

Job Name:

System Reference:

Date:

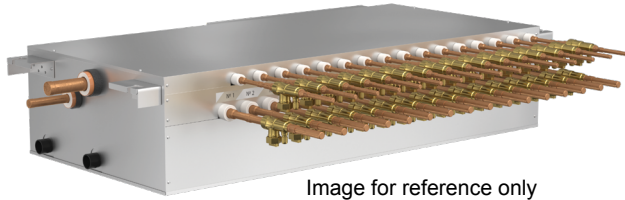


Image for reference only

SPECIFICATIONS

Indoor Unit Capacity Connectable to 1 Branch	Btu/h	54,000
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Number Of Branches	8
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Electrical Requirements		
Electrical Power Requirements	208 / 230V, 1 phase, 60Hz	
Minimum Circuit Ampacity (MCA)	A	0.83 / 0.97
Maximum Overcurrent Protection (MOCP)	A	15

Power Input (208 / 230V)		
Cooling	kW	0.137 / 0.176
Heating		0.076 / 0.098

Current Input (208 / 230V)		
Cooling	A	0.66 / 0.77
Heating		0.37 / 0.43

External Dimensions	In. (mm)	9-7/8 x 35-7/8 x 21-1/2 (250 x 911 x 545)
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Net Weight	Lbs. (kg)	122 (55)
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External finish	Galvanized steel plate (Lower part drain pan: Pre-coated galvanized sheets + powder coating)	
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Connectable Outdoor / Heat Source Unit Capacity	72,000 to 336,000
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Refrigerant Piping Diameter to Indoor Unit (Brazed)			
		Liquid	Gas
Less than 18,000 Btu/h	In. (mm)	1/4 (6.35)	1/2 (12.7)
	In. (mm)	3/8 (9.52)	5/8 (15.88)
Greater than 18,000 Btu/h	In. (mm)	3/8 (9.52)	3/4 (19.05)
	In. (mm)	3/8 (9.52)	7/8 (22.2)

Field drain pipe size	In. (mm)	3/4 NPT
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Refrigerant	R410A
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ACCESSORIES

Branch Joint (Downstream capacity ≤72,000 Btu/h)	CMY-Y102SS-G2*
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 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 ≥316,000 Btu/h)	CMY-R205S-G*
Condensate Pump (Blue Diamond)	X87-721
Condensate Pump (Sauer mann)	SI3100-230
Reducer (Between ODU and BC)	CMY-R302S-G1*
Reducer (Between Main and Sub BC)	CMY-R303S-G1

*See Data Book or Install Manual for more details

Refrigerant Piping Diameter to Outdoor Unit (Brazed)			
		High Pressure	Low Pressure
P72	In. (mm)	5/8 (15.88)	3/4 (19.05)
P96	In. (mm)	3/4 (19.05)	7/8 (22.2)
P120	In. (mm)	3/4 (19.05)	7/8 (22.2) or 1-1/8 (28.58)
P144 to P192	In. (mm)	3/4 (19.05)	1-1/8 (28.58)
P216	In. (mm)	7/8 (22.2) or 1-1/8 (28.58)	1-1/8 (28.58)
P240	In. (mm)	7/8 (22.2) or 1-1/8 (28.58)	1-3/8 (34.93)
P264 to P288	In. (mm)	1-1/8 (28.58)	1-3/8 (34.93)
P312	In. (mm)	1-1/8 (28.58)	1-3/8 (34.93) or 1-5/8 (41.28)
P336	In. (mm)	1-1/8 (28.58)	1-5/8 (41.28)

Refrigerant Piping Diameter to other BC Controller (Brazed)				
		High Pressure	Liquid Pipe	Low Pressure Pipe
P72	In. (mm)	5/8 (15.88)	3/8 (9.52)	3/4 (19.05)
P73 to P108	In. (mm)	3/4 (19.05)	3/8 (9.52)	7/8 (22.2)
P109 to P126	In. (mm)	3/4 (19.05)	1/2 (12.7)	1-1/8 (28.58)
P127 to P144	In. (mm)	7/8 (22.2)	1/2 (12.7)	1-1/8 (28.58)
P145 to P216	In. (mm)	7/8 (22.2)	5/8 (15.88)	1-1/8 (28.58)
P217 to P234	In. (mm)	1-1/8 (28.58)	5/8 (15.88)	1-1/8 (28.58)
P235 to P288	In. (mm)	1-1/8 (28.58)	3/4 (19.05)	1-3/8 (34.93)
P289 to P360	In. (mm)	1-1/8 (28.58)	3/4 (19.05)	1-5/8 (41.28)
P361 or above	In. (mm)	1-3/8 (34.93)	3/4 (19.05)	1-5/8 (41.28)

Sound power level (measured in anechoic room)		
Rated operation	dB(A)	68
Defrost		74

Sound pressure level (measured in anechoic room)		
Rated operation	dB(A)	50
Defrost		56

