

Job Name	Location	Date
Purchaser	Engineer	
Submitted To	For	☐ Reference ☐ Approval ☐ Construction
Unit Designation	Schedule No.	

Submittal: MBR24HPJ1OE

24,000 BTU/H MULTI-ZONE Wall Mounted Heat- Pump System



Indoor System

Non-Ducted Indoor Match with BRS Indoor Units Only

Rated Cooling Capacity	24,000 BTUH
Cooling Capacity (min-max)	7,500-33,000 BTUH
Rated Heating Capacity	26,000 BTUH
Heating Capacity (min-max)	7,500-35,000 BTUH
SEER/EER	21.0/12.5
HSPF/COP	11.0/3.7

Outdoor Unit Data

Compressor Style	Inverter Driven Rotary
RLA	15.8

Compressor Crankcase and Base Pan Heaters

Fan Motor	
Output Power	90 W
FLA	0.6 A
Air Flow (Max)	2354 CFM

Sound Levels

Cooling	dB(A)	59
Heating	dB(A)	59

Dimensions & Weights

Unit Dimensions (LxHxD)	38.6 x 31.1 x 17.3 -in
Weight (Net/Shipping)	152.9/163.9 lbs

Min. Number of Indoor Units	2
Max. Number of Indoor Units	3

Operating Range

Cooling	(min-max)	0° ~ 118°F
		-18° ~ 48°C
Heating	(min-max)	-5° ~ 86°F
		-22° ~ 30°C

OPERATIONAL CHARACTERISTICS

- Up to 3 Indoor Units (3-Port)
- EnergyStar Rated
- Inverter Technology
- Quiet Operation - Both Indoor & Outdoor
- Anti-Corrosion Coil Protection
- Intelligent Defrost
- Auto Restart on Power Outages
- Multi-point Diagnostics



AHRI Certified Ref No: [205818829](#) (non-ducted)

Power Supply

Normal Operational Voltage	208/230 V, 1 Phase, 60 Hz
Voltage Range	187 - 253 V
Main Power Wire Size	10-2 AWG
Interconnecting Cable Wire Size	14-4 AWG
MCA	23.0 A
MOCP/Breaker Size	30 A

Refrigerant Piping Data

Refrigerant Type	R410A
Refrigerant Charge	77.6 oz
Additional Charge Per Line Length	0.21-oz/ft
Connection Method	Fared
Factory Charge for Total Line Length	98-ft
Total Refrigerant Pipe Length	197-ft
Max Refrigerant Piping Length to any Indoor Unit	65-ft
Min Refrigerant Piping Length to any Indoor Unit	10-ft
Max Elevation between Indoor Units	33-ft
Max Lift from Outdoor to Indoor Unit	33-ft
Max Drop from Outdoor to Indoor Unit	33-ft



SYSTEM FEATURES

Inverter / CompressorType	Inverter Rotary
Ultra Low Frequency Torque Control	YES
Power Factor Correction	YES
Refrigerant Type	R410A
Basepan With Electric Heater	YES
Compressor With Electric Heater	YES
Condenser Fan	Axial
Condenser Motor Type	DC
Condenser Motor Drive	Direct
Condenser Coil	Aluminum Fin/Copper Tube
Outdoor Fin Coating (Blue)	Acrylic Resin
Intelligent Defrosting	YES
Low Voltage Startup	YES
Memory/Power Failure Recovery	YES
Self Diagnosis	YES
Low Ambient Cooling	YES

REMOTE CONTROLLER FUNCTIONS¹

See individual Indoor Unit
Controllers Functions

¹ Not all Remote Controller functions are supported.

