

AIRTEMP INC.
MECHANICAL CONTRACTORS
20 THOMAS DRIVE
WESTBROOK, MAINE 04092
207-774-2300
207-874-2383 FAX

A COMFORT SYSTEMS USA COMPANY
QUALITY PEOPLE – BUILDING SOLUTIONS

SUBMITTAL

JOB: PORTLAND ELKS CLUB
DATE: 7/14/2017
LOCATION: 1945 CONGRESS STREET
MECHANICAL CONTRACTOR: AIRTEMP INC.
AIRTEMP JOB NUMBER: 896

AIRTEMP IS PLEASED TO SUBMIT THE FOLLOWING ITEM(S) FOR APPROVAL:

MULTI HEAD SPLIT HEAT PUMPS IN OFFICE AREA, CARD AND POOL ROOMS

PLEASE RETURN .PDF OF REVIEWED SUBMITTAL TO US

Job Name: _____

System Reference: _____ Date: _____



Indoor Unit: MSZ-GL06NA-U1



Wireless Remote Controller

SPECIFICATIONS:

Rated Capacity*		
Cooling*1	Btu/h / W	6,000
Heating at 47° F*2	Btu/h / W	7,200

Rating Conditions per AHRI Standard:
 *1 Cooling | Indoor: 80° F(27° C)DB / 67° F(19° C)WB ; Outdoor: 95° F(35° C)DB / 75° F(24° C)WB
 *2 Heating at 47°F | Indoor: 70° F (21° C)DB / 60° F (16° C)WB ; Outdoor: 47° F (8° C)DB / 43° F (6° C)WB

For data on specific indoor units (all ducted, all non-ducted, and both ducted and non-ducted) combinations, see the MXZ Technical and Service Manual.

Electrical Power Requirements	208 / 230V, 1-Phase, 60 Hz	
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Minimum Circuit Ampacity (MCA)	A	1
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Blower Motor (ECM)	F.L.A.	0.76
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Blower Motor Output	W	30
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Field Drainpipe Size O.D.	In.(mm)	5/8 (15)
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Airflow Rate (Quiet - Lo - Med - Hi - Super Hi)

Mode	Condition	CFM	Phone Number
Cooling	DRY	CFM	145-170-237-321-399
	WET		109-134-201-286-364
Heating	DRY		145-170-237-321-406

Sound Pressure Level (Quiet - Lo - Med - Hi - Super Hi)

Mode	dB(A)	Sound Pressure Level
Cooling	dB(A)	19-22-30-37-43
Heating		19-22-30-37-43

External Dimensions (H x W x D)	In.(mm)	11-5/8 x 31-7/16 x 9-1/8 (295 x 798 x 232)
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Net Weight	Lbs.(kg)	22 (10)
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External Finish	Munsell 1.0Y 9.2 / 0.2	
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Refrigerant Piping (Flared)

Pressure Type	In.(mm)	Pipe Size
Liquid (High Pressure)	In.(mm)	1/4 (6.35)
Gas (Low Pressure)		3/8 (9.52)

ACCESSORIES:

Indoor Unit

- Condensate Pump (BlueDiamond X87-711/721; 115/230V)
- Condensate Pump (Sauermann SI30-115/230; 115/230V)
- Anti-Allergy Enzyme Filter (MAC-408FT-E)
- Platinum Catalyst Deodorizing Filter (MAC-308FT-E)
- Drain Pan Level Sensor (DPLS2)

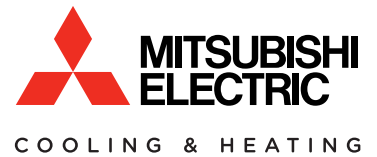
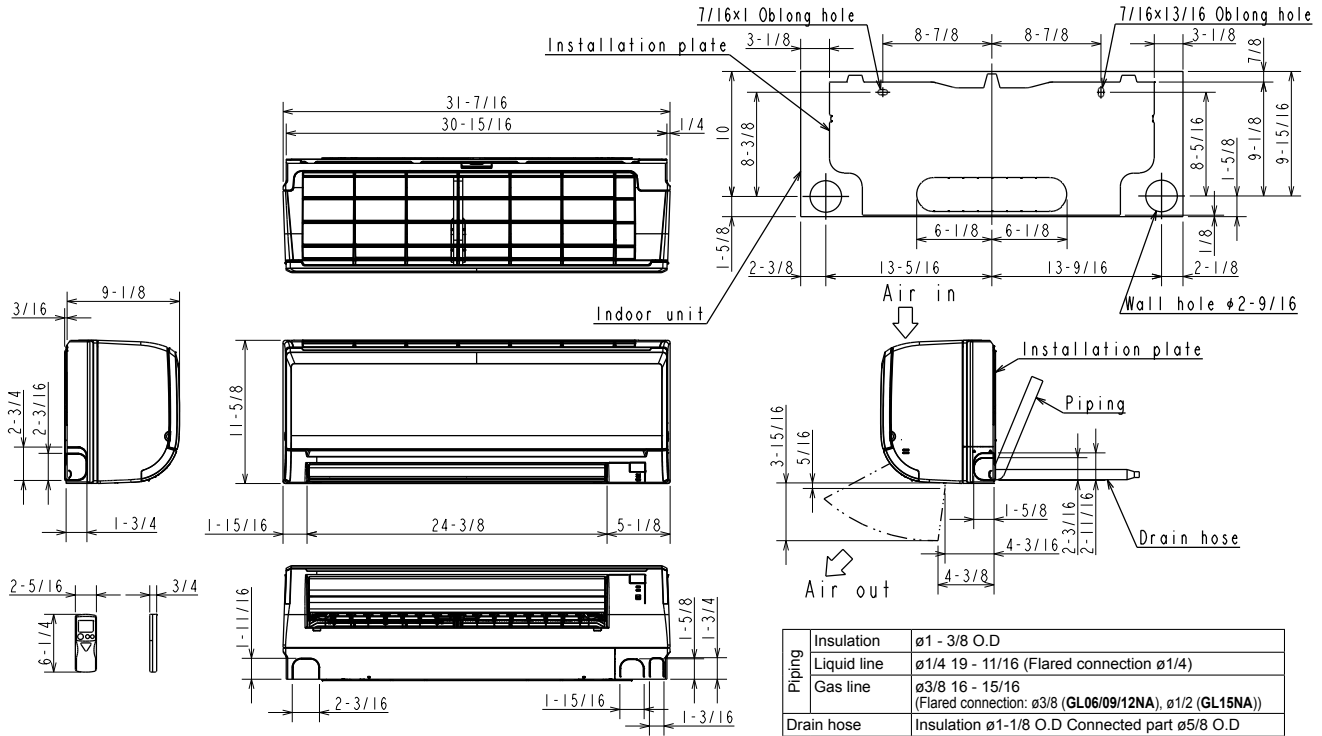
Controls

- Wireless Controller (MHK1)
- Wireless Interface for kumo™ cloud (PAC-WHS01WF-E)
- Thermostat Interface (PAC-US444CN-1)

DIMENSIONS: MSZ-GL06NA-U1

MSZ-GL06NA-U1

Unit: in. (mm)



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Job Name:	Date:
System Reference:	



Indoor Unit: MSZ-GL09NA-U1



Wireless Remote Controller

SPECIFICATIONS:

Rated Capacity*		
Cooling ¹	Btu/h / W	9,000
Heating at 47° F ²	Btu/h / W	10,900

Rating Conditions per AHRI Standard:

¹ Cooling | Indoor: 80° F (27° C)DB / 67° F (19° C)WB; Outdoor: 95° F (35° C)DB / 75° F (24° C)WB
² Heating at 47°F | Indoor: 70° F (21° C)DB / 60° F (16° C)WB; Outdoor: 47° F (8° C)DB / 43° F (6° C)WB

For data on specific indoor units (all ducted, all non-ducted, and both ducted and non-ducted) combinations, see the MXZ Technical and Service Manual.

Applications should be restricted to comfort cooling only; equipment cooling applications are not recommended for low ambient temperature conditions.

