## HBC CONTROLLER

| Model |  |  | 8 Port |  |  |  |  | 16 Port |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | CMB-WP108V-GA1 |  |  |  |  | CMB-WP1016V-GA1 |  |  |  |  |
| Number of Branch |  |  | 8 |  |  |  |  | 16 |  |  |  |  |
| Power Source |  |  | 1-phase 220-230-240 V |  |  |  |  | 1-phase 220-230-240 V |  |  |  |  |
|  |  |  | 50 Hz |  |  | 60 Hz |  | 50 Hz |  |  | 60 Hz |  |
| Power Input$(220 / 230 / 240)$ | Cooling | kW | 0.45/0.46/0.47 |  |  | 0.45/0.46/0.47 |  | 0.45/0.46/0.47 |  |  | 0.45/0.46/0.47 |  |
|  | Heating | kW | 0.45/0.46/0.47 |  |  | 0.45/0.46/0.47 |  | 0.45/0.46/0.47 |  |  | 0.45/0.46/0.47 |  |
| $\begin{array}{\|l\|} \hline \text { Current Input } \\ (220 / 230 / 240) \\ \hline \end{array}$ | Cooling | A | 2.89/2.83/2.79 |  |  | 2.89/2.83/2.79 |  | 2.89/2.83/2.79 |  |  | 2.89/2.83/2.79 |  |
|  | Heating | A | 2.89/2.83/2.79 |  |  | 2.89/2.83/2.79 |  | 2.89/2.83/2.79 |  |  | 2.89/2.83/2.79 |  |
| Sound Pressure Level (Measured in Anechoic Room) |  | dBA | 41 |  |  |  |  | 41 |  |  |  |  |
| Applicable Temperature Range of Installation Site |  | ${ }^{\circ} \mathrm{C}$ | 0~32 |  |  |  |  | 0~32 |  |  |  |  |
| External Finish |  |  | Galvanised steel plate (Lower part drain pan: pre-coated galvanised sheets + powder coating) |  |  |  |  | Galvanised steel plate (Lower part drain pan: pre-coated galvanised sheets + powder coating) |  |  |  |  |
| Connectable Outdoor/Heat Source Unit |  |  | PURY-P200~500YLM-A(1)(-BS)/PURY-EP200~500YLM-A1(-BS)/PQRY-P200~500YLM-A |  |  |  |  | PURY-P200~500YLM-A(1)(-BS)/PURY-EP200~500YLMA1 (-BS)/PQRY-P200~500YLM-A |  |  |  |  |
| Indoor Unit Capacity Connectable to 1 Branch |  |  | Model P80 or smaller (Use optional joint pipe combining 2 branches when the total unit capacity exceeds P81) |  |  |  |  | Model P80 or smaller (Use optional joint pipe combining 2 branches when the total unit capacity exceeds P81) |  |  |  |  |
| External Dimension H x W x D |  | mm | $300 \times 1,520 \times 630$ |  |  |  |  | $300 \times 1,800 \times 630$ |  |  |  |  |
|  |  | in. | 11-13/16 $\times 59-7 / 8 \times 24-13 / 16$ |  |  |  |  | $11-13 / 16 \times 70-7 / 8 \times 24-13 / 16$ |  |  |  |  |
| Refrigerant Piping Diameter | To Outdoor/Heat Source Unit |  | Connectable outdoor unit capacity |  |  |  |  | Connectable outdoor unit capacity |  |  |  |  |
|  |  |  | To P200 | To P250/300 | To P350 | To P400 for each | To P450/500 for each | To P200 | To P250/300 | To P350 | To P400 for each | To P450/500 for each |
|  | High Press. <br> Pipe (O.D.) | mm (in.) | $\begin{gathered} 15.88 \text { (5/8) } \\ \text { Brazed } \end{gathered}$ | $\begin{gathered} 19.05(3 / 4) \\ \text { Brazed } \end{gathered}$ | $\begin{gathered} 19.05(3 / 4) \\ \text { Brazed } \end{gathered}$ | $\begin{array}{\|c\|} \hline 15.88(5 / 8) \\ \text { Brazed } \end{array}$ | $\begin{gathered} 19.05(3 / 4) \\ \text { Brazed } \end{gathered}$ | $\begin{array}{\|c} 15.88(5 / 8) \\ \text { Brazed } \end{array}$ | $\begin{gathered} 19.05(3 / 4) \\ \text { Brazed } \end{gathered}$ | $\begin{array}{\|c} 19.05(3 / 4) \\ \text { Brazed } \end{array}$ | $\begin{gathered} 15.88(5 / 8) \\ \text { Brazed } \end{gathered}$ | $\begin{gathered} 19.05(3 / 4) \\ \text { Brazed } \end{gathered}$ |
|  | Low Press. Pipe (O.D.) | mm (in.) | $\begin{array}{\|c} 19.05(3 / 4) \\ \text { Brazed } \end{array}$ | $\begin{gathered} 22.2(7 / 8) \\ \text { Brazed } \end{gathered}$ | $\begin{array}{\|c\|} \hline 28.58(1-1 / 8) \\ \text { Brazed } \end{array}$ | $\begin{gathered} 19.05(3 / 4) \\ \text { Brazed } \end{gathered}$ | $\begin{gathered} 22.2 \text { (7/8) } \\ \text { Brazed } \end{gathered}$ | $\begin{array}{\|c} 19.05(3 / 4) \\ \text { Brazed } \end{array}$ | $\begin{gathered} 22.2(7 / 8) \\ \text { Brazed } \end{gathered}$ | $\begin{array}{\|l\|} 28.58(1-1 / 8) \\ \text { Brazed } \end{array}$ | $\begin{gathered} 19.05(3 / 4) \\ \text { Brazed } \end{gathered}$ | $\begin{gathered} 22.2 \text { (7/8) } \\ \text { Brazed } \end{gathered}$ |
| Water Piping Diameter | To Indoor Unit |  |  |  |  |  |  |  |  |  |  |  |
|  | Inlet Pipe (I.D.) | mm (in.) | 20 (3/4) |  |  |  |  | 20 (3/4) |  |  |  |  |
|  | Outlet Pipe (I.D.) | mm (in.) | 20 (3/4) |  |  |  |  | 20 (3/4) |  |  |  |  |
| Field Drain Pipe Size |  | mm (in.) | O.D. 32 (1-1/4) |  |  |  |  | O.D. 32 (1-1/4) |  |  |  |  |
| Net Weight |  | kg (lbs) | 86 (190) [96 (212) with water] |  |  |  |  | 98 (217) [111 (245) with water] |  |  |  |  |
| Standard Attachment | Accessory |  | Drain connection pipe (with flexible hose and insulation) |  |  |  |  | Drain connection pipe (with flexible hose and insulation) |  |  |  |  |
| Optional Parts |  |  | - |  |  |  |  | - |  |  |  |  |

