 from BC must be less than 10 m, if any.
- \*5. Distance of Indoor sized P200, P250 from IU must be less than 20 m, if any.
- \*6. When using 2 Sub BC controllers, max. height "h3" should be considered.
- \*7. 90 m is available depending on the model and installation conditions. For more detailed information, contact your local distributor.
- \*8. 60 m is available depending on the model and installation conditions. For more detailed information, contact your local distributor.
- \*9. When the piping length or the vertical separation exceeds the limit specified in Fig. 2, connect a sub BC to the system. The restriction for a system with a sub BC connection is shown in Fig. 3. When a given system configuration falls within the shaded area in Fig. 3, increase the size of the high-pressure pipe and the liquid pipe between the main BC and sub BC by one size. When using P/M32, P/M40, P/M50, P/M100, or P/M125 model of indoor units, increase the size of the liquid branch pipe between the sub BC and indoor unit by one size. When using indoor models P/M140 or larger, the restrictions shown in Fig. 2 cannot be exceeded.
- \*10. When the high pressure piping length is 65 m or less, use ø22.2 (ø7/8) pipe. When the high pressure piping length exceeds 65 m, use ø28.2 (ø1-1/8) pipe until 65 m, use ø28.58 (ø1-1/8) pipe for the part that exceeds 65 m.
- \*11. Total length of high-pressure pipes and liquid pipes

#### Bent equivalent length

| Outdoor Model      | m/bent [ft./bent] |
|--------------------|-------------------|
| P200YNW-A2/TR2/RU2 | 0.35 [1.15']      |
| P250YNW-A2/TR2/RU2 | 0.42 [1.38']      |
| P300YNW-A2/TR2/RU2 | 0.42 [1.38']      |
| P350YNW-A2/TR2/RU2 | 0.47 [1.54']      |
| P400YNW-A2/TR2/RU2 | 0.50 [1.64']      |
| P450YNW-A2/TR2/RU2 | 0.50 [1.64']      |
| P500YNW-A2/TR2/RU2 | 0.50 [1.64']      |
| P550YNW-A2/TR2/RU2 | 0.50 [1.64']      |

PURY-P-Y(S)NW-A2/TR2/RU2

Piping length and height between IU and BC controller

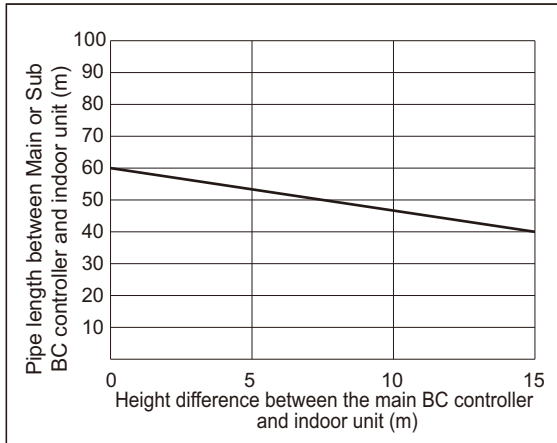


Fig. 2

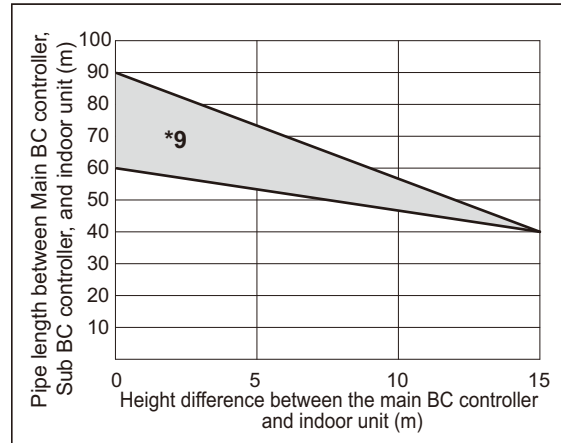
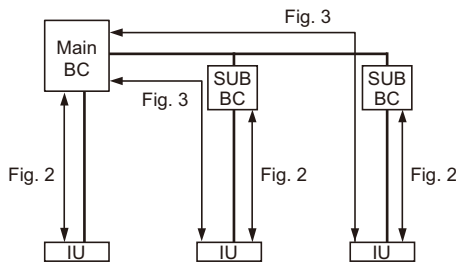


Fig. 3



\*9. When the piping length or the vertical separation exceeds the limit specified in Fig. 2, connect a sub BC to the system. The restriction for a system with a sub BC connection is shown in Fig. 3. When a given system configuration falls within the shaded area in Fig. 3, increase the size of the high-pressure pipe and the liquid pipe between the main BC and sub BC by one size. When using P/M32, P/M40, P/M50, P/M100, or P/M125 model of indoor units, increase the size of the liquid branch pipe between the sub BC and indoor units by one size. When using indoor models P/M140 or larger, the restrictions shown in Fig. 2 cannot be exceeded

**Piping "A" size selection rule**

| Outdoor Model      | Pipe(High pressure) | Pipe(Low pressure) |
|--------------------|---------------------|--------------------|
| P200YNW-A2/TR2/RU2 | ø15.88 [5/8"]       | ø19.05 [3/4"]      |
| P250YNW-A2/TR2/RU2 | ø19.05 [3/4"]       | ø22.20 [7/8"]      |
| P300YNW-A2/TR2/RU2 | ø19.05 [3/4"]       | ø22.20 [7/8"]      |
| P350YNW-A2/TR2/RU2 | ø19.05 [3/4"]       | ø28.58 [1-1/8"]    |
| P400YNW-A2/TR2/RU2 | ø22.20 [7/8"]       | ø28.58 [1-1/8"]    |
| P450YNW-A2/TR2/RU2 | ø22.20 [7/8"]       | ø28.58 [1-1/8"]    |
| P500YNW-A2/TR2/RU2 | ø22.20 [7/8"]       | ø28.58 [1-1/8"]    |
| P550YNW-A2/TR2/RU2 | ø22.20 [7/8"] *10   | ø28.58 [1-1/8"]    |

**Selection criteria for joints\_A**

| Total down-stream Indoor capacity | Joint         |
|-----------------------------------|---------------|
| -P/M200                           | CMY-Y102SS-G2 |
| P/M201-P/M250                     | CMY-Y102LS-G2 |

**Piping "B", "C", "D", "E" size selection rule**

| Total down-stream Indoor capacity | Pipe(Liquid) | Pipe(Gas)     |
|-----------------------------------|--------------|---------------|
| P/M140 or less                    | ø9.52 [3/8"] | ø15.88 [5/8"] |
| P/M141-P/M200                     | ø9.52 [3/8"] | ø19.05 [3/4"] |
| P/M201-P/M250                     | ø9.52 [3/8"] | ø22.20 [7/8"] |

**Selection criteria for joints\_B**

| Outdoor Model           | Joint       |
|-------------------------|-------------|
| P200-P550YNW-A2/TR2/RU2 | CMY-R101S-G |

**Piping "a", "b", "c", "d", "e", "f", "g", "i", "j", "k", "m", "n" size selection rule (mm [in.]**

| Indoor Unit size                       | Pipe(Liquid) | Pipe(Gas)     |
|--|--------------|---------------|
| P10 to P50, M20 to M50, GUF-50RD(H)    | ø6.35 [1/4"] | ø12.70 [1/2"] |
| P63 to P140, M63 to M140, GUF-100RD(H) | ø9.52 [3/8"] | ø15.88 [5/8"] |
| P200                                   | ø9.52 [3/8"] | ø19.05 [3/4"] |
| P250                                   | ø9.52 [3/8"] | ø22.20 [7/8"] |

**Piping "F", "G", "J", "K" size selection rule**

| Total down-stream Indoor capacity | Pipe(Liquid)  | Pipe(HP Gas)    | Pipe(LP Gas)    |
|-----------------------------------|---------------|-----------------|-----------------|
| P/M200 or less                    | ø9.52 [3/8"]  | ø15.88 [5/8"]   | ø19.05 [3/4"]   |
| P/M201 to P/M300                  | ø9.52 [3/8"]  | ø19.05 [3/4"]   | ø22.20 [7/8"]   |
| P/M301 to P/M350                  | ø12.70 [1/2"] | ø19.05 [3/4"]   | ø28.58 [1-1/8"] |
| P/M351 to P/M400                  | ø12.70 [1/2"] | ø22.20 [7/8"]   | ø28.58 [1-1/8"] |
| P/M401 to P/M600                  | ø15.88 [5/8"] | ø22.20 [7/8"]   | ø28.58 [1-1/8"] |
| P/M601 to P/M650                  | ø15.88 [5/8"] | ø28.58 [1-1/8"] | ø28.58 [1-1/8"] |
| P/M651 to P/M800                  | ø19.05 [3/4"] | ø28.58 [1-1/8"] | ø34.93 [1-3/8"] |
| P/M801 to P/M1000                 | ø19.05 [3/4"] | ø28.58 [1-1/8"] | ø41.28 [1-5/8"] |
| P/M1001 or above                  | ø19.05 [3/4"] | ø34.93 [1-3/8"] | ø41.28 [1-5/8"] |

HP: High pressure, LP: Low pressure



### 12-2-3. IF more than 16 ports are in use, or if there is more than one BC controller in use for two outdoor units

"BC controller," "BC controller (Main)," and "BC controller (Sub)" that appear in this section refer to the P-J type, P-JA type, P-KA type, and P-KB type.

- Note1. No Header usable on PURY system.
- Note2. Indoor unit sized P100-P250/M100-M140 should be connected to BC controller via Y shape joint CMY-R160-J1; If the system consists only of PEFY-P50, 63, 71, 80, 100VMHS2-E models of indoor units, connect to the BC controller via Y-shape joint CMY-R160-J1.
- Note3. Indoor unit sized P100-P250/M100-M140 does NOT share BC controller ports with other Indoor units;
- Note4. As bents cause pressure loss on transportation of refrigerant, fewer bents design is better; Piping length needs to consider the actual length and equivalent length which bents are counted. Equivalent piping length (m)=Actual piping length+"M" x Number of bent.
- Note5. Set DIP-SW 4-6 to ON of BC controller, in case of connected Indoor unit sized P100-P250/M100-M140 with 2 ports. If the system consists only of PEFY-P50, 63, 71, 80, 100VMHS2-E models of indoor units, set the dipswitches SW4-1 and SW4-6 on the BC controller to ON.
- Note6. It is also possible to connect Indoor unit sized P/M100-P/M140 with 1 port (set DIP-SW 4-1 and 4-6 to OFF). PEFY-P50, 63, 71, 80, 100VMHS2-E models of indoor units can be connected to the system using a single port. However, the cooling capacity decreases a little (For details, refer to the chapter "Correction by port counts of the BC controller").
- Note7. Do not connect multiple indoor units to the same port when operating each of them in different mode (cooling, heating, stop, and thermo-off). In case of connecting multiple indoor units to the same port, connecting all indoor units to one remote controller and switching SW1-1 ON in the all connected indoor units (switch to thermostat built in the remote controller) are recommended.
- Note8. The maximum total capacity of indoor units that can be connected to each sub BC controller CMB-M\*V-KB1 is 350.
- Note9. Indoor capacity is described as its model size. For example, PEFY-P63VML-E, its capacity is P63.
- Note10. Total down-stream Indoor capacity is the summary of the model size of Indoors down-stream. For example, PEFY-P63VML-E + PEFY-P32VML-E : Total Indoor capacity = P63 + P32 = P95.
- Note11. To enable the continuous heating mode, set SW4 (848) to ON.
- Note12. To connect the BC controller to the main pipe, use the reducer (CMY-R301S-G, CMY-R302S-G, or CMY-R304S-G).
- Note13. To connect the sub BC controller to the main BC controller, use the reducer (CMY-R303S-G, CMY-R305S-G, or CMY-R306S-G).
- Note14. Install the pipes correctly referring to the section titled "Procedures for installing the branched pipes."

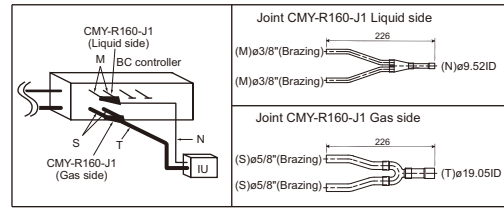
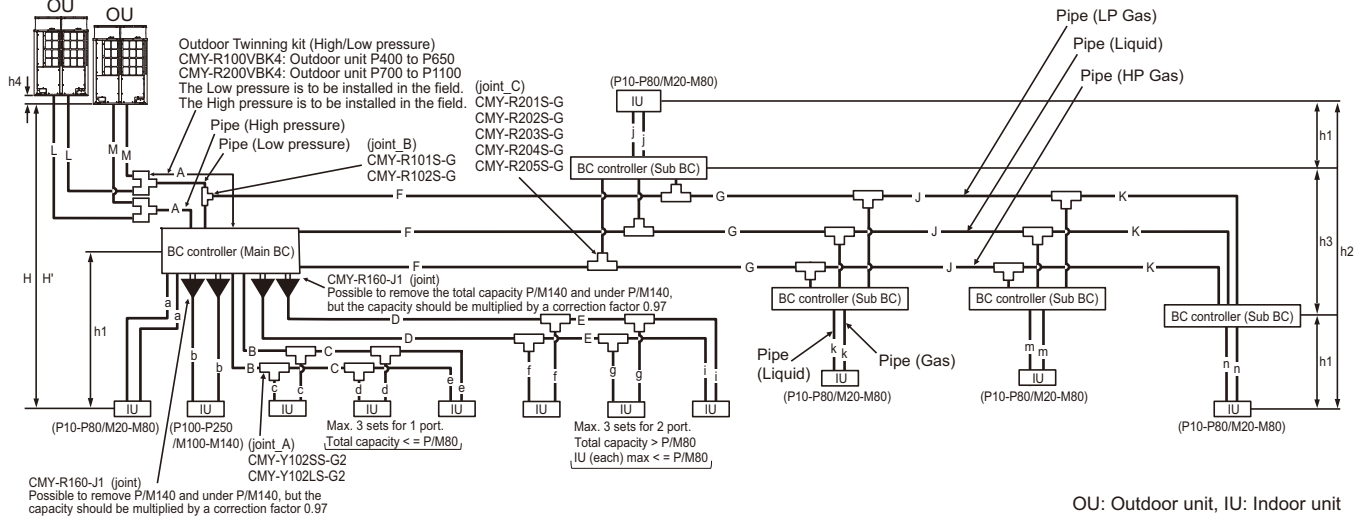


Fig. 12-2-3AA



OU: Outdoor unit, IU: Indoor unit

Fig. 12-2-3A Piping scheme

#### Piping length limitation \*11

| Item   | Piping in the figure                            | Max. length            | Max. equivalent length |
|--|---|------------------------|------------------------|
| Total piping length (Total length of high pressure and liquid pipes) | $L+M+A+B+C+D+E+F+G+J+K+a+b+c+d+e+f+g+i+j+k+m+n$ | *1                     | -                      |
| Farthest IU from OU  | $L(M)+A+F+G+J+K+n$                              | 165 [541']             | 190 [623']             |
| Distance between OU and BC   | $L(M)+A$  | 110 [360'] *1          | 110 [360'] *1          |
| Farthest IU from BC controller                                       | $D+E+i$   | 60 [197'] *2 *3        | 60 [197'] *2*3         |
| Farthest IU from BC controller via Sub BC controller                 | $F+G+J+K+n$                                     | 90 [295'] *9           | 90 [295'] *9           |
| Height between OU and IU (OU above IU)                               | H   | 50 [164'] *7           | -                      |
| Height between OU and IU (OU under IU)                               | H'  | 40 [131'] *8           | -                      |
| Height between IU and BC   | h1  | 15 [49'] (10 [32']) *4 | -                      |
| Height between IU and IU   | h2  | 30 [98'] (20 [65']) *5 | -                      |
| Height between BC(Main or Sub) and BC(Sub)                           | h3  | 15 [49'] (10 [32']) *6 | -                      |
| Distance between Main unit and Sub unit                              | L+M   | 5 [16']                | -                      |
| Height between Main unit and Sub unit                                | h4  | 0.1 [0.3']             | -                      |

OU: Outdoor Unit; IU: Indoor Unit; BC: BC controller

- \*1. Refer to the section 12-2-7.
- \*2. Details refer to Fig. 2.
- \*3. When the P200 or P250 model of indoor units are connected to the system, the maximum distance from the BC controller to the farthest indoor unit (indicated as "D + E + i" in the figure is 40 meters.)
- \*4. Distance of Indoor sized P200, P250 from BC must be less than 10 m, if any.
- \*5. Distance of Indoor sized P200, P250 from IU must be less than 20 m, if any.
- \*6. When using 2 Sub BC controllers, max. height "h3" should be considered.
- \*7. 90 m is available depending on the model and installation conditions. For more detailed information, contact your local distributor.
- \*8. 60 m is available depending on the model and installation conditions. For more detailed information, contact your local distributor.
- \*9. When the piping length or the vertical separation exceeds the limit specified in Fig. 2, connect a sub BC to the system. The restriction for a system with a sub BC connection is shown in Fig. 3. When a given system configuration falls within the shaded area in Fig. 3, increase the size of the high-pressure pipe and the liquid pipe between the main BC and sub BC by one size. When using P/M32, P/M40, P/M50, P/M100, or P/M125 model of indoor units, increase the size of the liquid branch pipe between the sub BC and indoor unit by one size. When using indoor models P/M140 or larger, the restrictions shown in Fig. 2 cannot be exceeded.
- \*10. When the high pressure piping length is 65 m or less, use  $\phi 22.2$  ( $\phi 7/8$ ) pipe. When the high pressure piping length exceeds 65 m, use  $\phi 22.2$  ( $\phi 7/8$ ) pipe until 65 m, use  $\phi 28.58$  ( $\phi 1-1/8$ ) pipe for the part that exceeds 65 m.
- \*11. Total length of high-pressure pipes and liquid pipes

#### Bent equivalent length

| Outdoor Model        | m/bent [ft./bent] |
|----------------------|-------------------|
| P400YSNW-A2/TR2/RU2  | 0.50 [1.64']      |
| P450YSNW-A2/TR2/RU2  | 0.50 [1.64']      |
| P500YSNW-A2/TR2/RU2  | 0.50 [1.64']      |
| P550YSNW-A2/TR2/RU2  | 0.50 [1.64']      |
| P600YSNW-A2/TR2/RU2  | 0.50 [1.64']      |
| P650YSNW-A2/TR2/RU2  | 0.50 [1.64']      |
| P700YSNW-A2/TR2/RU2  | 0.70 [2.29']      |
| P750YSNW-A2/TR2/RU2  | 0.70 [2.29']      |
| P800YSNW-A2/TR2/RU2  | 0.70 [2.29']      |
| P850YSNW-A2/TR2/RU2  | 0.80 [2.62']      |
| P900YSNW-A2/TR2/RU2  | 0.80 [2.62']      |
| P950YSNW-A2/TR2/RU2  | 0.80 [2.62']      |
| P1000YSNW-A2/TR2/RU2 | 0.80 [2.62']      |
| P1050YSNW-A2/TR2/RU2 | 0.80 [2.62']      |
| P1100YSNW-A2/TR2/RU2 | 0.80 [2.62']      |

PURY-P-Y(S)N/A2/TR2/RU2



Piping length and height between IU and BC controller

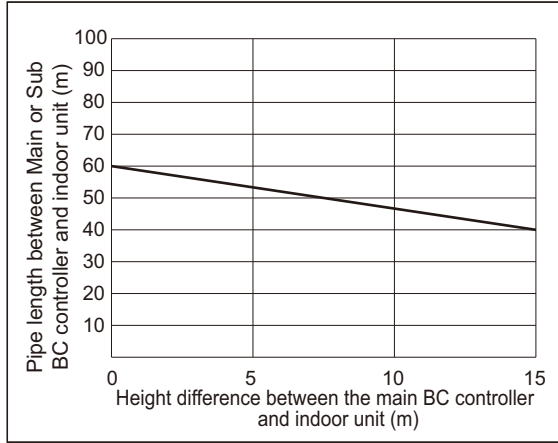


Fig. 2

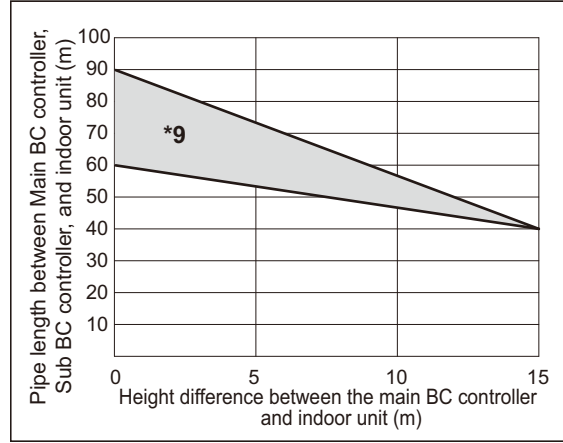
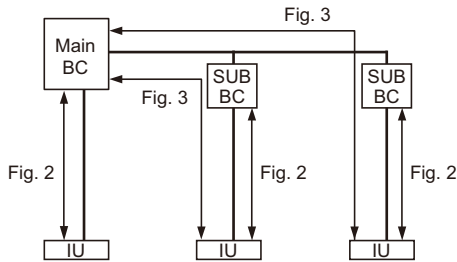


Fig. 3



\*9. When the piping length or the vertical separation exceeds the limit specified in Fig. 2, connect a sub BC to the system. The restriction for a system with a sub BC connection is shown in Fig. 3. When a given system configuration falls within the shaded area in Fig. 3, increase the size of the high-pressure pipe and the liquid pipe between the main BC and sub BC by one size. When using P/M32, P/M40, P/M50, P/M100, or P/M125 model of indoor units, increase the size of the liquid branch pipe between the sub BC and indoor unit by one size. When using indoor models P/M140 or larger, the restrictions shown in Fig. 2 cannot be exceeded.

