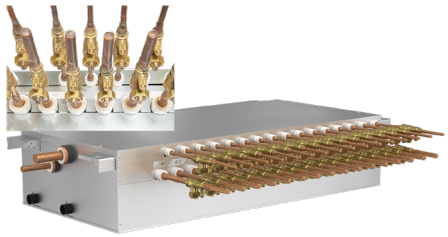
CITYMULTI®

# CMB-P1012NU-JA1-BV
## MAIN BC CONTROLLER

MITSUBISHI ELECTRIC
HEATING & AIR CONDITIONING

Job Name:

System Reference: Date:



| Specifications | | | System |
|---|---|---|---|
| Unit Type | | | CMB-P1012NU-JA1-BV |
| Indoor Unit Capacity Connectable to 1 Branch | | BTU/H | 54,000 |
| Number Of Branches | | | 12 |
| Electrical Power Requirements | | | 208/230V, 1-phase, 60 Hz |
| Minimum Circuit Ampacity (MCA) | | A | 1.6/0.8 |
| Maximum Overcurrent Protection (MOCP) | | A | 20 |
| Power Input (208 / 230V) | Cooling | kW | 0.95 / 0.11 |
| Power Input (208/230V) | Heating | kW | 0.52 / 0.60/ |
| Current Input (208/230V) | Cooling | A | 0.198 / 0.255/ |
| | Heating | A | 0.106 / 0.137 |
| External Dimensions | | In. [mm] | 9-7/8 x 44-11/16 x 21-1/2 [250 x 1,135 x 545] |
| Net Weight | | Lbs. [kg] | 133 [60] |
| External finish | | | Galvanized steel plate (Lower part drain pan: Pre-coated galvanized sheets + powder coating) () |
| Connectable Outdoor / Heat Source Unit Capacity | | | 72,000 to 336,000 |
| Field drain pipe size | | In. [mm] | 3/4 NPT |
| Refrigerant | | | R410A |
| Sound power level (measured in anechoic room) | Defrost | dB(A) | 50 |
| Sound pressure level (measured in anechoic room) | Rated operation | dB(A) | 68.0 |
| | Defrost | dB(A) | 74 |

NOTES:
1. The equipment is for use with R410A refrigerant only.
2. When possible, avoid installing the BC controller within 15 Ft. of sound sensitive areas.
3. Rated operation sound data is based on cooling mode. Sound data may vary depending on outdoor unit capacity and operation mode.
4. Sound pressure/power levels obtained via testing in an anechoic chamber. Actual sound pressure levels may be greater due to ambient noise and/or deflection
5. Sound pressure values were obtained at a test location approximately 5 Ft. from the unit
6. The solenoid valve switching sound pressure value is 56 dB(A) for all units
7. The unit is intended for installation in an indoor environment only
8. For details regarding installation specifics, please refer to the product's Installation Manual.

Specifications are subject to change without notice.

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# INDOOR UNIT ACCESSORIES: CMB-P1012NU-JA1-BV