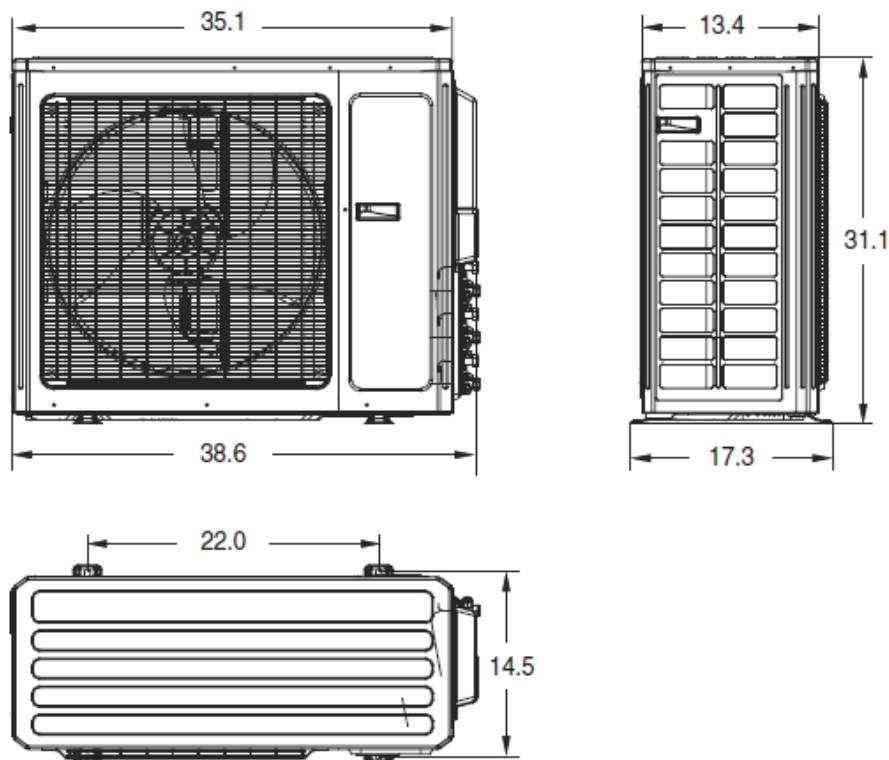
OUTDOOR UNIT DIMENSIONAL SPECIFICATIONS

MBRS24HPJ1OA

Units: inch

24,000 BTUH MODEL

Model # MBRS24HPJ1OA 24,000 BTUH 230V



Weight (Net/Shipping)	152.9/163.9 lbs
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Factory Supplied Piping Adapters

Adapter	P/N	Qty
3/8 (F) to 1/2 (M)	6643008	3
3/8 (F) to 5/8 (M)	6654100009	2

Suction/Gas Line Port Size

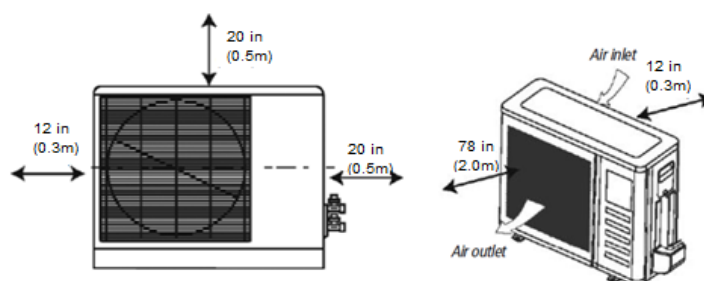
Port A	3/8-in OD Flared
Port B	3/8-in OD Flared
Port C	3/8-in OD Flared

Liquid Line Port Size

Port A	1/4-in OD Flared
Port B	1/4-in OD Flared
Port C	1/4-in OD Flared

MINIMUM SPACING REQUIREMENTS

Units: inch (m)



Notes:

1. Recommended Interconnecting Cable Type Stranded Copper Conductors THHN 600V Unshielded Wire
2. Power wiring cable size must comply with applicable national and local codes.
3. Test conditions are based on AHRI 210/240.