Note: When P400/P450/500 outdoor is utilised $2 x$ master HBC's must be installed.

## Notes:

1. Works not included:

Installation/foundation work, electrical connection work, duct work, insulation work, power source switch, and other items are not specified in this specifications.
2. The equipment is for R410A refrigerant.
3. Install this product in a location where noise (refrigerant noise) emitted by the unit will not disturb the neighbours.
(For use in quiet environments with low background noise, position the HBC CONTROLLER at least 5 m away from any indoor units.)
4. Please install the HBC controller in a place where noise will not be an issue.
5. Please attach an expansion vessel (field supply).
6. Please use copper or plastic pipes for the water circuit. Do not use steel or stainless steel pipework.

Furthermore, when using copper pipework, use a non-oxidative brazing method.
Oxidation of the pipework will reduce the pump life.
7. When brazing the pipes, be sure to braze after covering a wet cloth to the insulation pipes of the units in order to prevent it from burning and shrinking by heat.
8. Please install an air purge valve where air will gather in the water circuit.
9. Please install a pressure reducing valve and a strainer on the water supply to the HBC controller.
10. Please refer to the databook or the installation manual for the specified water quality.
11. This unit is not designed for outside installations
12. Please always make water circulate or pull out the circulation water completely when not using it.
*Please do not use it as a drinking water.
13. Please do not use ground water and well water.
14. When installing the HBC unit in an environment which may drop below $0^{\circ} \mathrm{C}$, please add anti-freeze to the circulating water. (Refer to the data book and the installation manual).