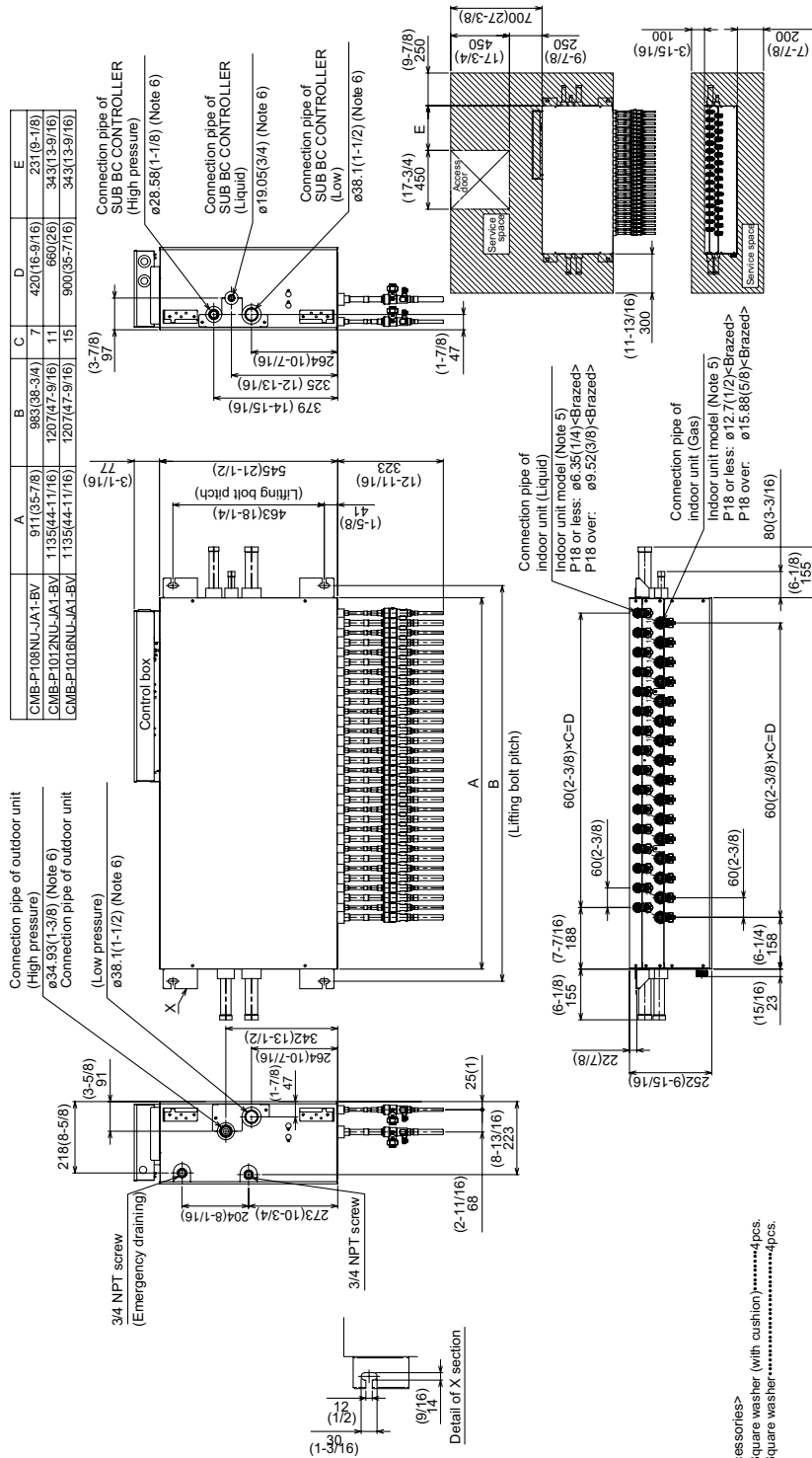
NOTES:

1. Installation/foundation work, electrical connection work, insulation work, power source switch, and other items shall be referred to the Installation Manual.
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 neighbors. (For use in quiet environments with low background noise, position the BC CONTROLLER at least 5m away from any indoor units.)
4. Sound pressure/power level differs depending on the connected outdoor/heat source unit capacity or operation condition. The sound pressure/power level at the rated operation is the value of the cooling mode.
5. The sound pressure/power level values were obtained in an anechoic room. Actual sound pressure level is usually greater than that measured in anechoic room due to ambient noise and deflection sound.
6. The sound pressure level values were obtained at the location below 1.5m from the unit.
7. The solenoid valve switching sound is 56 dB (sound pressure level) regardless of the unit model.
8. Refrigerant piping diameter for connection of plural indoor units with 1 branch shall be referred to the Installation Manual.
9. This unit is not designed for outside installations.
10. 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.
11. Indoor unit capacity connectable to 1 branch is changed depending on the indoor unit type and connection method. Please refer to the Installation Manual for more information.
12. For the refrigerant pipe size, refer to Installation Manual of outdoor units/heat source units.

