

**SUBMITTAL DATA: MXZ-8C48NA**  
MULTI-INDOOR INVERTER HEAT-PUMP SYSTEM

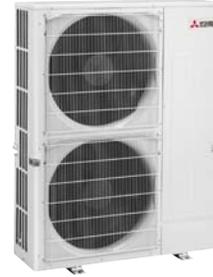
Job Name:	Location:	Date:
Purchaser:	Engineer:	
Submitted to:	For <input type="checkbox"/> Reference <input type="checkbox"/> Approval <input type="checkbox"/> Construction	
System Designation:	Schedule No.:	

**GENERAL FEATURES**

- Quiet operation
- Optional base pan heater to prevent ice in drain pan

**ACCESSORIES**

- Three-port Branch Box (PAC-MKA30BC)
- Five-port Branch Box (PAC-MKA50BC)
- Distribution Pipe for Flare Connection (MSDD-50AR; necessary for installing two branch boxes)
- Distribution Pipe for Brazed Connection (MSDD-50BR; necessary for installing two branch boxes)
- 3/8" x 1/2" Port Adapter (MAC-A454JP)
- 1/2" x 3/8" Port Adapter (MAC-A455JP)
- 1/2" x 5/8" Port Adapter (MAC-A456JP)
- 1/4" x 3/8" Port Adapter (PAC-493PI)
- 3/8" x 5/8" Port Adapter (PAC-SG76RJ)
- Base Heater (PAC-SJ20BH-E)
- Windscreen (\*1)



Outdoor Unit: MXZ-8C48NA

Specifications			Model Name
Unit Type			MXZ-8C48NA
Cooling* Non-ducted / Ducted (*2)	Rated Capacity	Btu/h	48,000 / 48,000
	Capacity Range	Btu/h	6,000 - 48,000
	Rated Total Input	W	4,000 / 5,050
Heating at 47°F* (8.3°C*) Non-ducted / Ducted (*2)	Rated Capacity	Btu/h	54,000 / 54,000
	Capacity Range	Btu/h	24,400 - 23,000
	Rated Total Input	W	4,220 / 4,990
Heating at 17°F* (-8.3°C*) Non-ducted / Ducted (*2)	Rated Capacity	Btu/h	36,600 / 36,600
	Rated Total Input	W	3,720 / 4,420
Heating at 5°F* (-15°C*) (*2)	Capacity	Btu/h	NA
Electrical Requirements	Power Supply	Voltage, Phase, Hertz	208 / 230V, 1-Phase, 60 Hz
	Max. Fuse Size / Max. Breaker Size	A	52 / 40
	MCA	A	37
Voltage	Indoor - Outdoor S1-S2	V	AC 208 / 230
	Indoor - Outdoor S2-S3	V	+12VDC to 24VDC
Compressor			Hermetic
Fan Motor (ECM)		kW	0.06+0.06
Sound Pressure Level	Cooling	dB(A)	51
	Heating		54
External Dimensions (H x W x D)		In (mm)	52-11/16 x 41-11/32 x 13+1 (1338 x 1050 x 330+25)
Net Weight		Lbs (kg)	269 (122)
External Finish			Munsell No. 3Y 7.8/11
Refrigerant Pipe Size O.D. — Branch Box	Liquid	In (mm)	3/8 (9.52)
	Gas		5/8 (15.88)
Max. Refrigerant Line Length		Ft (m)	492 (150)
Max. Piping Length for Farthest Indoor Unit		Ft (m)	262 (80)
Max. Refrigerant Pipe Height Difference	If IDU is Below ODU	Ft (m)	131 (40)
	If IDU is Above ODU		164 (50)
Connection Method	Indoor / Outdoor		Flared/Flared
Refrigerant			R410A

\* Rating Conditions per AHRI Standard:

Cooling | Indoor: 80° F (27° C) DB / 67° F (19° C) WB

Cooling | Outdoor: 95° F (35° C) DB / 23.9° C (75° F) WB

Heating at 47° F | Indoor: 70° F (21° C) DB / 60° F (16° C) WB

Heating at 47° F | Outdoor: 47° F (8° C) DB / 43° F (6° C) WB

Heating at 17° F | Indoor: 70° F (21° C) DB

Heating at 17° F | Outdoor: 17° F (-8° C) DB / 15° F (-9° C) WB

\*1 Required in windy locations or very low temperatures.