ACCESSORIES:

Indoor Unit

- Condensate Pump (BlueDiamond X87-711/721; 115/230V)
- Condensate Pump (Sauermann SI30-115/230; 115/230V)
- Anti-Allergy Enzyme Filter (MAC-408FT-E)
- Platinum Catalyst Deodorizing Filter (MAC-308FT-E)
- Drain Pan Level Sensor (DPLS2)

Controls

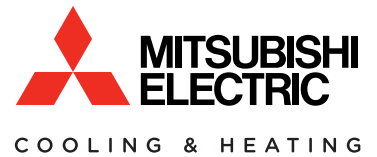
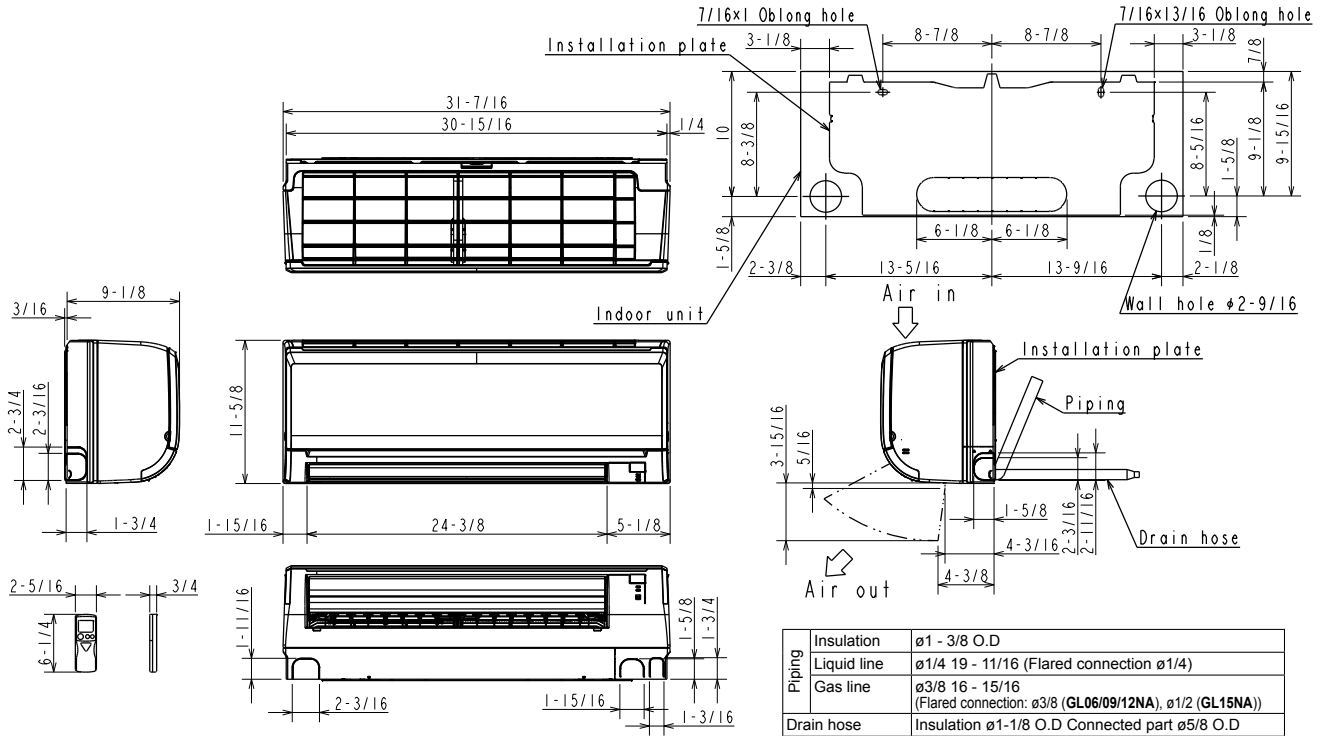
- Wireless Controller (MHK1)
- Wired Remote Controller PAR-32MAA (Requires MAC-333IF-E)
- Wireless Interface for kumo cloud™ (PAC-USWHS002-WF-1)
- Thermostat Interface (PAC-US444CN-1)

Electrical Power Requirements		208 / 230V, 1-Phase, 60 Hz	
Minimum Circuit Ampacity (MCA)	A	1.0	
Blower Motor (ECM)	F.L.A.	0.76	
Blower Motor Output	W	30	
Field Drainpipe Size O.D.	In.(mm)	5/8 (15)	
Airflow Rate (Quiet - Lo - Med - Hi - Super Hi)			
Cooling	DRY	CFM	145-170-237-321-399
	WET		109-134-201-286-364
Heating	DRY		145-170-237-321-406
Sound Pressure Level (Quiet - Lo - Med - Hi - Super Hi)			
Cooling	dB(A)	19-22-30-37-43	
Heating		19-22-30-37-43	
External Dimensions (H x W x D)	In.(mm)	11-5/8 x 31-7/16 x 9-1/8 (295 x 798 x 232)	
Net Weight	Lbs.(kg)	29 (12)	
External Finish	Munsell 1.0Y 9.2 / 0.2		
Refrigerant Piping (Flared)			
Liquid (High Pressure)	In.(mm)	1/4 (6.35)	
Gas (Low Pressure)		3/8 (9.52)	

DIMENSIONS: MSZ-GL09NA-U1

MSZ-GL09NA-U1

Unit: in. (mm)



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Job Name:	
System Reference:	Date:



Indoor Unit: MSZ-GL12NA-U1



Wireless Remote Controller

SPECIFICATIONS:

Rated Capacity*		
Cooling*1	Btu/h / W	12,000
Heating at 47° F*2	Btu/h / W	14,400

Rating Conditions per AHRI Standard:

*1 Cooling | Indoor: 80° F(27° C)DB / 67° F(19° C)WB ; Outdoor: 95° F(35° C)DB / 75° F(24° C)WB

*2 Heating at 47°F | Indoor: 70° F (21° C)DB / 60° F (16° C)WB ; Outdoor: 47° F (8° C)DB / 43° F (6° C)WB

For data on specific indoor units (all ducted, all non-ducted, and both ducted and non-ducted) combinations, see the MXZ Technical and Service Manual.

Electrical Power Requirements	208 / 230V, 1-Phase, 60 Hz	
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Minimum Circuit Ampacity (MCA)	A	1
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Blower Motor (ECM)	F.L.A.	0.76
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Blower Motor Output	W	30
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Field Drainpipe Size O.D.	In.(mm)	5/8 (15)
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Airflow Rate (Quiet - Lo - Med - Hi - Super Hi)

Cooling	DRY	CFM	145-170-237-321-399
	WET		109-134-201-286-364
Heating	DRY		145-170-237-321-406

Sound Pressure Level (Quiet - Lo - Med - Hi - Super Hi)

Cooling	dB(A)	19-22-30-37-45
Heating		19-22-30-37-43

External Dimensions (H x W x D)	In.(mm)	11-5/8 x 31-7/16 x 9-1/8 (295 x 798 x 232)
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Net Weight	Lbs.(kg)	22 (10)
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External Finish	Munsell 1.0Y 9.2 / 0.2	
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Refrigerant Piping (Flared)

Liquid (High Pressure)	In.(mm)	1/4 (6.35)
Gas (Low Pressure)		3/8 (9.52)

ACCESSORIES:

Indoor Unit

- Condensate Pump (BlueDiamond X87-711/721; 115/230V)
- Condensate Pump (Sauermann SI30-115/230; 115/230V)
- Anti-Allergy Enzyme Filter (MAC-408FT-E)
- Platinum Catalyst Deodorizing Filter (MAC-308FT-E)
- Drain Pan Level Sensor (DPLS2)

