

# 1. SPECIFICATIONS

HBC controller

HBC controller

Model		<b>CMB-WM108V-AA</b>							
Number of branch		8							
Power source		1-phase 220-230-240 V							
		50 Hz			60 Hz				
Power input (220-230-240)	Cooling	kW	0.45-0.46-0.47			0.45-0.46-0.47			
	Heating	kW	0.45-0.46-0.47			0.45-0.46-0.47			
Current input (220-230-240)	Cooling	A	2.89-2.83-2.79			2.89-2.83-2.79			
	Heating	A	2.89-2.83-2.79			2.89-2.83-2.79			
Sound pressure level (measured in anechoic room) *21		dB <A>	41						
Applicable temperature range of installation site *22		°C (D.B.)	0 to 32						
External finish		Galvanized steel plate (Drain pan: Pre-coated galvanized sheets + powder coating)							
Connectable outdoor/heat source unit model		PURY- (E)P200~500YNW-A/A1/A2 (-BS) PURY- (E)M200~500YNW-A/A1 (-BS) PURY- (E)P200~500YLM-A1 (-BS),PQRY-P200~500YLM-A1/A2							
Indoor unit capacity connectable to 1 branch		Model WP/W/L80 or smaller (Use optional joint pipe combining 2 branches when the total unit capacity exceeds WP/W/L81.)							
External dimension H × W × D		mm	300 x 1,520 x 630						
		in.	11-13/16 x 59-7/8 x 24-13/16						
Refrigerant *23 piping diameter	To outdoor/heat source unit		Connectable outdoor/heat source unit capacity						
			P200/P400/M200/ M400	P450/M250/M300/ M450/M500	M350	P250/P300/P500	P350		
	High press. Pipe	mm (in.) O.D.	15.88 (5/8) Braze	15.88 (5/8) Braze	15.88 (5/8) Braze	19.05 (3/4) Braze	19.05 (3/4) Braze		
	Low press. Pipe	mm (in.) O.D.	19.05 (3/4) Braze	22.2 (7/8) Braze	28.58 (1-1/8) Braze	22.2 (7/8) Braze	28.58 (1-1/8) Braze		
To Main-HBC controller		mm (in.) O.D.	15.88 (5/8) Braze						
Water piping diameter									
Connection size	To Sub-HBC controller	Inlet/Outlet	mm O.D. 22						
	To Indoor unit	Inlet/Outlet	mm O.D. 22						
Field pipe size	To Sub-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		
Field drain pipe size		mm (in.)	O.D. 32 (1-1/4)						
Net weight		kg (lbs)	86 (190) [96 (212) with water]						
Standard attachment	Document	-							
	Accessories	Drain Connection pipe (with flexible hose and insulation), Tie band, Hose band							
Optional parts		-							

**Notes:**

- Installation/foundation work, electrical connection work, duct work, insulation work, power source switch, and other items shall be referred to the Installation Manual.
- This unit is for R410A or R32 refrigerant.
- 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 HBC controller at least 5 m away from any indoor units.)
- Please install the HBC controller in a place where noise will not be an issue.
- Please attach an expansion vessel (field supply).
- 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.
- 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.
- Please install an air purge valve where air will gather in the water circuit.
- Please install a pressure reducing valve and a strainer on the water supply to the HBC controller.
- Please refer to the DATA BOOK or the Installation Manual for the specified water quality.
- This unit is not designed for outside installations.
- 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.
- Please do not use ground water and well water.
- 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.
- 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.
- The ambient relative humidity of the HBC controller needs to be kept below 80%.
- Sound pressure level differs depending on the connected outdoor/heat source unit capacity or operation condition.
- The sound pressure 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.
- 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.
- R32 is flammable, and certain restrictions apply to the installation of units.  
When installing new units, moving the existing units, or changing the layout of the room, ensure that installation restrictions are observed.  
For detail, refer to the section in the DATA BOOK on installation restrictions.
- The sound pressure level measured by the conventional method in JIS for reference purpose.
- 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).
- For the refrigerant pipe size, refer to Installation Manual of outdoor units/heat source units.

# 1. SPECIFICATIONS

Model			<b>CMB-WM1016V-AA</b>						
Number of branch			16						
Power source			1-phase 220-230-240 V						
			50 Hz			60 Hz			
Power input (220-230-240)	Cooling	kW	0.45-0.46-0.47			0.45-0.46-0.47			
	Heating	kW	0.45-0.46-0.47			0.45-0.46-0.47			
Current input (220-230-240)	Cooling	A	2.89-2.83-2.79			2.89-2.83-2.79			
	Heating	A	2.89-2.83-2.79			2.89-2.83-2.79			
Sound pressure level (measured in anechoic room) *21		dB <A>	41						
Applicable temperature range of installation site *22		°C (D.B.)	0 to 32						
External finish			Galvanized steel plate (Drain pan: Pre-coated galvanized sheets + powder coating)						
Connectable outdoor/heat source unit model			PURY- (E)P200~500YNW-A/A1/A2 (-BS) PURY- (E)M200~500YNW-A/A1 (-BS) PURY- (E)P200~500YLM-A1 (-BS),PQRY-P200~500YLM-A1/A2						
Indoor unit capacity connectable to 1 branch			Model WP/W/L80 or smaller (Use optional joint pipe combining 2 branches when the total unit capacity exceeds WP/W/L81.)						
External dimension H × W × D		mm	300 x 1,800 x 630						
		in.	11-13/16 x 70-7/8 x 24-13/16						
Refrigerant *23 piping diameter	To outdoor/heat source unit		Connectable outdoor/heat source unit capacity						
			P200/P400/M200/ M400	P450/M250/M300/ M450/M500	M350	P250/P300/P500	P350		
	High press. Pipe	mm (in.) O.D.	15.88 (5/8) Braze	15.88 (5/8) Braze	15.88 (5/8) Braze	19.05 (3/4) Braze	19.05 (3/4) Braze		
	Low press. Pipe	mm (in.) O.D.	19.05 (3/4) Braze	22.2 (7/8) Braze	28.58 (1-1/8) Braze	22.2 (7/8) Braze	28.58 (1-1/8) Braze		
To Main-HBC controller		mm (in.) O.D.	15.88 (5/8) Braze						
Water piping diameter									
Connection size	To Sub-HBC controller	Inlet/Outlet	mm O.D.						
	To Indoor unit	Inlet/Outlet	mm O.D.						
Field pipe size	To Sub-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	
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	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		
Field drain pipe size		mm (in.)	O.D. 32 (1-1/4)						
Net weight		kg (lbs)	98 (217) [111 (245) with water]						
Standard attachment	Document	-							
	Accessories	Drain Connection pipe (with flexible hose and insulation), Tie band, Hose band							
Optional parts			-						

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  - Install this unit in a location where noise (refrigerant noise) emitted by the unit will not disturb the neighbors.  
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  - For the refrigerant pipe size, refer to Installation Manual of outdoor units/heat source units.