Specifications are subject to change without notice.



# SPECIFICATIONS: MXZ-8C48NA, contd.

### Operating Range:

Outdoor	
Cooling	23 to 115° F (-5 to 46° C) DB
Heating	-4 to 70° F (-20 to 21° C) DB

### Energy Efficiencies:

Indoor Unit Type	SEER	EER	HSPF (I/V)	COP @ 47°F	COP @ 17°F
<b>Non-ducted</b>	18.9	12.00	11.4/8.7	3.75	NA
<b>Ducted and Non-ducted</b>	16.8	10.61	10.8/8.6	3.47	NA
<b>Ducted</b>	14.7	9.50	10.1/8.4	3.17	NA

### Multi-zone Indoor/Outdoor Combination Table

- MXZ Compatibility Chart – available on MESCA Tech Info Centre M-Series submittal page

\* Refer to indoor unit submittal.

#### Notes:

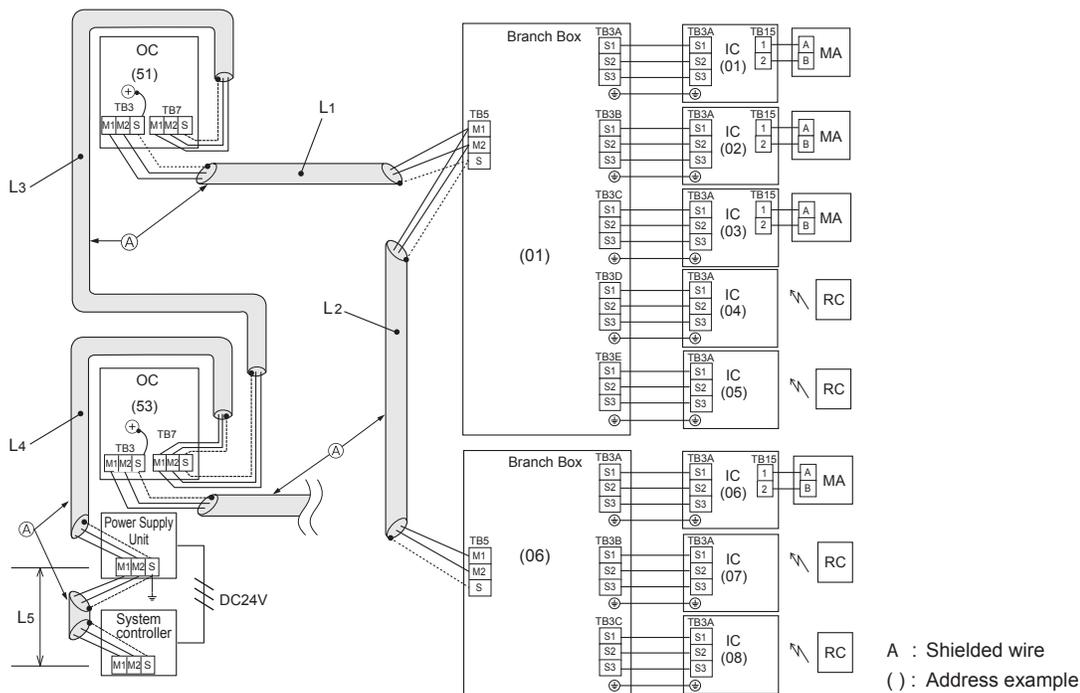
- Minimum of two Indoor Units must be connected to the MXZ-8C48NA.
- Minimum installed capacity cannot be less than 12,000 Btu/h.
- System can operate with only one Indoor Unit turned on.
- May connect to any style indoor unit or combination.
- Information provided at 208/230V.

Refer to the MXZ-C Technical & Service Manual for detailed specifications and additional information per Indoor Unit Combination.

#### MVZ CONNECTION RULES:

- Up to 2 MVZ's may be connected to this system.
- When 2 MVZ's are connected, no additional indoor units can be used.
- When 1 MVZ is connected, additional indoor units can be connected.
- When 1 MVZ is connected, total connected capacity must be less than 100%.

### Indoor - Branch Box - Outdoor Power Connection:



**IMPORTANT**  
 Make sure that the current leakage breaker is one compatible with higher harmonics.  
 Always use a current leakage breaker that is compatible with higher harmonics as this unit is equipped with an inverter.  
 The use of an inadequate breaker can cause the incorrect operation of inverter.

