

Diamond Comfort System

MXZ-8B48NA: The Zoning Solution for the Home



Announcing the new Mitsubishi Electric **MXZ-8B48NA** eight-zone unit. As a member of the expanding MXZ-B Series of multi-zone systems, the MXZ-8B outdoor unit incorporates branch boxes to connect up to eight indoor units.

With the recent addition of the MFZ line of floor-standing models and the new MSZ-GE06NA wall-mount model to the existing line up of indoor units, the MXZ-B Series provides the right solution for almost any installation.

The INVERTER-driven compressor at the heart of the MXZ-8B outdoor unit provides variable capacity control for the compressor allowing the system to adjust to the specific demands of the interior space as needed - not the hard start and stop of a traditional system that is installed in most U.S. homes.

Unlike the other models of MXZ-B Series outdoor units, the MXZ-8B48NA has only one port on the outdoor unit for two insulated refrigerant lines, which run into the home to connect to a branch box or boxes. From there, branch box(es), gas and liquid refrigerant piping run to each of the indoor units. The LEV in the branch box(es) is used to control the refrigerant flow as the load of the each zone changes.

Through the branch box(es) (the PAC-AKA31BC three-port or the PAC-AKA51BC five-port), the system can connect from as few as two indoor units up to eight indoor units, depending on application requirements.

The flexibility of the system doesn't stop there. The MXZ-8B48NA has rated capacities of 48,000 Btu/h for cooling and 54,000 Btu/h for heating. System operation, however, can range from a minimum 12,000 Btu/h to a maximum 54,000 Btu/h in cooling, and a maximum of 60,000 Btu/h in heating. This type of performance supports a large variety of applications.

The MXZ-8B48NA allows for further flexibility because it supports a connected indoor unit capacity from 22 to 130%, or 12,000 Btu/h to a maximum 70,200 Btu/h, depending on diversity.

General Features:

- 4-ton outdoor unit can support up to 8 indoor units using branch boxes
- Wide variety of indoor unit styles, including wall-mounted, floor-standing, ceiling-cassette, ducted
- Individual control up to eight (8) zones using wired or wireless controls
- Advanced microprocessor control
- Auto restart following a power outage
- Self-check function—integrated diagnostics
- Limited warranty: five years on parts and defects and seven years on compressors



PAC-AKA51BC Branch Box



PAC-AKA51BC Electrical Board

MXZ-8B48NA ENERGY EFFICIENCIES

Indoor Unit	SEER	HSPF	COP @ 47 F	COP @ 17 F
Non-ducted	15	8.7	3.28	2.3
Ducted and Non-ducted	14.8	8.8	3.14	2.25
Ducted	14.7	8.9	3.00	2.19



Connectable Indoor Units:

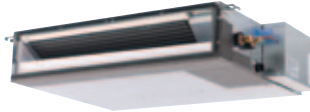
Model type	Model name	Capacity class [kBTU/h]					
		06	09	12	15	18	24
Wall mounted	Deluxe		●	●			
	Standard	●	●	●	●	●	
Horizontal ducted	Low static pressure		●	●	●	●	
	Middle static pressure						●
4-way ceiling cassette	Standard			●		●	●
Floor standing			●	●		●	



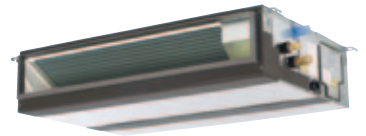
MSZ-FE09, 12NA



MSZ-GE06, 09, 12, 15, 18NA



SEZ-KD09, 12, 15, 18NA



PEAD-A24AA



PLA-A12, 18, 24BA

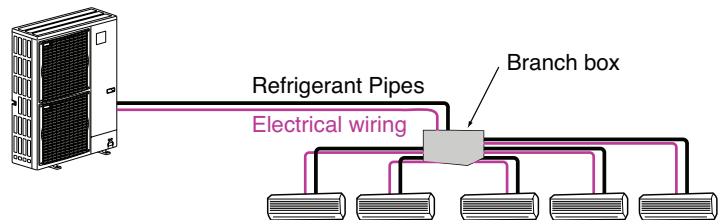


MFZ-KA09, 12, 18NA

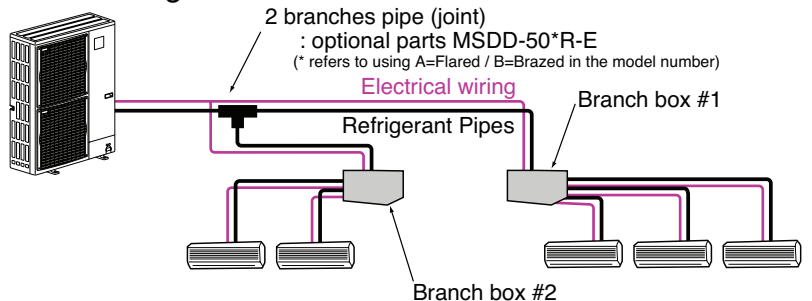
Piping and Wiring:

When Using One Branch Box - **Max. 5 indoor units**

Flare Connection



When Using Two Branch Boxes - **Max. 8 indoor units**



Model Name		Outdoor Unit		MXZ-8B48NA	
Indoor Unit	Cooling *1 Non-ducted/ Ducted	Rated Capacity	Btu/h	48,000 / 48,000	
		Rated Total Input	W	5,780 / 6,470	
		Maximum Capacity	Btu/h	54,000	
	Heating at 47° F *2 Non- ducted/Ducted	Rated Capacity	Btu/h	54,000 / 54,000	
		Rated Total Input	W	4,820 / 5,270	
		Maximum Capacity	Btu/h	60,000	
	Heating at 17° F *3 Non- ducted/Ducted	Rated Capacity	Btu/h	33,000 / 34,700	
		Rated Total Input	W	2,950 / 3,390	
		Maximum Capacity	Btu/h	36,600 / 36,550	
Power Supply		Phase, Cycle, Voltage		1 Phase, 60Hz, 208 / 230V	
Voltage		Indoor - Outdoor S1 - S2		AC 208-230V	
		Indoor - Outdoor S2 - S3		DC12-24V	
Outdoor Unit		MCA	A	32	
		Recommended Fuse/Breaker Size	A	40	
		Fan Motor	Type x Quantity	Propeller x 2	
			Motor Output (kW)	0.086 + 0.086	
		Compressor	Model (Type)	DC INVERTER-driven Scroll	
			Motor Output (kW)	2.9	
		Airflow (Cooling/Heating)	CFM	3,530	
		Refrigerant Control	Linear Expansion Valve		
		Sound Pressure Level at Cooling *1	dB(A)	54	
		Sound Pressure Level at Heating *2	dB(A)	55	
		External Finish Color	Munsell No. 3Y 7.8 / 1.1		
		Dimensions	W: In.	37-7/16	
			D: In.	13+1-3/16	
			H: In.	53-3/16	
Weight	Lbs.	278			
Total Capacity 22-130%	Btu/h	12,000 - 70,200			
Indoor Unit	Model / Quantity		6,00 - 24,000 / 2-8		
Remote Controller	Type		Associated with Indoor Unit Model		
Refrigerant	Type		R410A		
	Charge	Lbs., Oz.	18, 11.2		
	Oil	Type (fl. oz.)	FV50S (73)		
Refrigerant Pipe	Gas Side O.D.	In.	5/8		
	Liquid Side O.D.	In.	3/8		
Refrigerant Pipe Length	Height Difference (Max.)	Ft.	66/98 *4		
	Maximum Distance between (Outdoor unit and farthest indoor unit)	Ft.	230		
	Maximum Pipe Length - Branch Box to Indoor Unit	Ft.	49		
	Total Maximum line length between Branch Box and All Connected Indoor Units	Ft.	197		
Total Length (Max.)	Ft.	377			
Connection Method	Indoor/Outdoor		Flared/Flared		

*Compatible with the MSZ-A, MSZ-FD, MSZ-FE, MSZ-GE, MFZ-KA, SEZ-KD, PLA and PEAD series indoor units

NOTES: Test conditions are based on AHRI 210/240. One indoor unit is turned off during low-speed testing under the new test conditions.

Systems actually exhibit higher energy efficiencies during normal operation.

*1 Rating conditions (cooling)-Indoor: D.B. 80° F (27° C), W.B. 67° F (19° C); Outdoor: D.B. 95° F (35° C), W.B. 75° F (24° C).

*2 Rating conditions (heating)-Indoor: D.B. 70° F (21° C), W.B. 60° F (16° C); Outdoor: D.B. 47° F (8° C), W.B. 43° F (6° C).

*3 Rating conditions (heating)-Indoor: D.B. 70° F (21° C), W.B. 60° F (16° C); Outdoor: D.B. 17° F (-8° C), W.B. 15° F (-9° C).

*4 66' applies to installations when the outdoor unit is installed below the indoor unit.

Power factor equals 97 percent.

Specifications are subject to change without notice.

Note: Maximum installed capacity is the maximum total of all connected indoor units - **NOT** the maximum capacity produced.



Only a single lineset is need from the outdoor unit to branch box

Piping connection size

	A	B
Liquid	φ9.52 mm (3/8 inch)	Piping connection size depends on the type and capacity of the indoor units. Match the branch box piping connection size with the indoor unit piping connection size. If the branch box piping connection size does not match the indoor unit piping connection size, install optional port adapter on the branch box (connect port adapter directly to the branch box side).
Gas	φ15.88 mm (5/8 inch)	

- installation procedure (2 branch pipe (joint))
Refer to the installation manuals of MSDD-50AR-E and MSDD-50BR-E.

Required Branch Boxes for MXZ-8B48BA (Maximum of 2 branch boxes can be connected to one outdoor unit; requires joint MSDD-50AR-E or MSDD-50BR-E.)

Model Name		PAC-AKA31BC	PAC-AKA51BC	
Connectable No. of Indoor Units		3	5	
Power Supply	Phase, Cycle, Voltage	1 Phase, 60Hz, 208 / 230V		
Power Input	W	0.003		
Current	A	0.05		
External Finish	Galvanized-steel Sheets			
Dimensions	Width	In.	17-3/4	
	Depth	In.	11	
	Height	In.	7-3/4	
Net Weight	Lbs.	19	21	
Refrigerant Pipe Dimensions	Outdoor Unit to Branch Box	Gas (In.)	5/8	
		Liquid (In.)	3/8	
	Branch Box to Indoor Units	Gas (In.)	A,B,C: 3/8	A,B,C,D: 3/8; E: 1/2
		Liquid (In.)	A,B,C: 1/4	A,B,C,D,E: 1/4
Drain Pipe Size (O.D.)	In.	3/4		



PAC-AKA31BC Branch Box



PAC-AKA31BC Electrical Board

Branch Box Combinations	
Three-port	Five-port
1	0
0	1
1	1
2	0
0	2 (Up to 8 IDU)



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Form No. 8B48SheetR-6-10

LIMITED WARRANTY | Seven-year warranty on compressor. Five-year warranty on parts.

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