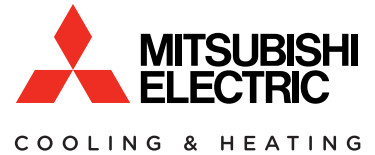
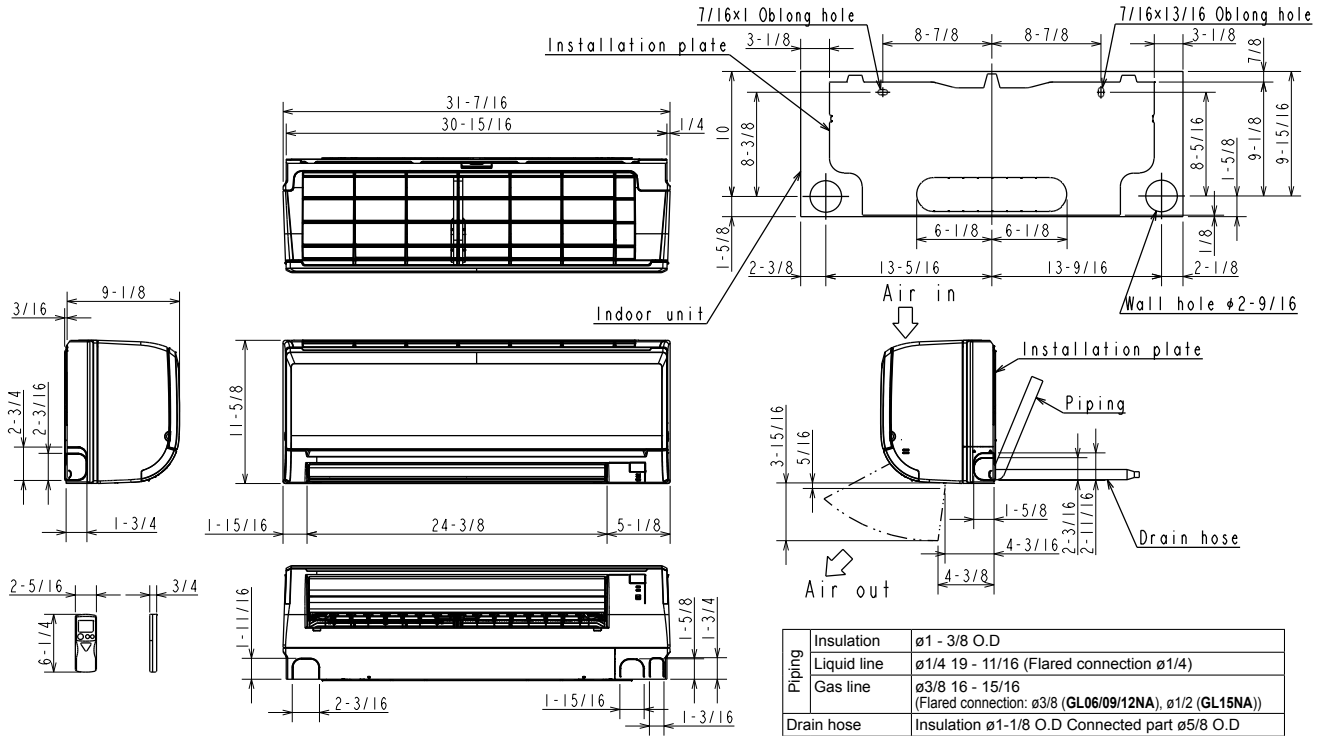
Controls

- Wireless Controller (MHK1)
- Wireless Interface for kumo™ cloud (PAC-WHS01WF-E)
- Thermostat Interface (PAC-US444CN-1)

DIMENSIONS: MSZ-GL12NA-U1

MSZ-GL12NA-U1

Unit: in. (mm)



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SUBMITTAL DATA: SLZ-KA15NA

15,000 BTU/H CEILING-CASSETTE INDOOR UNIT FOR MXZ MULTI-ZONE HEAT-PUMP SYSTEMS

Job Name:

System Reference:

Date:



SLZ-KA15NA

GENERAL FEATURES

- Four-way 2'x2' ceiling-cassette indoor unit for ceiling recessed applications
- Built-in drain mechanism for condensate removal; lifts to 19-11/16"
- Wide air-flow pattern for better air distribution
- Design features ventilation air intake knockout
- Long-life air filter included with indoor unit
- Indoor unit powered from outdoor unit using A-Control
- Choice of fan speed: Low, Medium, High
- Automatic restart following a power outage
- Limited warranty: five years parts and seven years compressors

ACCESSORIES

Indoor Unit

- Grille (SLP-15AAUW; required - shipped with unit)

Outdoor Unit

- Drain Pan Heater (MAC-640BH-U)
- Drain Socket (MAC-860DS)
- Three-pole Disconnect Switch (TAZ-MS303)
- Air Outlet Guide (MAC-856SG)
- Mounting Base (DSD-400N)
- Mounting Pad (ULTRILITE1)

Controller Options

- Wireless Wall-mounted Remote Controller Kit (MHK1)*
 - Portable Central Controller (MCCH1)*
 - Outdoor Air Sensor (MOS1)*
 - Wired Wall-mounted Controller (PAR-31MAA)*
 - Simple MA Remote Controller (PAC-YT53CRAU)*
- *See Submittal for information on each option.
- Remote Temperature Sensor (M21-JKO-307)
 - Hand-held Wireless Remote Controller (PAR-FL32MA; req.PAR-FA32MA-E)
 - Wireless Signal Receiver PAR-FA32MA (for PAR-FL32MA)
 - Lockdown Bracket for Hand-held Controller (RCMKP1CB)

SPECIFICATIONS

Cooling Capacity* 15,000 Btu/h
 Heating Capacity at 47°F* 18,000 Btu/h

* Rating Conditions per AHRI Standard

Cooling | Indoor: 80° F (27° C) DB / 67° F (19° C) WB
 Cooling | Outdoor: 95° F (35° C) DB / 75° F (24° C) 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

(For data on specific indoor units [all ducted, all non-ducted, and both ducted and non-ducted] combinations, see the MXZ Technical and Service Manual.)

Electrical Requirements

Power Supply 208 / 230V, 1-Phase, 60 Hz
 MCA 1 A

Voltage

Indoor - Outdoor S1-S2 AC 208 / 230V
 Indoor - Outdoor S2-S3 DC ±24V

Fan Motor (ECM) 0.28 F.L.A.

Airflow (Lo - Med - Hi) 280 - 320 - 390 Dry CFM
 250 - 290 - 350 Wet CFM

Air Filter Polypropylene Honeycomb

Sound Pressure Level (Lo - Med - Hi) 31 - 35 - 40 dB(A)

DIMENSIONS	UNIT INCHES / MM	GRILLE INCHES / MM
W	22-7/16 / 570	25-5/8 / 650
D	22-7/16 / 570	25-5/8 / 650
H	9-1/4 / 235	13/16 / 20

Weight (Unit/Grille)

Lbs..... 36 / 7
 kg..... 16.5 / 3

External Finish (Unit/Grille) Galvanized-steel Sheets /
 Munsell 6.4Y 8.9 / 0.4

Field Drainpipe Size O.D..... 1-1/4" / 32 mm

Refrigerant Type R410A

Refrigerant Pipe Size O.D.