Longest length via outdoor units:  
 L<sub>1</sub> + L<sub>2</sub> + L<sub>3</sub> + L<sub>4</sub> + L<sub>5</sub> ≤ 500 m (1640 ft.) (1.25 mm<sup>2</sup> or more)  
 Longest transmission cable length  
 L<sub>1</sub> + L<sub>2</sub>, L<sub>3</sub>, L<sub>4</sub>, L<sub>5</sub> ≤ 200 m (656 ft.) (1.25 mm<sup>2</sup> or more)

A : Shielded wire  
 ( ) : Address example

#### Notes:

# SYSTEM DESIGN: MXZ-8C48NA

Outdoor unit		MXZ-8C48NA	
		5HP	
	Rated capacity (kBTU/h)	Cooling	48
		Heating	54
	Refrigerant	R410A	
Connectable indoor unit	<b>Capacity</b>	Type 06 to Type 36	
		<b>Caution:</b> The indoor unit which rated capacity exceeds 36 kBTU/h (Type 36) can NOT be connected.	
	Number of units	2 to 8 units	
	Total system wide capacity	25 to 130% of outdoor unit (Except MVZ 100%) capacity (12 to 62.4 kBTU/h)	
Connectable branch box	Number of units	1* or 2 units	

1\* for MVZ model only single unit connection is possible.



- MXZ Compatibility Chart – available on MESCA Tech Info Centre M-Series submittal page

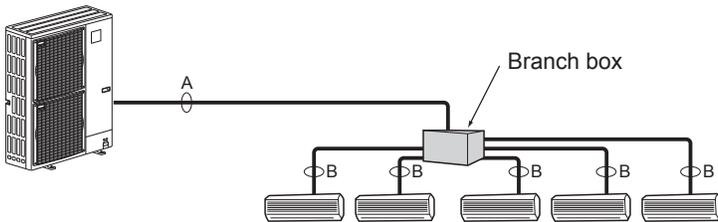


Branch box	PAC-MKA50BC	PAC-MKA30BC
Number of branches (Indoor unit that can be connected)	5 branches (MAX. 5 units)	3 branches (MAX. 3 units)

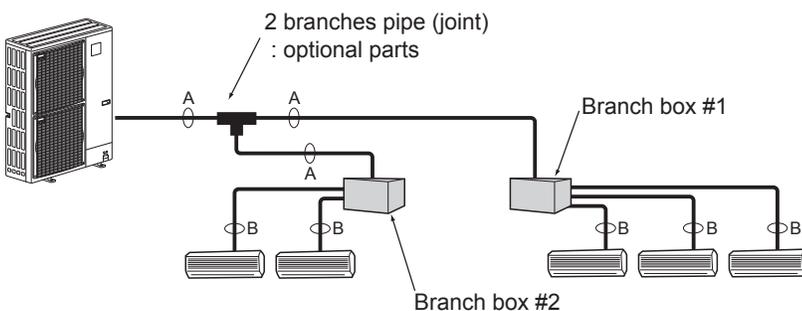
Note: A maximum of 2 branch boxes can be connected to 1 outdoor unit for Max. 8 Indoor units.

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

- If Using One Branch Box  
Flare connection employed (No brazing)



- If Using Two Branch Boxes



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

### Piping connection size

	A	B
Liquid	$\phi 9.52$ mm (3/8 inch)	The piping connection size differs according to the type and capacity of indoor units. Match the piping connection size of branch box with indoor unit. If the piping connection size of branch box does not match the piping connection size of indoor unit, use optional different-diameter (deformed) joints to the branch box side. (Connect deformed joint directly to the branch box side.)
Gas	$\phi 15.88$ mm (5/8 inch)	

