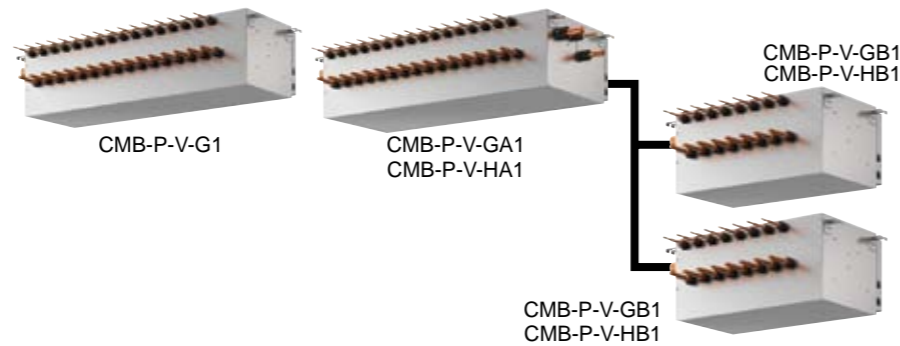


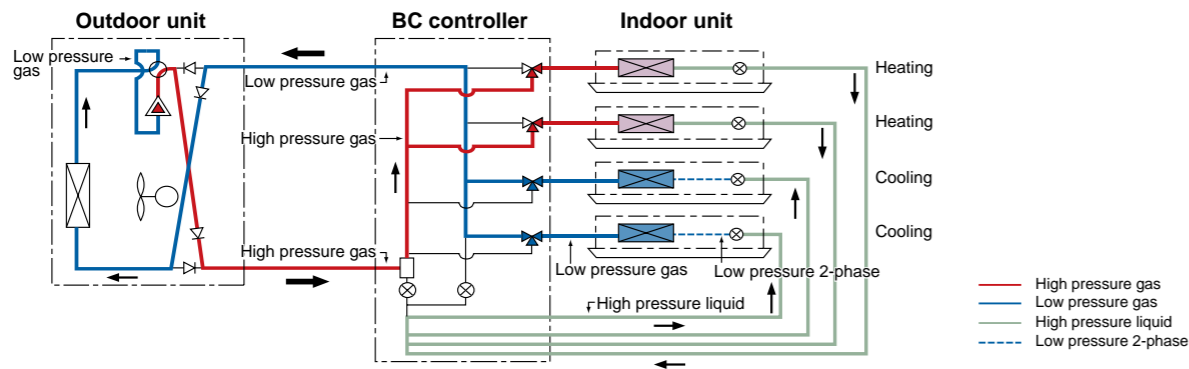
# BC CONTROLLER

CMB-P-V-G1  
CMB-P-V-GA1  
CMB-P-V-HA1  
CMB-P-V-GB1  
CMB-P-V-HB1



## BC CONTROLLER

In many ways, the BC Controller is the technological heart of the CITY MULTI R2/WR2. It works in unison with the outdoor unit to provide simultaneous cooling and heating, something no other two-pipe system can do. The BC Controller is connected to the outdoor unit by two pipes and to each indoor unit by a series of two refrigerant pipes, depending on the indoor unit count. The BC Controller is required for all CITY MULTI R2-Series installations. It comes in 4, 5, 6, 8, 10, 13, and 16-branch options. The BC Controller you select depends on how many indoor units will be operated from each outdoor unit and your total capacity requirements.