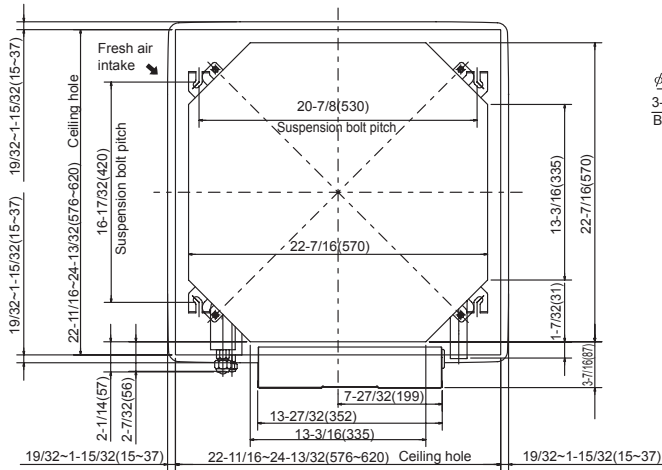
Gas Side 1/2" / 12.7 mm
 Liquid Side..... 1/4" / 6.35 mm

Connection Method Flared

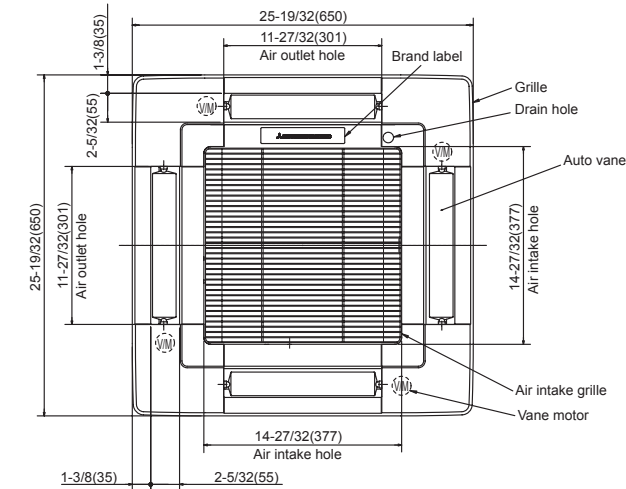
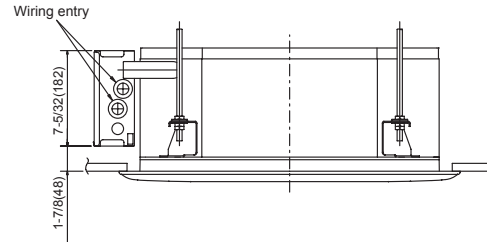
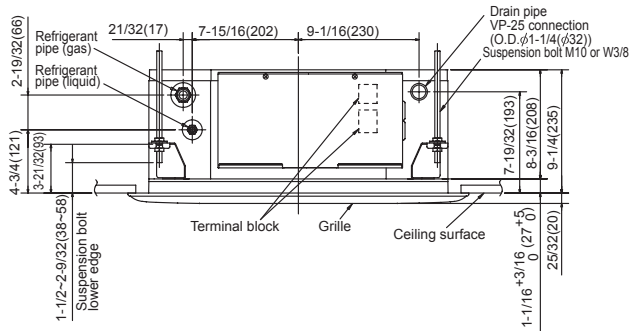
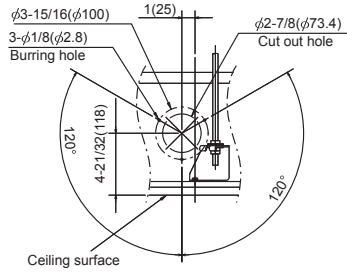


DIMENSIONS: SLZ-KA15NA

Unit : inch (mm)



Detail drawing of fresh air intake



Models	Refrigerant pipe (liquid)	Refrigerant pipe (gas)
SLZ-KA09NA	1/4 inch ($\phi 6.35\text{mm}$) flared connection	3/8 inch ($\phi 9.52\text{mm}$) flared connection
SLZ-KA12NA	1/4 inch ($\phi 6.35\text{mm}$) flared connection	3/8 inch ($\phi 9.52\text{mm}$) flared connection
SLZ-KA15NA	1/4 inch ($\phi 6.35\text{mm}$) flared connection	1/2 inch ($\phi 12.7\text{mm}$) flared connection



COOLING & HEATING

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Job Name:	Date:
System Reference:	



Outdoor Unit: MXZ-4C36NAHZ

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)
- Airflow Guide (PAC-SH96SG-E)

(For data on specific indoor units, see the MXZ-C Technical and Service Manual.)

Specifications		Model Name	
Unit Type		MXZ-4C36NAHZ	
Cooling* (Non-ducted / Ducted)	Rated Capacity	Btu/h	36,000 / 36,000
	Capacity Range	Btu/h	6,000 - 36,000
	Rated Total Input	W	2,570 / 3,180
Heating at 47°F* (Non-ducted / Ducted)	Rated Capacity	Btu/h	45,000 / 45,000
	Capacity Range	Btu/h	7,200 - 45,000
	Rated Total Input	W	3,340 / 4,250
Heating at 17°F* (Non-ducted/Ducted)	Rated Capacity	Btu/h	34,000 / 36,000
	Maximum Capacity	Btu/h	45,000 / 45,000
	Rated Total Input	W	3,500 / 4,590
Heating at 5°F*	Maximum Capacity	Btu/h	45,000
Electrical Requirements	Power Supply	Voltage, Phase, Hertz	208 / 230V, 1-Phase, 60 Hz
	Recommended Fuse/Breaker Size	A	50
	MCA	A	42
Voltage	Indoor - Outdoor S1-S2	V	AC 208 / 230
	Indoor - Outdoor S2-S3	V	DC ±24
Compressor		Hermetic	
Fan Motor (ECM)		F.L.A.	0.4+0.4
Sound Pressure Level	Cooling	dB(A)	49
	Heating	dB(A)	53
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	276 / 125
External Finish		Munsell No. 3Y 7.8/11	
Refrigerant Pipe Size O.D.	Liquid (High Pressure)	In / mm	3/8 / 9.52
	Gas (Low Pressure)	In / mm	5/8 / 15.88
Max. Refrigerant Line Length		Ft / m	492 (150)
Max. Piping Length between outdoor unit and branch boxes		Ft / m	180 (55)
Max. Piping Length after branch box		Ft / m	82 (25)
Max. Total Piping Length between branch boxes and indoor units		Ft / m	311 (95)
Max. Refrigerant Pipe Height Difference	If IDU is Above ODU	Ft / m	131 (40)
	If IDU is Below ODU	Ft / m	164 (50)
Connection Method		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 / 75° F (24° C) WB

Heating at 47° F | Indoor: 70° F (21° C) DB
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

SPECIFICATIONS: MXZ-4C36NAHZ, contd.

OPERATING RANGE:

	Outdoor
Cooling	D.B 23 to 115°F [D.B.-5 to 46°C]*1
Heating	W.B. -13 to 59° F [W.B. -25 to 15° C]

*1. D.B. 5 to 115° F [D.B. -15 to 46° C], when an optional Air Outlet Guide is installed.

ENERGY EFFICIENCIES:

Indoor Unit Type	SEER	EER	HSPF	COP @ 47°F	COP @ 17°F
Non-ducted	19.10	14.00	11.30	3.95	2.85
Ducted and Non-ducted	17.45	12.67	10.70	3.53	2.58
Ducted	15.80	11.30	10.10	3.10	2.30

NOTES:

- Minimum of two Indoor Units must be connected to the MXZ-4C36NAHZ.
- Minimum installed capacity cannot be less than 12,000 Btu/h.
- Total connected capacity must not exceed 130% of outdoor unit capacity.
- System can operate with only one Indoor Unit turned on.
- Information provided at 208/230V.
- For Reference:
 - MXZ-C Technical & Service Manual for detailed specifications and additional information per Indoor Unit Combination.
 - MXZ Series Multi-Zone Indoor/Outdoor Combination Table for allowed unit combinations.

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 not exceed 130%.

*No limitation to the number of units connected when the SPTB1 accessory is used, total connected capacity must not exceed 130% (refer to SPTB1 documentation for more information).

