

1. SPECIFICATIONS

HBC controller

HBC controller

Model				CMB-WM108V-BB						
Number of branch				8						
Power source				1-phase 220-230-240 V						
				50 Hz				60 Hz		
Power input (220-230-240)	Cooling	kW		0.01-0.01-0.01				0.01-0.01-0.01		
	Heating	kW		0.01-0.01-0.01				0.01-0.01-0.01		
Current input (220-230-240)	Cooling	A		0.14-0.14-0.14				0.14-0.14-0.14		
	Heating	A		0.14-0.14-0.14				0.14-0.14-0.14		
Sound pressure level (measured in anechoic room)				dB <A>						
Applicable temperature range of installation site *18				°C (D.B.)						
External finish				Galvanized steel plate						
Connectable outdoor/heat source unit model				-						
Indoor unit capacity connectable to 1 branch				Model WP/W/WL80 or smaller (Use optional joint pipe combining 2 branches when the total unit capacity exceeds WP/W/WL81.)						
External dimension H x W x D		mm		310 x 930 x 630						
		in.		12-1/4 x 36-5/8 x 24-13/16						
Water piping diameter (Horizontal type HBC connection)										
Connection size	To Main-HBC controller	Inlet/Outlet	mm O.D.	28						
	To Indoor unit	Inlet/Outlet	mm O.D.	22						
Field pipe size	To Main-HBC controller	Total down-steam indoor unit capacity		W/WP/WL 10-100	W/WP/WL 101-200	W/WP/WL 201-300	W/WP/WL 301-400	W/WP/WL 401-500	W/WP/WL 501-525	
		Inlet/Outlet	mm I.D. (Min)	20.0	25.8	30.0	33.3	36.2	36.8	
	To Indoor unit	Total down-steam indoor unit capacity		W/WP/WL10-50			W/WP/WL51-125			
		Inlet/Outlet	mm I.D. (Min)	20			30			
Water piping diameter (Vertical type HBC connection)										
Connection size	To Main-HBC controller	Inlet/Outlet	mm O.D.	28						
	To Indoor unit	Inlet/Outlet	mm O.D.	22						
Field pipe size		Inlet/Outlet	mm I.D. (Min)	Total down-steam Indoor unit capacity	Piping length from Main-HBC to farthest Indoor unit					
					Max 20m		Max 40m		Max 60m	
				W/WP/WL10	12	12		12		
				W/WP/WL11-15	12	12		15.5		
				W/WP/WL16-25	15.5	15.5		15.5		
				W/WP/WL26-32	15.5	19.9		19.9		
				W/WP/WL33-50	19.9	19.9		19.9		
				W/WP/WL51-63	19.9	25.2		25.2		
				W/WP/WL64-80	25.2	25.2		25.2		
				W/WP/WL81-100	25.2	25.2		32.6		
				W/WP/WL101-150	32.6	32.6		32.6		
				W/WP/WL151-250	32.6	32.6		39.6		
				W/WP/WL251-300	32.6	39.6		50.8		
				W/WP/WL301-750	50.8	50.8		50.8		
Field drain pipe size			mm (in.)	O.D. 32 (1-1/4)						
Net weight			kg (lbs)	40 (89) [45 (100) with water]						
Standard attachment	Document			-						
	Accessories			Drain Connection pipe, Washer, Tie band						
Optional parts				-						

Notes:

- 1.Installation/foundation work, electrical connection work, duct work, insulation work, power source switch, and other items shall be referred to the Installation Manual.
- 2.This unit is for water.
- 3.Install this unit 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 Sub-HBC controller at least 5 m away from any indoor units.)
- 4.Please install the Sub-HBC controller in a place where noise will not be an issue.
- 5.Please attach an expansion vessel (field supply).
- 6.Please use copper or plastic pipes for the water circuit. Do not use steel or stainless steel pipework.
Furthermore, when using copper pipe-work use a non-oxidative brazing method.
Oxidation of the pipe-work will reduce the pump life.
- 7.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.
- 8.Please install an air purge valve where air will gather in the water circuit.
- 9.Please refer to the DATA BOOK or the Installation Manual for the specified water quality.
- 10.This unit is not designed for outside installations.
- 11.Please always make water circulate or pull out the circulation water completely when not using it.
*Please do not use it as a drinking water.
- 12.Please do not use ground water and well water.
- 13.Can't use singleness. (Main-HBC controller is necessary)
- 14.The unit cannot be used when the outdoor temperature is outside the guaranteed operation range.
If the unit is used in such condition, the unit may not go into the Thermo-ON mode.
Guaranteed operation range: -5 to 52°C in cooling mode, -20 to 15.5°C in heating mode.
- 15.This product is not designed for preservation of food, animals, plants, precision equipment, or art objects.
To prevent quality loss, do not use the product for purposes other than what it is designed for.
- 16.The ambient relative humidity of the HBC controller needs to be kept below 80%.
- 17.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.
- 18.When installing the HBC controller in an environment which may drop below 0°C, please add antifreeze liquid to the circulating water. (Refer to the DATA BOOK and the Installation Manual).

1. SPECIFICATIONS

HBC controller

Model			CMB-WM1016V-BB							
Number of branch			16							
Power source			1-phase 220-230-240 V							
			50 Hz			60 Hz				
Power input (220-230-240)	Cooling	kW	0.01-0.01-0.01				0.01-0.01-0.01			
	Heating	kW	0.01-0.01-0.01				0.01-0.01-0.01			
Current input (220-230-240)	Cooling	A	0.14-0.14-0.14				0.14-0.14-0.14			
	Heating	A	0.14-0.14-0.14				0.14-0.14-0.14			
Sound pressure level (measured in anechoic room)		dB <A>								
Applicable temperature range of installation site *18		°C (D.B.)								
External finish			Galvanized steel plate							
Connectable outdoor/heat source unit model			-							
Indoor unit capacity connectable to 1 branch			Model WP/W/WL80 or smaller (Use optional joint pipe combining 2 branches when the total unit capacity exceeds WP/W/WL81.)							
External dimension H x W x D		mm	310 x 1,210 x 630							
		in.	12-1/4 x 47-11/16 x 24-13/16							
Water piping diameter (Horizontal type HBC connection)										
Connection size	To Main-HBC controller	Inlet/Outlet	mm O.D.	28						
	To Indoor unit	Inlet/Outlet	mm O.D.	22						
Field pipe size	To Main-HBC controller	Total down-steam indoor unit capacity		W/WP/WL 10-100	W/WP/WL 101-200	W/WP/WL 201-300	W/WP/WL 301-400	W/WP/WL 401-500	W/WP/WL 501-525	
		Inlet/Outlet	mm I.D. (Min)	20.0	25.8	30.0	33.3	36.2	36.8	
	To Indoor unit	Total down-steam indoor unit capacity		W/WP/WL10-50				W/WP/WL51-125		
		Inlet/Outlet	mm I.D. (Min)	20				30		
Water piping diameter (Vertical type HBC connection)										
Connection size	To Main-HBC controller	Inlet/Outlet	mm O.D.	28						
	To Indoor unit	Inlet/Outlet	mm O.D.	22						
Field pipe size		Inlet/Outlet	mm I.D. (Min)	Total down-stream Indoor unit capacity	Piping length from Main-HBC to farthest Indoor unit					
					Max 20m	Max 40m	Max 60m			
				W/WP/WL10	12	12	12			
				W/WP/WL11-15	12	12	15.5			
				W/WP/WL16-25	15.5	15.5	15.5			
				W/WP/WL26-32	15.5	19.9	19.9			
				W/WP/WL33-50	19.9	19.9	19.9			
				W/WP/WL51-63	19.9	25.2	25.2			
				W/WP/WL64-80	25.2	25.2	25.2			
				W/WP/WL81-100	25.2	25.2	32.6			
				W/WP/WL101-150	32.6	32.6	32.6			
				W/WP/WL151-250	32.6	32.6	39.6			
W/WP/WL251-300	32.6	39.6	50.8							
W/WP/WL301-750	50.8	50.8	50.8							
Field drain pipe size		mm (in.)	O.D. 32 (1-1/4)							
Net weight		kg (lbs)	53 (117) [62 (137) with water]							
Standard attachment	Document		-							
	Accessories		Drain Connection pipe, Washer, Tie band							
Optional parts			-							

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