

Model			<b>CMB-M108V-JA1</b>					
Number of branch			8					
Power source			1-phase 220-230-240 V					
Power input	Cooling	kW	50Hz		60Hz			
			0.127/0.144/0.161		0.102/0.115/0.127			
Current input	Heating	kW	50Hz		60Hz			
			0.060/0.068/0.076		0.048/0.054/0.060			
External finish	Cooling	A	50Hz		60Hz			
			0.58/0.63/0.68		0.47/0.50/0.53			
Connectable outdoor/heat source unit capacity	Heating	A	50Hz		60Hz			
			0.28/0.30/0.32		0.22/0.24/0.25			
External finish			Galvanized steel plate (Lower part drain pan: Pre-coated galvanized sheets + powder coating)					
Indoor unit capacity connectable to 1 branch			*14 P200 to P900/M200 to M300 Model P/M80 or smaller (Use optional joint pipe combining 2 branches when the total unit capacity exceeds P/M81.)					
External dimension H x W x D			mm 252 x 911 x 622 in. 9-15/16 x 35-7/8 x 24-1/2					
Refrigerant piping diameter	To outdoor/heat source unit	mm (in.) O.D.	Connectable unit capacity		High press. pipe	Low press. pipe		
			P200/M200		15.88 (5/8) Brazed	19.05 (3/4) Brazed		
		P250/P300		19.05 (3/4) Brazed		22.2 (7/8) Brazed		
		*15	mm (in.) O.D.		P350		19.05 (3/4) Brazed or 22.2 (7/8) Brazed	28.58 (1-1/8) Brazed
			mm (in.) O.D.		P400 to P500		22.2 (7/8) Brazed	28.58 (1-1/8) Brazed
			*15	mm (in.) O.D.		P550		22.2 (7/8) Brazed or 28.58 (1-1/8) Brazed
		*15		mm (in.) O.D.		P600		22.2 (7/8) Brazed or 28.58 (1-1/8) Brazed
			mm (in.) O.D.		P650		28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed
			mm (in.) O.D.		P700 to P800		28.58 (1-1/8) Brazed	34.93 (1-3/8) Brazed
		mm (in.) O.D.		P850 to P900		28.58 (1-1/8) Brazed	41.28 (1-5/8) Brazed	
		mm (in.) O.D.		M250/M300		15.88 (5/8) Brazed	22.2 (7/8) Brazed	
		To indoor unit	mm (in.) O.D.	Liquid pipe		Gas pipe		
				Indoor unit Model 50 or smaller 6.35 (1/4) Brazed bigger than 50 9.52 (3/8) Brazed		Indoor unit Model 50 or smaller 12.7 (1/2) Brazed bigger than 50 15.88 (5/8) Brazed (19.05 (3/4), 22.2 (7/8) with optional joint pipe used.)		
		To other BC controller	mm (in.) O.D.	Total down-stream Indoor unit capacity		High press. pipe	Liquid pipe	Low press. pipe
				to P200/M200		15.88 (5/8) Brazed	9.52 (3/8) Brazed	19.05 (3/4) Brazed
	P201 to P300		19.05 (3/4) Brazed		22.2 (7/8) Brazed			
	P301 to P350		19.05 (3/4) Brazed		12.7 (1/2) Brazed	28.58 (1-1/8) Brazed		
	P351 to P400		22.2 (7/8) Brazed		12.7 (1/2) Brazed	28.58 (1-1/8) Brazed		
	P401 to P600		22.2 (7/8) Brazed		15.88 (5/8) Brazed	28.58 (1-1/8) Brazed		
	P601 to P650		28.58 (1-1/8) Brazed		15.88 (5/8) Brazed	28.58 (1-1/8) Brazed		
	P651 to P800		28.58 (1-1/8) Brazed		19.05 (3/4) Brazed	34.93 (1-3/8) Brazed		
	P801 to P1000		28.58 (1-1/8) Brazed		19.05 (3/4) Brazed	41.28 (1-5/8) Brazed		
	P1001 or above		34.93 (1-3/8) Brazed		19.05 (3/4) Brazed	41.28 (1-5/8) Brazed		
	M201 to M300		15.88 (5/8) Brazed		9.52 (3/8) Brazed	22.2 (7/8) Brazed		
	M301 to M350		15.88 (5/8) Brazed		12.7 (1/2) Brazed	28.58 (1-1/8) Brazed		
	M351 to M400		19.05 (3/4) Brazed		12.7 (1/2) Brazed	28.58 (1-1/8) Brazed		
	M401 to M450		19.05 (3/4) Brazed		15.88 (5/8) Brazed	28.58 (1-1/8) Brazed		
Field drain pipe size			mm (in.) O.D. 32 (1-1/4)					
Net weight			kg (lbs) 48 (106)					
Sound power level (measured in anechoic room)	Rated operation	dB <A>	68					
	Defrost	dB <A>	74					
Sound pressure level (measured in anechoic room)	Rated operation	dB <A>	50					
	*16 Defrost	dB <A>	56					
Accessories			Drain Connection pipe, Washer, Tie band					
Remarks								