Notes:

MXZ-4C36NAHZ SYSTEM DESIGN

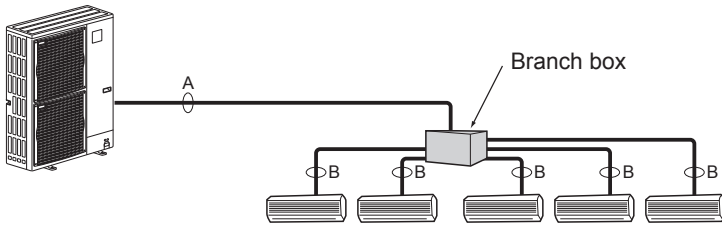
Outdoor unit		MXZ-4C36NAHZ	
		4HP	
		Cooling	36
		Heating	45
		Refrigerant R410A	
Connectable indoor unit	Capacity	Type 06 to Type 36	
		Caution: The indoor unit which rated capacity exceeds 36 kBTU/h (Type 36) can NOT be connected.	
	Number of units	2 to 4 units	
		Total system wide capacity 33 to 130% of outdoor unit capacity (12 to 46.8 kBTU/h)	
Connectable branch box	Number of units	1 or 2 units	

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)

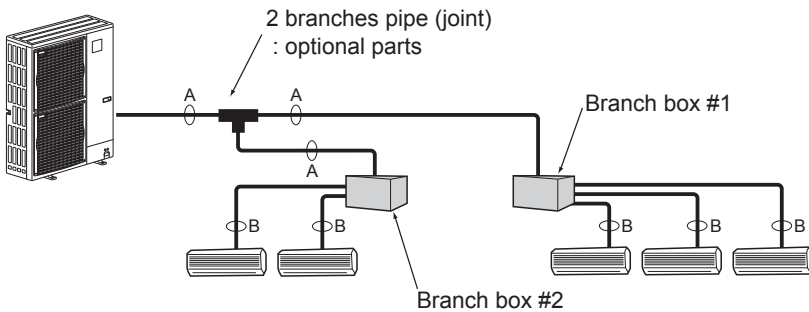
Note: A maximum of 2 branch boxes can be connected to 1 outdoor unit.

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)	

MXZ-4C36NAHZ COOLING AND HEATING CAPACITY AND CHARACTERISTICS

1. Method for obtaining system cooling and heating capacity:

To obtain the system cooling and heating capacity and the electrical characteristics of the outdoor unit, first add up the ratings of all the indoor units connected to the outdoor unit (see table below). For Standard Capacity Diagram, please refer to the MXZ-C Technical & Service Manual.

(1) Capacity of indoor unit

	Model Number for indoor unit	Model 06	Model 09	Model 12	Model 15	Model 18	Model 24	Model 30	Model 36
M series	Model Capacity [kBtu/h]	6.0	9.0	12.0	14.0* ¹ 15.0* ²	17.2* ³ 18.0* ⁴	22.5	—	—
P series		—	—	12.0	—	18.0	24.0	30.0	35.0
SEZ		—	8.1	11.5	14.1	17.2	—	—	—
SLZ		—	8.4	11.1	15.0	—	—	—	—
MVZ		—	—	12.0	—	18.0	24.0	30.0	36.0

*1 The value is for MSZ-GE15NA.

*2 The value is for MSZ-FH15NA.

*3 The value is for MSZ-GE/FH18NA.

*4 The value is for MSZ-FE18NA or MFZ-KA18NA.

(2) Sample calculation

1 System assembled from indoor and outdoor unit (in this example the total capacity of the indoor units is greater than that of the outdoor unit)

- Outdoor unit MXZ-5C42NAHZ
- Indoor unit MSZ-GE09NA × 2 + MSZ-FH15NA × 2

2 According to the conditions in 1, the total capacity of the indoor unit will be: $9.0 \times 2 + 15.0 \times 2 = 48.0$

3 The following figures are obtained from the 16.8 total capacity of indoor units, referring the standard capacity diagram in "4-3-3. MXZ-5C42NAHZ <cooling>" and "4-3-4. MXZ-5C42NAHZ <heating>".

Capacity (kBTU/h)		Outdoor unit power consumption (kW)		Outdoor unit current (A)/ 230 V	
Cooling	Heating	Cooling	Heating	Cooling	Heating
A 42.0	B 48.0	3.46	4.37	15.26	19.31

2. Method for obtaining the heating and cooling capacity of an indoor unit:

(1) The capacity of each indoor unit (kW) = the capacity A (or B) $\times \frac{\text{model capacity}}{\text{total model capacity of all indoor units}}$

(2) Sample calculation (using the system described above in 4-1-1. (2)):

During cooling:

- The total model capacity of the indoor unit is:
 $9.0 \times 2 + 15.0 \times 2 = 48.0$ kBTU/h
Therefore, the capacity of MSZ-GE09NA and MSZ-FH15NA will be calculated as follows by using the formula in 4-1-2. (1):

$$\text{Model 09} = 42.0 \times \frac{9.0}{48.0} = 7.88 \text{ kBTU/h}$$

$$\text{Model 15} = 42.0 \times \frac{15.0}{48.0} = 13.13 \text{ kBTU/h}$$

During heating:

- The total model capacity of indoor unit is:
 $10.9 \times 2 + 18.0 \times 2 = 57.8$ kBTU/h
Therefore, the capacity of MSZ-GE09NA and MSZ-FH15NA will be calculated as follows by using the formula in 4-1-2. (1):

$$\text{Model 25} = 48.0 \times \frac{10.9}{57.8} = 9.05 \text{ kBTU/h}$$

$$\text{Model 50} = 48.0 \times \frac{18.0}{57.8} = 14.95 \text{ kBTU/h}$$

MXZ-4C36NAHZ OPERATIONAL PERFORMANCE

NON-DUCTED:

# of indoor unit	Total Nominal Capacity (x1000 Btu/h)	Total Indoor Unit Capacity (Btu/h)	Operational Performance for Indoor Unit Combinations (Unit A + Unit B + Unit C + Unit D)	Cooling Capacity Range (Btu/h)			
				Heating Capacity Range (Btu/h)			
				Unit A	Unit B	Unit C	Unit D
1	6	6,000	6	6,000	-	-	-
		7,200		7,200	-	-	-
1	9	9,000	9	9,000	-	-	-
		10,800		10,800	-	-	-
1	12	12,000	12	12,000	-	-	-
		14,400		14,400	-	-	-
1	15	15,000	15	15,000	-	-	-
		18,000		18,000	-	-	-
1	18	18,000	18	18,000	-	-	-
		21,600		21,600	-	-	-
1	24	24,000	24	24,000	-	-	-
		28,800		28,800	-	-	-
1	30	30,000	30	30,000	-	-	-
		36,900		36,900	-	-	-
1	36	36,000	36	36,000	-	-	-
		45,000		45,000	-	-	-
2	12	12,000	6 + 6	6,000	6,000	-	-
		14,400		7,200	7,200	-	-
2	15	15,000	6 + 9	6,000	9,000	-	-
		18,000		7,200	10,800	-	-
2	18	18,000	6 + 12	6,000	12,000	-	-
		21,600		7,200	14,400	-	-
2	21	21,000	6 + 15	6,000	15,000	-	-
		25,200		7,200	18,000	-	-
2	24	24,000	6 + 18	6,000	18,000	-	-
		28,800		7,200	21,600	-	-
2	30	30,000	6 + 24	6,000	24,000	-	-
		36,900		7,400	29,500	-	-
2	36	36,000	6 + 30	6,000	30,000	-	-
		45,000		7,300	37,700	-	-
2	42	36,000	6 + 36	5,100	30,900	-	-
		45,000		6,200	38,800	-	-
2	18	18,000	9 + 9	9,000	9,000	-	-
		21,600		10,800	10,800	-	-
2	21	21,000	9 + 12	9,000	12,000	-	-
		25,200		10,800	14,400	-	-
2	24	24,000	9 + 15	9,000	15,000	-	-
		28,800		10,800	18,000	-	-
2	27	27,000	9 + 18	9,000	18,000	-	-
		32,800		10,900	21,900	-	-
2	33	33,000	9 + 24	9,000	24,000	-	-
		40,900		11,200	29,700	-	-
2	39	36,000	9 + 30	8,300	27,700	-	-
		45,000		10,200	34,800	-	-
2	45	36,000	9 + 36	7,200	28,800	-	-
		45,000		8,700	36,300	-	-
2	24	24,000	12 + 12	12,000	12,000	-	-
		28,800		14,400	14,400	-	-
2	27	27,000	12 + 15	12,000	15,000	-	-
		32,800		14,600	18,200	-	-
2	30	30,000	12 + 18	12,000	18,000	-	-
		36,900		14,800	22,100	-	-
2	36	36,000	12 + 24	12,000	24,000	-	-
		45,000		15,000	30,000	-	-
2	42	36,000	12 + 30	10,300	25,700	-	-
		45,000		12,600	32,400	-	-
2	30	30,000	15 + 15	15,000	15,000	-	-
		36,900		18,500	18,500	-	-
2	33	33,000	15 + 18	15,000	18,000	-	-
		40,900		18,600	22,300	-	-

MXZ-4C36NAHZ OPERATIONAL PERFORMANCE, contd.