DIMENSIONS: CMB-P108NU-JA1-BV

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

Unit: mm(in)



<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.
 3. Please give attention not to occupy service space by letting ducts and pipes through.
 4. Install this product in a location where noise (refrigerant noise) emitted by the unit will not disturb the neighbors.
 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)

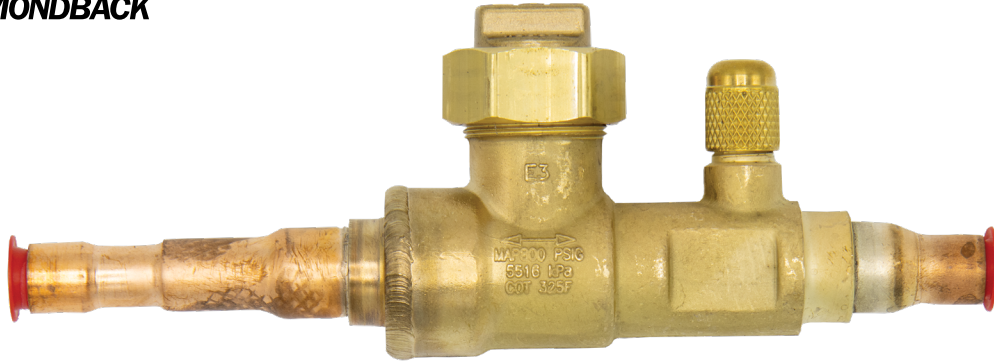
Connectable unit capacity	High press. Pipe	Low press. Pipe
P72	ø15.88(5/8)	ø19.05(3/4)
P96	ø19.05(3/4)	ø22.2(7/8)
P120	ø19.05(3/4)	ø22.2(7/8)
P144 to P192	ø22.2(7/8) or ø28.58(1-1/8)	ø28.58(1-1/8)
P216	ø22.2(7/8) or ø28.58(1-1/8)	ø28.58(1-1/8)
P240	ø28.58(1-1/8)	ø34.93(1-3/8)
P264 to P288	ø28.58(1-1/8)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

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

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)
P217-224	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)

BV-BB SERIES BALL VALVES BRAZED CONNECTIONS



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

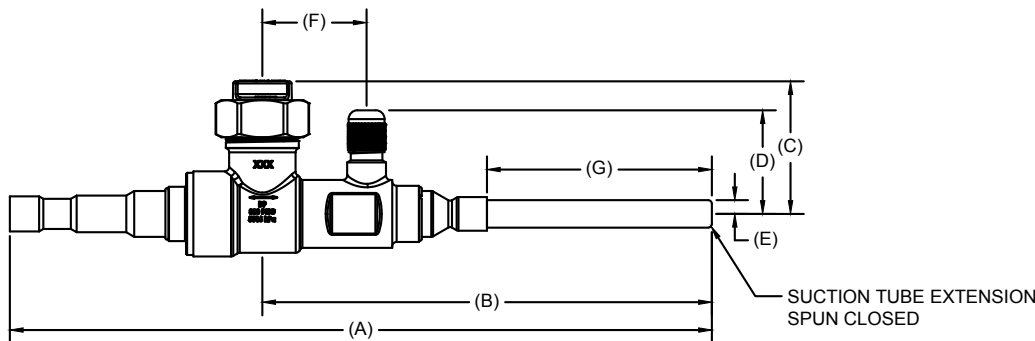
MODEL NUMBERS:

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

BV-BB SERIES BALL VALVES BRAZED CONNECTIONS (INSULATION DETAILS)



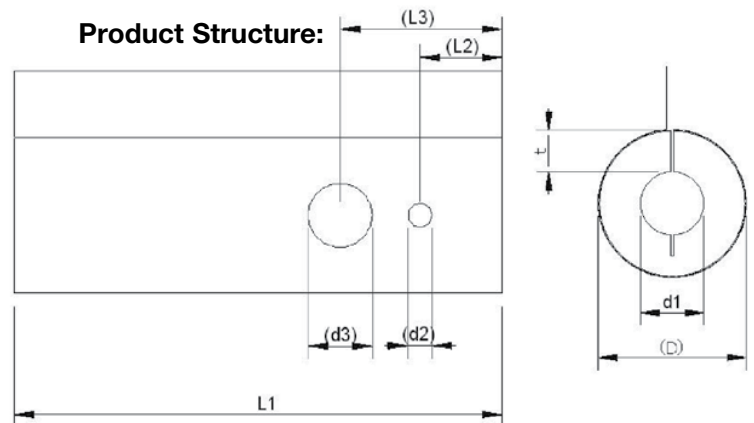
Product name: Ball valve insulation
Product code: HKG-20HF

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)	L1	(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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