- 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 or R32 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.Indoor units P/M100, P/M125, P/M140 can be connected to 1 branch. (In this case, cooling capacity decrease a little.)
  - 9.Refrigerant piping diameter for connection of plural indoor units with 1 branch shall be referred to the Installation Manual.
  - 10.This unit is not designed for outside installations.
  - 11.When blazing the pipes, be sure to blaze, after covering a wet cloth to the insulation pipes of the units in order to prevent it from burning and shrinking by heat.
  - 12.The ambient relative humidity of the BC controller needs to be kept below 80%.
  - 13.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.
  - 14.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.
  - 15.For the refrigerant pipe size, refer to Installation Manual of outdoor units/heat source units.
  - 16.The sound pressure level measured by the conventional method in JIS for reference purpose.

# 1. SPECIFICATIONS

BC controller

BC controller

Model			<b>CMB-M1012V-JA1</b>			
Number of branch			12			
Power source			1-phase 220-230-240 V			
Power input	Cooling	kW	50Hz		60Hz	
			0.186/0.211/0.236		0.150/0.168/0.186	
Current input	Heating	kW	50Hz		60Hz	
			0.090/0.102/0.114		0.072/0.081/0.090	
External finish	Cooling	A	50Hz		60Hz	
			0.85/0.92/0.99		0.69/0.74/0.78	
Connectable outdoor/heat source unit capacity	Heating	A	50Hz		60Hz	
			0.42/0.44/0.48		0.33/0.36/0.38	
External dimension H x W x D			Galvanized steel plate (Lower part drain pan: Pre-coated galvanized sheets + powder coating)			
Indoor unit capacity connectable to 1 branch			P200 to P900/M200 to M300 Model P/M80 or smaller (Use optional joint pipe combining 2 branches when the total unit capacity exceeds P/M81.)			
Refrigerant piping diameter			252 x 1,135 x 622 9-15/16 x 44-11/16 x 24-1/2			
To outdoor/heat source unit	mm (in.) O.D.	mm (in.) O.D.	Connectable unit capacity		High press. pipe	
			Low press. pipe			
*15	mm (in.) O.D.	mm (in.) O.D.	P200/M200		15.88 (5/8) Brazed	
			P250/P300		19.05 (3/4) Brazed	
*15	mm (in.) O.D.	mm (in.) O.D.	P350		19.05 (3/4) Brazed or 22.2 (7/8) Brazed	
			P400 to P500		22.2 (7/8) Brazed	
*15	mm (in.) O.D.	mm (in.) O.D.	P550		22.2 (7/8) Brazed or 28.58 (1-1/8) Brazed	
			P600		22.2 (7/8) Brazed or 28.58 (1-1/8) Brazed	
*15	mm (in.) O.D.	mm (in.) O.D.	P650		28.58 (1-1/8) Brazed	
			P700 to P800		28.58 (1-1/8) Brazed	
*15	mm (in.) O.D.	mm (in.) O.D.	P850 to P900		28.58 (1-1/8) Brazed	
			M250/M300		15.88 (5/8) Brazed	
To indoor unit	mm (in.) O.D.	Liquid pipe		Gas pipe		
		Indoor unit Model 50 or smaller 6.35 (1/4) Brazed bigger than 50 9.52 (3/8) Brazed		Indoor unit Model 50 or smaller 12.7 (1/2) Brazed bigger than 50 15.88 (5/8) Brazed (19.05 (3/4), 22.2 (7/8) with optional joint pipe used.)		
To other BC controller	mm (in.) O.D.	Total down-stream Indoor unit capacity		High press. pipe		
		Low press. pipe				
*16	mm (in.) O.D.	to P200/M200		15.88 (5/8) Brazed		
		P201 to P300		19.05 (3/4) Brazed		
*16	mm (in.) O.D.	P301 to P350		19.05 (3/4) Brazed		
		P351 to P400		22.2 (7/8) Brazed		
*16	mm (in.) O.D.	P401 to P600		22.2 (7/8) Brazed		
		P601 to P650		28.58 (1-1/8) Brazed		
*16	mm (in.) O.D.	P651 to P800		28.58 (1-1/8) Brazed		
		P801 to P1000		28.58 (1-1/8) Brazed		
*16	mm (in.) O.D.	P1001 or above		34.93 (1-3/8) Brazed		
		M201 to M300		15.88 (5/8) Brazed		
*16	mm (in.) O.D.	M301 to M350		15.88 (5/8) Brazed		
		M351 to M400		19.05 (3/4) Brazed		
*16	mm (in.) O.D.	M401 to M450		19.05 (3/4) Brazed		
		M451 to M500		19.05 (3/4) Brazed		
Field drain pipe size			mm (in.) O.D. 32 (1-1/4)			
Net weight			kg (lbs) 60 (133)			
Sound power level (measured in anechoic room)	Rated operation	dB <A>	68			
	Defrost	dB <A>	74			
Sound pressure level (measured in anechoic room)	Rated operation	dB <A>	50			
	*16 Defrost	dB <A>	56			
Accessories			Drain Connection pipe, Washer, Tie band			
Remarks						