NON-DUCTED:

# of indoor unit	Total Nominal Capacity (x1000 Btu/h)	Total Indoor Unit Capacity (Btu/h)	Operational Performance for Indoor Unit Combinations (Unit A + Unit B + Unit C + Unit D)	Cooling Capacity Range (Btu/h)			
				Heating Capacity Range (Btu/h)			
				Unit A	Unit B	Unit C	Unit D
2	39	36,000	15 + 24	13,800	22,200	-	-
		45,000		17,300	27,700	-	-
2	45	36,000	15 + 30	12,000	24,000	-	-
		45,000		14,800	30,200	-	-
2	36	36,000	18 + 18	18,000	18,000	-	-
		45,000		22,500	22,500	-	-
2	42	36,000	18 + 24	15,400	20,600	-	-
		45,000		19,300	25,700	-	-
3	18	18,000	6 + 6 + 6	6,000	6,000	6,000	-
		21,600		7,200	7,200	7,200	-
3	21	21,000	6 + 6 + 9	6,000	6,000	9,000	-
		25,200		7,200	7,200	10,800	-
3	24	24,000	6 + 6 + 12	6,000	6,000	12,000	-
		28,800		7,200	7,200	14,400	-
3	27	27,000	6 + 6 + 15	6,000	6,000	15,000	-
		32,800		7,300	7,300	18,200	-
3	30	30,000	6 + 6 + 18	6,000	6,000	18,000	-
		36,900		7,400	7,400	22,100	-
3	36	36,000	6 + 6 + 24	6,000	6,000	24,000	-
		45,000		7,500	7,500	30,000	-
3	42	36,000	6 + 6 + 30	5,100	5,100	25,700	-
		45,000		6,300	6,300	32,400	-
3	24	24,000	6 + 9 + 9	6,000	9,000	9,000	-
		28,800		7,200	10,800	10,800	-
3	27	27,000	6 + 9 + 12	6,000	9,000	12,000	-
		32,800		7,300	10,900	14,600	-
3	30	30,000	6 + 9 + 15	6,000	9,000	15,000	-
		36,900		7,400	11,100	18,500	-
3	33	33,000	6 + 9 + 18	6,000	9,000	18,000	-
		40,900		7,400	11,200	22,300	-
3	39	36,000	6 + 9 + 24	5,500	8,300	22,200	-
		45,000		6,900	10,400	27,700	-
3	45	36,000	6 + 9 + 30	4,800	7,200	24,000	-
		45,000		5,900	8,900	30,200	-
3	30	30,000	6 + 12 + 12	6,000	12,000	12,000	-
		36,900		7,400	14,800	14,800	-
3	33	33,000	6 + 12 + 15	6,000	12,000	15,000	-
		40,900		7,400	14,900	18,600	-
3	36	36,000	6 + 12 + 18	6,000	12,000	18,000	-
		45,000		7,500	15,000	22,500	-
3	42	36,000	6 + 12 + 24	5,100	10,300	20,600	-
		45,000		6,400	12,900	25,700	-
3	36	36,000	6 + 15 + 15	6,000	15,000	15,000	-
		45,000		7,500	18,800	18,800	-
3	39	36,000	6 + 15 + 18	5,500	13,800	16,600	-
		45,000		6,900	17,300	20,800	-
3	45	36,000	6 + 15 + 24	4,800	12,000	19,200	-
		45,000		6,000	15,000	24,000	-
3	42	36,000	6 + 18 + 18	5,100	15,400	15,400	-
		45,000		6,400	19,300	19,300	-
3	27	27,000	9 + 9 + 9	9,000	9,000	9,000	-
		32,800		10,900	10,900	10,900	-
3	30	30,000	9 + 9 + 12	9,000	9,000	12,000	-
		36,900		11,100	11,100	14,800	-
3	33	33,000	9 + 9 + 15	9,000	9,000	15,000	-
		40,900		11,200	11,200	18,600	-
3	36	36,000	9 + 9 + 18	9,000	9,000	18,000	-
		45,000		11,300	11,300	22,500	-
3	42	36,000	9 + 9 + 24	7,700	7,700	20,600	-
		45,000		9,600	9,600	25,700	-

MXZ-4C36NAHZ OPERATIONAL PERFORMANCE, contd.

NON-DUCTED:

# of indoor unit	Total Nominal Capacity (x1000 Btu/h)	Total Indoor Unit Capacity (Btu/h)	Operational Performance for Indoor Unit Combinations (Unit A + Unit B + Unit C + Unit D)	Cooling Capacity Range (Btu/h)			
				Heating Capacity Range (Btu/h)			
				Unit A	Unit B	Unit C	Unit D
3	33	33,000	9 + 12 + 12	9,000	12,000	12,000	-
		40,900		11,200	14,900	14,900	-
3	36	36,000	9 + 12 + 15	9,000	12,000	15,000	-
		45,000		11,300	15,000	18,800	-
3	39	36,000	9 + 12 + 18	8,300	11,100	16,600	-
		45,000		10,400	13,800	20,800	-
3	45	36,000	9 + 12 + 24	7,200	9,600	19,200	-
		45,000		9,000	12,000	24,000	-
3	39	36,000	9 + 15 + 15	8,300	13,800	13,800	-
		45,000		10,400	17,300	17,300	-
3	42	36,000	9 + 15 + 18	7,700	12,900	15,400	-
		45,000		9,600	16,100	19,300	-
3	45	36,000	9 + 18 + 18	7,200	14,400	14,400	-
		45,000		9,000	18,000	18,000	-
3	36	36,000	12 + 12 + 12	12,000	12,000	12,000	-
		45,000		15,000	15,000	15,000	-
3	39	36,000	12 + 12 + 15	11,100	11,100	13,800	-
		45,000		13,800	13,800	17,300	-
3	42	36,000	12 + 12 + 18	10,300	10,300	15,400	-
		45,000		12,900	12,900	19,300	-
3	42	36,000	12 + 15 + 15	10,300	12,900	12,900	-
		45,000		12,900	16,100	16,100	-
3	45	36,000	12 + 15 + 18	9,600	12,000	14,400	-
		45,000		12,000	15,000	18,000	-
3	45	36,000	15 + 15 + 15	12,000	12,000	12,000	-
		45,000		15,000	15,000	15,000	-
4	24	24,000	6 + 6 + 6 + 6	6,000	6,000	6,000	6,000
		28,800		7,200	7,200	7,200	7,200
4	27	27,000	6 + 6 + 6 + 9	6,000	6,000	6,000	9,000
		32,800		7,300	7,300	7,300	10,900
4	30	30,000	6 + 6 + 6 + 12	6,000	6,000	6,000	12,000
		36,900		7,400	7,400	7,400	14,800
4	33	33,000	6 + 6 + 6 + 15	6,000	6,000	6,000	15,000
		40,900		7,400	7,400	7,400	18,600
4	36	36,000	6 + 6 + 6 + 18	6,000	6,000	6,000	18,000
		45,000		7,500	7,500	7,500	22,500
4	42	36,000	6 + 6 + 6 + 24	5,100	5,100	5,100	20,600
		45,000		6,400	6,400	6,400	25,700
4	30	30,000	6 + 6 + 9 + 9	6,000	6,000	9,000	9,000
		36,900		7,400	7,400	11,100	11,100
4	33	33,000	6 + 6 + 9 + 12	6,000	6,000	9,000	12,000
		40,900		7,400	7,400	11,200	14,900
4	36	36,000	6 + 6 + 9 + 15	6,000	6,000	9,000	15,000
		45,000		7,500	7,500	11,300	18,800
4	39	36,000	6 + 6 + 9 + 18	5,500	5,500	8,300	16,600
		45,000		6,900	6,900	10,400	20,800
4	45	36,000	6 + 6 + 9 + 24	4,800	4,800	7,200	19,200
		45,000		6,000	6,000	9,000	24,000
4	36	36,000	6 + 6 + 12 + 12	6,000	6,000	12,000	12,000
		45,000		7,500	7,500	15,000	15,000
4	39	36,000	6 + 6 + 12 + 15	5,500	5,500	11,100	13,800
		45,000		6,900	6,900	13,800	17,300
4	42	36,000	6 + 6 + 12 + 18	5,100	5,100	10,300	15,400
		45,000		6,400	6,400	12,900	19,300
4	42	36,000	6 + 6 + 15 + 15	5,100	5,100	12,900	12,900
		45,000		6,400	6,400	16,100	16,100
4	45	36,000	6 + 6 + 15 + 18	4,800	4,800	12,000	14,400
		45,000		6,000	6,000	15,000	18,000
4	33	33,000	6 + 9 + 9 + 9	6,000	9,000	9,000	9,000
		40,900		7,400	11,200	11,200	11,200

MXZ-4C36NAHZ OPERATIONAL PERFORMANCE, contd.