**Piping "A" size selection rule**

| Outdoor Model        | Pipe(High pressure) | Pipe(Low pressure) |
|----------------------|---------------------|--------------------|
| P400YSNW-A2/TR2/RU2  | ø22.20 [7/8"]       | ø28.58 [1-1/8"]    |
| P450YSNW-A2/TR2/RU2  | ø22.20 [7/8"]       | ø28.58 [1-1/8"]    |
| P500YSNW-A2/TR2/RU2  | ø22.20 [7/8"]       | ø28.58 [1-1/8"]    |
| P550YSNW-A2/TR2/RU2  | ø22.20 [7/8"] *10   | ø28.58 [1-1/8"]    |
| P600YSNW-A2/TR2/RU2  | ø22.20 [7/8"] *10   | ø28.58 [1-1/8"]    |
| P650YSNW-A2/TR2/RU2  | ø28.58 [1-1/8"]     | ø28.58 [1-1/8"]    |
| P700YSNW-A2/TR2/RU2  | ø28.58 [1-1/8"]     | ø34.93 [1-3/8"]    |
| P750YSNW-A2/TR2/RU2  | ø28.58 [1-1/8"]     | ø34.93 [1-3/8"]    |
| P800YSNW-A2/TR2/RU2  | ø28.58 [1-1/8"]     | ø34.93 [1-3/8"]    |
| P850YSNW-A2/TR2/RU2  | ø28.58 [1-1/8"]     | ø41.28 [1-5/8"]    |
| P900YSNW-A2/TR2/RU2  | ø28.58 [1-1/8"]     | ø41.28 [1-5/8"]    |
| P950YSNW-A2/TR2/RU2  | ø28.58 [1-1/8"]     | ø41.28 [1-5/8"]    |
| P1000YSNW-A2/TR2/RU2 | ø28.58 [1-1/8"]     | ø41.28 [1-5/8"]    |
| P1050YSNW-A2/TR2/RU2 | ø34.93 [1-3/8"]     | ø41.28 [1-5/8"]    |
| P1100YSNW-A2/TR2/RU2 | ø34.93 [1-3/8"]     | ø41.28 [1-5/8"]    |

**Piping "L", "M" size selection rule**

| Outdoor Model      | Pipe(High pressure) | Pipe(Low pressure) |
|--------------------|---------------------|--------------------|
| P200YNW-A2/TR2/RU2 | ø15.88 [5/8"]       | ø19.05 [3/4"]      |
| P250YNW-A2/TR2/RU2 | ø19.05 [3/4"]       | ø22.20 [7/8"]      |
| P300YNW-A2/TR2/RU2 | ø19.05 [3/4"]       | ø22.20 [7/8"]      |
| P350YNW-A2/TR2/RU2 | ø19.05 [3/4"]       | ø28.58 [1-1/8"]    |
| P400YNW-A2/TR2/RU2 | ø22.20 [7/8"]       | ø28.58 [1-1/8"]    |
| P450YNW-A2/TR2/RU2 | ø22.20 [7/8"]       | ø28.58 [1-1/8"]    |
| P500YNW-A2/TR2/RU2 | ø22.20 [7/8"]       | ø28.58 [1-1/8"]    |
| P550YNW-A2/TR2/RU2 | ø22.20 [7/8"]       | ø28.58 [1-1/8"]    |

**Piping "B", "C", "D", "E" size selection rule**

| Total down-stream Indoor capacity | Pipe(Liquid) | Pipe(Gas)     |
|-----------------------------------|--------------|---------------|
| P/M140 or less                    | ø9.52 [3/8"] | ø15.88 [5/8"] |
| P/M141-P/M200                     | ø9.52 [3/8"] | ø19.05 [3/4"] |
| P/M201-P/M250                     | ø9.52 [3/8"] | ø22.20 [7/8"] |

**Selection criteria for joints\_A**

| Total down-stream Indoor capacity | Joint         |
|-----------------------------------|---------------|
| -P/M200                           | CMY-Y102SS-G2 |
| P/M201-P/M250                     | CMY-Y102LS-G2 |

**Piping "a", "b", "c", "d", "e", "f", "g", "i", "j", "k", "m", "n" size selection rule (mm [in.]**

| Indoor Unit size                       | Pipe(Liquid) | Pipe(Gas)     |
|--|--------------|---------------|
| P10 to P50, M20 to M50, GUF-50RD(H)    | ø6.35 [1/4"] | ø12.70 [1/2"] |
| P63 to P140, M63 to M140, GUF-100RD(H) | ø9.52 [3/8"] | ø15.88 [5/8"] |
| P200                                   | ø9.52 [3/8"] | ø19.05 [3/4"] |
| P250                                   | ø9.52 [3/8"] | ø22.20 [7/8"] |

**Selection criteria for joints\_B**

| Outdoor Model             | Joint       |
|---------------------------|-------------|
| P400-P650YSNW-A2/TR2/RU2  | CMY-R101S-G |
| P700-P1100YSNW-A2/TR2/RU2 | CMY-R102S-G |

**Piping "F", "G", "J", "K" size selection rule**

| Total down-stream Indoor capacity | Pipe(Liquid)  | Pipe(HP Gas)    | Pipe(LP Gas)    |
|-----------------------------------|---------------|-----------------|-----------------|
| P/M200 or less                    | ø9.52 [3/8"]  | ø15.88 [5/8"]   | ø19.05 [3/4"]   |
| P/M201 to P/M300                  | ø9.52 [3/8"]  | ø19.05 [3/4"]   | ø22.20 [7/8"]   |
| P/M301 to P/M350                  | ø12.70 [1/2"] | ø19.05 [3/4"]   | ø28.58 [1-1/8"] |
| P/M351 to P/M400                  | ø12.70 [1/2"] | ø22.20 [7/8"]   | ø28.58 [1-1/8"] |
| P/M401 to P/M600                  | ø15.88 [5/8"] | ø22.20 [7/8"]   | ø28.58 [1-1/8"] |
| P/M601 to P/M650                  | ø15.88 [5/8"] | ø28.58 [1-1/8"] | ø28.58 [1-1/8"] |
| P/M651 to P/M800                  | ø19.05 [3/4"] | ø28.58 [1-1/8"] | ø34.93 [1-3/8"] |
| P/M801 to P/M1000                 | ø19.05 [3/4"] | ø28.58 [1-1/8"] | ø41.28 [1-5/8"] |
| P/M1001 or above                  | ø19.05 [3/4"] | ø34.93 [1-3/8"] | ø41.28 [1-5/8"] |

**Selection criteria for joints\_C**

| Total down-stream Indoor capacity | Joint       |
|-----------------------------------|-------------|
| -P/M350                           | CMY-R201S-G |
| P/M351-P/M600                     | CMY-R202S-G |
| P/M601-P/M650                     | CMY-R203S-G |
| P/M651-P/M1000                    | CMY-R204S-G |
| P/M1001-                          | CMY-R205S-G |

HP: High pressure, LP: Low pressure

### 12-2-4. IF 16 ports or less are in use, i.e., if only one BC controller is in use with no sub BC controller

"BC controller," "BC controller (Main)," and "BC controller (Sub)" that appear in this section refer to the M-J1 type, M-JA1 type, P-KA1 type, and M-KB1 type.

- Note1. No Header usable on PURY system.
- Note2. Indoor unit sized P100-P250/M100-M140 should be connected to BC controller via Y shape joint CMY-R160-J1 ; If the system consists only of PEFY-P50, 63, 71, 80, 100VMHS2-E models of indoor units, connect to the BC controller via Y-shape joint CMY-R160-J1.
- Note3. Indoor unit sized P100-P250/M100-M140 does NOT share BC controller ports with other Indoor units ;
- Note4. As bents cause pressure loss on transportation of refrigerant, fewer bents design is better ; Piping length needs to consider the actual length and equivalent length which bents are counted. Equivalent piping length (m)=Actual piping length+ $M \times$  Number of bent.
- Note5. Set DIP-SW 4-6 to ON of BC controller, in case of connected Indoor unit sized P100-P250/M100-M140 with 2 ports. If the system consists only of PEFY-P50, 63, 71, 80, 100VMHS2-E models of indoor units, set the dipperswitches SW4-1 and SW4-6 on the BC controller to ON.
- Note6. It is also possible to connect Indoor unit sized P/M100-P/M140 with 1 port (set DIP-SW 4-1 and 4-6 to OFF). PEFY-P50, 63, 71, 80, 100VMHS2-E models of indoor units can be connected to the system using a single port. However, the cooling capacity decreases a little (For details, refer to the chapter OUTDOOR UNITS, 8-5. Correction by port counts of the BC controller).
- Note7. Do not connect multiple indoor units to the same port when operating each of them in different mode (cooling, heating, stop, and thermo-off). In case of connecting multiple indoor units to the same port, connecting all indoor units to one remote controller and switching SW1-1 ON in the all connected indoor units (switch to thermostat built in the remote controller) are recommended.
- Note8. Indoor capacity is described as its model size. For example, PEFY-P63VML-E, its capacity is P63.
- Note9. Total down-stream Indoor capacity is the summary of the model size of Indoors down-stream. For example, PEFY-P63VML-E + PEFY-P32VML-E: Total Indoor capacity = P63 + P32 = P95.
- Note10. To enable the continuous heating mode, set SW4 (848) to ON.
- Note11. To connect the BC controller to the main pipe, use the reducer (CMY-R301S-G, CMY-R302S-G1, or CMY-R304S-G1).
- Note12. Install the pipes correctly referring to the section titled "Procedures for installing the branched pipes."

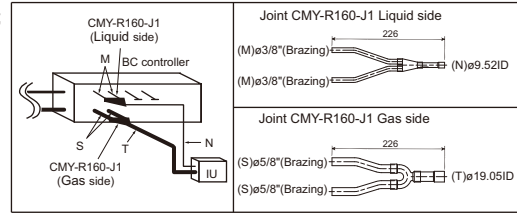


Fig. 12-2-4AA

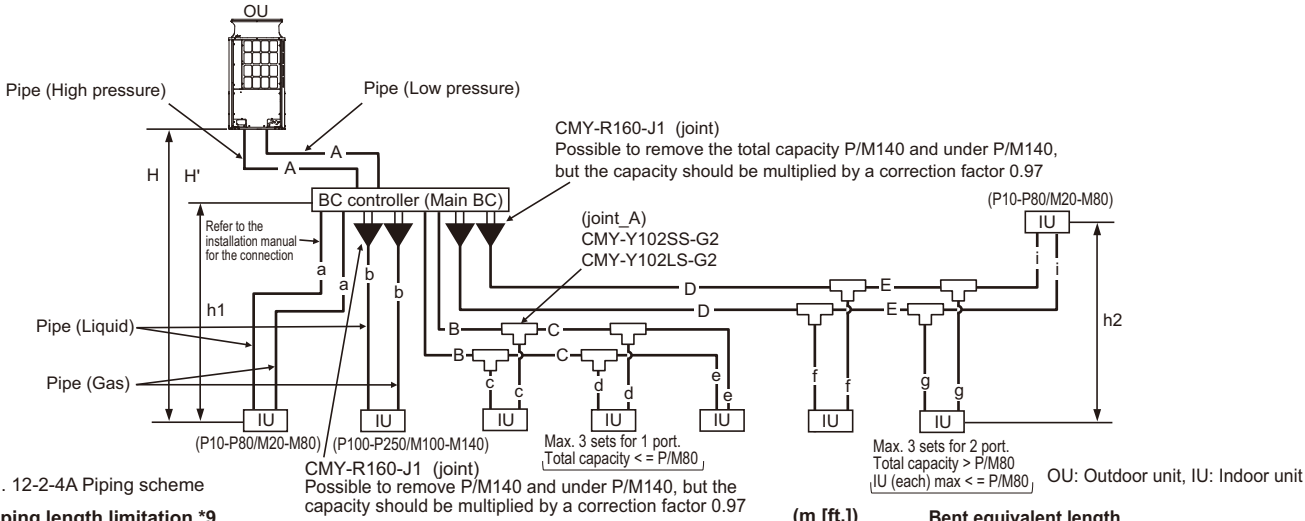


Fig. 12-2-4A Piping scheme

**Piping length limitation \*9**

| Item   | Piping in the figure      | Max. length            | Max. equivalent length |
|--|---------------------------|------------------------|------------------------|
| Total piping length (Total length of high pressure and liquid pipes) | A+B+C+D+E+a+b+c+d+e+f+g+i | *1                     | -                      |
| Farthest IU from OU  | A+D+E+i                   | 165 [541']             | 190 [623']             |
| Distance between OU and BC   | A                         | 110 [360'] *1          | 110 [360'] *1          |
| Farthest IU from BC controller                                       | D+E+i                     | 60 [197'] *2*3         | 60 [197'] *2*3         |
| Height between OU and IU (OU above IU)                               | H                         | 50 [164'] *6           | -                      |
| Height between OU and IU (OU under IU)                               | H'                        | 40 [131'] *7           | -                      |
| Height between IU and BC   | h1                        | 15 [49'] (10 [32']) *4 | -                      |
| Height between IU and IU   | h2                        | 30 [98'] (20 [65']) *5 | -                      |

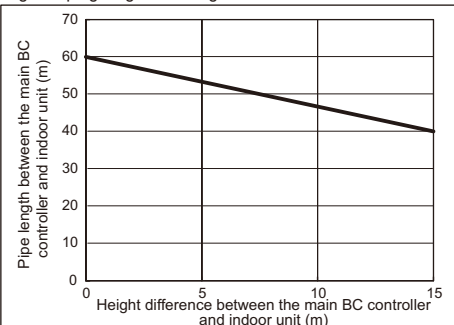
**Bent equivalent length**

| Outdoor Model      | m/bent [ft./bent] |
|--------------------|-------------------|
| P200YNW-A2/TR2/RU2 | 0.35 [1.15']      |
| P250YNW-A2/TR2/RU2 | 0.42 [1.38']      |
| P300YNW-A2/TR2/RU2 | 0.42 [1.38']      |
| P350YNW-A2/TR2/RU2 | 0.47 [1.54']      |
| P400YNW-A2/TR2/RU2 | 0.50 [1.64']      |
| P450YNW-A2/TR2/RU2 | 0.50 [1.64']      |
| P500YNW-A2/TR2/RU2 | 0.50 [1.64']      |
| P550YNW-A2/TR2/RU2 | 0.50 [1.64']      |

OU: Outdoor Unit; IU: Indoor Unit; BC: BC controller

- \*1. Refer to the section 12-2-7.
- \*2. Details refer to Fig. 1.
- \*3. When the P200 or P250 model of indoor units are connected to the system, the maximum distance from the BC controller to the farthest indoor unit (indicated as "D + E + i" in the figure is 40 meters.)
- \*4. Distance of Indoor sized P200, P250 from BC must be less than 10 m, if any.
- \*5. Distance of Indoor sized P200, P250 from IU must be less than 20 m, if any.
- \*6. 90 m is available depending on the model and installation conditions. For more detailed information, contact your local distributor.
- \*7. 60 m is available depending on the model and installation conditions. For more detailed information, contact your local distributor.
- \*8. When the high pressure piping length is 65 m or less, use  $\phi 22.2$  ( $\phi 7/8$ ) pipe. When the high pressure piping length exceeds 65 m, use  $\phi 28.2$  ( $\phi 1-1/8$ ) pipe for the part that exceeds 65 m.
- \*9. Total length of high-pressure pipes and liquid pipes

Fig. 1 Piping length and height between IU and BC controller



**Piping "A" size selection rule**

| Outdoor Model      | Pipe(High pressure)    | Pipe(Low pressure)    |
|--------------------|------------------------|-----------------------|
| P200YNW-A2/TR2/RU2 | $\phi 15.88$ [5/8"]    | $\phi 19.05$ [3/4"]   |
| P250YNW-A2/TR2/RU2 | $\phi 19.05$ [3/4"]    | $\phi 22.20$ [7/8"]   |
| P300YNW-A2/TR2/RU2 | $\phi 19.05$ [3/4"]    | $\phi 22.20$ [7/8"]   |
| P350YNW-A2/TR2/RU2 | $\phi 19.05$ [3/4"]    | $\phi 28.58$ [1-1/8"] |
| P400YNW-A2/TR2/RU2 | $\phi 22.20$ [7/8"]    | $\phi 28.58$ [1-1/8"] |
| P450YNW-A2/TR2/RU2 | $\phi 22.20$ [7/8"]    | $\phi 28.58$ [1-1/8"] |
| P500YNW-A2/TR2/RU2 | $\phi 22.20$ [7/8"]    | $\phi 28.58$ [1-1/8"] |
| P550YNW-A2/TR2/RU2 | $\phi 22.20$ [7/8"] *8 | $\phi 28.58$ [1-1/8"] |

**Piping "B", "C", "D", "E" size selection rule**

| Total down-stream Indoor capacity | Pipe(Liquid)       | Pipe(Gas)           |
|-----------------------------------|--------------------|---------------------|
| P/M140 or less                    | $\phi 9.52$ [3/8"] | $\phi 15.88$ [5/8"] |
| P/M141-P/M200                     | $\phi 9.52$ [3/8"] | $\phi 19.05$ [3/4"] |
| P/M201-P/M250                     | $\phi 9.52$ [3/8"] | $\phi 22.20$ [7/8"] |

**Piping "a", "b", "c", "d", "e", "f", "g", "i" size selection rule**

| Indoor Unit size                       | Pipe(Liquid)       | Pipe(Gas)           |
|--|--------------------|---------------------|
| P10 to P50, M20 to M50, GUF-50RD(H)    | $\phi 6.35$ [1/4"] | $\phi 12.70$ [1/2"] |
| P63 to P140, M63 to M140, GUF-100RD(H) | $\phi 9.52$ [3/8"] | $\phi 15.88$ [5/8"] |
| P200                                   | $\phi 9.52$ [3/8"] | $\phi 19.05$ [3/4"] |
| P250                                   | $\phi 9.52$ [3/8"] | $\phi 22.20$ [7/8"] |

**Selection criteria for joints\_A**

| Total down-stream Indoor capacity | Joint         |
|-----------------------------------|---------------|
| -P/M200                           | CMY-Y102SS-G2 |
| P/M201-P/M250                     | CMY-Y102LS-G2 |

### 12-2-5. IF more than 16 ports are in use, or if there is more than one BC controller in use for one outdoor unit

"BC controller," "BC controller (Main)," and "BC controller (Sub)" that appear in this section refer to the M-J1 type, M-JA1 type, P-KA1 type, and M-KB1 type.

- Note1. No Header usable on PURY system.
- Note2. Indoor unit sized P100-P250/M100-M140 should be connected to BC controller via Y shape joint CMY-R160-J1 ; If the system consists only of PEFY-P50, 63, 71, 80, 100VMHS2-E models of indoor units, connect to the BC controller via Y-shape joint CMY-R160-J1.
- Note3. Indoor unit sized P100-P250/M100-M140 does NOT share BC controller ports with other Indoor units ;
- Note4. As bents cause pressure loss on transportation of refrigerant, fewer bents design is better ; Piping length needs to consider the actual length and equivalent length which bents are counted. Equivalent piping length (m)=Actual piping length+"M" x Number of bent.
- Note5. Set DIP-SW 4-6 to ON of BC controller, in case of connected Indoor unit sized P100-P250/M100-M140 with 2 ports. If the system consists only of PEFY-P50, 63, 71, 80, 100VMHS2-E models of indoor units, set the dipswitches SW4-1 and SW4-6 on the BC controller to ON.
- Note6. It is also possible to connect Indoor unit sized P/M100-P/M140 with 1 port (set DIP-SW 4-1 and 4-6 to OFF). PEFY-P50, 63, 71, 80, 100VMHS2-E models of indoor units can be connected to the system using a single port. However, the cooling capacity decreases a little (For details, refer to the chapter OUTDOOR UNITS, 8-5. Correction by port counts of the BC controller).
- Note7. Do not connect multiple indoor units to the same port when operating each of them in different mode (cooling, heating, stop, and thermo-off). In case of connecting multiple indoor units to the same port, connecting all indoor units to one remote controller and switching SW1-1 ON in the all connected indoor units (switch to thermostat built in the remote controller) are recommended.
- Note8. The maximum total capacity of indoor units that can be connected to each sub BC controller CMB-M\*V-KB1 is 350.
- Note9. Indoor capacity is described as its model size. For example, PEFY-P63VML-E, its capacity is P63.
- Note10. Total down-stream Indoor capacity is the summary of the model size of Indoors down-stream. For example, PEFY-P63VML-E + PEFY-P32VML-E : Total Indoor capacity = P63 + P32 = P95.
- Note11. To enable the continuous heating mode, set SW4 (848) to ON.
- Note12. To connect the BC controller to the main pipe, use the reducer (CMY-R301S-G, CMY-R302S-G1, or CMY-R304S-G1).
- Note13. To connect the sub BC controller to the main BC controller, use the reducer (CMY-R303S-G1, CMY-R305S-G1, or CMY-R306S-G).
- Note14. Install the pipes correctly referring to the section titled "Procedures for installing the branched pipes."