**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 or R32 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. Indoor units P/M100, P/M125, P/M140 can be connected to 1 branch. (In this case, cooling capacity decrease a little.)
9. Refrigerant piping diameter for connection of plural indoor units with 1 branch shall be referred to the Installation Manual.
10. This unit is not designed for outside installations.
11. When blazing the pipes, be sure to blaze, after covering a wet cloth to the insulation pipes of the units in order to prevent it from burning and shrinking by heat.
12. The ambient relative humidity of the BC controller needs to be kept below 80%.
13. 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.
14. 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.
15. For the refrigerant pipe size, refer to Installation Manual of outdoor units/heat source units.
16. The sound pressure level measured by the conventional method in JIS for reference purpose.

Model		<b>CMB-M1016V-JA1</b>					
Number of branch		16					
Power source		1-phase 220-230-240 V					
Power input	Cooling	kW	50Hz	60Hz			
			0.246/0.279/0.312	0.198/0.222/0.246			
Current input	Heating	kW	0.119/0.135/0.151		0.096/0.108/0.119		
			Cooling	A	1.12/1.22/1.30		0.90/0.97/1.03
External finish	Heating	A			0.55/0.59/0.63		0.44/0.47/0.50
			Galvanized steel plate (Lower part drain pan: Pre-coated galvanized sheets + powder coating)				
Connectable outdoor/heat source unit capacity		P200 to P900/M200 to M300					
Indoor unit capacity connectable to 1 branch		*14	Model P/M80 or smaller (Use optional joint pipe combining 2 branches when the total unit capacity exceeds P/M81.)				
External dimension H x W x D		mm	252 x 1,135 x 622				
		in.	9-15/16 x 44-11/16 x 24-1/2				
Refrigerant piping diameter	To outdoor/heat source unit	Connectable unit capacity		High press. pipe	Low press. pipe		
		mm (in.) O.D.	P200/M200	15.88 (5/8) Brazed	19.05 (3/4) Brazed		
		mm (in.) O.D.	P250/P300	19.05 (3/4) Brazed	22.2 (7/8) Brazed		
		*15	mm (in.) O.D.	P350	19.05 (3/4) Brazed or 22.2 (7/8) Brazed	28.58 (1-1/8) Brazed	
			mm (in.) O.D.	P400 to P500	22.2 (7/8) Brazed	28.58 (1-1/8) Brazed	
			*15	mm (in.) O.D.	P550	22.2 (7/8) Brazed or 28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed
		*15		mm (in.) O.D.	P600	22.2 (7/8) Brazed or 28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed or 34.93 (1-3/8) Brazed
			mm (in.) O.D.	P650	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	
			mm (in.) O.D.	P700 to P800	28.58 (1-1/8) Brazed	34.93 (1-3/8) Brazed	
		mm (in.) O.D.	P850 to P900	28.58 (1-1/8) Brazed	41.28 (1-5/8) Brazed		
		mm (in.) O.D.	M250/M300	15.88 (5/8) Brazed	22.2 (7/8) Brazed		
		To indoor unit	Liquid pipe		Gas pipe		