## Specifications

Model name	CMB-P104V-G1	CMB-P105V-G1	CMB-P106V-G1	CMB-P108V-G1	CMB-P1010V-G1	CMB-P1013V-G1	CMB-P1016V-G1		
Number of branch	4	5	6	8	10	13	16		
Power source	1-Phase 220/230/240V 50Hz/60Hz								
Power input	kW	50Hz	Cooling 0.067/0.076/0.085 heating 0.030/0.034/0.038	0.082/0.093/0.104	0.097/0.110/0.123	0.127/0.144/0.161	0.156/0.177/0.198	0.201/0.228/0.255	0.246/0.279/0.312
		60Hz	Cooling 0.054/0.061/0.067 heating 0.024/0.027/0.030	0.066/0.074/0.082	0.078/0.088/0.097	0.102/0.115/0.127	0.126/0.141/0.156	0.162/0.182/0.201	0.198/0.222/0.246
Current	A	50Hz	Cooling 0.31/0.34/0.36 heating 0.14/0.15/0.16	0.38/0.41/0.44	0.45/0.48/0.52	0.58/0.63/0.68	0.71/0.77/0.83	0.92/1.00/1.07	1.12/1.22/1.30
		60Hz	Cooling 0.25/0.27/0.28 heating 0.11/0.12/0.13	0.30/0.33/0.35	0.36/0.39/0.41	0.47/0.50/0.53	0.58/0.62/0.65	0.74/0.80/0.84	0.90/0.97/1.03
External finish	Galvanized steel plate (Lower part drain pan painting N1.5)								
Indoor unit capacity connectable to 1 branch	Model P80 or smaller (*Use optional joint pipe combing 2 branches when the total unit capacity exceeds 81.)								
Connectable Outdoor unit ★	Refer to the combination chart of BC controller R2/WR2 series								
Height	mm	284					284		
Width	mm	648					1098		
Depth	mm	432					432		
Refrigerant piping diameter	To outdoor unit	Connectable outdoor unit capacity							
			P200	P250, P300		P350			
	High pressure pipe	ø15.88 (ø5/8) Brazed	ø19.05 (ø3/4) Brazed		ø19.05 (ø3/4) Brazed				
	Low pressure pipe	ø19.05 (ø3/4) Brazed	ø22.2 (ø7/8) Brazed		ø28.58 (ø1-1/8) Brazed				
To indoor unit	Liquid pipe	Indoor unit Model 50 or smaller: ø6.35 brazed, Over 50: ø9.52 brazed (ø12.7 with optional joint pipe used.)							
	Gas pipe	Indoor unit Model 50 or smaller: ø12.7 brazed, Over 50: ø15.88 brazed (ø19.05 with optional joint pipe used.)							
Drain pipe	O.D. 32mm								
Net weight	kg	24	27	28	33	38	45	52	
Accessories	*Drain connection pipe (with flexible hose and insulation) *Reducer								

## Specifications

Model name	CMB-P108V-GA1	CMB-P1010V-GA1	CMB-P1013V-GA1	CMB-P1016V-GA1	CMB-P1016V-HA1		
Number of branch	8	10	13	16			
Power source	1-Phase 220/230/240V 50Hz/60Hz						
Power input	kW	50Hz	Cooling 0.127/0.144/0.161 heating 0.060/0.068/0.076	0.156/0.177/0.198	0.201/0.228/0.255	0.246/0.279/0.312	
		60Hz	Cooling 0.102/0.115/0.127 heating 0.048/0.054/0.060	0.126/0.141/0.156	0.162/0.182/0.201	0.198/0.222/0.246	0.255/0.289/0.312
Current	A	50Hz	Cooling 0.58/0.63/0.68 heating 0.28/0.30/0.32	0.71/0.77/0.83	0.92/1.00/1.07	1.12/1.22/1.30	
		60Hz	Cooling 0.47/0.50/0.53 heating 0.22/0.24/0.25	0.58/0.62/0.65	0.74/0.80/0.84	0.90/0.97/1.03	1.12/1.22/1.30
External finish	Galvanized steel plate (Lower part drain pan painting N1.5)						
Indoor unit capacity connectable to 1 branch	Model P80 or smaller (*Use optional joint pipe combing 2 branches when the total unit capacity exceeds 81.)						
Connectable Outdoor unit ★	Refer to the combination chart of BC controller R2/WR2 series						
Height	mm	289					
Width	mm	1,110					
Depth	mm	520					
Refrigerant piping diameter	To outdoor unit	Connectable outdoor unit capacity					
			P200	P250,300	P350	P400-P500	P550-P650
	High pressure pipe	ø15.88 (ø5/8) Brazed	ø19.05 (ø3/4) Brazed		ø22.2 (ø7/8) Brazed	ø28.58 (ø1-1/8) Brazed	ø28.58 (ø1-1/8) Brazed/ ø28.58 (ø1-1/8) Brazed
	Low pressure pipe	ø19.05 (ø3/4) Brazed	ø22.2 (ø7/8) Brazed		ø28.58 (ø1-1/8) Brazed		ø34.93 (ø1-3/8) Brazed/ ø41.28 (ø1-5/8) Brazed
To indoor unit	Liquid pipe	Indoor unit Model 50 or smaller: ø6.35 brazed, Over 50: ø9.52 brazed (ø12.7 with optional joint pipe used.)					
	Gas pipe	Indoor unit Model 50 or smaller: ø12.7 brazed, Over 50: ø15.88 brazed (ø19.05 with optional joint pipe used.)					
To another BC controller	Total indoor unit capacity connected to this Sub BC controller						
		-P200	P201-P300	P301-P350	P351-P400	P401-P450	
	High press gas pipe	ø15.88 (ø5/8) Brazed	ø19.05 (ø3/4) Brazed		ø22.2 (ø7/8) Brazed		
	Low press gas pipe	ø19.05 (ø3/4) Brazed	ø22.2 (ø7/8) Brazed		ø28.58 (ø1-1/8) Brazed		
Liquid pipe	ø9.52 (ø3/8) Brazed						
Drain pipe	O.D. 32mm						
Net weight	kg	43	48	55	62	69	
Accessories	*Drain connection pipe (with flexible hose and insulation) *Reducer						