NON-DUCTED:

# of indoor unit	Total Nominal Capacity (x1000 Btu/h)	Total Indoor Unit Capacity (Btu/h)	Operational Performance for Indoor Unit Combinations (Unit A + Unit B + Unit C + Unit D)	Cooling Capacity Range (Btu/h)			
				Heating Capacity Range (Btu/h)			
				Unit A	Unit B	Unit C	Unit D
4	36	36,000	6 + 9 + 9 + 12	6,000	9,000	9,000	12,000
		45,000		7,500	11,300	11,300	15,000
4	39	36,000	6 + 9 + 9 + 15	5,500	8,300	8,300	13,800
		45,000		6,900	10,400	10,400	17,300
4	42	36,000	6 + 9 + 9 + 18	5,100	7,700	7,700	15,400
		45,000		6,400	9,600	9,600	19,300
4	39	36,000	6 + 9 + 12 + 12	5,500	8,300	11,100	11,100
		45,000		6,900	10,400	13,800	13,800
4	42	36,000	6 + 9 + 12 + 15	5,100	7,700	10,300	12,900
		45,000		6,400	9,600	12,900	16,100
4	45	36,000	6 + 9 + 12 + 18	4,800	7,200	9,600	14,400
		45,000		6,000	9,000	12,000	18,000
4	42	36,000	6 + 12 + 12 + 12	5,100	10,300	10,300	10,300
		45,000		6,400	12,900	12,900	12,900
4	45	36,000	6 + 12 + 12 + 15	4,800	9,600	9,600	12,000
		45,000		6,000	12,000	12,000	15,000
4	36	36,000	9 + 9 + 9 + 9	9,000	9,000	9,000	9,000
		45,000		11,300	11,300	11,300	11,300
4	39	36,000	9 + 9 + 9 + 12	8,300	8,300	8,300	11,100
		45,000		10,400	10,400	10,400	13,800
4	42	36,000	9 + 9 + 9 + 15	7,700	7,700	7,700	12,900
		45,000		9,600	9,600	9,600	16,100
4	45	36,000	9 + 9 + 9 + 18	7,200	7,200	7,200	14,400
		45,000		9,000	9,000	9,000	18,000
4	42	36,000	9 + 9 + 12 + 12	7,700	7,700	10,300	10,300
		45,000		9,600	9,600	12,900	12,900
4	45	36,000	9 + 9 + 12 + 15	7,200	7,200	9,600	12,000
		45,000		9,000	9,000	12,000	15,000
4	45	36,000	6 + 9 + 15 + 15	4,800	7,200	12,000	12,000
		45,000		6,000	9,000	15,000	15,000
4	45	36,000	9 + 12 + 12 + 12	7,200	9,600	9,600	9,600
		45,000		9,000	12,000	12,000	12,000

DIMENSIONS: PAC-MKA30BC AND PAC-MKA50BC BRANCH BOXES

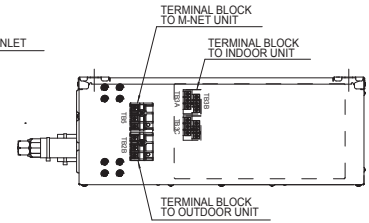
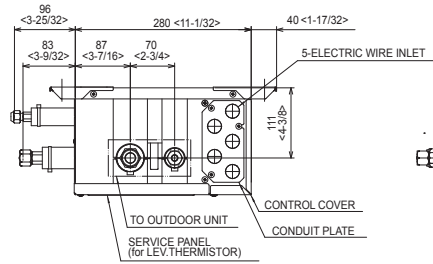
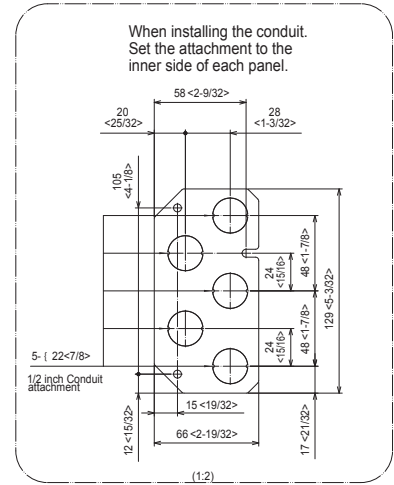
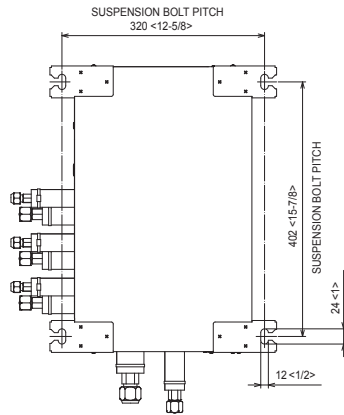
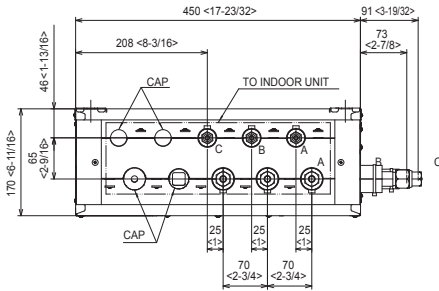
PAC-MKA30BC

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



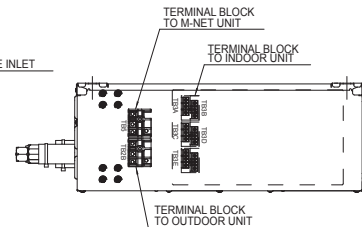
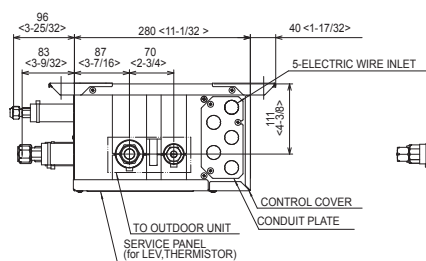
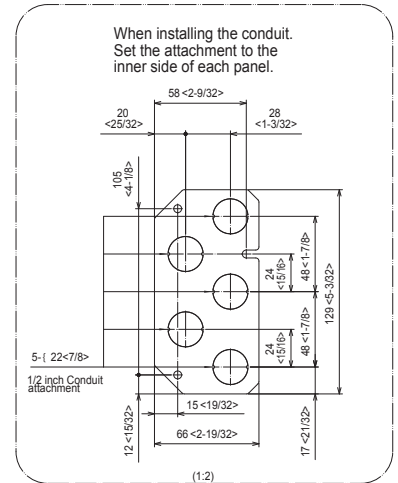
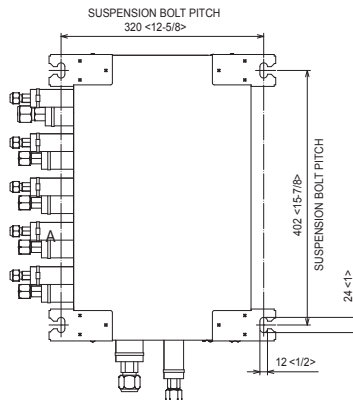
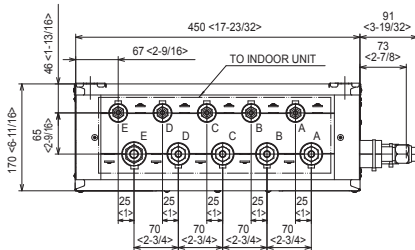
PAC-MKA50BC