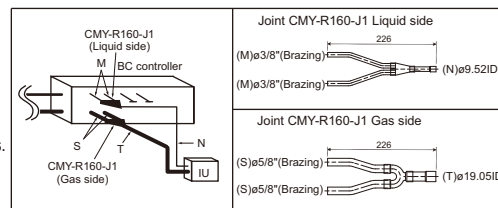
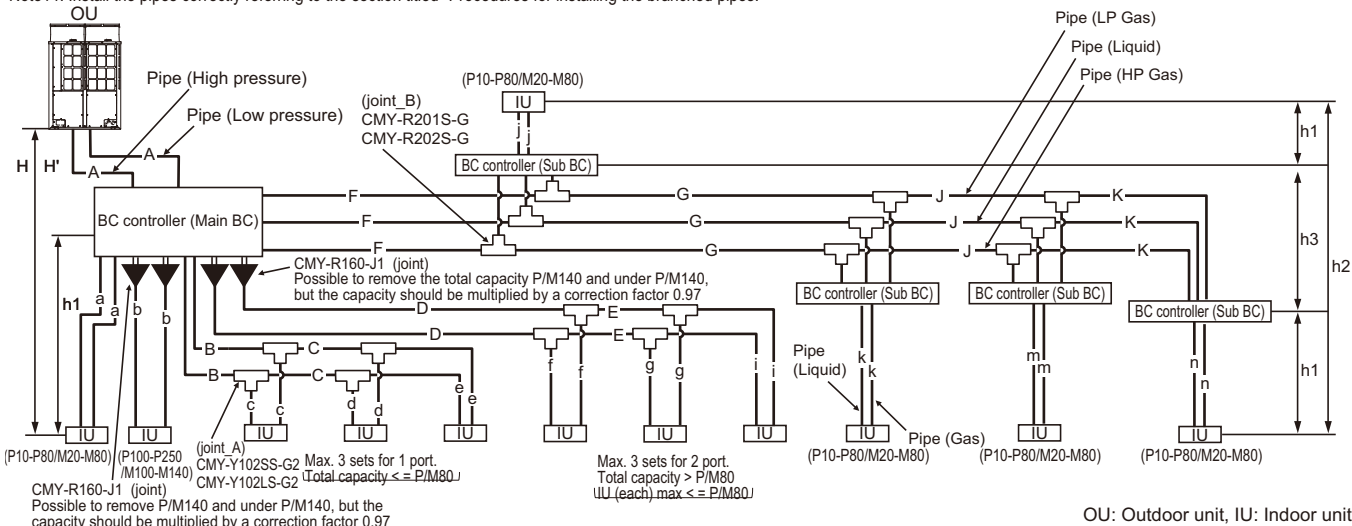


Fig. 12-2-5AA



OU: Outdoor unit, IU: Indoor unit

Fig. 12-2-5A Piping scheme

#### Piping length limitation \*11

| Item   | Piping in the figure                      | Max. length            | Max. equivalent length |
|--|---|------------------------|------------------------|
| Total piping length (Total length of high pressure and liquid pipes) | A+B+C+D+E+F+G+J+K+a+b+c+d+e+f+g+i+j+k+m+n | *1                     | -                      |
| Farthest IU from OU  | A+F+G+J+K+n                               | 165 [541']             | 190 [623']             |
| Distance between OU and BC   | A   | 110 [360'] *1          | 110 [360'] *1          |
| Farthest IU from BC controller                                       | D+E+i                                     | 60 [197'] *2*3         | 60 [197'] *2*3         |
| Farthest IU from BC controller via Sub BC controller                 | F+G+J+K+n                                 | 90 [295'] *9           | 90 [295'] *9           |
| Height between OU and IU (OU above IU)                               | H   | 50 [164'] *7           | -                      |
| Height between OU and IU (OU under IU)                               | H'  | 40 [131'] *8           | -                      |
| Height between IU and BC   | h1  | 15 [49'] (10 [32']) *4 | -                      |
| Height between IU and IU   | h2  | 30 [98'] (20 [65']) *5 | -                      |
| Height between BC(Main or Sub) and BC(Sub)                           | h3  | 15 [49'] (10 [32']) *6 | -                      |

OU: Outdoor Unit; IU: Indoor Unit; BC: BC controller

\*1. Refer to the section 12-2-7.

\*2. Details refer to Fig. 2.

\*3. When the P200 or P250 model of indoor units are connected to the system, the maximum distance from the BC controller to the farthest indoor unit (indicated as "D + E + i" in the figure is 40 meters.)

\*4. Distance of Indoor sized P200, P250 from BC must be less than 10 m, if any.

\*5. Distance of Indoor sized P200, P250 from IU must be less than 20 m, if any.

\*6. When using 2 Sub BC controllers, max. height "h3" should be considered.

\*7. 90 m is available depending on the model and installation conditions. For more detailed information, contact your local distributor.

\*8. 60 m is available depending on the model and installation conditions. For more detailed information, contact your local distributor.

\*9. When the piping length or the vertical separation exceeds the limit specified in Fig. 2, connect a sub BC to the system.

The restriction for a system with a sub BC connection is shown in Fig. 3.

When a given system configuration falls within the shaded area in Fig. 3, increase the size of the high-pressure pipe and the liquid pipe between the main BC and sub BC by one size. When using P/M32, P/M40, P/M50, P/M100, or P/M125 model of indoor units, increase the size of the liquid branch pipe between the sub BC and indoor unit by one size.

When using indoor models P/M140 or larger, the restrictions shown in Fig. 2 cannot be exceeded.

\*10. When the high pressure piping length is 65 m or less, use ø22.2 (ø7/8) pipe.

When the high pressure piping length exceeds 65 m, use ø22.2 (ø7/8) pipe until 65 m, use ø28.58 (ø1-1/8) pipe for the part that exceeds 65 m.

\*11. Total length of high-pressure pipes and liquid pipes

#### Bent equivalent length

| Outdoor Model      | m/bent [ft./bent] |
|--------------------|-------------------|
| P200YNW-A2/TR2/RU2 | 0.35 [1.15']      |
| P250YNW-A2/TR2/RU2 | 0.42 [1.38']      |
| P300YNW-A2/TR2/RU2 | 0.42 [1.38']      |
| P350YNW-A2/TR2/RU2 | 0.47 [1.54']      |
| P400YNW-A2/TR2/RU2 | 0.50 [1.64']      |
| P450YNW-A2/TR2/RU2 | 0.50 [1.64']      |
| P500YNW-A2/TR2/RU2 | 0.50 [1.64']      |
| P550YNW-A2/TR2/RU2 | 0.50 [1.64']      |

Piping length and height between IU and BC controller

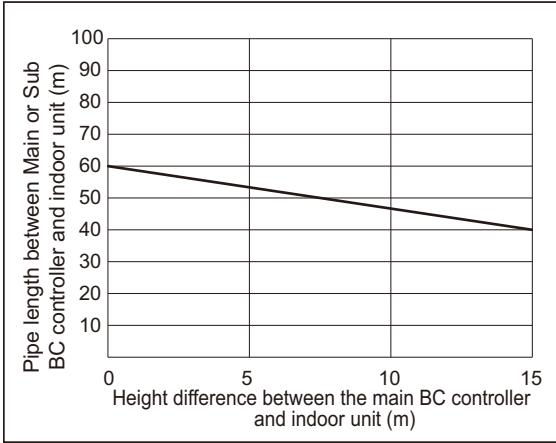


Fig. 2

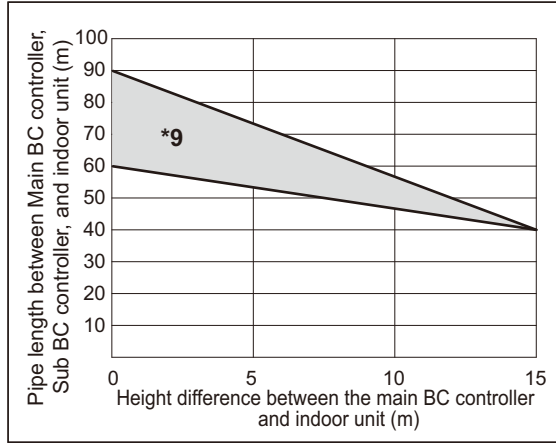
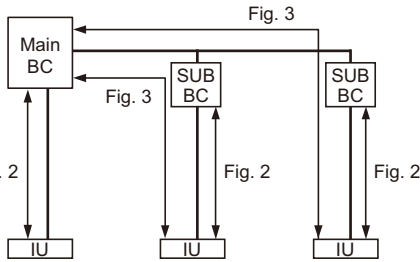


Fig. 3



\*9. When the piping length or the vertical separation exceeds the limit specified in Fig. 2, connect a sub BC to the system. The restriction for a system with a sub BC connection is shown in Fig. 3. When a given system configuration falls within the shaded area in Fig. 3, increase the size of the high-pressure pipe and the liquid pipe between the main BC and sub BC by one size. When using P/M32, P/M40, P/M50, P/M100, or P/M125 model of indoor units, increase the size of the liquid branch pipe between the sub BC and indoor unit by one size. When using indoor models P/M140 or larger, the restrictions shown in Fig. 2 cannot be exceeded.

Piping "A" size selection rule

| Outdoor Model      | Pipe(High pressure) | Pipe(Low pressure) |
|--------------------|---------------------|--------------------|
| P200YNW-A2/TR2/RU2 | ø15.88 [5/8"]       | ø19.05 [3/4"]      |
| P250YNW-A2/TR2/RU2 | ø19.05 [3/4"]       | ø22.20 [7/8"]      |
| P300YNW-A2/TR2/RU2 | ø19.05 [3/4"]       | ø22.20 [7/8"]      |
| P350YNW-A2/TR2/RU2 | ø19.05 [3/4"]       | ø28.58 [1-1/8"]    |
| P400YNW-A2/TR2/RU2 | ø22.20 [7/8"]       | ø28.58 [1-1/8"]    |
| P450YNW-A2/TR2/RU2 | ø22.20 [7/8"]       | ø28.58 [1-1/8"]    |
| P500YNW-A2/TR2/RU2 | ø22.20 [7/8"]       | ø28.58 [1-1/8"]    |
| P550YNW-A2/TR2/RU2 | ø22.20 [7/8"] *10   | ø28.58 [1-1/8"]    |

Selection criteria for joints\_A

| Total down-stream Indoor capacity | Joint         |
|-----------------------------------|---------------|
| -P/M200                           | CMY-Y102SS-G2 |
| P/M201-P/M250                     | CMY-Y102LS-G2 |

Selection criteria for joints\_B

| Total down-stream Indoor capacity | Joint       |
|-----------------------------------|-------------|
| -P/M350                           | CMY-R201S-G |
| P/M351-P/M550                     | CMY-R202S-G |

Piping "B", "C", "D", "E" size selection rule

| Total down-stream Indoor capacity | Pipe(Liquid) | Pipe(Gas)     |
|-----------------------------------|--------------|---------------|
| P/M140 or less                    | ø9.52 [3/8"] | ø15.88 [5/8"] |
| P/M141-P/M200                     | ø9.52 [3/8"] | ø19.05 [3/4"] |
| P/M201-P/M250                     | ø9.52 [3/8"] | ø22.20 [7/8"] |

Piping "a", "b", "c", "d", "e", "f", "g", "i", "j", "k", "m", "n" size selection rule

| Indoor Unit size                       | Pipe(Liquid) | Pipe(Gas)     |
|--|--------------|---------------|
| P10 to P50, M20 to M50, GUF-50RD(H)    | ø6.35 [1/4"] | ø12.70 [1/2"] |
| P63 to P140, M63 to M140, GUF-100RD(H) | ø9.52 [3/8"] | ø15.88 [5/8"] |
| P200                                   | ø9.52 [3/8"] | ø19.05 [3/4"] |
| P250                                   | ø9.52 [3/8"] | ø22.20 [7/8"] |

Piping "F", "G", "J", "K" size selection rule

| Total down-stream Indoor capacity | Pipe(Liquid)  | Pipe(HP Gas)    | Pipe(LP Gas)    |
|-----------------------------------|---------------|-----------------|-----------------|
| P/M200 or less                    | ø9.52 [3/8"]  | ø15.88 [5/8"]   | ø19.05 [3/4"]   |
| P/M201 to P/M300                  | ø9.52 [3/8"]  | ø19.05 [3/4"]   | ø22.20 [7/8"]   |
| P/M301 to P/M350                  | ø12.70 [1/2"] | ø19.05 [3/4"]   | ø28.58 [1-1/8"] |
| P/M351 to P/M400                  | ø12.70 [1/2"] | ø22.20 [7/8"]   | ø28.58 [1-1/8"] |
| P/M401 to P/M600                  | ø15.88 [5/8"] | ø22.20 [7/8"]   | ø28.58 [1-1/8"] |
| P/M601 to P/M650                  | ø15.88 [5/8"] | ø28.58 [1-1/8"] | ø28.58 [1-1/8"] |
| P/M651 to P/M800                  | ø19.05 [3/4"] | ø28.58 [1-1/8"] | ø34.93 [1-3/8"] |
| P/M801 to P/M1000                 | ø19.05 [3/4"] | ø28.58 [1-1/8"] | ø41.28 [1-5/8"] |
| P/M1001 or above                  | ø19.05 [3/4"] | ø34.93 [1-3/8"] | ø41.28 [1-5/8"] |

HP: High pressure, LP: Low pressure

PURY-P-Y(S)NW-A2/TR2/RU2



### 12-2-6. IF more than 16 ports are in use, or if there is more than one BC controller in use for two outdoor units

"BC controller," "BC controller (Main)," and "BC controller (Sub)" that appear in this section refer to the M-J1 type, M-JA1 type, P-KA1 type, and M-KB1 type.

- Note1. No Header usable on PURY system.
- Note2. Indoor unit sized P100-P250/M100-M140 should be connected to BC controller via Y shape joint CMY-R160-J1 ; If the system consists only of PEFY-P50, 63, 71, 80, 100VMHS2-E models of indoor units, connect to the BC controller via Y-shape joint CMY-R160-J1.
- Note3. Indoor unit sized P100-P250/M100-M140 does NOT share BC controller ports with other Indoor units ;
- Note4. As bents cause pressure loss on transportation of refrigerant, fewer bents design is better ; Piping length needs to consider the actual length and equivalent length which bents are counted. Equivalent piping length (m)=Actual piping length+"M" x Number of bent.
- Note5. Set DIP-SW 4-6 to ON of BC controller, in case of connected Indoor unit sized P100-P250/M100-M140 with 2 ports. If the system consists only of PEFY-P50, 63, 71, 80, 100VMHS2-E models of indoor units, set the dipswitches SW4-1 and SW4-6 on the BC controller to ON.
- Note6. It is also possible to connect Indoor unit sized P/M100-P/M140 with 1 port (set DIP-SW 4-1 and 4-6 to OFF). PEFY-P50, 63, 71, 80, 100VMHS2-E models of indoor units can be connected to the system using a single port. However, the cooling capacity decreases a little (For details, refer to the chapter "Correction by port counts of the BC controller").
- Note7. Do not connect multiple indoor units to the same port when operating each of them in different mode (cooling, heating, stop, and thermo-off). In case of connecting multiple indoor units to the same port, connecting all indoor units to one remote controller and switching SW1-1 ON in the all connected indoor units (switch to thermostat built in the remote controller) are recommended.
- Note8. The maximum total capacity of indoor units that can be connected to each sub BC controller CMB-M-V-KB1 is 350.
- Note9. Indoor capacity is described as its model size. For example, PEFY-P63VML-E, its capacity is P63.
- Note10. Total down-stream Indoor capacity is the summary of the model size of Indoors down-stream. For example, PEFY-P63VML-E + PEFY-P32VML-E : Total Indoor capacity = P63 + P32 = P95.
- Note11. To enable the continuous heating mode, set SW4 (848) to ON.
- Note12. To connect the BC controller to the main pipe, use the reducer (CMY-R301S-G, CMY-R302S-G1, or CMY-R304S-G1).
- Note13. To connect the sub BC controller to the main BC controller, use the reducer (CMY-R303S-G1, CMY-R305S-G1, or CMY-R306S-G).
- Note14. Install the pipes correctly referring to the section titled "Procedures for installing the branched pipes."

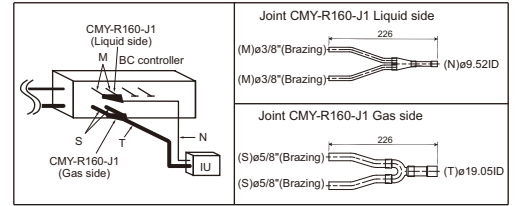
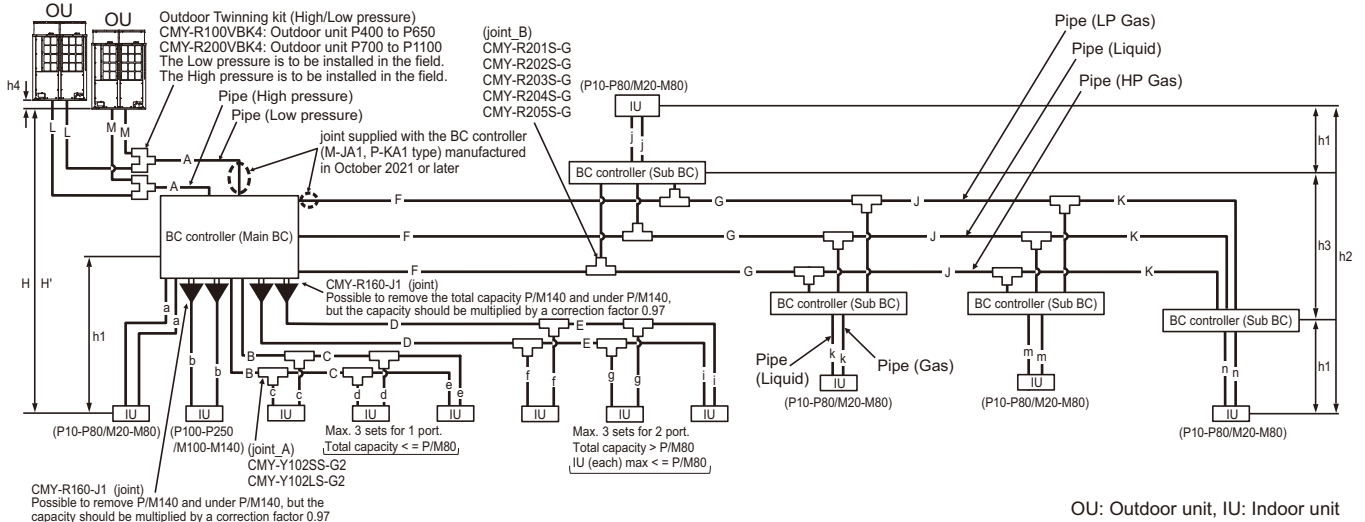


Fig. 12-2-6AA



OU: Outdoor unit, IU: Indoor unit

#### Piping length limitation \*11

| Item   | Piping in the figure                              | Max. length            | Max. equivalent length (m [ft.]) |
|--|---|------------------------|----------------------------------|
| Total piping length (Total length of high pressure and liquid pipes) | $L+M+A+B+C+D+E+F+G+J+K+a+b+c+d+e+f+g+h+i+j+k+m+n$ | *1                     | -                                |
| Farthest IU from OU  | $L(M)+A+F+G+J+K+n$                                | 165 [541']             | 190 [623']                       |
| Distance between OU and BC   | $L(M)+A$  | 110 [360'] *1          | 110 [360'] *1                    |
| Farthest IU from BC controller                                       | $D+E+i$   | 60 [197'] *2 *3        | 60 [197'] *2 *3                  |
| Farthest IU from BC controller via Sub BC controller                 | $F+G+J+K+n$                                       | 90 [295'] *9           | 90 [295'] *9                     |
| Height between OU and IU (OU above IU)                               | H   | 50 [164'] *7           | -                                |
| Height between OU and IU (OU under IU)                               | H'  | 40 [131'] *8           | -                                |
| Height between IU and BC   | h1  | 15 [49'] (10 [32']) *4 | -                                |
| Height between IU and IU   | h2  | 30 [98'] (20 [65']) *5 | -                                |
| Height between BC(Main or Sub) and BC(Sub)                           | h3  | 15 [49'] (10 [32']) *6 | -                                |
| Distance between Main unit and Sub unit                              | L+M   | 5 [16']                | -                                |
| Height between Main unit and Sub unit                                | h4  | 0.1 [0.3']             | -                                |

OU: Outdoor Unit; IU: Indoor Unit; BC: BC controller

\*1. Refer to the section 12-2-7.

\*2. Details refer to Fig. 2.

\*3. When the P200 or P250 model of indoor units are connected to the system, the maximum distance from the BC controller to the farthest indoor unit (indicated as "D + E + i" in the figure is 40 meters.)

\*4. Distance of indoor sized P200, P250 from BC must be less than 10 m, if any.

\*5. Distance of indoor sized P200, P250 from IU must be less than 20 m, if any.

\*6. When using 2 Sub BC controllers, max. height "h3" should be considered.

\*7. 90 m is available depending on the model and installation conditions. For more detailed information, contact your local distributor.

\*8. 60 m is available depending on the model and installation conditions. For more detailed information, contact your local distributor.

\*9. When the piping length or the vertical separation exceeds the limit specified in Fig. 2, connect a sub BC to the system.

The restriction for a system with a sub BC connection is shown in Fig. 3.

When a given system configuration falls within the shaded area in Fig. 3, increase the size of the high-pressure pipe and the liquid pipe between the main BC and sub BC by one size.

When using P/M32, P/M40, P/M50, P/M100, or P/M125 model of indoor units, increase the size of the liquid branch pipe between the sub BC and indoor unit by one size.

When using indoor models P/M140 or larger, the restrictions shown in Fig. 2 cannot be exceeded.

\*10. When the high pressure piping length is 65 m or less, use  $\phi 22.2$  ( $\phi 7/8$ ) pipe.

When the high pressure piping length exceeds 65 m, use  $\phi 22.2$  ( $\phi 7/8$ ) pipe until 65 m, use  $\phi 28.58$  ( $\phi 1-1/8$ ) pipe for the part that exceeds 65 m.