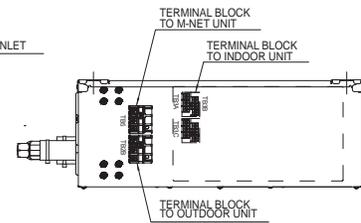
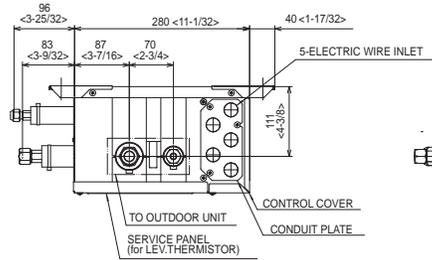
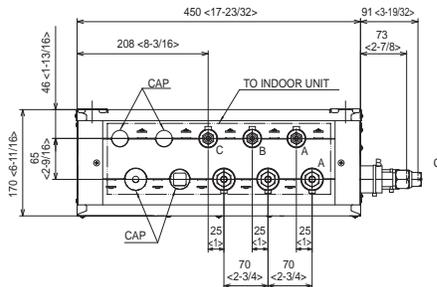
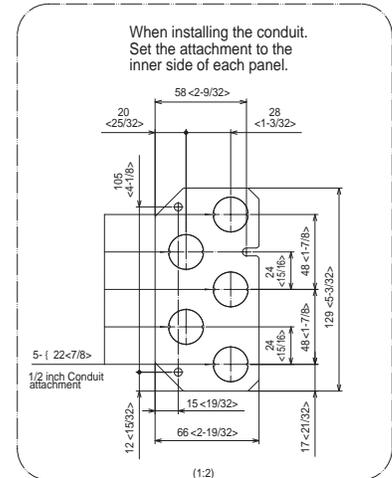
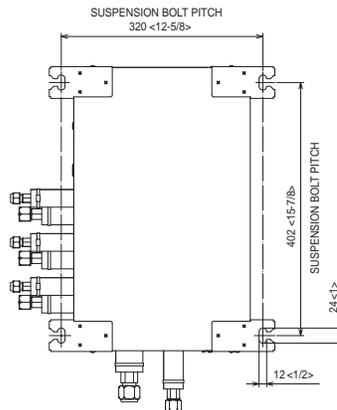
# DIMENSIONS: PAC-MKA30BC AND PAC-MKA50BC BRANCH BOXES

## PAC-MKA30BC

Unit: mm <in>

SUSPENSION BOLT : W3/8(M10)  
REFRIGERANT PIPE FLARED CONNECTION

	A	B	C		TO OUTDOOR UNIT
LIQUID PIPE	1/4F	1/4F	1/4F		3/8F
GAS PIPE	3/8F	3/8F	3/8F		5/8F

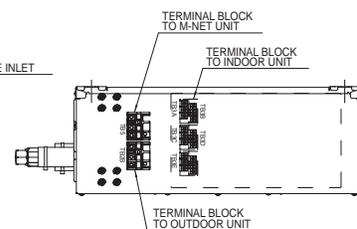
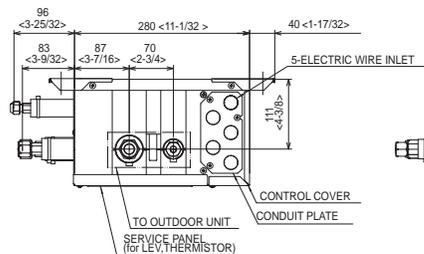
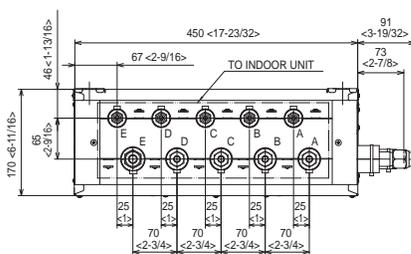
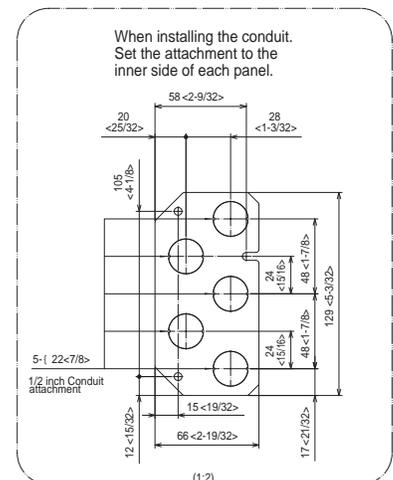
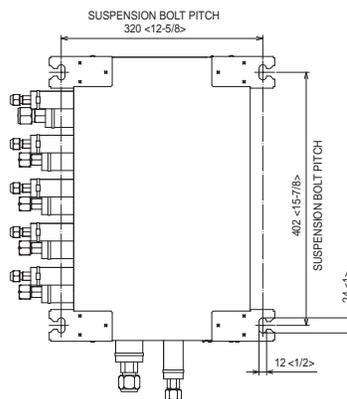


