Inspections Division
Date: 02/26/14

iamond Comfort System

MXZ-8B48NA: The Zoning Solution for the Home

MITSUBISHI ELECTRIC
Cooling and Heating Solutions

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.

PAC-AKA51BC Branch Box

PAC-AKA51BC Electrical Board

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**

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

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Connectable Indoor Units:

Model type		Model name	Capacity class [kBTU/h]					
			06	09	12	15	18	24
Wall mounted	Deluxe	MSZ-FE09/12		●	●			
	Standard	MSZ-GE06/09/12/15/18	●	●	●	●	●	
Horizontal ducted	Low static pressure	SEZ-KD09/12/15/18		●	●	●	●	
	Middle static pressure	PEAD-A24AA						●
4-way ceiling cassette	Standard	PLA-A12/18/24BA			●		●	●
Floor standing		MFZ-KA09/12/18NA		●	●		●	

MSZ-FE09, 12NA

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

(x6) 6,000btu & (x1) 18,000btu per floor layout

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

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odel 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 distance from outdoor unit to branch box	Ft.	180
		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)

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

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