\*11. Total length of high-pressure pipes and liquid pipes

#### Bent equivalent length

| Outdoor Model        | m/bent [ft./bent] |
|----------------------|-------------------|
| P400YSNW-A2/TR2/RU2  | 0.50 [1.64']      |
| P450YSNW-A2/TR2/RU2  | 0.50 [1.64']      |
| P500YSNW-A2/TR2/RU2  | 0.50 [1.64']      |
| P550YSNW-A2/TR2/RU2  | 0.50 [1.64']      |
| P600YSNW-A2/TR2/RU2  | 0.50 [1.64']      |
| P650YSNW-A2/TR2/RU2  | 0.50 [1.64']      |
| P700YSNW-A2/TR2/RU2  | 0.70 [2.29']      |
| P750YSNW-A2/TR2/RU2  | 0.70 [2.29']      |
| P800YSNW-A2/TR2/RU2  | 0.70 [2.29']      |
| P850YSNW-A2/TR2/RU2  | 0.80 [2.62']      |
| P900YSNW-A2/TR2/RU2  | 0.80 [2.62']      |
| P950YSNW-A2/TR2/RU2  | 0.80 [2.62']      |
| P1000YSNW-A2/TR2/RU2 | 0.80 [2.62']      |
| P1050YSNW-A2/TR2/RU2 | 0.80 [2.62']      |
| P1100YSNW-A2/TR2/RU2 | 0.80 [2.62']      |

Piping length and height between IU and BC controller

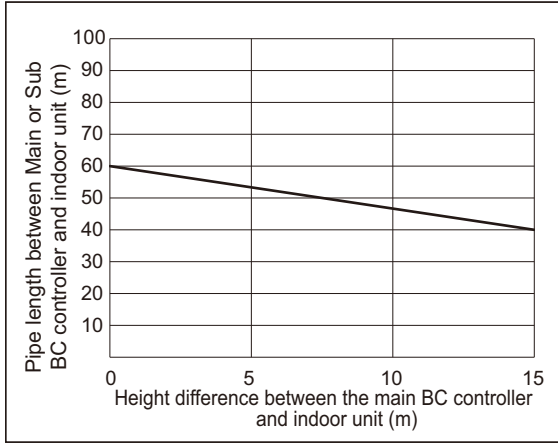


Fig. 2

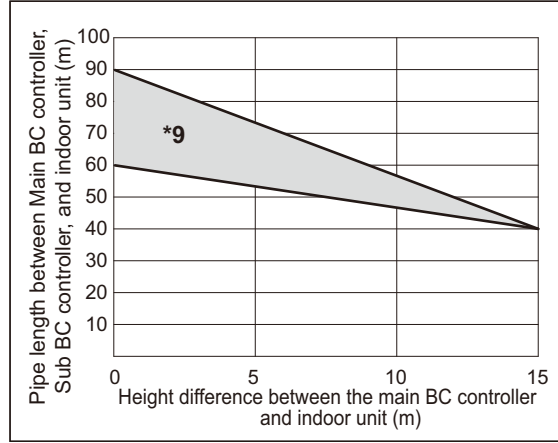
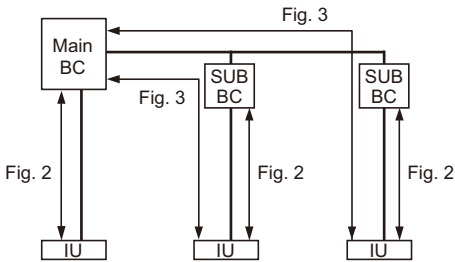


Fig. 3



\*9. When the piping length or the vertical separation exceeds the limit specified in Fig. 2, connect a sub BC to the system.

The restriction for a system with a sub BC connection is shown in Fig. 3.

When a given system configuration falls within the shaded area in Fig. 3, increase the size of the high-pressure pipe and the liquid pipe between the main BC and sub BC by one size.

When using P/M32, P/M40, P/M50, P/M100, or P/M125 model of indoor units, increase the size of the liquid branch pipe between the sub BC and indoor unit by one size.

When using indoor models P/M140 or larger, the restrictions shown in Fig. 2 cannot be exceeded.

**Piping "A" size selection rule**

(mm [in.])

| Outdoor Model        | Pipe(High pressure) | Pipe(Low pressure) |
|----------------------|---------------------|--------------------|
| P400YSNW-A2/TR2/RU2  | ø22.20 [7/8"]       | ø28.58 [1-1/8"]    |
| P450YSNW-A2/TR2/RU2  | ø22.20 [7/8"]       | ø28.58 [1-1/8"]    |
| P500YSNW-A2/TR2/RU2  | ø22.20 [7/8"]       | ø28.58 [1-1/8"]    |
| P550YSNW-A2/TR2/RU2  | ø22.20 [7/8"] *10   | ø28.58 [1-1/8"]    |
| P600YSNW-A2/TR2/RU2  | ø22.20 [7/8"] *10   | ø28.58 [1-1/8"]    |
| P650YSNW-A2/TR2/RU2  | ø28.58 [1-1/8"]     | ø28.58 [1-1/8"]    |
| P700YSNW-A2/TR2/RU2  | ø28.58 [1-1/8"]     | ø34.93 [1-3/8"]    |
| P750YSNW-A2/TR2/RU2  | ø28.58 [1-1/8"]     | ø34.93 [1-3/8"]    |
| P800YSNW-A2/TR2/RU2  | ø28.58 [1-1/8"]     | ø34.93 [1-3/8"]    |
| P850YSNW-A2/TR2/RU2  | ø28.58 [1-1/8"]     | ø41.28 [1-5/8"]    |
| P900YSNW-A2/TR2/RU2  | ø28.58 [1-1/8"]     | ø41.28 [1-5/8"]    |
| P950YSNW-A2/TR2/RU2  | ø28.58 [1-1/8"]     | ø41.28 [1-5/8"]    |
| P1000YSNW-A2/TR2/RU2 | ø28.58 [1-1/8"]     | ø41.28 [1-5/8"]    |
| P1050YSNW-A2/TR2/RU2 | ø34.93 [1-3/8"]     | ø41.28 [1-5/8"]    |
| P1100YSNW-A2/TR2/RU2 | ø34.93 [1-3/8"]     | ø41.28 [1-5/8"]    |

**Piping "L", "M" size selection rule**

(mm [in.])

| Outdoor Model      | Pipe(High pressure) | Pipe(Low pressure) |
|--------------------|---------------------|--------------------|
| P200YNW-A2/TR2/RU2 | ø15.88 [5/8"]       | ø19.05 [3/4"]      |
| P250YNW-A2/TR2/RU2 | ø19.05 [3/4"]       | ø22.20 [7/8"]      |
| P300YNW-A2/TR2/RU2 | ø19.05 [3/4"]       | ø22.20 [7/8"]      |
| P350YNW-A2/TR2/RU2 | ø19.05 [3/4"]       | ø28.58 [1-1/8"]    |
| P400YNW-A2/TR2/RU2 | ø22.20 [7/8"]       | ø28.58 [1-1/8"]    |
| P450YNW-A2/TR2/RU2 | ø22.20 [7/8"]       | ø28.58 [1-1/8"]    |
| P500YNW-A2/TR2/RU2 | ø22.20 [7/8"]       | ø28.58 [1-1/8"]    |
| P550YNW-A2/TR2/RU2 | ø22.20 [7/8"]       | ø28.58 [1-1/8"]    |

**Piping "B", "C", "D", "E" size selection rule**

(mm [in.])

| Total down-stream Indoor capacity | Pipe(Liquid) | Pipe(Gas)     |
|-----------------------------------|--------------|---------------|
| P/M140 or less                    | ø9.52 [3/8"] | ø15.88 [5/8"] |
| P/M141-P/M200                     | ø9.52 [3/8"] | ø19.05 [3/4"] |
| P/M201-P/M250                     | ø9.52 [3/8"] | ø22.20 [7/8"] |

**Selection criteria for joints\_A**

| Total down-stream Indoor capacity | Joint         |
|-----------------------------------|---------------|
| -P/M200                           | CMY-Y102SS-G2 |
| P/M201-P/M250                     | CMY-Y102LS-G2 |

**Piping "a", "b", "c", "d", "e", "f", "g", "i", "j", "k", "m", "n" size selection rule (mm [in.])**

| Indoor Unit size                       | Pipe(Liquid) | Pipe(Gas)     |
|--|--------------|---------------|
| P10 to P50, M20 to M50, GUF-50RD(H)    | ø6.35 [1/4"] | ø12.70 [1/2"] |
| P63 to P140, M63 to M140, GUF-100RD(H) | ø9.52 [3/8"] | ø15.88 [5/8"] |
| P200                                   | ø9.52 [3/8"] | ø19.05 [3/4"] |
| P250                                   | ø9.52 [3/8"] | ø22.20 [7/8"] |

**Selection criteria for joints\_B**

| Total down-stream Indoor capacity | Joint       |
|-----------------------------------|-------------|
| -P/M350                           | CMY-R201S-G |
| P/M351-P/M600                     | CMY-R202S-G |
| P/M601-P/M650                     | CMY-R203S-G |
| P/M651-P/M1000                    | CMY-R204S-G |
| P/M1001-                          | CMY-R205S-G |

**Piping "F", "G", "J", "K" size selection rule**

(mm [in.])

| Total down-stream Indoor capacity | Pipe(Liquid)  | Pipe(HP Gas)    | Pipe(LP Gas)    |
|-----------------------------------|---------------|-----------------|-----------------|
| P/M200 or less                    | ø9.52 [3/8"]  | ø15.88 [5/8"]   | ø19.05 [3/4"]   |
| P/M201 to P/M300                  | ø9.52 [3/8"]  | ø19.05 [3/4"]   | ø22.20 [7/8"]   |
| P/M301 to P/M350                  | ø12.70 [1/2"] | ø19.05 [3/4"]   | ø28.58 [1-1/8"] |
| P/M351 to P/M400                  | ø12.70 [1/2"] | ø22.20 [7/8"]   | ø28.58 [1-1/8"] |
| P/M401 to P/M600                  | ø15.88 [5/8"] | ø22.20 [7/8"]   | ø28.58 [1-1/8"] |
| P/M601 to P/M650                  | ø15.88 [5/8"] | ø28.58 [1-1/8"] | ø28.58 [1-1/8"] |
| P/M651 to P/M800                  | ø19.05 [3/4"] | ø28.58 [1-1/8"] | ø34.93 [1-3/8"] |
| P/M801 to P/M1000                 | ø19.05 [3/4"] | ø28.58 [1-1/8"] | ø41.28 [1-5/8"] |
| P/M1001 or above                  | ø19.05 [3/4"] | ø34.93 [1-3/8"] | ø41.28 [1-5/8"] |

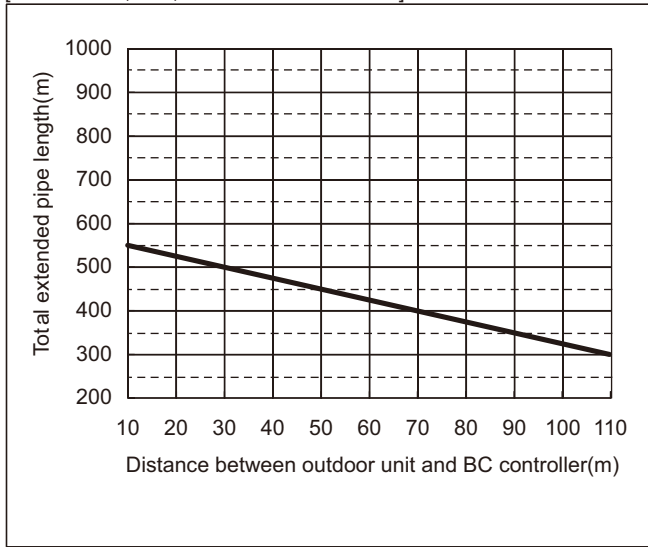
HP: High pressure, LP: Low pressure

PURY-P-Y(S)NW-A2/TR2/RU2

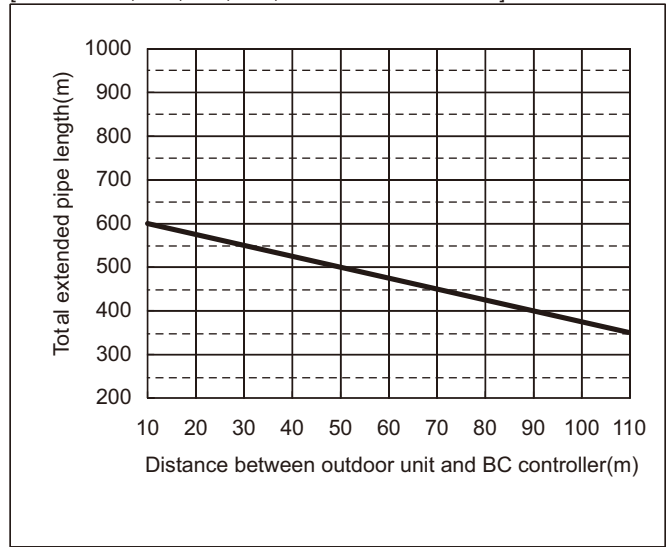


12-2-7. Total piping length restrictions

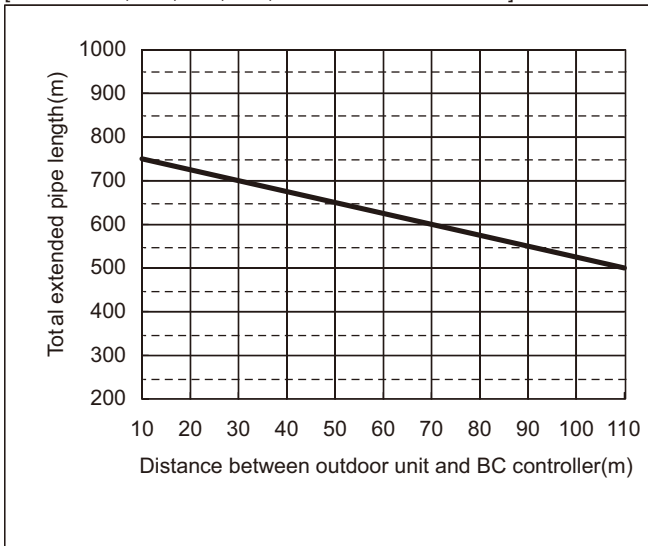
[PURY-P200, 250, 300YNW-A2/TR2/RU2]



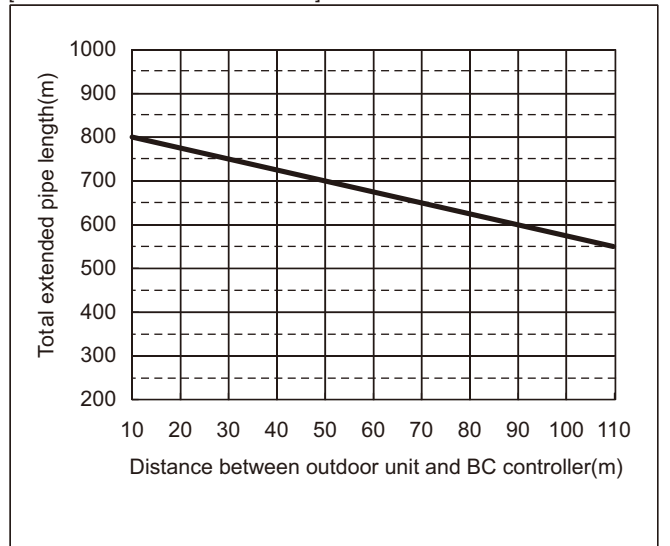
[PURY-P350, 400, 450, 500, 550YNW-A2/TR2/RU2]



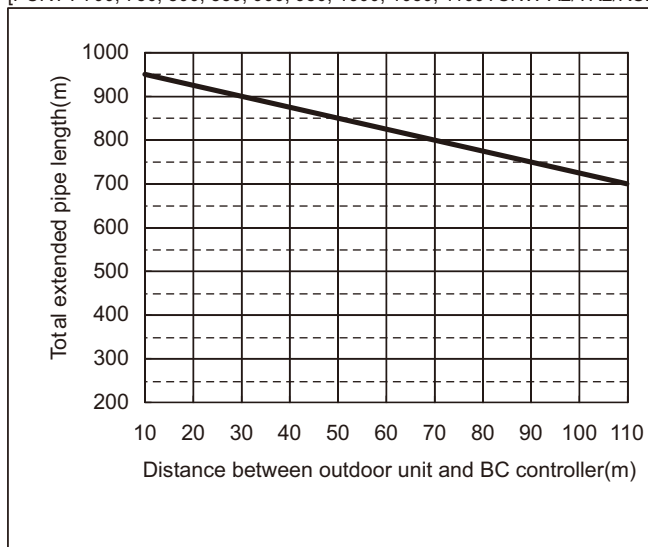
[PURY-P400, 450, 500, 550, 600YSNW-A2/TR2/RU2]



[PURY-P650YSNW-A2/TR2/RU2]



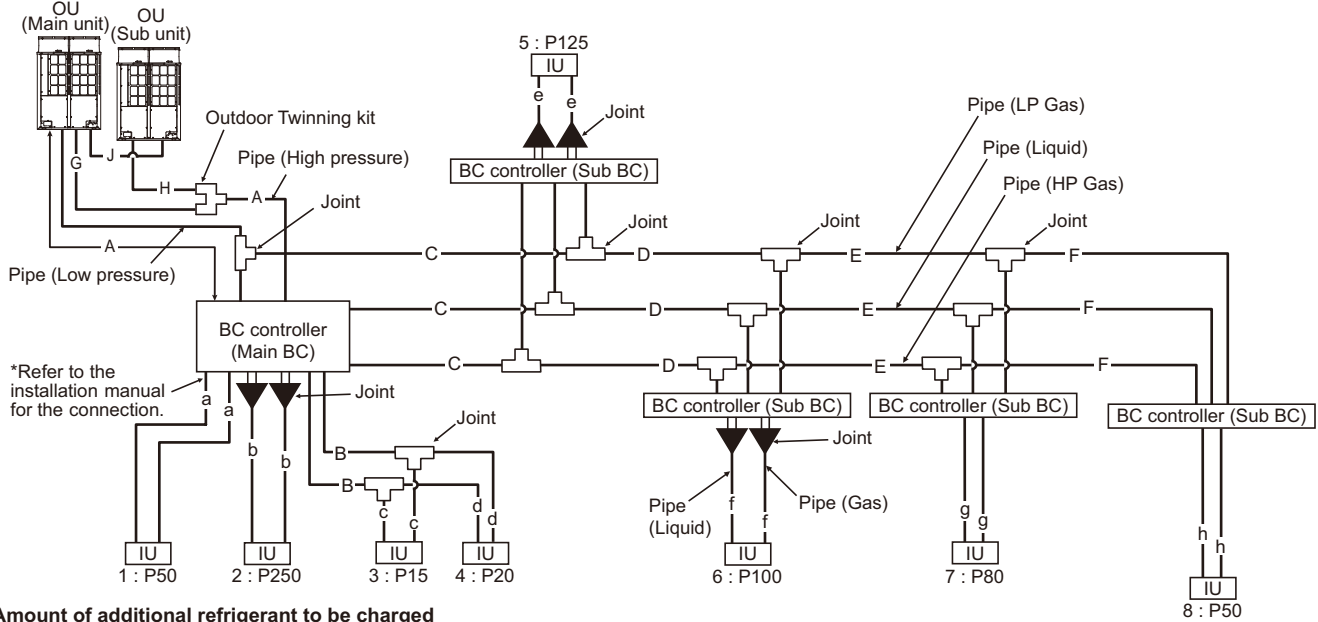
[PURY-P700, 750, 800, 850, 900, 950, 1000, 1050, 1100YSNW-A2/TR2/RU2]



### 12-3. Refrigerant charging calculation

"BC controller," "BC controller (Main)," and "BC controller (Sub)" that appear in this section refer to the P-J type, P-JA type, P-KA type, and P-KB type.

#### Sample connection (with 5 BC controllers and 8 indoor units) (PURY-P700YSNW-A2/TR2/RU2)



**Amount of additional refrigerant to be charged**

Refrigerant for extended pipes (field piping) is not factory-charged to the outdoor unit. Add an appropriate amount of refrigerant for each pipes on site. Record the size of each high pressure pipe and liquid pipe, and the amount of refrigerant that was charged on the outdoor unit for future reference.

**Calculating the amount of additional refrigerant to be charged**

The amount of refrigerant to be charged is calculated with the size of the on-site-installed high pressure pipes and liquid pipes, and their length. Calculate the amount of refrigerant to be charged according to the formula below. Round up the calculation result to the nearest 0.1kg. (i.e., 16.03 kg = 16.1 kg)

**<Amount of additional refrigerant to be charged>**

**Calculating the amount of additional refrigerant to be charged**

Units "m" and "kg" (In an R2 system)

<Formula>

• When the piping length from the outdoor unit to the farthest indoor unit is 30.5 m (100 ft) or shorter

|                                  |   |  |   |  |   |   |   |  |   |   |
|----------------------------------|---|--|---|--|---|---|---|--|---|---|
| Amount of additional charge (kg) | = | High-pressure pipe ø34.93 total length × 0.58 (kg/m) | + | High-pressure pipe ø28.58 total length × 0.36 (kg/m) | + | 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) |
|                                  |   | Liquid pipe ø19.05 total length × 0.29 (kg/m)        | + | Liquid pipe ø15.88 total length × 0.2 (kg/m)         | + | Liquid pipe ø12.7 total length × 0.12 (kg/m)        | + | Liquid pipe ø9.52 total length × 0.06 (kg/m)         | + | Liquid pipe ø6.35 total length × 0.024 (kg/m)       |

| Main or Sub BC controller | Amount (kg/unit) |
|---------------------------|------------------|
| P-J-type                  | 1.5              |
| P-JA-type                 | 3.0              |
| P-KA-type                 | 4.7              |
| P-KB-type                 | 0.4              |

| Total capacity of connected indoor units | Amount (kg) (to be added for indoor unit) |
|--|---|
| 80 or below                              | 2.0                                       |
| 81 to 160                                | 2.5                                       |
| 161 to 330                               | 3.0                                       |
| 331 to 390                               | 3.5                                       |
| 391 to 480                               | 4.5                                       |
| 481 to 630                               | 5.0                                       |
| 631 to 710                               | 6.0                                       |
| 711 to 800                               | 8.0                                       |
| 801 to 890                               | 9.0                                       |
| 891 to 1070                              | 10.0                                      |
| 1071 to 1250                             | 12.0                                      |
| 1251 or above                            | 14.0                                      |

| Outdoor unit model | Amount (kg) |
|--------------------|-------------|
| 200                | 1.5         |
| 250                | 1.5         |
| 300                | 2.5         |
| 350                | 3.5         |
| 400                | 3.5         |
| 450                | 3           |
| 500                | 4           |
| 550                | 5           |
| 400                | 6           |
| 450                | 6           |
| 500                | 6           |
| 550                | 6           |
| 600                | 6           |
| 650                | 4.5         |
| 700                | 5           |
| 750                | 5           |
| 800                | 5           |
| 850                | 4           |
| 900                | 3           |
| 950                | 3           |
| 1000               | 3           |
| 1050               | 1.5         |
| 1100               | 1.5         |

\* In case all connected indoor unit models are Case 1, Case 2, Case 3 or Case 4, do not add the refrigerant amount listed in table <A>. Instead, please add the following amount of refrigerant per indoor unit.

