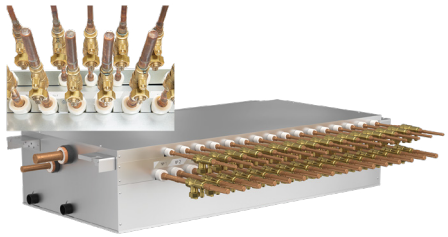
CITYMULTI®

CMB-P108NU-JA1-BV
MAIN BC CONTROLLER

MITSUBISHI ELECTRIC
HEATING & AIR CONDITIONING

Job Name:

System Reference: Date:



Specifications			System
Unit Type			CMB-P108NU-JA1-BV
Indoor Unit Capacity Connectable to 1 Branch		BTU/H	54,000
Number Of Branches			8
Electrical Power Requirements			208/230V, 1-phase, 60 Hz
Minimum Circuit Ampacity (MCA)		A	0.8/1.0
Maximum Overcurrent Protection (MOCP)		A	20
Power Input (208 / 230V)	Cooling	kW	0.66 / 0.77
Power Input (208/230V)	Heating	kW	0.37 / 0.43/
Current Input (208/230V)	Cooling	A	0.137 / 0.176/
	Heating	A	0.076 / 0.098
External Dimensions		In. [mm]	9-7/8 x 35-7/8 x 21-1/2 [250 x 911 x 545]
Net Weight		Lbs. [kg]	106 [48]
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.

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INDOOR UNIT ACCESSORIES: CMB-P108NU-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

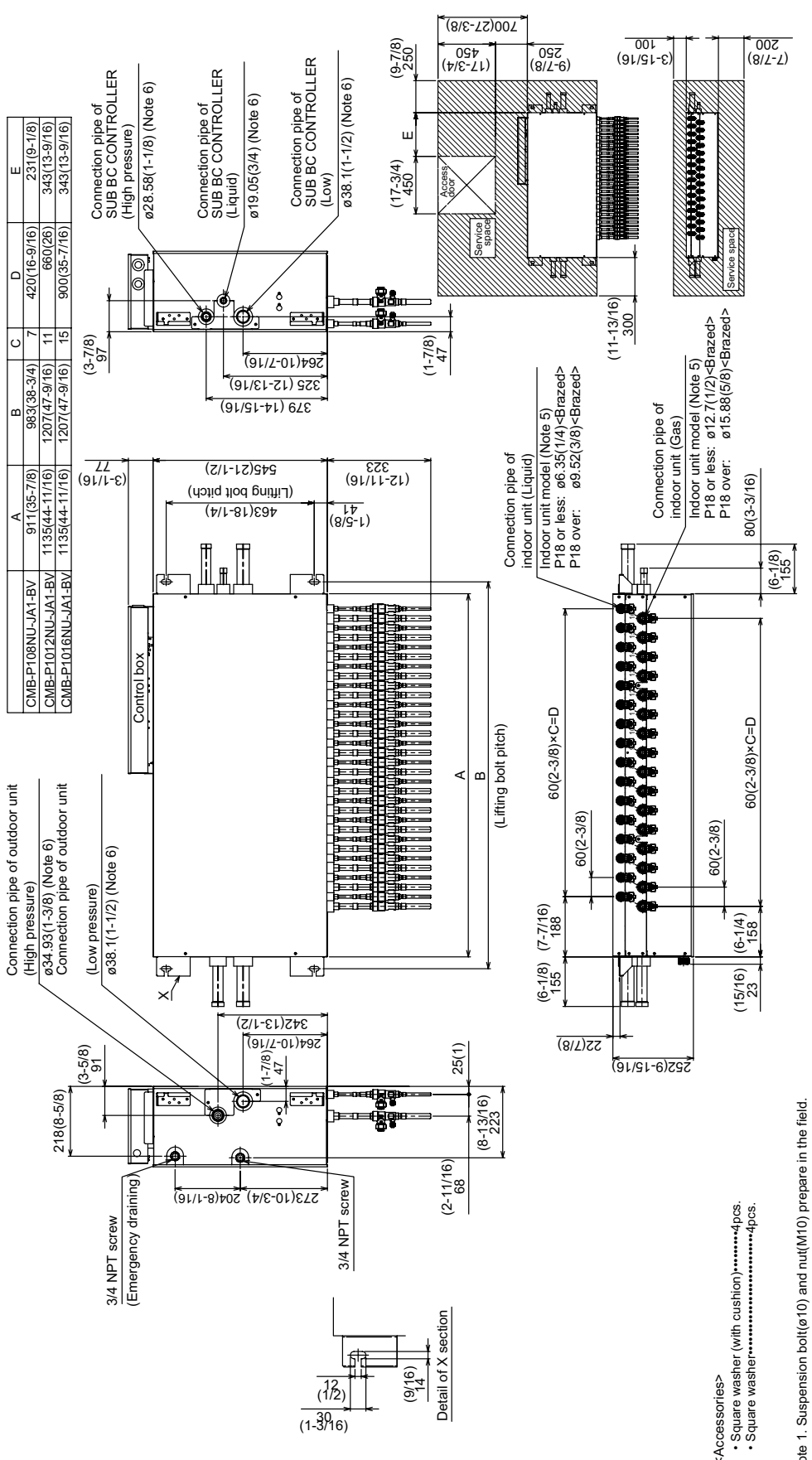
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INDOOR UNIT DIMENSIONS: CMB-P108NU-JA1-BV