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COOLING CAPACITY (BTUH)

Indoor Units Combinations	Rated System Capacity (BtuH)	Indoor Unit A (BtuH)	Indoor Unit B (BtuH)	Indoor Unit C (BtuH)	Indoor Unit D (BtuH)
9K + 9K	18,000	9,000	9,000	NA	NA
9K + 12K	21,000	9,000	12,000	NA	NA
9K + 18K	25,000	8,400	16,600	NA	NA
12K + 12K	24,000	12,000	12,000	NA	NA
12K + 18K	25,000	10,000	15,000	NA	NA
18K + 18K	25,500	12,750	12,750	NA	NA
9K + 9K + 9K	26,001	8,667	8,667	8,667	NA
9K + 9K + 12K	26,000	8,000	8,000	10,000	NA
9K + 9K + 18K	26,000	7,000	7,000	12,000	NA
9K + 12K + 12K	26,000	6,000	10,000	10,000	NA
12K + 12K + 12K	26,001	8,667	8,667	8,667	NA

HEATING CAPACITY (BTUH)

Indoor Units Combinations	Rated System Capacity (BtuH)	Indoor Unit A (BtuH)	Indoor Unit B (BtuH)	Indoor Unit C (BtuH)	Indoor Unit D (BtuH)
9K + 9K	19,000	9,500	9,500	NA	NA
9K + 12K	22,500	9,500	13,000	NA	NA
9K + 18K	27,000	9,000	18,000	NA	NA
12K + 12K	26,000	13,000	13,000	NA	NA
12K + 18K	28,000	11,200	16,800	NA	NA
18K + 18K	28,500	14,250	14,250	NA	NA
9K + 9K + 9K	29,001	9,667	9,667	9,667	NA
9K + 9K + 12K	29,000	9,000	9,000	11,000	NA
9K + 9K + 18K	29,000	6,000	6,000	17,000	NA
9K + 12K + 12K	29,000	6,000	11,500	11,500	NA
12K + 12K + 12K	29,001	9,667	9,667	9,667	NA

Capacity data is based on the following conditions :

Cooling Nominal Test Conditions

Indoor: 80°F DB/67°F WB

Outdoor: 95°F DB/75°F WB

Heating Nominal Test Conditions

Indoor: 70°F DB/60°F WB

Outdoor: 47°F DB/43°F W

COOLING PERFORMANCE

		Indoor Ambient Temperature											
		70°F (21°C)			75°F (24°C)			80°F (27°C)			90°F (32°C)		
		59°F (15°C)			63°F (17°C)			67°F (19°C)			73°F (23°C)		
		TC (BtuH)	SC (BtuH)	Input Power (watts)	TC (BtuH)	SC (BtuH)	Input Power (watts)	TC (BtuH)	SC (BtuH)	Input Power (watts)	TC (BtuH)	SC (BtuH)	Input Power (watts)
Outdoor Ambient Temperature (DB)	-0.4°F (-18°C)	14,670	11,510	1,180	16,550	12,980	1,250	17,500	13,720	1,300	19,720	15,460	1,390
	5°F (-15°C)	15,050	11,800	1,180	16,970	13,320	1,260	18,160	14,240	1,300	20,220	15,860	1,390
	14°F (-10°C)	16,590	13,010	1,200	17,710	14,680	1,270	19,780	15,510	1,320	22,290	17,480	1,410
	23°F (-5°C)	18,170	14,260	1,200	20,700	16,240	1,270	22,270	17,470	1,310	24,500	19,220	1,400
	32°F (0°C)	19,103	14,986	1,196	21,764	14,466	1,265	22,379	17,543	1,309	25,759	20,204	1,404
	41°F (5°C)	20,083	15,754	1,257	22,880	15,208	1,330	23,527	18,442	1,376	27,080	21,240	1,476
	50°F (10°C)	20,919	16,411	1,310	23,833	15,841	1,386	24,507	19,211	1,433	28,209	22,125	1,538
	59°F (15°C)	22,040	17,290	1,380	25,110	16,690	1,460	25,820	20,240	1,510	29,720	23,310	1,620
	68°F (20°C)	24,961	19,577	2,028	26,521	20,797	2,092	28,341	22,228	2,219	32,501	25,494	2,375
	77°F (25°C)	24,666	19,349	2,082	26,235	20,578	2,146	28,081	22,026	2,283	32,241	25,283	2,448
	86°F (30°C)	23,453	18,392	2,329	25,013	19,621	2,402	27,301	21,412	2,548	31,245	24,502	2,731
	95°F (35°C)	22,196	17,409	2,503	23,748	18,620	2,576	26,001	20,394	2,740	29,927	23,475	2,932
	104°F (40°C)	21,122	16,566	2,585	22,664	17,777	2,667	25,325	19,867	2,831	28,853	22,623	3,032
	113°F (45°C)	20,038	15,714	2,640	21,581	16,926	2,722	24,250	19,015	2,895	27,769	21,781	3,096
	118°F (48°C)	19,501	15,293	2,667	20,801	16,311	2,749	23,401	18,357	2,923	26,781	21,008	3,124