## PAC-MKA50BC

Unit: mm <in>

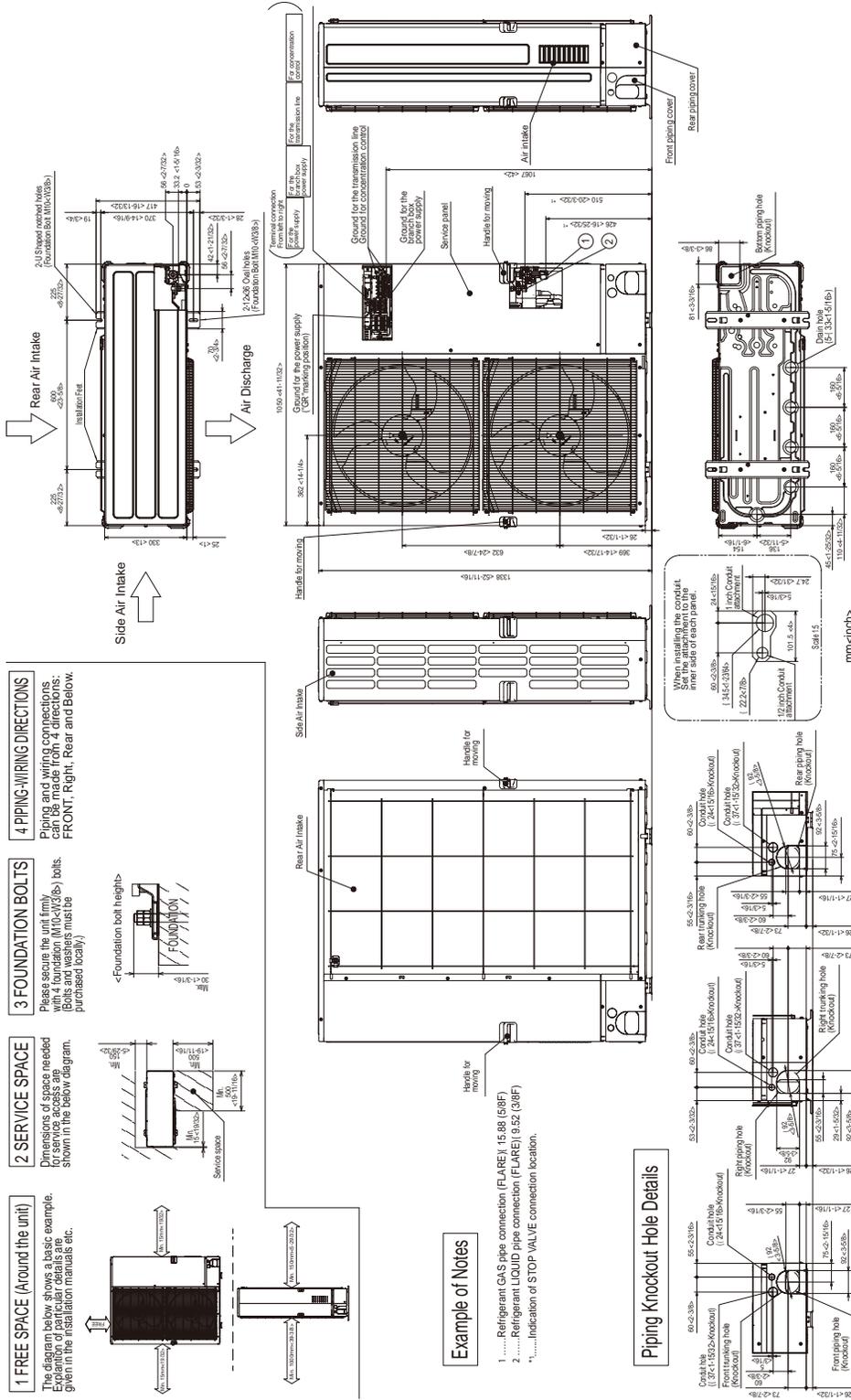
SUSPENSION BOLT : W3/8(M10)  
REFRIGERANT PIPE FLARED CONNECTION

	A	B	C	D	E	TO OUTDOOR UNIT
LIQUID PIPE	1/4F	1/4F	1/4F	1/4F	1/4F	3/8F
GAS PIPE	3/8F	3/8F	3/8F	3/8F	1/2F	5/8F



# DIMENSIONS: MXZ-8C48NA

Unit: inch



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