| | | |
|---|---|---|
| Condensate | Blue Diamond (Advanced) Mini Condensate Pump w/ Reservoir & Sensor (208/230V) [recommended] | ☐ X87-721 |
| | Blue Diamond (MicroBlue) Mini Condensate Pump (110/208/230V) up to 18,000 BTU/H | ☐ X86-003 |
| | Sauermann Condensate Pump | ☐ SI30-230 |
| Control Wire | M-Net Control Wire, 1,000' Roll (16-AWG, Standard, Twisted Pair, Shielded, Jacketed- Plenum rated) | ☐ CW162S-1000 |
| | M-Net Control Wire, 250' Roll (16-AWG, Standard, Twisted Pair, Shielded, Jacketed- Plenum rated) | ☐ CW162S-250 |
| Port Adapter | Joint Pipe Adapter | ☐ CMY-R160-J1 |
| Valves Adaptors & Headers | Branch Joint (Downstream capacity 127,000-216,000 BTU/H) | ☐ CMY-R202S-G |
| | Branch Joint (Downstream capacity 217,000-234,000 BTU/H) | ☐ CMY-R203S-G |
| | Branch Joint (Downstream capacity 235,000-360,000 BTU/H) | ☐ CMY-R204S-G |
| | Branch Joint (Downstream capacity 73,000-96,000 BTU/H) | ☐ CMY-Y102LS-G2 |
| | Branch Joint (Downstream capacity ≤126,000 BTU/H) | ☐ CMY-R201S-G |
| | Branch Joint (Downstream capacity ≤126,000 BTU/H) | ☐ CMY-Y202S-G2 |
| | Branch Joint (Downstream capacity ≤72,000 BTU/H) | ☐ CMY-Y102SS-G2 |
| | Branch Joint (Downstream capacity ≥316,000 BTU/H) | ☐ CMY-R205S-G |
| | Reducer (Between Main and Sub BC) | ☐ CMY-R303S-G1 |
| | Reducer (Between ODU and BC) | ☐ CMY-R302S-G1 |

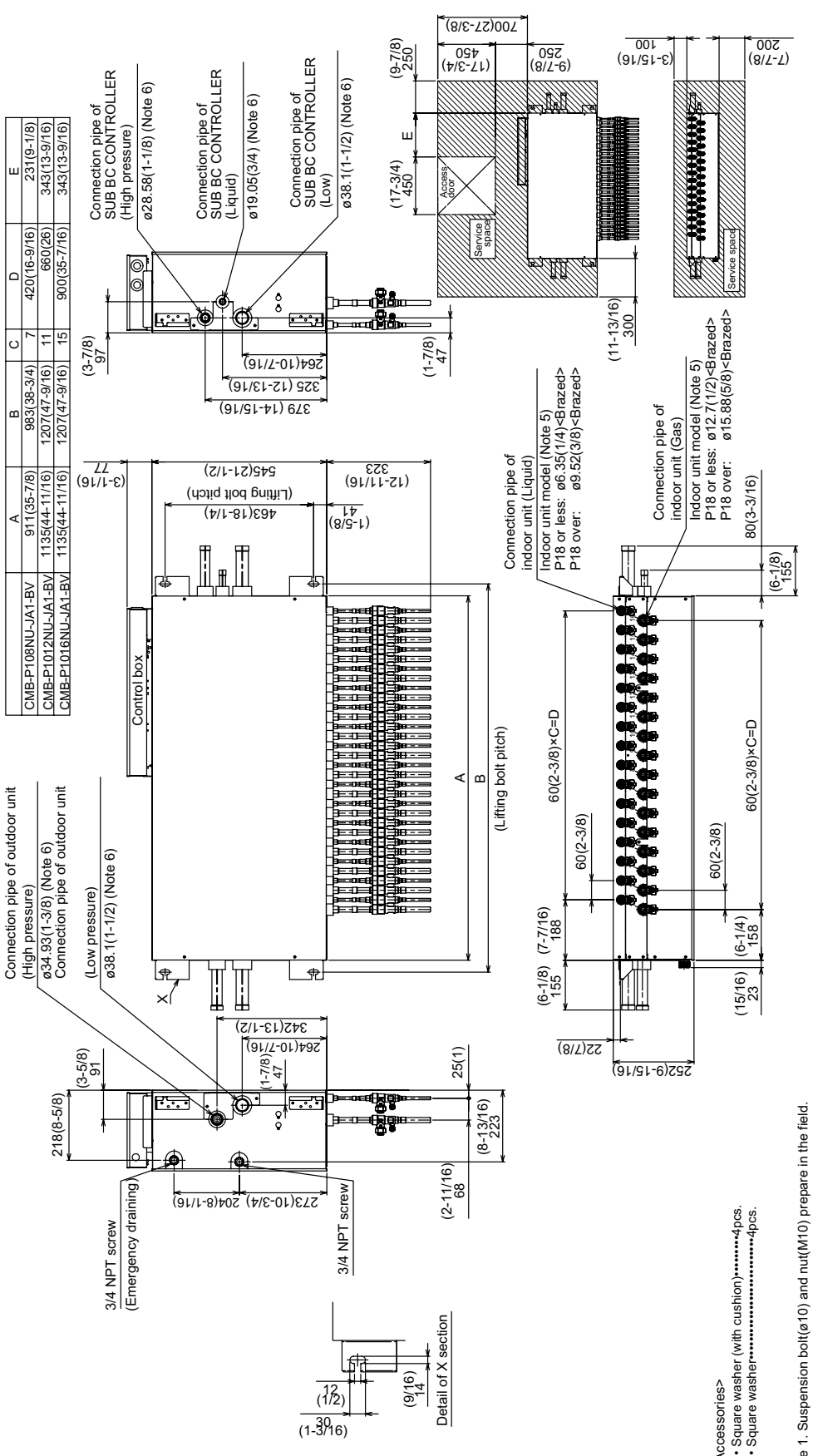
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# INDOOR UNIT DIMENSIONS: CMB-P1012NU-JA1-BV