HEATING PERFORMANCE

		Indoor Ambient Temperature											
		70°F (21°C)			75°F (24°C)			80°F (27°C)			90°F (32°C)		
		59°F (15°C)			63°F (17°C)			67°F (19°C)			73°F (23°C)		
	DB WB	TC (BtuH)	Input Power (watts)	COP	TC (BtuH)	Input Power (watts)	COP	TC (BtuH)	Input Power (watts)	COP	TC (BtuH)	Input Power (watts)	COP
Outdoor Ambient Temperature (DB)	-5°F (-21°C)	16,563	1,542	3.15	16,045	1,565	3.00	15,625	1,624	2.82	15,215	1,668	2.67
	0°F (-18°C)	16,974	1,577	3.15	16,485	1,609	3.00	16,177	1,669	2.84	15,751	1,708	2.70
	5°F (-15°C)	17,442	1,613	3.17	16,939	1,645	3.02	16,622	1,706	2.85	16,187	1,746	2.72
	7°F (-14°C)	17,909	1,648	3.19	17,393	1,682	3.03	17,067	1,744	2.87	16,622	1,784	2.73
	17°F (-8°C)	19,224	1,719	3.28	18,662	1,754	3.12	18,308	1,819	2.95	17,828	1,861	2.81
	28°F (-2°C)	21,716	1,832	3.47	21,145	1,869	3.32	20,538	1,938	3.11	20,293	1,983	3.00
	38°F (3°C)	27,000	2,108	3.75	26,429	2,151	3.60	25,831	2,230	3.39	25,577	2,282	3.29
	47°F (8°C)	30,517	2,192	4.08	29,592	2,237	3.88	29,003	2,320	3.66	28,206	2,374	3.48
	57°F (14°C)	31,523	2,235	4.13	30,571	2,281	3.93	29,964	2,365	3.71	29,130	2,420	3.53
	68°F (20°C)	32,810	2,310	4.16	31,810	2,360	3.95	31,180	2,450	3.73	30,310	2,500	3.55
77°F (25°C)	33,570	2,370	4.15	32,550	2,420	3.94	31,900	2,510	3.72	31,020	2,570	3.54	

LEGEND

DB --- Dry Bulb

TC --- Total Capacity (BtuH)

WB --- Wet Bulb

SC --- Sensible Capacity (BtuH)

Input Power---(Watts)

COP---Coefficient Of Performance

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- 1. SEE INDIVIDUAL INDOOR UNIT
SUBMITTALS FOR DIMENSIONS**
- 2. LINE SETS MUST BE SIZED TO
INDOOR UNIT CONNECTIONS**
- 3. PERFORMANCE RATINGS OF
SYSTEMS ARE BASED ON THE
OUTDOOR UNIT
(SEE PAGE 1 AND AHRI SYSTEM DOCUMENTS)**