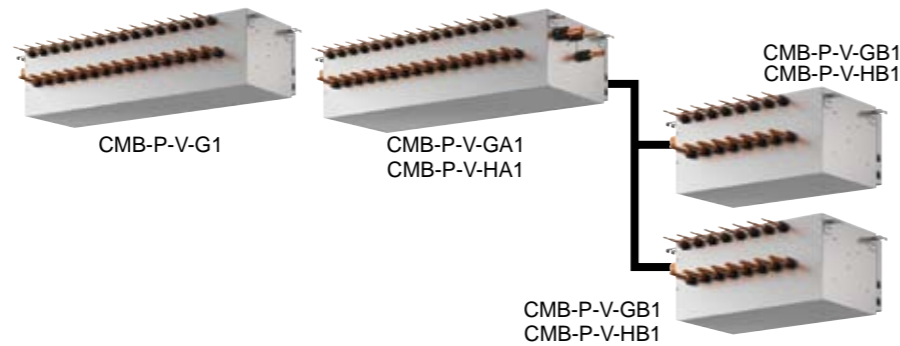


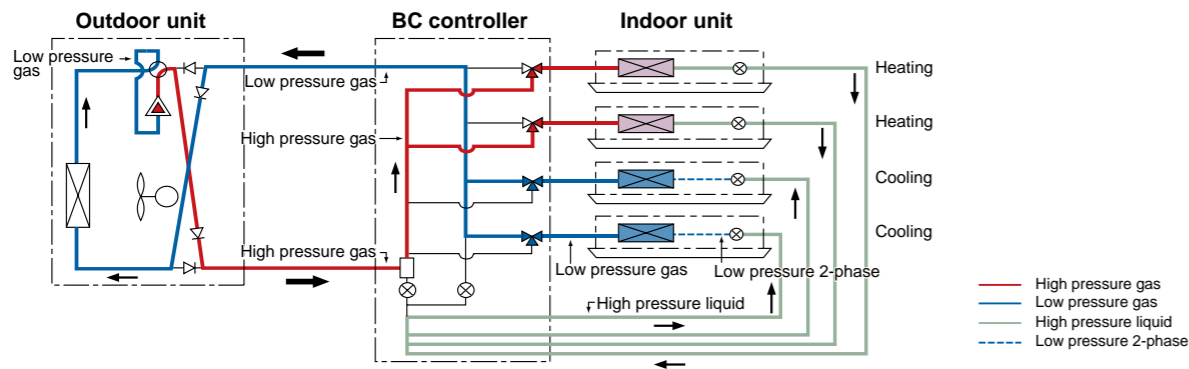
# BC CONTROLLER

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	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
			heating	0.030/0.034/0.038	0.038/0.043/0.048	0.045/0.051/0.057	0.060/0.068/0.076	0.075/0.085/0.095	0.097/0.110/0.123	0.119/0.135/0.151
Current	A	50Hz	Cooling	0.054/0.061/0.067	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
			heating	0.024/0.027/0.030	0.030/0.034/0.038	0.036/0.041/0.045	0.048/0.054/0.060	0.060/0.068/0.075	0.078/0.088/0.097	0.096/0.108/0.119
Current	A	60Hz	Cooling	0.31/0.34/0.36	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
			heating	0.14/0.15/0.16	0.18/0.19/0.20	0.21/0.23/0.24	0.28/0.30/0.32	0.35/0.37/0.40	0.45/0.48/0.52	0.55/0.59/0.63
Current	A	60Hz	Cooling	0.25/0.27/0.28	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
			heating	0.11/0.12/0.13	0.14/0.15/0.16	0.17/0.18/0.19	0.22/0.24/0.25	0.28/0.30/0.32	0.36/0.39/0.41	0.44/0.47/0.50
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	High pressure pipe	Connectable outdoor unit capacity				P350			
			P200	P250, P300						
	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	High press gas pipe	-P200		P201-P300	P301-P350	P351-P400	P401-P450			
		Low press gas pipe	ø15.88 (ø5/8) Brazed		ø19.05 (ø3/4) Brazed	ø22.2 (ø7/8) Brazed		ø28.58 (ø1-1/8) Brazed		
Liquid pipe	ø9.52 (ø3/8) Brazed		ø12.7 (ø1/2) Brazed		ø15.88 (ø5/8) Brazed					
	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	0.156/0.177/0.198	0.201/0.228/0.255	0.246/0.279/0.312
			heating	0.060/0.068/0.076	0.075/0.085/0.095	0.097/0.110/0.123	0.119/0.135/0.151
Current	A	50Hz	Cooling	0.102/0.115/0.127	0.126/0.141/0.156	0.162/0.182/0.201	0.198/0.222/0.246
			heating	0.048/0.054/0.060	0.060/0.068/0.075	0.078/0.088/0.097	0.096/0.108/0.119
Current	A	60Hz	Cooling	0.58/0.63/0.68	0.71/0.77/0.83	0.92/1.00/1.07	1.12/1.22/1.30
			heating	0.28/0.30/0.32	0.35/0.37/0.40	0.45/0.48/0.52	0.55/0.59/0.63
Current	A	60Hz	Cooling	0.47/0.50/0.53	0.58/0.62/0.65	0.74/0.80/0.84	0.90/0.97/1.03
			heating	0.22/0.24/0.25	0.28/0.30/0.32	0.36/0.39/0.41	0.44/0.47/0.50
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	High pressure pipe	Connectable outdoor unit capacity				
			P200	P250,300	P350	P400-P500	P550-P650
	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	High press gas pipe	-P200		P201-P300	P301-P350	P351-P400	P401-P450
		Low press gas pipe	ø15.88 (ø5/8) Brazed		ø19.05 (ø3/4) Brazed	ø22.2 (ø7/8) Brazed	
Liquid pipe	ø9.52 (ø3/8) Brazed		ø12.7 (ø1/2) Brazed		ø15.88 (ø5/8) 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	0.119/0.135/0.151	0.237/0.269/0.301	
			heating	0.030/0.034/0.038	0.060/0.068/0.076	0.119/0.135/0.151	
Current	A	50Hz	Cooling	0.048/0.054/0.060	0.096/0.108/0.119	0.192/0.216/0.237	
			heating	0.024/0.027/0.030	0.048/0.054/0.060	0.096/0.108/0.120	
Current	A	60Hz	Cooling	0.28/0.30/0.32	0.55/0.59/0.63	1.08/1.17/1.26	
			heating	0.14/0.15/0.16	0.28/0.30/0.32	0.55/0.59/0.63	
Current	A	60Hz	Cooling	0.22/0.24/0.25	0.44/0.47/0.50	0.88/0.94/0.99	
			heating	0.11/0.12/0.13	0.22/0.24/0.25	0.44/0.47/0.50	
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	High pressure pipe	Total indoor unit capacity connected this Sub BC controller				
			-P200	P201-P300	P301-P350	P351-P400	P401-P450
	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	High press gas pipe	-P200		P201-P300	P301-P350	P351-P400	P401-P450
		Low press gas pipe	ø15.88 (ø5/8) Brazed		ø19.05 (ø3/4) Brazed	ø22.2 (ø7/8) Brazed	
Liquid pipe	ø9.52 (ø3/8) Brazed		ø12.7 (ø1/2) Brazed		ø15.88 (ø5/8) Brazed		
	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.