| Model |  |  | 8 Port |  | 16 Port |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | CMB-WP108V-GB1 |  | CMB-WP1016V-GB1 |  |
| Number of Branch |  |  | 8 |  | 16 |  |
| Power Source |  |  | 1-phase 220-230-240 V |  | 1-phase 220-230-240 V |  |
|  |  |  | 50 Hz | 60 Hz | 50 Hz | 60 Hz |
| Power Input (220/230/240) | Cooling | kW | 0.01/0.01/0.01 | 0.01/0.01/0.01 | 0.01/0.01/0.01 | 0.01/0.01/0.01 |
|  | Heating | kW | 0.01/0.01/0.01 | 0.01/0.01/0.01 | 0.01/0.01/0.01 | 0.01/0.01/0.01 |
| $\begin{aligned} & \text { Current Input } \\ & (220 / 230 / 240) \\ & \hline \end{aligned}$ | Cooling | A | 0.05/0.05/0.05 | 0.05/0.05/0.05 | 0.05/0.05/0.05 | 0.05/0.05/0.05 |
|  | Heating | A | 0.05/0.05/0.05 | 0.05/0.05/0.05 | 0.05/0.05/0.05 | 0.05/0.05/0.05 |
| Sound Pressure Level (Measured in Anechoic Room) |  | dBA | - |  | - |  |
| Applicable Temperature Range of Installation Site |  | $\begin{aligned} & { }^{\circ} \mathrm{C} \\ & \text { (D.B.) } \end{aligned}$ | 0~32 |  | 0~32 |  |
| External Finish |  |  | Galvanised steel plate (Lower part drain pan: pre-coated galvanised sheets + powder coating) |  | Galvanised steel plate (Lower part drain pan: pre-coated galvanised sheets + powder coating) |  |
| Connectable Outdoor/Heat Source Unit |  |  | - |  | - |  |
| Indoor Unit Capacity Connectable to 1 Branch |  |  | Model P80 or smaller (Use optional joint pipe combining 2 branches when the total unit capacity exceeds P81) |  | Model P80 or smaller (Use optional joint pipe combining 2 branches when the total unit capacity exceeds P81) |  |
| External Dimension Hx W x D |  | mm | $300 \times 1,520 \times 630$ |  | $300 \times 1,520 \times 630$ |  |
|  |  | in. | $11-13 / 16 \times 59-7 / 8 \times 24-13 / 16$ |  | $11-13 / 16 \times 70-7 / 8 \times 24-13 / 16$ |  |
| Water Piping Diameter | To Main HBC Controller |  |  |  | 20 (3/4) |  |
|  | $\begin{aligned} & \text { Inlet Pipe } \\ & \text { (I.D.) } \end{aligned}$ | mm (in.) | 20 (3/4) |  |  |  |
|  | Outlet Pipe (I.D.) | mm (in.) | 20 (3/4) |  | 20 (3/4) |  |
|  | To Indoor Unit |  |  |  |  |  |
|  | Inlet Pipe (I.D.) | mm (in.) | 20 (3/4) |  | 20 (3/4) |  |
|  | Outlet Pipe (I.D.) | mm (in.) | 20 (3/4) |  | 20 (3/4) |  |
| Field Drain Pipe Size |  | mm (in.) | O.D. 32 (1-1/4) |  | O.D. 32 (1-1/4) |  |
| Net Weight kg (lbs) <br> Standard Attachment Accessory  |  |  | 44 (98) [49 (109) with water] |  | 53 (117) [62 (137) with water] |  |
|  |  |  | Drain connection pipe (with flexible hose and insulation) |  | Drain connection pipe (with flexible hose and insulation) |  |
| Optional Parts |  |  | - |  | - |  |

## Notes:

1. Works not included:

Installation/foundation work, electrical connection work, duct work, insulation work, power source switch, and other items are not specified in this specifications.
2. The equipment is for water.
3. Install this product in a location where noise (refrigerant noise) emitted by the unit will not disturb the neighbours.
(For use in quiet environments with low background noise, position the Sub HBC CONTROLLER at least 5 m away from any indoor units.)
4. Please install the Sub HBC controller in a place where noise will not be an issue.
5. Please attach an expansion vessel (field supply).
6. Please use copper or plastic pipes for the water circuit. Do not use steel or stainless steel pipework Furthermore, when using copper pipework, use a non-oxidative brazing method. Oxidation of the pipework will reduce the pump life.
7. When brazing the pipes, be sure to braze after covering a wet cloth to the insulation pipes of the units in order to prevent it from burning and shrinking by heat.
8. Please install an air purge valve where air will gather in the water circuit.
9. Please refer to the databook or the installation manual for the specified water quality.
10. This unit is not designed for outside installations.
11. Please always make water circulate or pull out the circulation water completely when not using it. *Please do not use it as a drinking water.
12. Please do not use ground water and well water.
13. When installing the Sub HBC unit in an environment which may drop below $0^{\circ} \mathrm{C}$, please add anti-freeze to the circulating water. (Refer to the data book and the installation manual).
14. Can't use singularly. (MAIN HBC CONTROLLER is necessary.)