- Case 1: PEFY-P20/25/32/40/50/63/71/80/100/125VMA3-E\*\*  
→ Add 0.54 kg (PEFY-P20VMA3-E\*\*), 0.74 kg (PEFY-P25/32/40VMA3-E\*\*), 1.16 kg (PEFY-P50/63/71/80/100/125VMA3-E\*\*)
- Case 2: PEFY-P50/63/71/80/100VMHS2-E\*\*  
→ Add 2.7 kg
- Case 3: PLFY-EP50/63/80VEM-E\*\*  
→ Add 0.5 kg
- Case 4: PEFY-M50/63/71/80/100/125VMA2-A  
→ Add 1.45 kg
- Case 5: PEFY-M50/63/71/80VMA(L)-A1  
→Add 0.75 kg (PEFY-M50/63VMA(L)-A1)  
→Add 1.0 kg (PEFY-M71/80VMA(L)-A1)
- Case 6: PLFY-M50/63/71/80VEM6-E  
→Add 0.75 kg (PLFY-M50/63VEM6-E)  
→Add 1.0 kg (PLFY-M71/80VEM6-E)

Table <A>

- \* When connecting PEFY-P20VMA3-E units, add 0.54 kg of refrigerant for each of these units.
- \* When connecting PEFY-P25/32/40VMA3-E units, add 0.74 kg of refrigerant for each of these units.
- \* When connecting PEFY-P50/63/71/80/100/125VMA3-E units, add 1.16 kg of refrigerant for each of these units.
- \* When connecting PEFY-P50/63/71/80/100VMHS2-E units, add 2.7 kg of refrigerant for each of these units.
- \* When connecting PEFY-M50/63/71/80/100/125VMA2-A units, add 1.45 kg of refrigerant for each of these units.
- \* When connecting LEV kit (PAC-LV11M-J), refer to the installation manual of the LEV kit.
- \* When connecting PLFY-EP50/63/80VEM-E units, add 0.5 kg of refrigerant for each of these units.
- \* When connecting PEFY-M50/63VMA(L)-A1 units, add 0.75 kg of refrigerant for each of these units.
- \* When connecting PEFY-M71/80VMA(L)-A1 units, add 1.0 kg of refrigerant for each of these units.
- \* When connecting PLFY-M50/63VEM6-E units, add 0.75 kg of refrigerant for each of these units.
- \* When connecting PLFY-M71/80VEM6-E units, add 1.0 kg of refrigerant for each of these units.

• When the piping length from the outdoor unit to the farthest indoor unit is longer than 30.5 m (100 ft)

|                                  |   |  |   |  |   |   |   |  |   |   |
|----------------------------------|---|--|---|--|---|---|---|--|---|---|
| Amount of additional charge (kg) | = | High-pressure pipe<br>ø34.93 total length<br>× 0.52 (kg/m) | + | High-pressure pipe<br>ø28.58 total length<br>× 0.33 (kg/m) | + | High-pressure pipe<br>ø22.2 total length<br>× 0.21 (kg/m) | + | High-pressure pipe<br>ø19.05 total length<br>× 0.14 (kg/m) | + | High-pressure pipe<br>ø15.88 total length<br>× 0.1 (kg/m) |
|                                  | + | Liquid pipe ø19.05<br>total length<br>× 0.26 (kg/m)        | + | Liquid pipe ø15.88<br>total length<br>× 0.18 (kg/m)        | + | Liquid pipe ø12.7<br>total length<br>× 0.11 (kg/m)        | + | Liquid pipe ø9.52<br>total length<br>× 0.054 (kg/m)        | + | Liquid pipe ø6.35<br>total length<br>× 0.021 (kg/m)       |

|   |                           |                  |               |  |  |
|---|---------------------------|------------------|---------------|--|--|
| + | Main or Sub BC controller | Amount (kg/unit) | +             | Total capacity of connected indoor units | Amount(kg) (to be added for indoor unit) |
|   | P-J-type                  | 1.5              |               | 80 or below                              | 2.0                                      |
|   | P-JA-type                 | 3.0              |               | 81 to 160                                | 2.5                                      |
|   | P-KA-type                 | 4.7              |               | 161 to 330                               | 3.0                                      |
|   | P-KB-type                 | 0.4              |               | 331 to 390                               | 3.5                                      |
|   |                           |                  | 391 to 480    | 4.5                                      |  |
|   |                           |                  | 481 to 630    | 5.0                                      |  |
|   |                           |                  | 631 to 710    | 6.0                                      |  |
|   |                           |                  | 711 to 800    | 8.0                                      |  |
|   |                           |                  | 801 to 890    | 9.0                                      |  |
|   |                           |                  | 891 to 1070   | 10.0                                     |  |
|   |                           |                  | 1071 to 1250  | 12.0                                     |  |
|   |                           |                  | 1251 or above | 14.0                                     |  |

- \* When the piping length from the outdoor unit to farthest indoor unit is longer than 30.5 m (100 ft), no refrigerant needs to be added to the indoor units with specific model names.
- \* When connecting LEV kit (PAC-LV11M-J), refer to the installation manual of the LEV kit.

■ Amount of factory charged refrigerant ■ Sample calculation

| Outdoor unit Model   | Charged amount |
|----------------------|----------------|
| P200<br>P250<br>P300 | 5.2 kg         |
| P350<br>P400         | 8.0 kg         |
| P450<br>P500<br>P550 | 10.8 kg        |

Indoor 1: 50 A: ø28.58 40m a: ø6.35 10m  
 2: 250 B: ø9.52 10m b: ø9.52 10m  
 3: 15 C: ø12.7 20m c: ø6.35 5m  
 4: 20 D: ø9.52 5m d: ø6.35 5m  
 5: 125 E: ø9.52 5m e: ø9.52 5m  
 6: 100 F: ø9.52 5m f: ø9.52 5m  
 7: 80 G: ø19.05 3m g: ø9.52 5m  
 8: 50 H: ø19.05 1m h: ø6.35 10m

Outdoor P700  
 Main BC controller CMB-P108V-JA  
 Sub BC controller CMB-P104V-KB × 4

The total length of each liquid line as follows:  
 ø28.58: A = 40 m  
 ø19.05: G + H = 4 m  
 ø12.70: C = 20 m  
 ø9.52: B + D + E + F + b + e + f + g = 50 m  
 ø6.35: a + c + d + h = 30 m  
 <Calculation example>  
 Additional refrigerant charge  
 = 40 × 0.33 + 4 × 0.14 + 20 × 0.11 + 50 × 0.054  
 + 30 × 0.021 + 3 + 0.4 × 4 + 6  
 = 28.7 (28.69)kg

■ Limitation of the amount of refrigerant to be charged

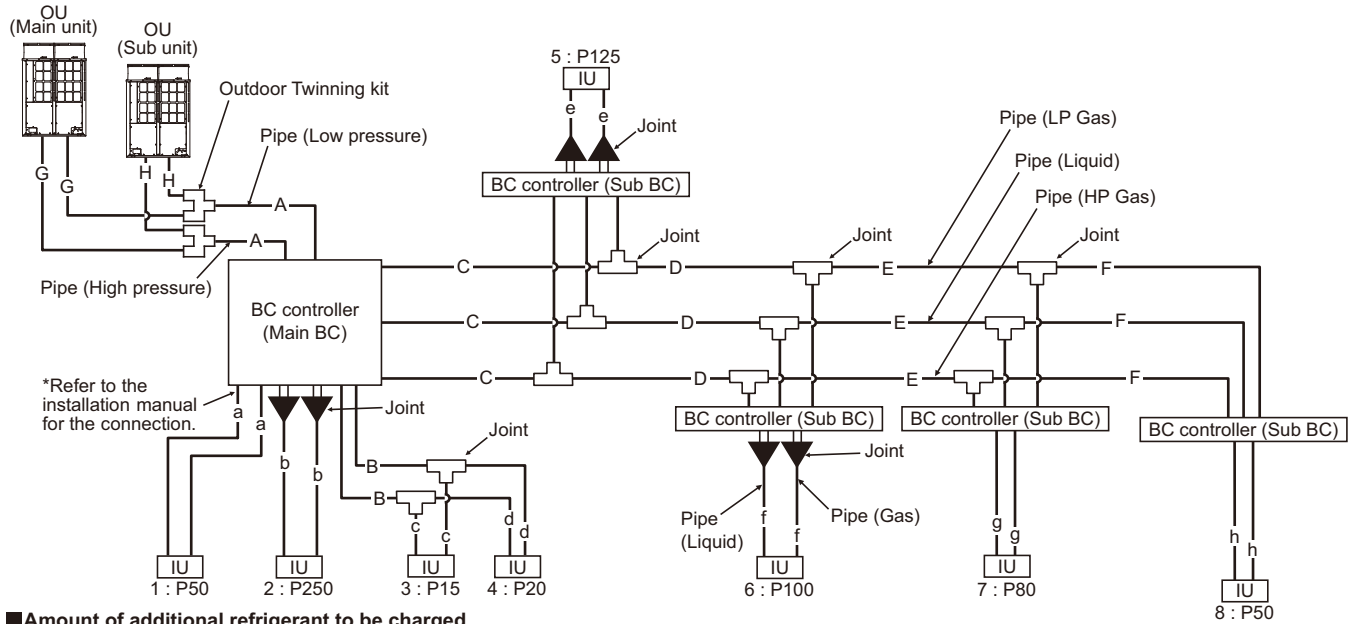
The above calculation result of the amount of refrigerant to be charged must become below the value in the table below.

| Total index of the outdoor units |                  |    | P200 | P250 | P300 | P350 | P400 | P450 | P500 | P550 | P400 | P450 | P500 | P550 | P600 | P650 |
|----------------------------------|------------------|----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
|                                  |                  |    | YNW  | YNW  | YNW  | YNW  | YNW  | YNW  | YNW  | YNW  | YSNW | YSNW | YSNW | YSNW | YSNW | YSNW |
| Maximum refrigerant charge       | Factory charged  | kg | 5.2  | 5.2  | 5.2  | 8.0  | 8.0  | 10.8 | 10.8 | 10.8 | 10.4 | 10.4 | 10.4 | 10.4 | 10.4 | 13.2 |
|                                  | Charged on site  | kg | 31.8 | 37.8 | 37.8 | 41.3 | 47.3 | 44.5 | 45.2 | 45.2 | 60.6 | 48.6 | 48.6 | 48.6 | 48.6 | 45.8 |
|                                  | Total for system | kg | 37.0 | 43.0 | 43.0 | 49.3 | 55.3 | 55.3 | 56.0 | 56.0 | 71.0 | 59.0 | 59.0 | 59.0 | 59.0 | 59.0 |

| Total index of the outdoor units |                  |    | P700 | P750 | P800 | P850 | P900 | P950 | P1000 | P1050 | P1100 |
|----------------------------------|------------------|----|------|------|------|------|------|------|-------|-------|-------|
|                                  |                  |    | YSNW | YSNW | YSNW | YSNW | YSNW | YSNW | YSNW  | YSNW  | YSNW  |
| Maximum refrigerant charge       | Factory charged  | kg | 16.0 | 16.0 | 16.0 | 18.8 | 21.6 | 21.6 | 21.6  | 21.6  | 21.6  |
|                                  | Charged on site  | kg | 70.0 | 70.0 | 70.0 | 67.2 | 64.4 | 64.4 | 64.4  | 64.4  | 64.4  |
|                                  | Total for system | kg | 86.0 | 86.0 | 86.0 | 86.0 | 86.0 | 86.0 | 86.0  | 86.0  | 86.0  |

"BC controller," "BC controller (Main)," and "BC controller (Sub)" that appear in this section refer to the M-J1 type, M-JA1 type, P-KA1 type, and M-KB1 type.

**Sample connection (with 5 BC controllers and 8 indoor units) (PURY-P700YSNW-A2/TR2/RU2)**



**Amount of additional refrigerant to be charged**

Refrigerant for extended pipes (field piping) is not factory-charged to the outdoor unit. Add an appropriate amount of refrigerant for each pipes on site. Record the size of each high pressure pipe and liquid pipe, and the amount of refrigerant that was charged on the outdoor unit for future reference.

**Calculating the amount of additional refrigerant to be charged**

The amount of refrigerant to be charged is calculated with the size of the on-site-installed high pressure pipes and liquid pipes, and their length.

Calculate the amount of refrigerant to be charged according to the formula below.

Round up the calculation result to the nearest 0.1kg. (i.e., 16.03 kg = 16.1 kg)

**<Amount of additional refrigerant to be charged>**

**Calculating the amount of additional refrigerant to be charged**

Units "m" and "kg" (In an R2 system)

<Formula>

• When the piping length from the outdoor unit to the farthest indoor unit is 30.5 m (100 ft) or shorter

|                                  |   |  |   |  |   |   |   |  |   |  |
|----------------------------------|---|--|---|--|---|---|---|--|---|--|
| Amount of additional charge (kg) | = | High-pressure pipe<br>ø34.93 total length<br>× 0.58 (kg/m) | + | High-pressure pipe<br>ø28.58 total length<br>× 0.36 (kg/m) | + | High-pressure pipe<br>ø22.2 total length<br>× 0.23 (kg/m) | + | High-pressure pipe<br>ø19.05 total length<br>× 0.16 (kg/m) | + | High-pressure pipe<br>ø15.88 total length<br>× 0.11 (kg/m) |
|                                  | + | Liquid pipe ø19.05<br>total length<br>× 0.29 (kg/m)        | + | Liquid pipe ø15.88<br>total length<br>× 0.2 (kg/m)         | + | Liquid pipe ø12.7<br>total length<br>× 0.12 (kg/m)        | + | Liquid pipe ø9.52<br>total length<br>× 0.06 (kg/m)         | + | Liquid pipe ø6.35<br>total length<br>× 0.024 (kg/m)        |

| Main or Sub BC controller | Amount (kg/unit) |
|---------------------------|------------------|
| M-J1-type                 | 1.5              |
| M-JA1-type                | 3.0              |
| P-KA1-type                | 4.7              |
| M-KB1-type                | 0.4              |

| Total capacity of connected indoor units | Amount (kg) (to be added for indoor unit) |
|--|---|
| 80 or below                              | 2.0                                       |
| 81 to 160                                | 2.5                                       |
| 161 to 330                               | 3.0                                       |
| 331 to 390                               | 3.5                                       |
| 391 to 480                               | 4.5                                       |
| 481 to 630                               | 5.0                                       |
| 631 to 710                               | 6.0                                       |
| 711 to 800                               | 8.0                                       |
| 801 to 890                               | 9.0                                       |
| 891 to 1070                              | 10.0                                      |
| 1071 to 1250                             | 12.0                                      |
| 1251 or above                            | 14.0                                      |

| Outdoor unit model | Amount (kg) |     |
|--------------------|-------------|-----|
| Single             | 200         | 1.5 |
|                    | 250         | 1.5 |
|                    | 300         | 2.5 |
|                    | 350         | 3.5 |
|                    | 400         | 3.5 |
|                    | 450         | 3   |
|                    | 500         | 4   |
|                    | 550         | 5   |
|                    | 600         | 6   |
|                    | 650         | 6   |
| Combination        | 400         | 6   |
|                    | 450         | 6   |
|                    | 500         | 6   |
|                    | 550         | 6   |
|                    | 600         | 6   |
|                    | 650         | 4.5 |
|                    | 700         | 5   |
|                    | 750         | 5   |
|                    | 800         | 5   |
|                    | 850         | 4   |
| 900                | 3           |     |
| 950                | 3           |     |
| 1000               | 3           |     |
| 1050               | 1.5         |     |
| 1100               | 1.5         |     |

Table <A>

\* In case all connected indoor unit models are Case 1, Case 2, Case 3 or Case 4, do not add the refrigerant amount listed in table <A>. Instead, please add the following amount of refrigerant per indoor unit.

Case 1: PEFY-P20/25/32/40/50/63/71/80/100/125VMA3-E\*\*

→ Add 0.54 kg (PEFY-P20VMA3-E\*\*), 0.74 kg (PEFY-P25/32/40VMA3-E\*\*), 1.16 kg (PEFY-P50/63/71/80/100/125VMA3-E\*\*)

Case 2: PEFY-P50/63/71/80/100VMHS2-E\*\*

→ Add 2.7 kg

Case 3: PLFY-EP50/63/80VEM-E\*\*

→ Add 0.5 kg

Case 4: PEFY-M50/63/71/80/100/125VMA2-A

→ Add 1.45 kg

Case 5: PEFY-M50/63/71/80VMA(L)-A1

→Add 0.75 kg (PEFY-M50/63VMA(L)-A1)

→Add 1.0 kg (PEFY-M71/80VMA(L)-A1)

Case 6: PLFY-M50/63/71/80VEM6-E

→Add 0.75 kg (PLFY-M50/63VEM6-E)

→Add 1.0 kg (PLFY-M71/80VEM6-E)

- \* When connecting PEFY-P20VMA3-E units, add 0.54 kg of refrigerant for each of these units.
- \* When connecting PEFY-P25/32/40VMA3-E units, add 0.74 kg of refrigerant for each of these units.
- \* When connecting PEFY-P50/63/71/80/100/125VMA3-E units, add 1.16 kg of refrigerant for each of these units.
- \* When connecting PEFY-P50/63/71/80/100VMHS2-E units, add 2.7 kg of refrigerant for each of these units.
- \* When connecting PEFY-M50/63/71/80/100/125VMA2-A units, add 1.45 kg of refrigerant for each of these units.
- \* When connecting LEV kit (PAC-LV11M-J), refer to the installation manual of the LEV kit.
- \* When connecting PLFY-EP50/63/80VEM-E units, add 0.5 kg of refrigerant for each of these units.
- \* When connecting PEFY-M50/63VMA(L)-A1 units, add 0.75 kg of refrigerant for each of these units.
- \* When connecting PEFY-M71/80VMA(L)-A1 units, add 1.0 kg of refrigerant for each of these units.
- \* When connecting PLFY-M50/63VEM6-E units, add 0.75 kg of refrigerant for each of these units.
- \* When connecting PLFY-M71/80VEM6-E units, add 1.0 kg of refrigerant for each of these units.

• When the piping length from the outdoor unit to the farthest indoor unit is longer than 30.5 m (100 ft)

|                                  |   |  |   |  |   |   |   |  |   |   |
|----------------------------------|---|--|---|--|---|---|---|--|---|---|
| Amount of additional charge (kg) | = | High-pressure pipe<br>ø34.93 total length<br>× 0.52 (kg/m) | + | High-pressure pipe<br>ø28.58 total length<br>× 0.33 (kg/m) | + | High-pressure pipe<br>ø22.2 total length<br>× 0.21 (kg/m) | + | High-pressure pipe<br>ø19.05 total length<br>× 0.14 (kg/m) | + | High-pressure pipe<br>ø15.88 total length<br>× 0.1 (kg/m) |
|                                  | + | Liquid pipe ø19.05<br>total length<br>× 0.26 (kg/m)        | + | Liquid pipe ø15.88<br>total length<br>× 0.18 (kg/m)        | + | Liquid pipe ø12.7<br>total length<br>× 0.11 (kg/m)        | + | Liquid pipe ø9.52<br>total length<br>× 0.054 (kg/m)        | + | Liquid pipe ø6.35<br>total length<br>× 0.021 (kg/m)       |

| Main or Sub BC controller | Amount (kg/unit) | Total capacity of connected indoor units | Amount(kg) (to be added for indoor unit) |
|---------------------------|------------------|--|--|
| M-J1-type                 | 1.5              | 80 or below                              | 2.0                                      |
| M-JA1-type                | 3.0              | 81 to 160                                | 2.5                                      |
| P-KA1-type                | 4.7              | 161 to 330                               | 3.0                                      |
| M-KB1-type                | 0.4              | 331 to 390                               | 3.5                                      |
|                           |                  | 391 to 480                               | 4.5                                      |
|                           |                  | 481 to 630                               | 5.0                                      |
|                           |                  | 631 to 710                               | 6.0                                      |
|                           |                  | 711 to 800                               | 8.0                                      |
|                           |                  | 801 to 890                               | 9.0                                      |
|                           |                  | 891 to 1070                              | 10.0                                     |
|                           |                  | 1071 to 1250                             | 12.0                                     |
|                           |                  | 1251 or above                            | 14.0                                     |

- \* When the piping length from the outdoor unit to farthest indoor unit is longer than 30.5 m (100 ft), no refrigerant needs to be added to the indoor units with specific model names.
- \* When connecting LEV kit (PAC-LV11M-J), refer to the installation manual of the LEV kit.