## CMB-P108, 1012, 1016NU-JA1-BV

Unit: mm(in)




| | A | B | C | D | E |
|---|---|---|---|---|---|
| CMB-P108NU-JA1-BV | 911(35-7/8) | 983(38-3/4) | 7 | 420(16-9/16) | 231(9-1/8) |
| CMB-P1012NU-JA1-BV | 1135(44-11/16) | 1207(47-9/16) | 11 | 660(26) | 343(13-9/16) |
| CMB-P1016NU-JA1-BV | 1135(44-11/16) | 1207(47-9/16) | 15 | 900(35-7/16) | 343(13-9/16) |

<Accessories>
- Square washer (with cushion)·····4pcs.
- Square washer·····4pcs.

Note 1. Suspension bolt(ø10) and nut(M10) prepare in the field.
2. Take notice of service space as shown.
(Please give attention not to occupy service space by letting ducts and pipes through.)
3. Please take service space for connection pipe of SUB BC CONTROLLER.
4. Install this product in a location where noise (refrigerant noise) emitted by the unit will not disturb the neighbors.
(For use in quiet environments with low background noise, position the BC CONTROLLER at least 5m away from any indoor units.)
5. Refer to the Installation Manual for refrigerant piping diameter size when connecting plural indoor units with 1 branch.
6. Refer to the Table-1,2 connection pipe of outdoor unit or SUB BC CONTROLLER diameter size.
7. Refer to the Installation Manual for insulation of connection pipe and drain piping.
8. Do not place the BC controller directly on the floor.

Table-1. To outdoor/heat source unit (Note.6)

| Connectable unit capacity | High press. Pipe | Low press. Pipe | |
|---|---|---|---|
| P72 | ø15.88(5/8) | ø19.05(3/4) | |
| P96 | ø19.05(3/4) | ø22.2(7/8) | |
| P120 | ø19.05(3/4) | ø22.2(7/8) or ø28.58(1-1/8) | * |
| P144 to P192 | ø22.2(7/8) | ø28.58(1-1/8) | |
| P216 | ø22.2(7/8) or ø28.58(1-1/8) | ø28.58(1-1/8) | * |
| P240 | ø22.2(7/8) or ø28.58(1-1/8) | ø34.93(1-3/8) | * |
| P264 to P288 | ø28.58(1-1/8) | ø34.93(1-3/8) | |
| P312 | ø28.58(1-1/8) | ø34.93(1-3/8) or ø41.28(1-5/8) | * |
| P336 | ø28.58(1-1/8) | ø41.28(1-5/8) | |