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)

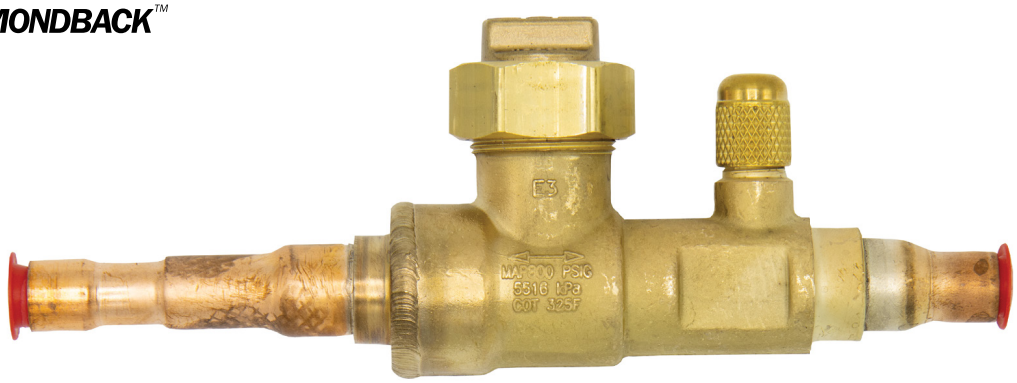
*For the refrigerant pipe size, refer to Installation Manual of outdoor units/heat source units.

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INDOOR UNIT DIMENSIONS: CMB-P108NU-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

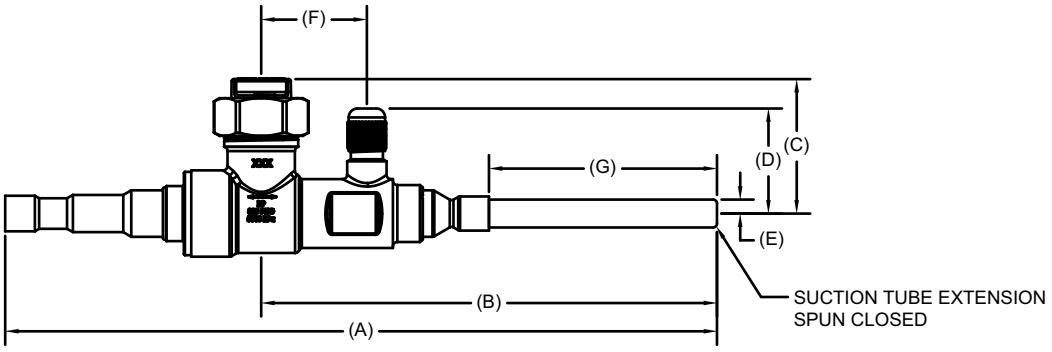
MODEL NUMBERS:

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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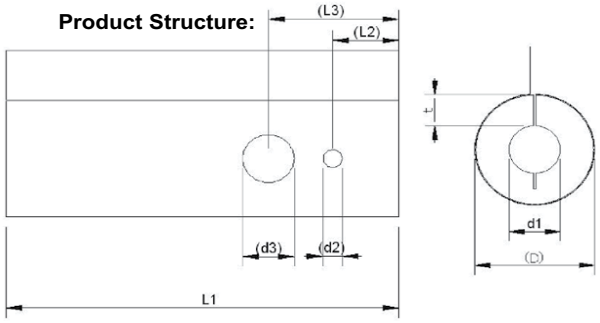


Product name: Ball valve insulation
Product code: HKG-20HF

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 Unit: inches (mm)	1 3/8 (30)	3/4 (20)	2 3/4 (70)	8 9/16 220	7/8 (11)	1 9/64 (29)	1 15/32 (37)	2 7/8 (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

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FORM# CMB-P108NU-JA1-BV - 202209

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