■ Amount of factory charged refrigerant ■ Sample calculation

| Outdoor unit Model | Charged amount |
|--------------------|----------------|
| P200               | 5.2 kg         |
| P250               |                |
| P300               |                |
| P350               | 8.0 kg         |
| P400               |                |
| P450               | 10.8 kg        |
| P500               |                |
| P550               |                |

Indoor 1: 50 A: ø28.58 40m a: ø6.35 10m  
 2: 250 B: ø9.52 10m b: ø9.52 10m  
 3: 15 C: ø12.7 20m c: ø6.35 5m  
 4: 20 D: ø9.52 5m d: ø6.35 5m  
 5: 125 E: ø9.52 5m e: ø9.52 5m  
 6: 100 F: ø9.52 5m f: ø9.52 5m  
 7: 80 G: ø19.05 3m g: ø9.52 5m  
 8: 50 H: ø19.05 1m h: ø6.35 10m

Outdoor P700  
 Main BC controller CMB-M108V-JA1  
 Sub BC controller CMB-M104V-KB1 × 4

The total length of each liquid line as follows:  
 ø28.58: A = 40 m  
 ø19.05: G + H = 4 m  
 ø12.70: C = 20 m  
 ø9.52: B + D + E + F + b + e + f + g = 50 m  
 ø6.35: a + c + d + h = 30 m  
 <Calculation example>  
 Additional refrigerant charge  
 = 40 × 0.33 + 4 × 0.14 + 20 × 0.11 + 50 × 0.054  
 + 30 × 0.021 + 3 + 0.4 × 4 + 6  
 = 28.7 (28.69)kg

■ 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 |                  |    | P200 | P250 | P300 | P350 | P400 | P450 | P500 | P550 | P400 | P450 | P500 | P550 | P600 | P650 |
|----------------------------------|------------------|----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
|                                  |                  |    | YNW  | YNW  | YNW  | YNW  | YNW  | YNW  | YNW  | YNW  | YSNW | YSNW | YSNW | YSNW | YSNW | YSNW |
| Maximum refrigerant charge       | Factory charged  | kg | 5.2  | 5.2  | 5.2  | 8.0  | 8.0  | 10.8 | 10.8 | 10.8 | 10.4 | 10.4 | 10.4 | 10.4 | 10.4 | 13.2 |
|                                  | Charged on site  | kg | 31.8 | 37.8 | 37.8 | 41.3 | 47.3 | 44.5 | 45.2 | 45.2 | 60.6 | 48.6 | 48.6 | 48.6 | 48.6 | 45.8 |
|                                  | Total for system | kg | 37.0 | 43.0 | 43.0 | 49.3 | 55.3 | 55.3 | 56.0 | 56.0 | 71.0 | 59.0 | 59.0 | 59.0 | 59.0 | 59.0 |

| Total index of the outdoor units |                  |    | P700 | P750 | P800 | P850 | P900 | P950 | P1000 | P1050 | P1100 |
|----------------------------------|------------------|----|------|------|------|------|------|------|-------|-------|-------|
|                                  |                  |    | YSNW | YSNW | YSNW | YSNW | YSNW | YSNW | YSNW  | YSNW  | YSNW  |
| Maximum refrigerant charge       | Factory charged  | kg | 16.0 | 16.0 | 16.0 | 18.8 | 21.6 | 21.6 | 21.6  | 21.6  | 21.6  |
|                                  | Charged on site  | kg | 70.0 | 70.0 | 70.0 | 67.2 | 64.4 | 64.4 | 64.4  | 64.4  | 64.4  |
|                                  | Total for system | kg | 86.0 | 86.0 | 86.0 | 86.0 | 86.0 | 86.0 | 86.0  | 86.0  | 86.0  |

**13-1. Requirement on installation site**

1. No direct thermal radiation to the unit.
2. No possibility of annoying the neighbors by the sound of the unit.

**Valves and refrigerant flow on the outdoor unit may generate noise.**

3. Avoid the sites where strong winds blow.
4. With strength to bear the weight of the unit.
5. Drain flow from the unit is cared at heating mode.
6. Enough space for installation and service as shown at 13-2.
7. Avoid the sites where acidic solutions or chemical sprays (sulfuric compounds) are used frequently.
8. The unit should be secure from combustible gas, oil, steam, chemical gas like acidic solution, sulfur gas and so on.

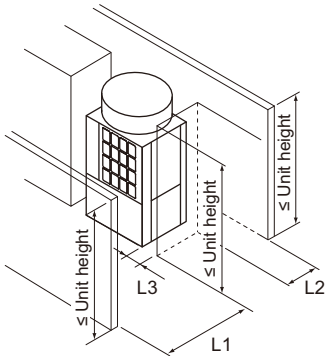


13-2. Spacing

In case of single installation

(1) When all walls are within their height limits\*.

[mm (in)]



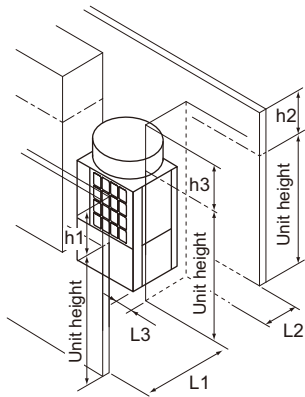
\* Height limit

|                       |  |
|-----------------------|--|
| Front/Right/Left/Rear | Same height or lower than the overall height of the unit |
|-----------------------|--|

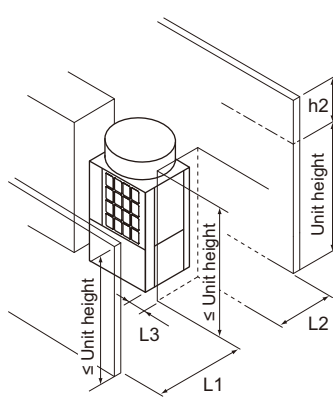
|   | Required minimum distance [mm (in)] |                |                 |
|---|-------------------------------------|----------------|-----------------|
|   | L1 (Front)                          | L2 (Rear)      | L3 (Right/Left) |
| When the distance behind the unit (L2) needs to be small      | 450 (17-3/4)                        | 100 (3-15/16)  | 50 (2)          |
| When the distance to the right or left (L3) needs to be small | 450 (17-3/4)                        | 300 (11-13/16) | 15 (5/8)        |

(2) When one or more walls exceed their height limits\*.

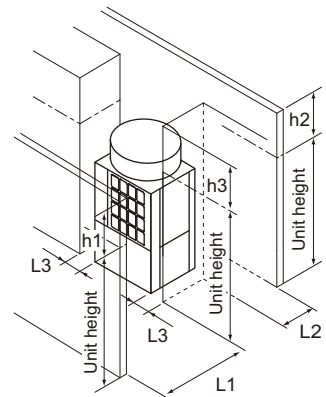
When the wall(s) at the front and/or the right/left exceed(s) their height limits



When the wall at the rear exceeds its height limit



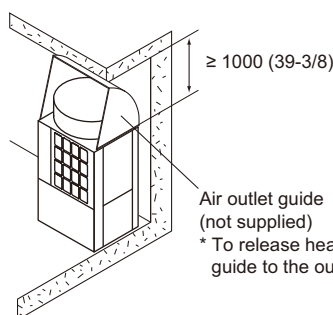
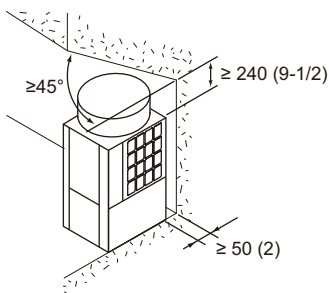
When all walls exceed their height limits



Add the dimension that exceeds the height limit (shown as "h1" through "h3" in the figures) to L1, L2, and L3 as shown in the table below.

|   | Required minimum distance [mm (in)] |                     |                 |
|---|-------------------------------------|---------------------|-----------------|
|   | L1 (Front)                          | L2 (Rear)           | L3 (Right/Left) |
| When the distance behind the unit (L2) needs to be small      | 450 (17-3/4) + h1                   | 100 (3-15/16) + h2  | 50 (2) + h3     |
| When the distance to the right or left (L3) needs to be small | 450 (17-3/4) + h1                   | 300 (11-13/16) + h2 | 15 (5/8) + h3   |

(3) When there are overhead obstacles



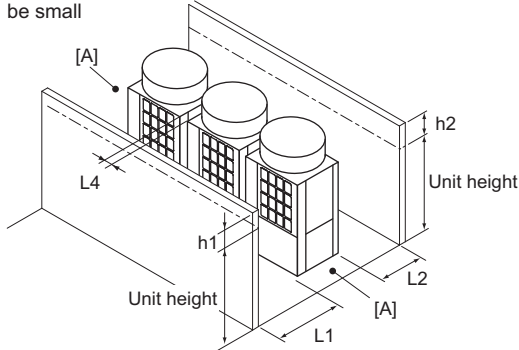
Air outlet guide (not supplied)  
\* To release heat through the air outlet guide, install the air outlet guide to the outdoor unit without gaps between them.

**In case of collective installation and continuous installation**

- When installing multiple units, make sure to take into consideration factors such as providing enough space for people to pass through, ample space between blocks of units, and sufficient space for airflow. (The areas marked with [A] in the figures below must be left open.)
- In the same way as with the single unit installation, add the dimension that exceeds the height limit (shown as "h1" through "h3" in the figures) to L1, L2, and L3 as shown in the tables below.
- If there are walls in the front and rear of the block of units, up to six units (three units for units P500 and P550) can be installed consecutively side by side, and a space of 1000 mm (39-3/8 in) or more must be left between each block of six units (three units for units P500 and P550).

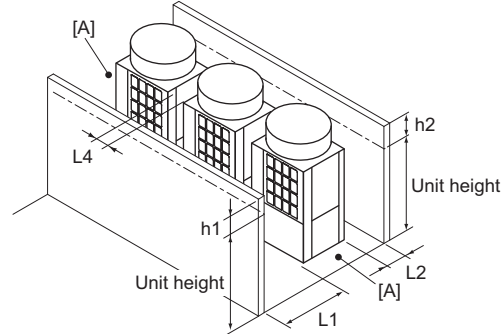
(1) Side-by-side installation

When the distances between the units (L4) need to be small



| Required minimum distance [mm (in)] |                     |              |
|-------------------------------------|---------------------|--------------|
| L1 (Front)                          | L2 (Rear)           | L4 (Between) |
| 450 (17-3/4) + h1                   | 300 (11-13/16) + h2 | 30 (1-3/16)  |

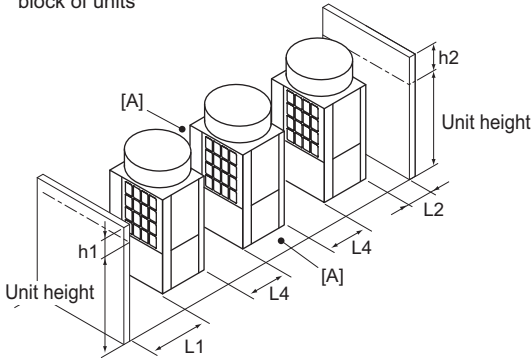
When the distance behind the block of units (L2) needs [mm (in)] to be small



| Required minimum distance [mm (in)] |                    |               |
|-------------------------------------|--------------------|---------------|
| L1 (Front)                          | L2 (Rear)          | L4 (Between)  |
| 450 (17-3/4) + h1                   | 100 (3-15/16) + h2 | 100 (3-15/16) |

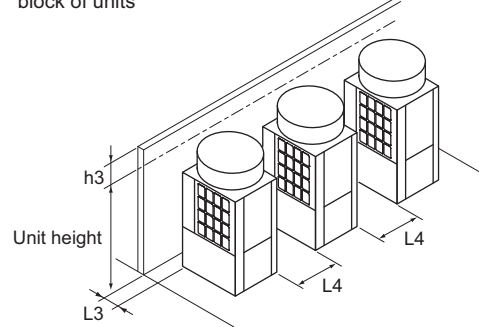
(2) Face-to-face installation

When there are walls in the front and rear of the block of units



| Required minimum distance [mm (in)] |                    |              |
|-------------------------------------|--------------------|--------------|
| L1 (Front)                          | L2 (Rear)          | L4 (Between) |
| 450 (17-3/4) + h1                   | 100 (3-15/16) + h2 | 450 (17-3/4) |

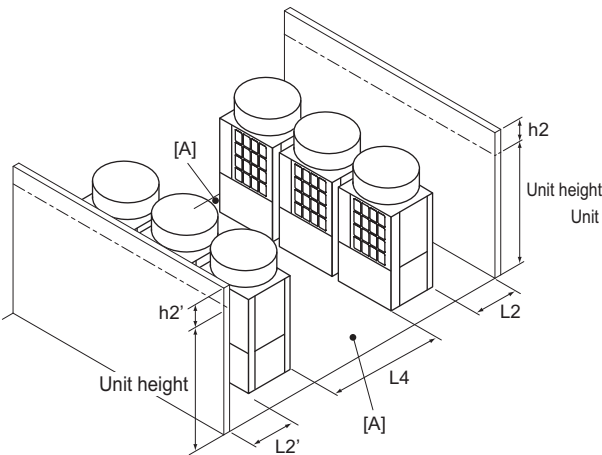
When there is a wall on either the right or left side of the block of units



| Required minimum distance [mm (in)] |              |
|-------------------------------------|--------------|
| L3 (Right/Left)                     | L4 (Between) |
| 15 (5/8) + h3                       | 450 (17-3/4) |

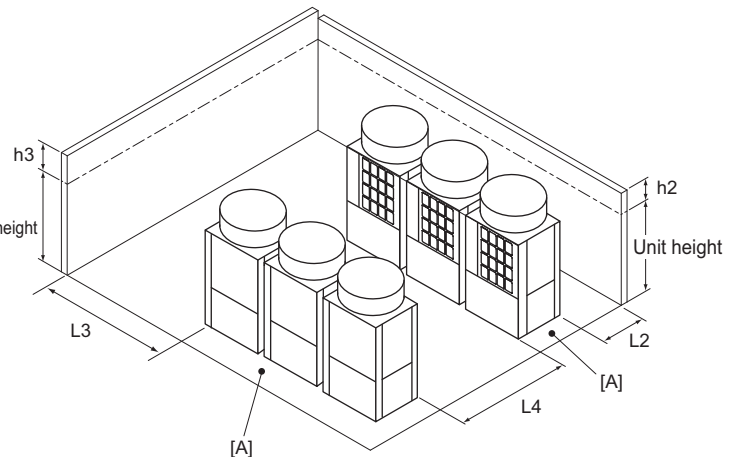
(3) Combination of face-to-face and side-by-side installations

When there are walls in the front and rear of the block of units



| Required minimum distance [mm (in)] |                      |               |
|-------------------------------------|----------------------|---------------|
| L2 (Rear)                           | L2' (Rear)           | L4 (Between)  |
| 300 (11-13/16) + h2                 | 300 (11-13/16) + h2' | 900 (35-7/16) |

When there are two walls in an L-shape



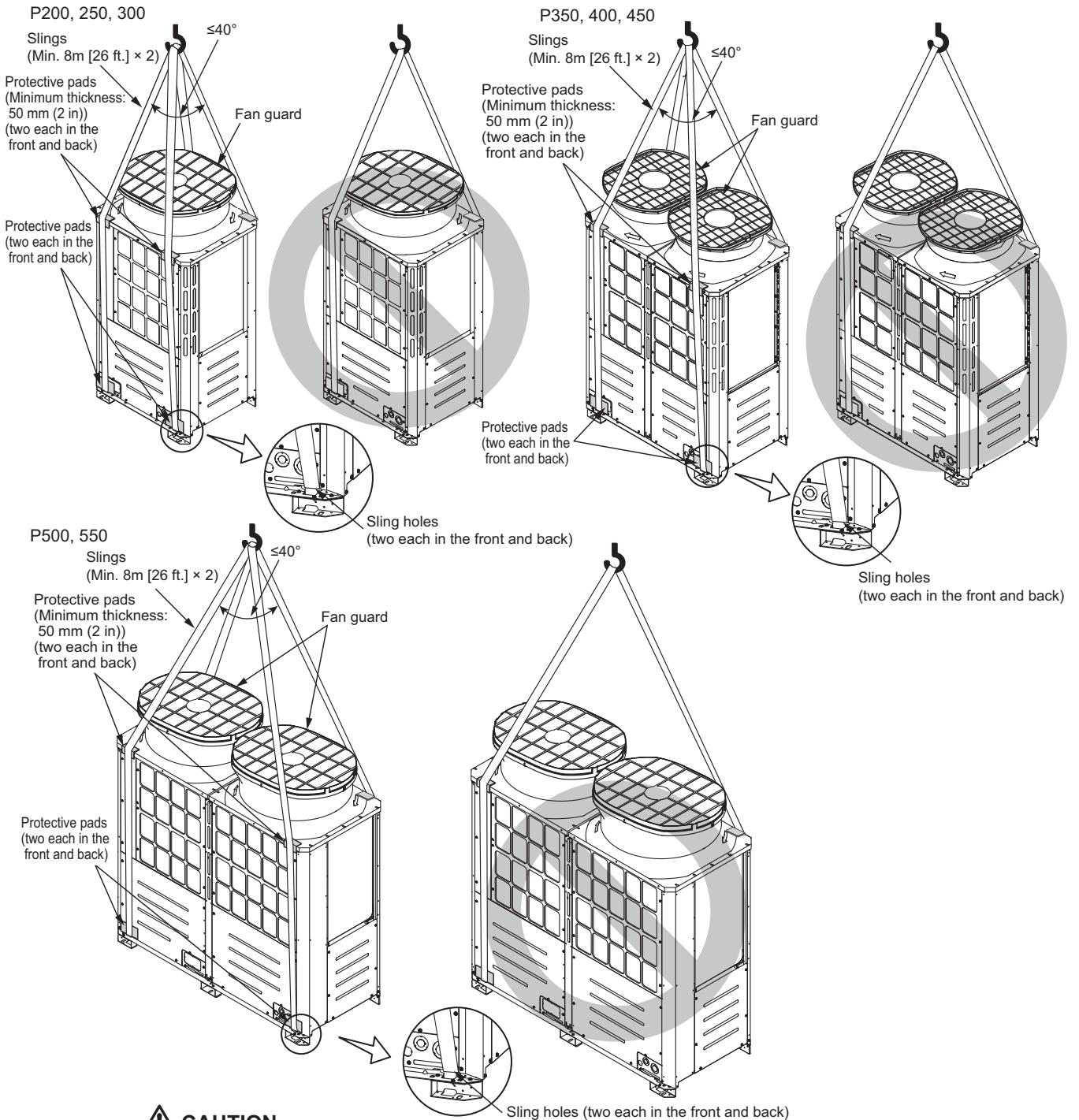
| Required minimum distance [mm (in)] |                    |               |
|-------------------------------------|--------------------|---------------|
| L2 (Rear)                           | L3 (Right/Left)    | L4 (Between)  |
| 300 (11-13/16) + h2                 | 1000 (39-3/8) + h3 | 900 (35-7/16) |

[A]: Leave open in two directions.

### 13-3. Piping direction

#### 13-3-1. Lifting method

- Always use two slings to lift up the unit. Each sling must be at least 8 m (26 ft) long and must be able to support the weight of the unit.
- Put protective pads between slings and the unit where the slings touch the unit at the base to protect the unit from being scratched.
- Put 50 mm (2 in) or thicker protective pads between slings and the unit where the slings touch the unit at the top of the unit to protect the unit from being scratched and to avoid contact with the slings and the fan guard.
- Make sure that the angles between slings at the top are less than 40 degrees



**CAUTION**

**Exercise caution when transporting products.**

- Products weighing more than 20 kg [45 LBS] should not be carried alone.
- Do not carry the product by the PPbands.
- To avoid the risk of injury, do not touch the heat exchanger fins.
- Plastic bags may pose a risk of choking hazard to children. Tear plastic bags into pieces before disposing of them.
- When lifting and transporting outdoor units with ropes, run the ropes through lifting hole at the unit base. Securely fix the unit so that the ropes will not slide off, and always lift the unit at four points to prevent the unit from falling.

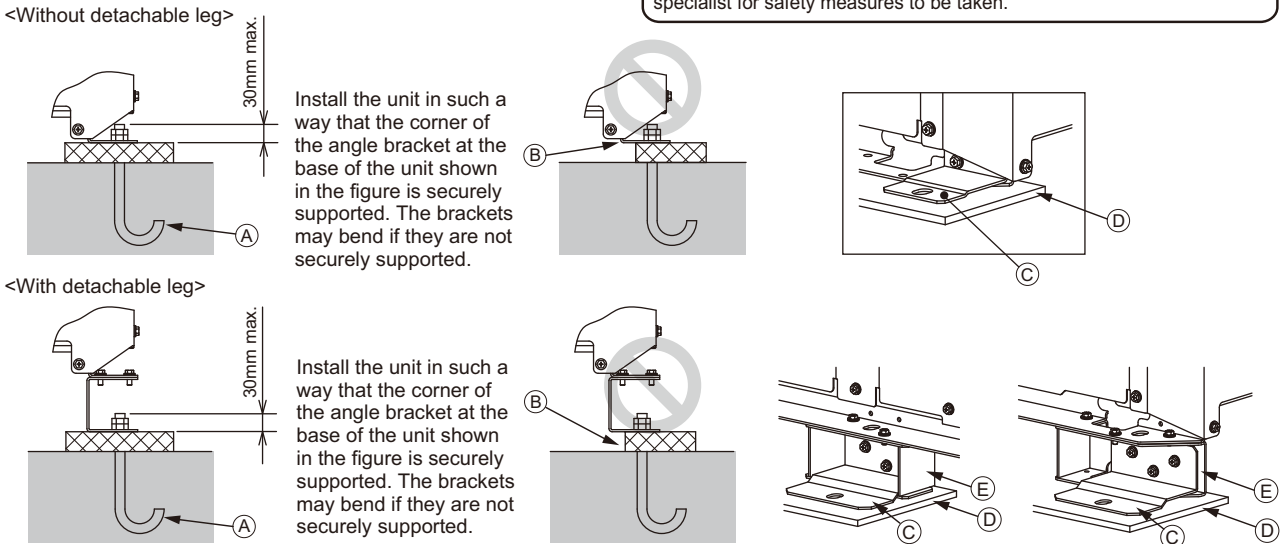
13-3-2. Installation

- Secure the unit with anchor bolts as shown in the figure below so that the unit will not topple over with strong wind or during an earthquake.
- Install the unit on a durable base made of such materials as concrete or angle steel.
- Take appropriate anti-vibration measures (e.g., vibration damper pad, vibration isolation base) to keep vibrations and noise from being transmitted from the unit through walls and floors.
- When installing a unit on a base, place an anti-vibration pad between the base and the unit.
- When using an anti-vibration rubber pad, install it so that the pad covers the entire width of the unit leg.
- All the bottom corners of the unit must still be supported by both the anti-vibration rubber pads and the base.
- Install the unit in such a way that the corner of the angle bracket at the base of the unit shown in the figure below is securely supported.
- Install the anchor bolt in such a way that the top end of the anchor bolt do not stick out more than 30 mm [1-3/16 in.].
- This unit is not designed to be anchored with post-installation-type anchor bolts, although by adding fixing brackets anchoring with such type of anchor bolts becomes possible.
- Securely bolt down the unit as illustrated below so that it will not fall over when subject to wind gusts or earthquakes.