Table-2. To other BC controller (Note.6)

| Total downstream Indoor unit capacity | High press. Pipe | Liquid Pipe | Low press. Pipe |
|---|---|---|---|
| ~P72 | ø15.88(5/8) | ø9.52(3/8) | ø19.05(3/4) |
| P73~108 | ø19.05(3/4) | ø9.52(3/8) | ø22.2(7/8) |
| P109~126 | ø19.05(3/4) | ø12.7(1/2) | ø28.58(1-1/8) |
| P127~144 | ø22.2(7/8) | ø12.7(1/2) | ø28.58(1-1/8) |
| P145~216 | ø22.2(7/8) | ø15.88(5/8) | ø28.58(1-1/8) |
| P217~234 | ø28.58(1-1/8) | ø15.88(5/8) | ø28.58(1-1/8) |
| P235~288 | ø28.58(1-1/8) | ø19.05(3/4) | ø34.93(1-3/8) |
| P289~360 | ø28.58(1-1/8) | ø19.05(3/4) | ø41.28(1-5/8) |
| P361~ | ø34.93(1-3/8) | ø19.05(3/4) | ø41.28(1-5/8) |

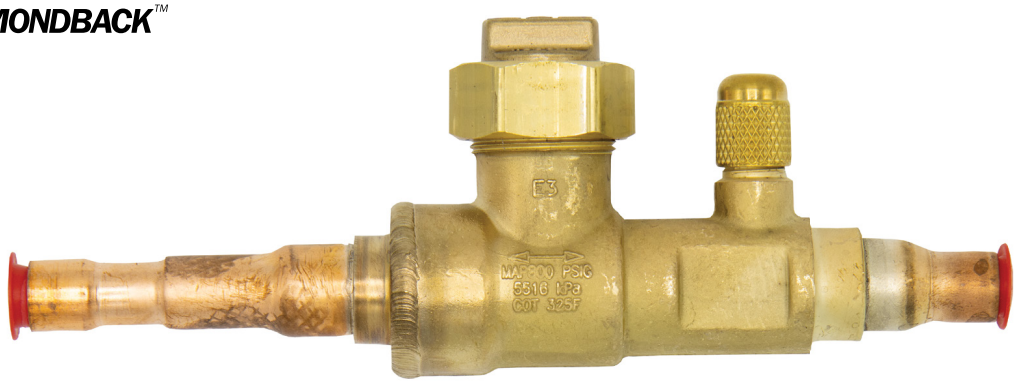
*For the refrigerant pipe size, refer to Installation Manual of outdoor units/heat source units.

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# INDOOR UNIT DIMENSIONS: CMB-P1012NU-JA1-BV

DIAMONDBACK™



## SPECIFICATIONS

- Engineered for Mini-split and Multi-split HVAC Units
- Full Port Design
- 800 PSIG Rated
- R-410A Compatible
- Brazed Connections
- UL listed ball valves

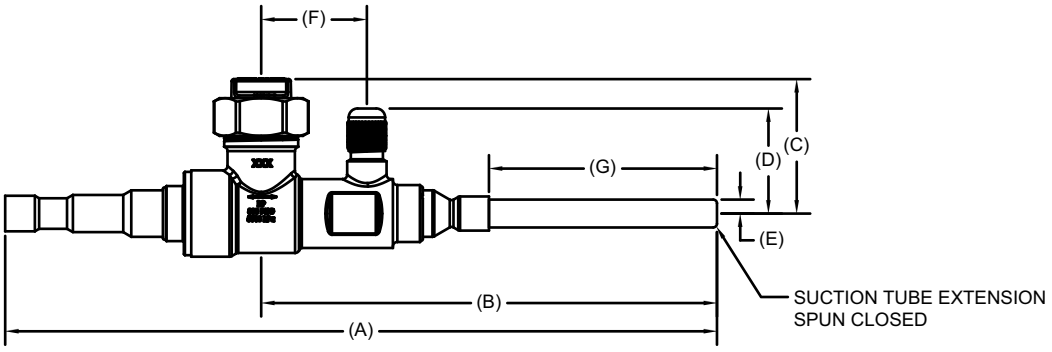
## MODEL NUMBERS:

BV38BBSI and BV58BBSI

- BV38BBSI pre-installed on each liquid line with a brazed straight-pipe extension
- BV58BBSI pre-installed on each gas line with a brazed straight-pipe extension
- Fully factory assembled
- Furnace brazed and pressure tested
- Each ball valve is equipped with Schrader Valve for refrigerant service—valve rated to 800 psi
- Design working pressure: 700 PSIG
- Temperature range: -40˚ F to +325˚ F (-40˚ C to +149˚ C)
- Forged brass body and seal cap
- PTFE seals and gaskets (no synthetic O-rings)
- Seal cap design permits valve operation without removal of seal cap
- One year limited materials and workmanship warranty on Ball Valves
- Made in the U.S.A

*ball valves come with an insulation piece

| Part Number | ODS | A | B | C | D | E | F | G |
|---|---|---|---|---|---|---|---|---|
| BV38BBSI (w/ Suction Tube) | 3/8 | 9.57 | 6.13 | 1.81 | 1.41 | 0.19 | 1.42 | 3.07 |
| BV58BBSI (w/ Suction Tube) | 5/8 | 9.56 | 6.12 | 1.81 | 1.41 | 0.31 | 1.42 | 3.06 |




Suction Tube Extension

1. Dimensions:
   a. Outside: Ø 3/8" and 5/8" on the BV38BBSI and BV58BBSI respectively
   b. Thickness: 0.035, ±0.01
2. 2500 PSI burst per UL
3. Free of sharp edges, burrs and wrinkles

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# INDOOR UNIT DIMENSIONS: CMB-P1012NU-JA1-BV

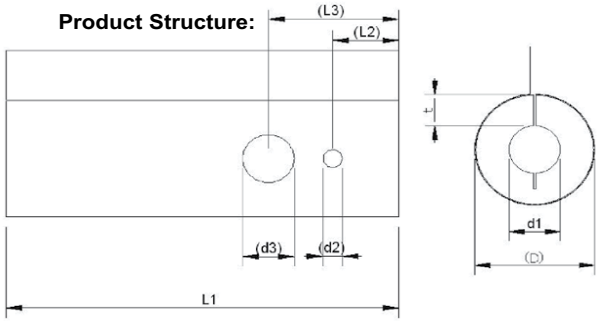


Product name: Ball valve insulation
Product code: HKG-20HF

Materials:
1. Insulation: Inner and outer layer Polyethylene foam (PEF)
2. Covering: Adhesive tape of Polyvinyl chloride (PVC)
3. Separator: Soft film of Polyvinyl chloride (PVC)

Physical property:
Insulation

**Product Structure:**




| Product Code | d1 | t | (D) | L | (d2) | (d3) | (L2) | (L3) |
|---|---|---|---|---|---|---|---|---|
| HKG-20HF<br>Unit: inches (mm) | 1 3/8<br>(30) | 3/4<br>(20) | 2 3/4<br>(70) | 8 9/16<br>220 | 7/8<br>(11) | 1 9/64<br>(29) | 1 15/32<br>(37) | 2 7/8<br>(73) |

| Performance items | Unit | Performance |
|---|---|---|
| Density | lb/ft3 (kg/m3) | 1.87 (30) |
| Heat Conductivity (at 23˚ C) | W/m•K | 0.040 |
| Tensile Strength | N/cm2 | 23 |
| Heat Resistant | ˚ F ( ˚ C) | ≦176 ( ≦80) |
| UL-94 | – | HF-1 |

1340 Satellite Boulevard Suwanee, GA 30024
Toll Free: 800-433-4822 www.mehvac.com

FORM# CMB-P1012NU-JA1-BV - 202209

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