Model name	CMB-P104V-GB1	CMB-P108V-GB1	CMB-P1016V-HB1		
Number of branch	4	8	16		
Power source	1-Phase 220/230/240V 50Hz/60Hz				
Power input	kW	50Hz	Cooling 0.060/0.068/0.076 heating 0.030/0.034/0.038	0.119/0.135/0.151	0.237/0.269/0.301
		60Hz	Cooling 0.048/0.054/0.060 heating 0.024/0.027/0.030	0.060/0.068/0.076	0.119/0.135/0.151
Current	A	50Hz	Cooling 0.28/0.30/0.32 heating 0.14/0.15/0.16	0.55/0.59/0.63	1.08/1.17/1.26
		60Hz	Cooling 0.22/0.24/0.25 heating 0.11/0.12/0.13	0.28/0.30/0.32	0.55/0.59/0.63
External finish	Galvanized steel plate (Lower part drain pan painting N1.5)				
Indoor unit capacity connectable to 1 branch	Model P80 or smaller (*Use optional joint pipe combing 2 branches when the total unit capacity exceeds 81.)				
Connectable Outdoor unit ★	Refer to the combination chart of BC controller R2/WR2 series				
Height	mm	284			
Width	mm	648			
Depth	mm	432			
Refrigerant piping diameter	To Main BC controller	Total indoor unit capacity connected this Sub BC controller			
			-P200, P201-P350	-P200, P201-P450	
	High pressure pipe	ø15.88 (ø5/8) Brazed	ø19.05 (ø3/4) Brazed	ø22.2 (ø7/8) Brazed	
	Low pressure pipe	ø19.05 (ø3/4) Brazed	ø22.2 (ø7/8) Brazed	ø28.58 (ø1-1/8) Brazed	
To indoor unit	Liquid pipe	Indoor unit Model 50 or smaller: ø6.35 brazed, Over 50: ø9.52 brazed (ø12.7 with optional joint pipe used.)			
	Gas pipe	Indoor unit Model 50 or smaller: ø12.7 brazed, Over 50: ø15.88 brazed (ø19.05 with optional joint pipe used.)			
Drain pipe	O.D. 32mm				
Net weight	kg	22	32	55	
Accessories	*Drain connection pipe (with flexible hose and insulation) *Reducer				

### ★ Combination chart of BC Controller for R2 series

	P200,250,300,350	P400-650	P700-900
CMB-P V-G1	○	X	X
CMB-P V-GA1	○	○	X
CMB-P V-HA1	X	X	○
CMB-P V-GB1	○	○	○
CMB-P V-HB1	○	○	○

### ★ Combination chart of BC Controller for WR2 series

	P200,250,300	P400,450,500,550,600
CMB-P V-G1	○	X
CMB-P V-GA1	○	○
CMB-P V-HA1	X	X
CMB-P V-GB1	○	○
CMB-P V-HB1	○	○

#### Notes:

- The equipment is for R410A refrigerant.
- 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 5 m away from any indoor units.)
- Indoor units P100, P125, P140 can be connected to 1 branch. (In this case, cooling capacity decrease a little.)
- When using an outdoor unit - 28HP (P700) or more, use CMB-P1016V-HA1.
- For sub BC controller CMB-P-B-GB1 the connectable indoor unit capacities may sum to equal that of a P350 unit or less. However, if two sub controllers are used the TOTAL sum of connectable units connected to BOTH sub controllers must also not exceed that a P350 unit. For sub BC controller CMB-P-1016V-HB1 the connectable indoor unit capacities may sum to equal that of a P350 unit or less. However, if two sub controllers are used the TOTAL sum of connectable units connected to BOTH sub controllers must also not exceed that a P450 unit.