- (A) M10 anchor bolt\* procured at the site  
\*Required specification for M10 anchor bolt: Tensile load of 5.6 kN or more to withstand the short-term load caused by earthquakes or strong winds
- (B) (Incorrect installation) The corner section is not securely received.
- (C) Fixing bracket for M12 hole-in anchor bolt\* procured at the site (3 locations to fix with M5 self-tapping screws)  
\*Required specification for M12 hole-in anchor bolt: Tensile load of 6.7 kN or more to withstand the short-term load caused by earthquakes or strong winds  
Use the fixing bracket with sufficient strength.
- (D) Anti-vibration rubber pad  
(The pad needs to be large enough to cover the entire width of each unit leg.)
- (E) Detachable leg

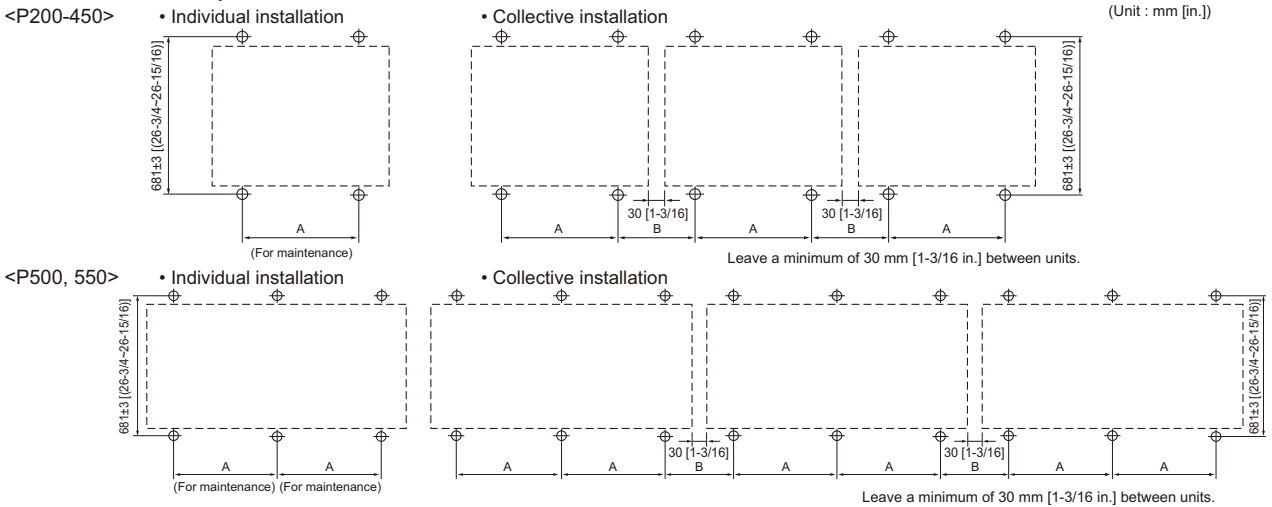
**WARNING**  
Properly install the unit on a surface that can withstand the weight of the unit. Unit installed on an unstable surface may fall and cause injury.

**WARNING**  
Take adequate measures against natural disasters including earthquakes and windstorms so that the unit will not fall or tip over. Consult your local specialist for safety measures to be taken.



Take into consideration the durability of the base, water drainage route (Drain water is discharged from outdoor units during operation.), piping route, and wiring route when performing foundation work.

13-3-3. Anchor bolt positions



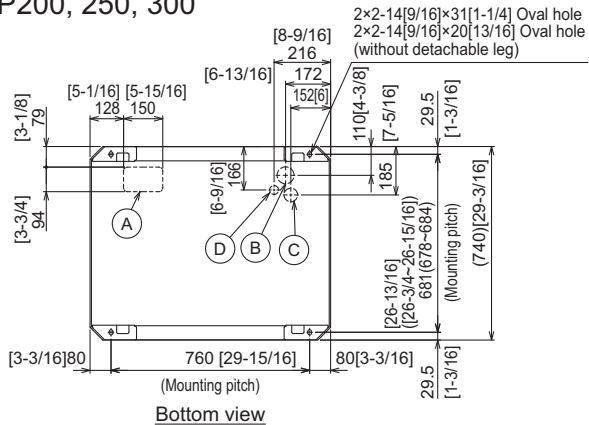
| PURY | P200, 250, 300              | P350, 400, 450                     | P500, 550                       |
|------|-----------------------------|------------------------------------|---------------------------------|
| A    | 760±2 [29-15/16(29-7/8~30)] | 1060±2 [41-3/4(41-11/16~41-13/16)] | 795±2 [31-5/16(31-1/4~31-7/16)] |
| B    | 190 [7-1/2]                 | 210 [8-5/16]                       | 190 [7-1/2]                     |

13-3-4. Installation

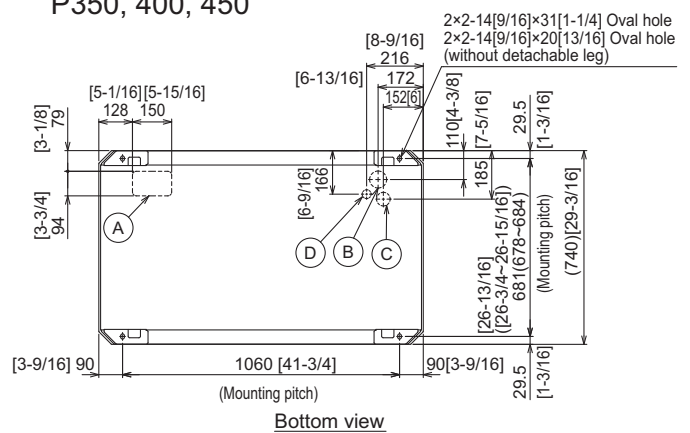
When the pipes and/or cables are routed at the bottom of the unit, make sure that the through hole at the base of the unit does not get blocked with the installation base.  
 When the pipes are routed at the bottom of the unit, the base should be at least 100 mm [3-15/16 in.] in height.

(Unit: mm[in.])

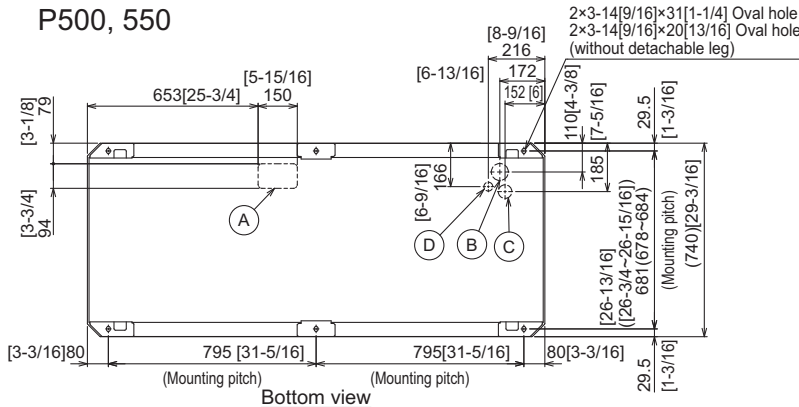
P200, 250, 300



P350, 400, 450

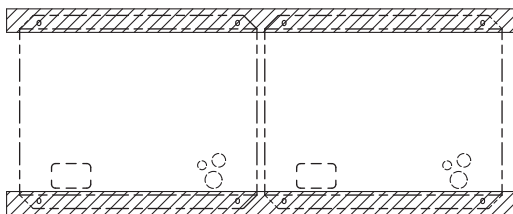


P500, 550

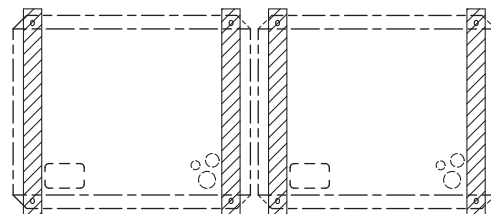


| NO. | Usage                   | Specifications   |
|-----|-------------------------|--|
| (A) | For pipes               | Bottom through hole<br>150 × 94 Knockout hole<br>[5-15/16] [3-3/4] |
| (B) | For wires               | Bottom through hole<br>ø65 Knockout hole<br>[2-9/16]               |
| (C) |                         | Bottom through hole<br>ø52 Knockout hole<br>[2-1/16]               |
| (D) | For transmission cables | Bottom through hole<br>ø34 Knockout hole<br>[1-3/8]                |

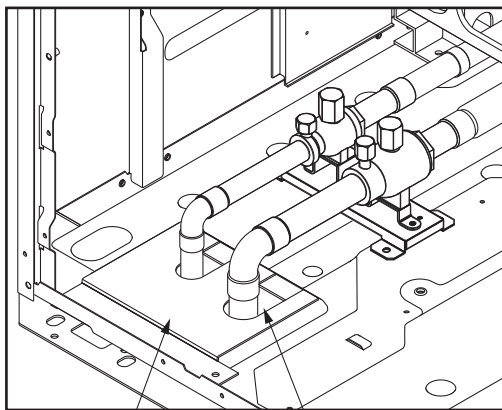
Installation base parallel to the unit's front panel



Installation base perpendicular to the unit's front panel



13-3-5. Refrigerant pipe routing



Example of closure materials (field supply) Fill the gap at the site

The gaps around the edges of through holes for pipes and wires on the unit allow water or mice to enter the unit and damage its parts. Close these gaps with filler plates.

This unit allows two types of pipe routing:

- Bottom piping
- Front piping

**CAUTION**

To prevent small animals, water and snow from entering the unit and damage its parts, close the gap around the edges of through holes for pipes and wires with filler plates.

13-3-6. Twinning on the outdoor unit side

- The pipe from multiple outdoor units must be installed so that oil will not accumulate in the pipe under certain conditions. Refer to the figures below for details.

\* Small dots in the figures indicate branching points.

Ⓐ To a BC controller

- The pipe from the outdoor units must be inclined downward to the indoor unit side. In the figure on the right, because the pipe is inclined upward, the oil in the pipe accumulates when Unit 1 is in operation and Unit 2 is stopped.



- The distance between the unit bottom and the pipe (H) must be 0.2 m (7-7/8 in) or below. In the figure on the right, because the distance is more than 0.2 m (7-7/8 in), the oil accumulates in Unit 1 when Unit 2 is in operation and Unit 1 is stopped.



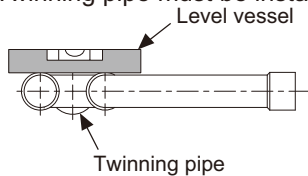
- The vertical separation between units (H) must be 0.1 m (3-15/16 in) or below. In the figure on the right, because the distance is more than 0.1 m (3-15/16 in), the oil accumulates in Unit 1 when Unit 2 is in operation and Unit 1 is stopped.



- The vertical separation between units (H) must be 0.1 m (3-15/16 in) or below. In the figure on the right, because the distance is more than 0.1 m (3-15/16 in), the oil accumulates in Unit 2 when Unit 1 is in operation and Unit 2 is stopped.



- The Twinning pipe must be installed horizontally using a level vessel to avoid unit damage.



- If the length of the pipe between the branching point and the outdoor unit exceeds 2 m (6 ft), provide a trap within 2 m (6 ft) from the branching point. The trap must be at least 200 mm (7-7/8 in) in height. (high-pressure pipe only) If there is no trap, oil can accumulate inside the pipe, causing a shortage of oil and may damage the compressor.

\* Small dots in the figures indicate branching points.

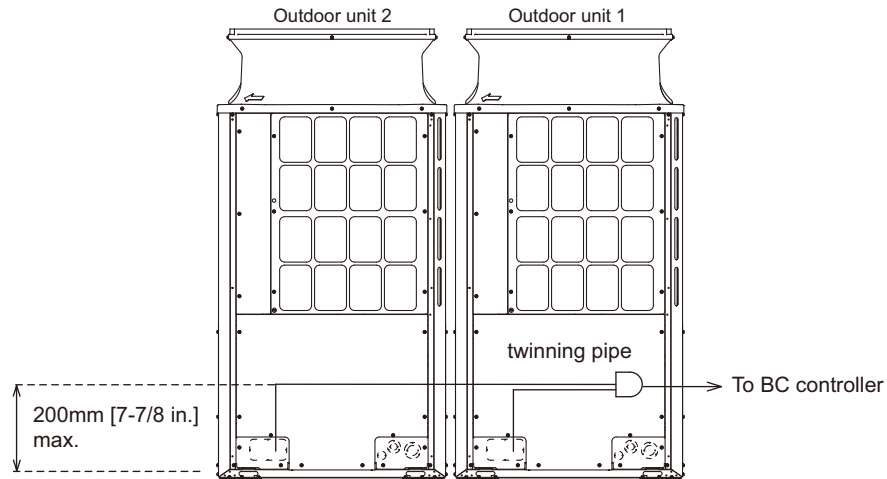


Ⓐ To indoor units  
 Ⓑ Trap (high-pressure pipe only)  
 Ⓒ High-pressure pipe

**Caution:**

- Do not install traps other than the ones between outdoor units described on a separate sheet to prevent oil backflow and compressor start-up failure.
- Do not install solenoid valves to prevent oil backflow and compressor start-up failure.
- Do not install a sight glass because it may show improper refrigerant flow. If a sight glass is installed, inexperienced technicians that use the glass may overcharge the refrigerant.
- Refrigerant pipes may expand or shrink due to temperature fluctuations of the refrigerant inside the pipes. When installing long straight pipes, provide traps to absorb the thermal expansions of the pipes.

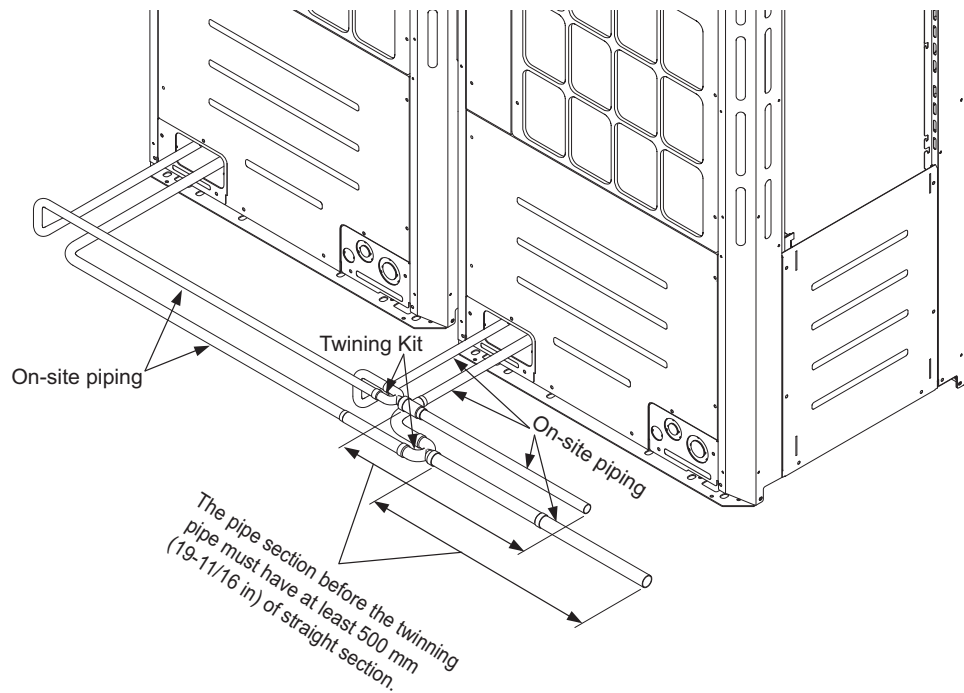




13-3-7. Twinning on the outdoor unit side

See the following drawing for connecting the pipes between the outdoor units.

<In case of 2units combination>



- ◆ PURY-P200YNW-A2/TR2/RU2 through PURY-P500YNW-A2/TR2/RU2, and PURY-EP200YNW-A2/TR2/RU2 through PURY-EP500YNW-A2/TR2/RU2 can be used in a Hybrid City Multi system. Contact your dealer when connecting the larger capacity units in a Hybrid City Multi system.

### 13-4. Weather countermeasure

In cold and/or snowy areas, sufficient countermeasures to wind and snow damages should be taken for operating unit in normal and good condition in winter time. Surround the units with snow nets or fences to protect them from snow. Even in the other areas, full consideration is required for installation of unit in order to prevent abnormal operations caused by wind or snow. **When rain and snow directly fall on unit in the case of air-conditioning operations in 10 or less degrees centigrade outdoor air (50 or less degrees fahrenheit outdoor air) , mount inlet and outlet ducts on unit for assuring stable operations. It is recommended to install a duct to fully make use of the advantages of the panel heater.**

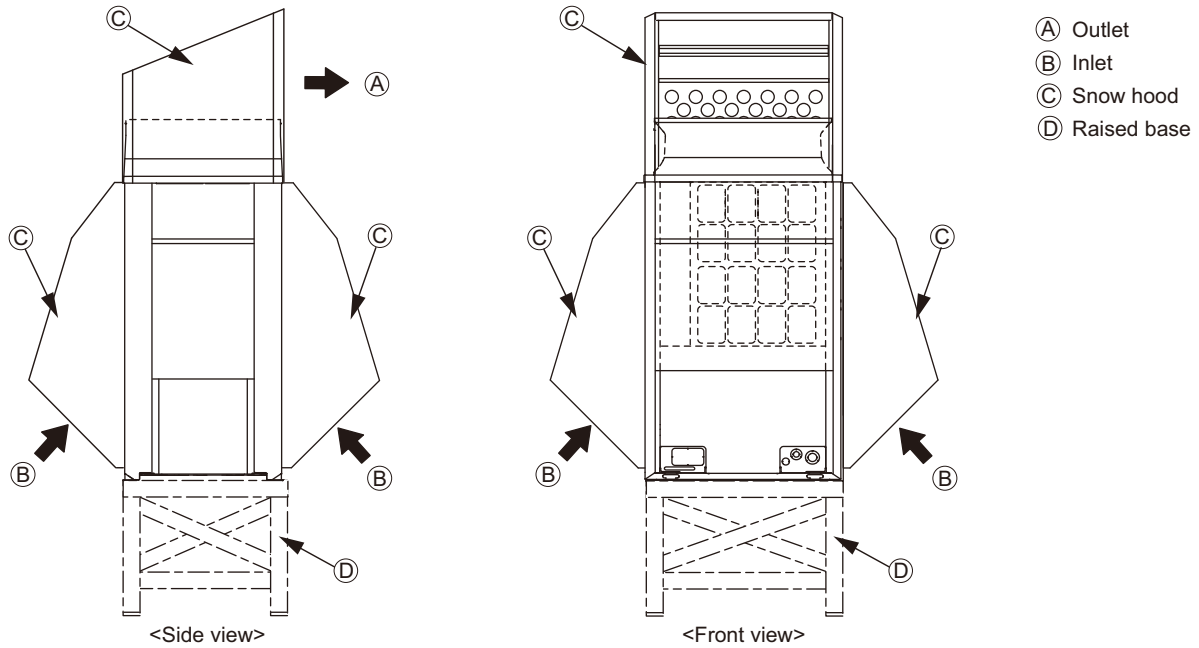
Countermeasure to snow and wind

Prevention the Outdoor unit from wind and snow damages in cold or snowy areas, snow hood shown below is recommended and helpful.

\*Do not use a snow hood made of stainless steel, which may cause the unit to rust. If the use of a stainless snow hood is the only option, contact the sales office before installing it.

\*When installing a snow hood, take pressure loss into consideration to prevent airflow from decreasing.

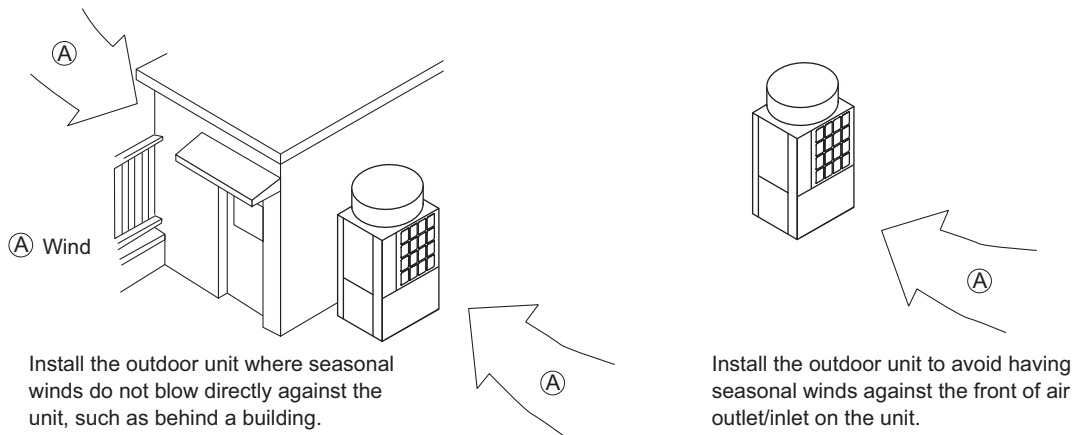
- Snow hood



### 13-5. Countermeasure to wind

Referring to the figure shown below, take appropriate measures which will suit the actual situation of the place for installation. A unit installed alone is vulnerable to strong winds. Select the installation site carefully to minimize the effect of winds.

To install a unit in a place where the wind always blows from the same direction, install the unit so that the outlet faces away from the direction of the wind.



### 13-6. Precautions for installing a panel heater

If there is a risk that the drain water will freeze inside the outdoor unit, the installation of a panel heater is recommended.

When installing a panel heater, provide sufficient space for maintenance accordingly.

For details, refer to the installation manual for the panel heater.

## Installation information

|  |   |
|--|---|
| 1. Installation information .....                        | 2 |
| 1-1. General precautions .....                           | 2 |
| 1-2. Precautions for Indoor unit and BC controller ..... | 4 |
| 1-3. Precautions for outdoor unit/heat source unit ..... | 5 |
| 1-4. Precautions for control-related items .....         | 6 |

\* Refer to the enclosed Installation Manual for details on installation. Arrange to have an expert install the system correctly.