			mm (in.) O.D.	Indoor unit Model 50 or smaller 6.35 (1/4) Brazed bigger than 50 9.52 (3/8) Brazed	Indoor unit Model 50 or smaller 12.7 (1/2) Brazed bigger than 50 15.88 (5/8) Brazed (19.05 (3/4), 22.2 (7/8) with optional joint pipe used.)		
		To other BC controller	Total down-stream Indoor unit capacity		High press. pipe	Liquid pipe	Low press. pipe
			mm (in.) O.D.	to P200/M200	15.88 (5/8) Brazed	9.52 (3/8) Brazed	19.05 (3/4) Brazed
	mm (in.) O.D.		P201 to P300	19.05 (3/4) Brazed	9.52 (3/8) Brazed	22.2 (7/8) Brazed	
	mm (in.) O.D.		P301 to P350	19.05 (3/4) Brazed	12.7 (1/2) Brazed	28.58 (1-1/8) Brazed	
	mm (in.) O.D.		P351 to P400	22.2 (7/8) Brazed	12.7 (1/2) Brazed	28.58 (1-1/8) Brazed	
	mm (in.) O.D.		P401 to P600	22.2 (7/8) Brazed	15.88 (5/8) Brazed	28.58 (1-1/8) Brazed	
	mm (in.) O.D.		P601 to P650	28.58 (1-1/8) Brazed	15.88 (5/8) Brazed	28.58 (1-1/8) Brazed	
	mm (in.) O.D.		P651 to P800	28.58 (1-1/8) Brazed	19.05 (3/4) Brazed	34.93 (1-3/8) Brazed	
	mm (in.) O.D.		P801 to P1000	28.58 (1-1/8) Brazed	19.05 (3/4) Brazed	41.28 (1-5/8) Brazed	
	mm (in.) O.D.		P1001 or above	34.93 (1-3/8) Brazed	19.05 (3/4) Brazed	41.28 (1-5/8) Brazed	
	mm (in.) O.D.		M201 to M300	15.88 (5/8) Brazed	9.52 (3/8) Brazed	22.2 (7/8) Brazed	
	mm (in.) O.D.		M301 to M350	15.88 (5/8) Brazed	12.7 (1/2) Brazed	28.58 (1-1/8) Brazed	
	mm (in.) O.D.	M351 to M400	19.05 (3/4) Brazed	12.7 (1/2) Brazed	28.58 (1-1/8) Brazed		
	mm (in.) O.D.	M401 to M450	19.05 (3/4) Brazed	15.88 (5/8) Brazed	28.58 (1-1/8) Brazed		
Field drain pipe size		mm (in.)	O.D. 32 (1-1/4)				
Net weight		kg (lbs)	68 (150)				
Sound power level (measured in anechoic room)	Rated operation	dB <A>	68				
	Defrost	dB <A>	74				
Sound pressure level (measured in anechoic room)	Rated operation	dB <A>	50				
	*16 Defrost	dB <A>	56				
Accessories		Drain Connection pipe, Washer, Tie band					
Remarks							

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 or R32 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.Indoor units P/M100, P/M125, P/M140 can be connected to 1 branch. (In this case, cooling capacity decrease a little.)
- 9.Refrigerant piping diameter for connection of plural indoor units with 1 branch shall be referred to the Installation Manual.
- 10.This unit is not designed for outside installations.
- 11.When blazing the pipes, be sure to blaze, after covering a wet cloth to the insulation pipes of the units in order to prevent it from burning and shrinking by heat.
- 12.The ambient relative humidity of the BC controller needs to be kept below 80%.
- 13.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.
- 14.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.
- 15.For the refrigerant pipe size, refer to Installation Manual of outdoor units/heat source units.
- 16.The sound pressure level measured by the conventional method in JIS for reference purpose.