## 1-1. General precautions

### 1-1-1. Usage

- ♦The air-conditioning system described in this DATA BOOK is designed for human comfort.
- ♦This product is not designed to assist in the preservation of food, provide conditions to maintain plants or animals, or stabilize environments for the preservation of precision equipment or art objects. To prevent loss of quality, do not use the product for purposes other than those it is designed for.
- ♦To reduce the risk of water leakage and electric shock, do not use the product for air-conditioning vehicles or vessels.

### 1-1-2. Installation environment

- ♦Do not install any unit other than the dedicated unit in an area where the voltage changes significantly, large amounts of mineral oil (e.g., cutting oil) are present, cooking oil may splash, or a large quantity of steam can be generated, such as a kitchen.
- ♦Do not install the unit in acidic or alkaline environments.
- ♦Installation should not be performed in locations exposed to chlorine or other corrosive gases. Avoid installation near sewers.
- ♦To reduce the risk of fire, do not install the unit in an area where flammable gas may leak or flammable material is present.
- ♦This air-conditioning unit has a built-in microcomputer. The effects of noise should be taken into consideration when deciding on the installation position. It is recommended that the air-conditioning unit be installed in a position away from antennas or electronic devices.
- ♦Install the unit on a solid foundation in accordance with local safety measures against typhoons, wind gusts, and earthquakes to prevent the unit from being damaged, toppling over, or falling.

### 1-1-3. Backup system

- ♦In regions in which the malfunctioning of the air conditioner may have a critical effect, it is recommended to have two or more systems made up of single outdoor/heat source units and multiple indoor units.

### 1-1-4. Unit characteristics

- ♦The heat pump efficiency of the outdoor unit depends on the outdoor temperature. In heating mode, performance drops as the outside air temperature drops. In cold climates, performance can be poor. Warm air will continue to be trapped near the ceiling and the floor level will remain cold. In such cases, heat pumps require a supplemental heating system or air circulator. Before purchasing, consult your local distributor for assistance in selecting the unit and system.
- ♦When the outdoor temperature is low and the humidity is high, the heat exchanger on the outdoor/heat source unit side tends to collect frost, which reduces its heating performance. The Auto-defrost function will be activated in order to remove the frost, and the heating mode will temporarily stop for 3-10 minutes. Heating mode will automatically resume upon completion of the defrost process.
- ♦An air conditioner with a heat pump requires time to warm up the whole room after the heating operation begins, because the system circulates warm air in order to warm up the whole room.
- ♦Sound levels were obtained in an anechoic room. Sound levels during actual operation are usually higher than the simulated values due to ambient noise and echoes. Refer to the section on "SOUND LEVELS" in the DATA BOOK for the measurement location.
- ♦Depending on the operating conditions, the unit generates noise caused by valve actuation, refrigerant flow, and pressure changes even when operating normally. Try to avoid positioning the air conditioner in locations where quietness is required. With regard to the BC/HBC controller, it is recommended that the unit be installed in areas such as corridor ceilings, restrooms and plant rooms.
- ♦The total capacity of the connected indoor units can be greater than the capacity of the outdoor/heat source unit. However, when the connected indoor units operate simultaneously, each unit's capacity may become smaller than the rated capacity.
- ♦When the unit is started up for the first time within 12 hours after the power comes on, i.e. after a power failure, it performs initial startup operation (capacity control operation) to prevent damage to the compressor. The initial startup operation requires a maximum of 90 minutes to complete, depending on the operating load.

### 1-1-5. Related equipment

- ♦Use an earth leakage breaker (ELB) with medium sensitivity, and an activation speed of 0.1 second or less.
- ♦Consult your local distributor or a qualified technician when installing an earth leakage breaker.
- ♦If the unit is an inverter type, select an earth leakage breaker able to respond to high harmonic waves and surges.
- ♦Leakage current is generated not only through the air-conditioning unit but also through the power wires. The leakage current of the main power supply is therefore greater than the total leakage current of each unit. Take the capacity of the earth leakage breaker or leakage alarm into consideration when installing one at the main power supply. To measure the leakage current simply on site, use a measurement tool equipped with a filter, and clamp all the four power wires together. The leakage current measured on the ground wire may not be accurate because the leakage current from other systems may be included in the measurement value.
- ♦Do not install a phase-advancing capacitor on a unit connected to the same power system as an inverter-type unit and its related equipment.
- ♦If a large current flows due to the malfunctioning of the product or faulty wiring, both the earth leakage breaker on the product side and the upstream overcurrent breaker may trip almost at the same time. Separate the power system or coordinate all the breakers depending on the system's priority level.

### 1-1-6. Unit installation

- ♦Your local distributor or a qualified technician must read the Installation Manual that is provided with each unit carefully before performing installation work.
- ♦Consult your local distributor or a qualified technician when installing the unit. Improper installation by an unqualified person may result in water leakage, electric shock, or fire.
- ♦Ensure that there is enough space around each unit.

### 1-1-7. Optional accessories

- ♦Only use accessories recommended by Mitsubishi Electric. Consult your local distributor or a qualified technician when installing them. Improper installation by an unqualified person may result in water leakage, power leakage, system breakdown, or fire.
- ♦Some optional accessories may not be compatible for use with the air-conditioning unit or may not be suitable for the installation conditions. Check the compatibility when considering any accessories.
- ♦Note that some optional accessories may affect the air conditioner's external form, appearance, weight, operating sound, and other characteristics.

### 1-1-8. Operation/Maintenance

- ♦Read the Instruction Book that is provided with each unit carefully prior to use.
- ♦Maintenance or cleaning of each unit may be risky and require expertise. Read the Instruction Book to ensure safety. Consult your local distributor or a qualified technician when special expertise is required, such as when the indoor unit needs to be cleaned.

## 1-2. Precautions for Indoor unit and BC controller

### 1-2-1. Operating environment

- ♦The refrigerant (R410A) used in the air conditioner is non-toxic and nonflammable. However, if the refrigerant leaks, the oxygen level may drop to harmful levels. If the air conditioner is installed in a small room, measures must be taken to prevent the refrigerant concentration from exceeding the safety limit even if the refrigerant leaks.
- ♦If the units operate in cooling mode at a humidity above 80%, condensation may collect and drip from the indoor units.
- ♦Regular checking and cleaning of the drain drainage paths, such as the drain pan or the drain pump, is recommended to prevent clogging. The neglect of a clogged drain pump may trigger the water-leakage protection function which stops operation of the entire system.

### 1-2-2. Unit characteristics

- ♦The return air temperature display on the remote controller may differ from the displays on the other thermometers.
- ♦The clock on the remote controller may be displayed with a time lag of approximately one minute every month.
- ♦The temperature measured by the built-in temperature sensor on the remote controller may differ from the actual room temperature due to the effect of the wall temperature.
- ♦Use the built-in thermostat on the remote controller or a separately-sold thermostat when indoor units installed on or in the ceiling operate the automatic cooling/heating switchover.
- ♦The room temperature may rise drastically due to Thermo OFF in areas where the air-conditioning load is large, such as computer rooms.
- ♦Be sure to use a regular filter. If an irregular filter is installed, the unit may not operate properly, and operating noise may increase.
- ♦The room temperature may increase above the preset temperature in environments in which the heating or air-conditioning load is small.

### 1-2-3. Unit installation

- ♦The insulation for the low-pressure pipe between the BC controller and the outdoor/heat source unit must be at least 20 mm thick. If the unit is installed on the top floor or in a high-temperature, high-humidity environment, thicker insulation may be necessary.
- ♦Do not have any branching points on the downstream of the refrigerant pipe header.
- ♦When a field-supplied external thermistor is installed or when a device for demand control is used, the unit may stop abnormally or damage may occur to the electromagnetic contactor. Consult your local distributor for details.
- ♦When indoor units employ fresh air intake, install a filter in the duct (locally procured) to remove dust from the air.
- ♦The 4-way or 2-way Airflow Ceiling Cassette Type units that have an outside air inlet can be connected to the duct, but need a booster fan to be installed at site. Refer to the chapter "Indoor Unit" for the available range for fresh air intake volume.
- ♦Employing fresh air intake for the indoor unit may increase the sound pressure level.
- ♦Do not install the unit above the cooking or food processing area.

### 1-2-4. Noise level (Sound pressure level)

- ♦The sound pressure level is a value measured in an anechoic room in accordance with the conventional method in JIS standard. The sound pressure level actually measured at the installation site is usually higher than the value indicated in this DATA BOOK due to the influence of ambient noise and echoes.



### 1-3. Precautions for outdoor unit/heat source unit

#### 1-3-1. Installation environment

- ♦The outdoor unit with the salt-resistant specification is recommended for use in an area in which it will be exposed to salt air.
- ♦Even when the unit with the salt-resistant specification is used, it is not completely protected against corrosion. Be sure to follow the directions or precautions described in the Instruction Book and Installation Manual for installation and maintenance. The salt-resistant specification is referred to in the guidelines published by JRAIA (JRA9002).
- ♦Install the unit in an area where the flow of discharge air is not obstructed. If the flow of discharge air is obstructed, short-cycling of discharge air may occur.
- ♦Provide proper drainage around the base of the units; condensation may collect and drip from outdoor units. Provide water-proofing protection to the floor when installing the unit on the rooftop.
- ♦In regions where snowfall can be expected, install the unit so that the outlet faces away from the direction of the wind, and install a snow guard to protect the unit from snow. Install the unit on a base approximately 50 cm higher than the expected snowfall. Close the openings for pipes and wiring, because the ingress of water and small animals may cause equipment damage. If a SUS snow guard is used, refer to the Installation Manual that comes with the snow guard and be careful with the installation to avoid the risk of corrosion.
- ♦When the unit is expected to operate continuously for a long period of time at outside air temperatures of below 0°C, take appropriate measures, such as the use of a unit base heater, to prevent ice forming on the unit base. (Not applicable to the PUMY-Series)
- ♦Install the snow guard so that the outlet/inlet faces away from the direction of the wind.
- ♦When approximately 50 cm or more of snow accumulates on the snow guard, remove the snow from the guard. Install a roof that is strong enough to withstand loads caused by snow in areas where snow accumulates.
- ♦Provide proper protection around the outdoor units in places such as schools to avoid the risk of injury.
- ♦A cooling tower and heat source water circuit should be a closed circuit so that water is not exposed to the atmosphere. When a tank is installed to ensure that the circuit has enough water, minimize the contact with outside air to ensure that the oxygen dissolved in the water is 1 mg/L or less.
- ♦Install a strainer (50 mesh or more recommended) on the water pipe inlet on the heat source unit.
- ♦Interlock the heat source unit and water circuit pump.
- ♦Note the following to prevent the freezing and bursting of pipes when the heat source unit is installed in an area where the ambient temperature can be 0°C or below.
  - ♦Keep the water circulating to prevent it from freezing when the ambient temperature is 0°C or below.
  - ♦Before a long period of non-use, be sure to purge the water from the unit.
- ♦The salt-resistant unit is resistant to salt corrosion, but not salt-proof.
 

Please note the following when installing and maintaining outdoor units in a marine environment.

  1. Install the salt-resistant unit in an area in which it is not directly exposed to sea breezes, and minimize exposure to salt water mist.
  2. Avoid installing a sun shade over the outdoor unit, so that rain will wash away salt deposits off the unit.
  3. Install the unit horizontally to ensure proper water drainage from the base of the unit. Accumulation of water in the base of the outdoor unit will significantly accelerate corrosion.
  4. Periodically wash salt deposits off the unit, especially when the unit is installed in a coastal area.
  5. Repair all noticeable scratches after installation and during maintenance.
  6. Periodically check the unit, and apply an anti-rust agent and replace corroded parts as necessary.

#### 1-3-2. Circulating water

- ♦Regularly check the quality of the water in the heat source unit, following the guidelines published by JRAIA (JRA-GL02-1994).
- ♦A cooling tower and heat source water circuit should be a closed circuit so that water is not exposed to the atmosphere. When a tank is installed to ensure that the circuit has enough water, minimize the contact with outside air to ensure that the oxygen dissolved in the water is 1 mg/L or less.

#### 1-3-3. Unit characteristics

- ♦When the Thermo ON and OFF is frequently repeated on the indoor unit, the operating status of outdoor/heat source units may become unstable.

#### 1-3-4. Related equipment

- ♦Provide grounding in accordance with the local regulations.

#### 1-3-5. Noise level (Sound pressure level)

- ♦The sound pressure level is a value measured in an anechoic room in accordance with the conventional method in JIS standard. The sound pressure level actually measured at the installation site is usually higher than the value indicated in this DATA BOOK due to the influence of ambient noise and echoes.
 

Valve operation noise and refrigerant flow noise may occur from inside the outdoor unit/heat-source unit.

## 1-4. Precautions for control-related items

### 1-4-1. Product specification

- ♦To introduce the MELANS system, a consultation with us is required in advance. Especially to introduce the electricity charge-apportioning function or energy save function, further detailed consultation is required. Consult your local distributor for details.
- ♦Billing calculation for AE-200E/AE-50E/EW-50E, or the billing calculation unit is unique and based on our original method. (Backup operation is included.) It is not based on the metering method, and do not use it for official business purposes. It is not the method that the amount of electric power consumption (input) by air conditioner is calculated. Note that the electric power consumption by air conditioner is apportioned by using the ratio corresponding to the operation status (output) for each air conditioner (indoor unit) in this method.
- ♦In the apportioned billing function for AE-200E/AE-50E and EW-50E, separate watt-hour meters should be used for A-control units, K-control units, and CITY MULTI packaged air conditioners. It is recommended that an individual watt-hour meter should be used for large-capacity indoor units (with two or more addresses).
- ♦When using the peak cut function on the AE-200E/AE-50E or EW-50E, note that the control is performed once every minute and it takes time to obtain the effect of the control. Take appropriate measures such as lowering the criterion value. Power consumption may exceed the limits if the AE-200E/AE-50E or EW-50E malfunctions or stops. Provide a back-up remedy as necessary.
- ♦The controllers cannot operate while the indoor unit is OFF. (No error)  
Turn ON the power to the indoor unit when operating the controllers.
- ♦When using the interlocked control function on the AE-200E/AE-50E/EW-50E/PAC-YG66DCA or PAC-YG63MCA, do not use the control for fire prevention or security. (This function should never be used in a way that would put people's lives at risk.) Employ any methods or circuits that allow ON/OFF operation using an external switch in case of failure.

### 1-4-2. Installation environment

- ♦Surge protection may be required for the transmission line in areas where lightning strikes occur frequently.
- ♦The receiver for a wireless remote controller may not work properly due to the effect of general lighting. Leave a space of at least 1 m between the general lighting and the receiver.
- ♦When the auto-elevating panel is used and the system is operated using a wired remote controller, install the wired remote controller in a place where all the air conditioners being controlled (at least the bottom part of them) can be seen from the wired remote controller. If not, the descending panel may cause damage or injury; be sure to use a wireless remote controller designed for use with the elevating panel (sold separately).
- ♦Install the wired remote controller (switch box) in a place where the following conditions are met.
  - ♦Where the installation surface is flat
  - ♦Where the remote controller can detect an accurate room temperature  
The temperature sensors that detect the room temperature are installed both in the remote controller and in the indoor unit.  
When the room temperature is detected using the sensor in the remote controller, the main remote controller is used to detect the room temperature. In this case, follow the instructions below.
    - ♦ Install the controller in a place where it is not affected by a heat source.  
(If the remote controller faces direct sunlight or the direction of the supply air flow, the remote controller cannot detect the accurate room temperature.)
    - ♦ Install the controller in a place where the average room temperature can be detected.
    - ♦ Install the controller in a place where no other wires are present around the temperature sensor.  
(If other wires are present, the remote controller cannot detect an accurate room temperature.)
- ♦To prevent unauthorized access, always use a security device such as a VPN router when connecting the AE-200E/AE-50E or EW-50E to the Internet.

## Caution for refrigerant leakage for R410A

|   |   |
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The installer and/or air conditioning system specialist shall secure safety against refrigerant leakage according to local regulations or standards. The following standard may be applicable if no local regulation or standard is available.

CAUTION FOR REFRIGERANT LEAKAGE FOR R410A

1-1. Refrigerant property

R410A refrigerant is harmless and incombustible. The R410A is heavier than the indoor air in density. Leakage of the refrigerant in a room has possibility to lead to a hypoxia situation. Therefore, the critical concentration specified below shall not be exceeded even if the leakage happens.

• Critical concentration

Critical concentration hereby is the refrigerant concentration in which no human body would be hurt if immediate measures can be taken when refrigerant leakage happens.

**Critical concentration of R410A: 0.44kg/m<sup>3</sup>**  
**(The weight of refrigeration gas per 1 m<sup>3</sup> air conditioning space.);**  
 \* The Critical concentration is subject to ISO5149, EN378-1.

For the CITY MULTI system, the concentration of refrigerant leaked should not have a chance to exceed the critical concentration in any situation.

1-2. Confirm the Critical concentration and take countermeasure

The maximum refrigerant leakage concentration (Rmax) is defined as the result of the possible maximum refrigerant weight (Wmax) leaked into a room divided by its room capacity (V). It is referable to Fig.1-1. The refrigerant of Outdoor/Heat source unit here includes its original charge and additional charge at the site.

The additional charge is calculated according to the refrigerant charging calculation of each kind of Outdoor/Heat source unit, and shall not be over charged at the site. Procedure 1-2-1~3 tells how to confirm maximum refrigerant leakage concentration (Rmax) and how to take countermeasures against a possible leakage.

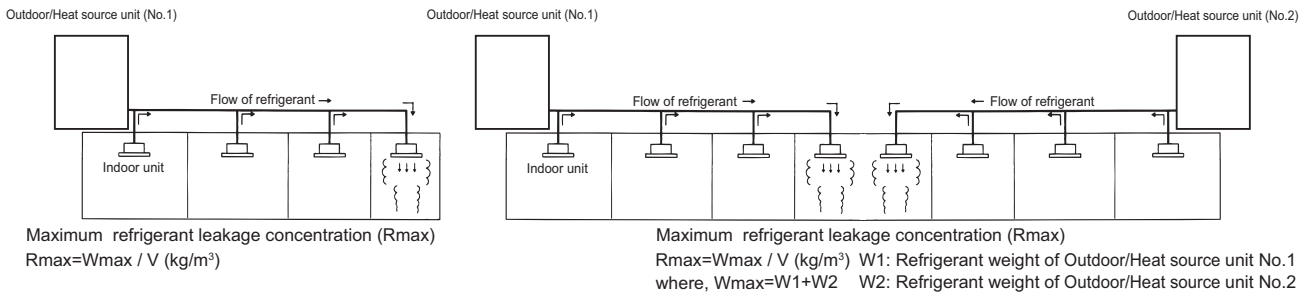


Fig. 1-1 The maximum refrigerant leakage concentration

1-2-1. Find the room capacity (V),

If a room having total opening area more than 0.15% of the floor area at a low position with another room/space, the two rooms/space are considered as one. The total space shall be added up.

1-2-2. Find the possible maximum leakage (Wmax) in the room. If a room has Indoor unit(s) from more than 1 Outdoor/Heat source unit, add up the refrigerant of the Outdoor/Heat source units.

1-2-3. Divide (Wmax) by (V) to get the maximum refrigerant leakage concentration (Rmax).

1-2-4. Find if there is any room in which the maximum refrigerant leakage concentration (Rmax) is over 0.44kg/m<sup>3</sup>.

If no, then the CITY MULTI is safe against refrigerant leakage.

If yes, following countermeasure is recommended to do at site.

Countermeasure 1: Let-out (making V bigger)

Design an opening of more than 0.15% of the floor area at a low position of the wall to let out the refrigerant whenever leaked. e.g. make the upper and lower seams of door big enough.

Countermeasure 2: Smaller total charge (making Wmax smaller)

e.g. Avoid connecting more than 1 Outdoor/Heat source unit to one room.

e.g. Using smaller model size but more Outdoor/Heat source units.

e.g. Shorten the refrigerant piping as much as possible.

Countermeasure 3: Fresh air in from the ceiling (Ventilation)

As the density of the refrigerant is bigger than that of the air. Fresh air supply from the ceiling is better than air exhausting from the ceiling.

Fresh air supply solution refers to Fig.1-2~4.

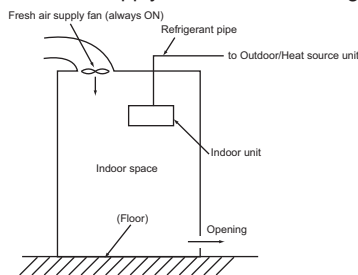


Fig.1-2. Fresh air supply always ON

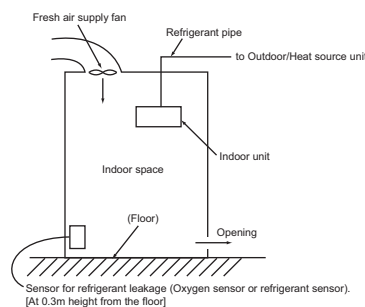


Fig.1-3. Fresh air supply upon sensor action

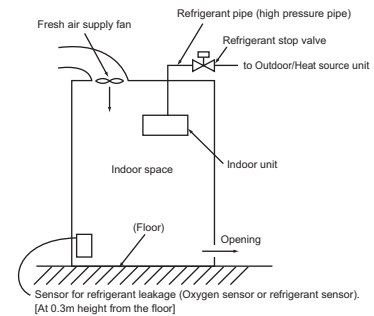


Fig.1-4. Fresh air supply and refrigerant shut-off upon sensor action

Note 1. Countermeasure 3 should be done in a proper way in which the fresh air supply shall be on whenever the leakage happens.

Note 2. In principle, MITSUBISHI ELECTRIC requires proper piping design, installation and air-tight testing after installation to avoid leakage happening.

In the area should earthquake happen, anti-vibration measures should be fully considered.

The piping should consider the extension due to the temperature variation.

**⚠ Warning**

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

**MITSUBISHI ELECTRIC CORPORATION**

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