Unit: mm <in>

SUSPENSION BOLT : W3/8(M10)

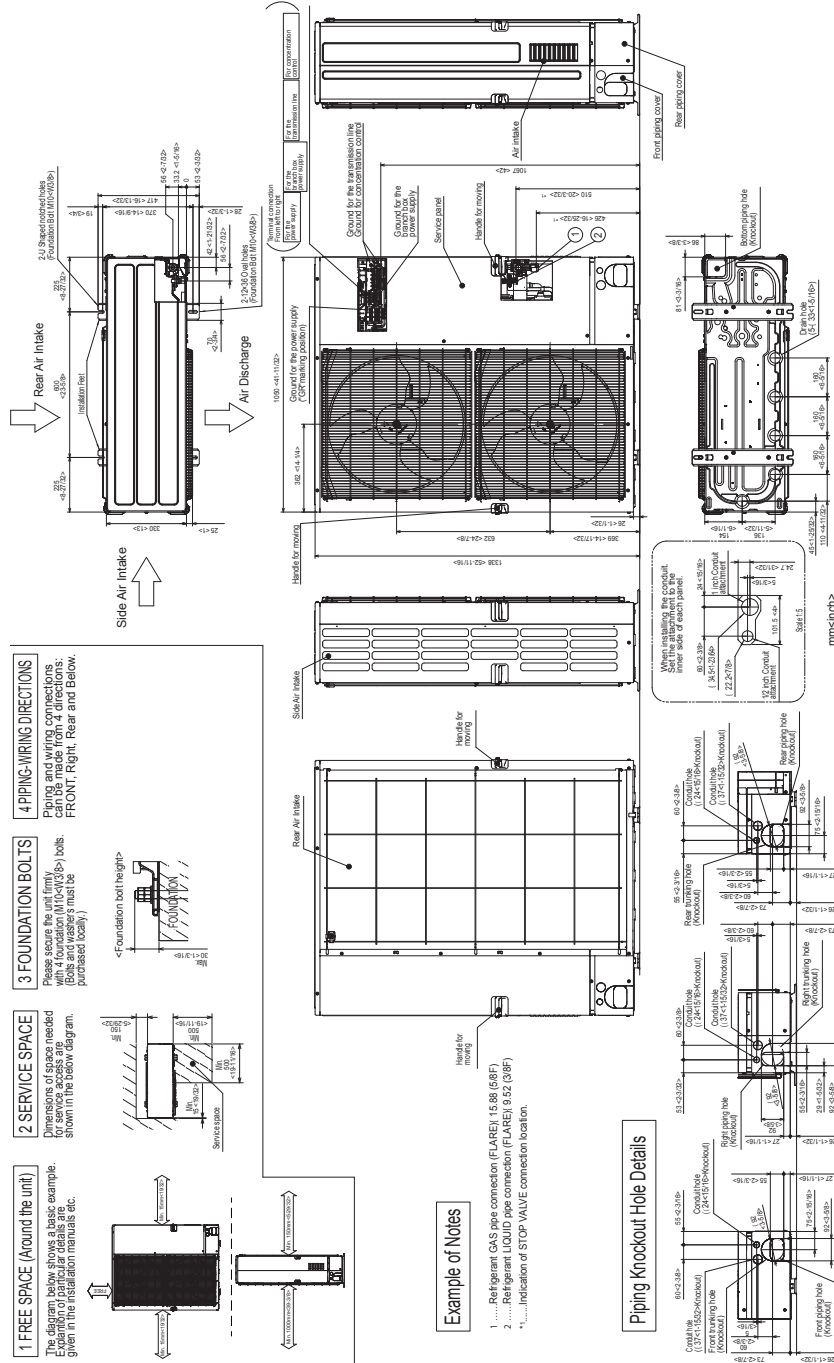
REFRIGERANT PIPE FLARED CONNECTION

	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-4C36NAHZ

Unit: mm <in>



COOLING & HEATING

1340 Satellite Boulevard, Suwanee, GA 30024
Toll Free: 800-433-4822 www.mehvac.com

FORM# MXZ-4C36NAHZ for Multiple Indoor Unit Styles - 201703

Specifications are subject to change without notice.



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Model: PAC-YT53CRAU

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.:	



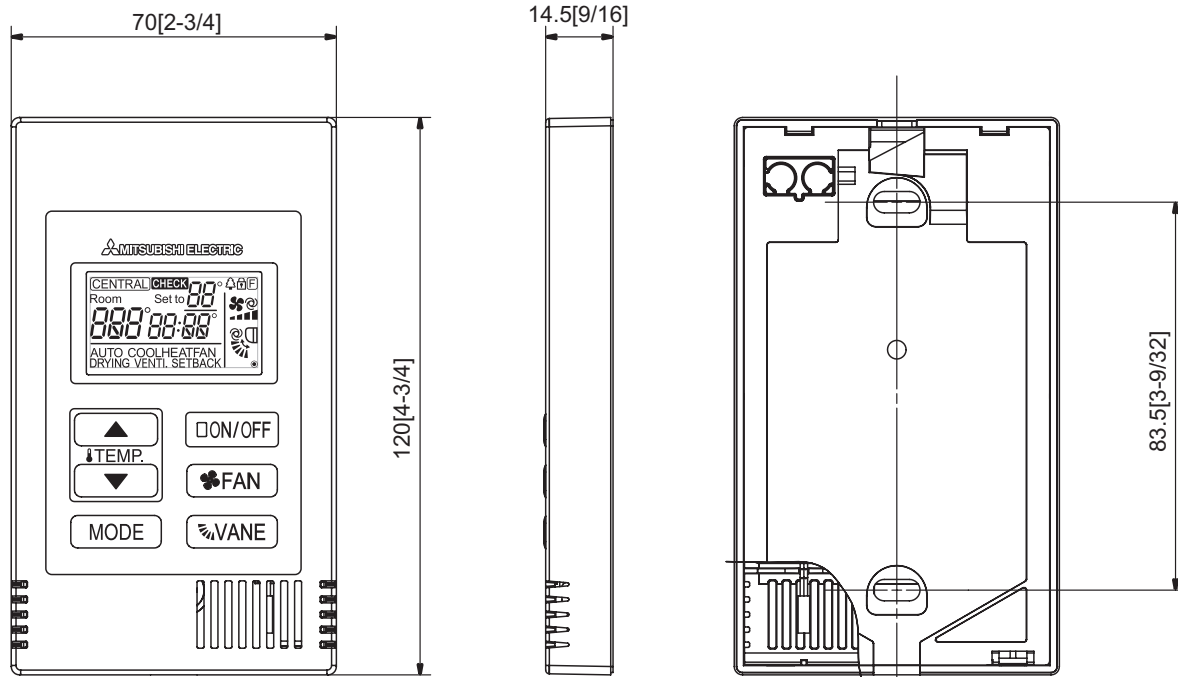
OPTIONAL WIRED, WALL-MOUNTED SIMPLE MA REMOTE CONTROLLER (PAC-YT53CRAU) SPECIFICATIONS

- For use with P-Series and M-Series systems (M-Series requires MAC-333IF System Control interface, sold separately)
- Controls group operation for up to 16 indoor units in a single group
- Supports both Fahrenheit and Celsius
- User defined functions:
 - ON/OFF
 - Operation mode: Auto*, Cool, Heat, Fan, or Drying (Note: *Heat Pump Models only)
 - Set temperature
 - Fan speed setting
 - Air flow direction
 - Set temperature range: 40°F - 95°F depending on operation mode and indoor unit connected.
- Set temperature range limit: Simple MA allowable set temperature range can be reduced for cool and heat modes.
- Room temperature can be sensed either at the indoor unit (default) or at the remote controller.
- Wiring: Uses two-wire, stranded, non-polar control wire for connecting to the indoor unit or control adapter. Requires crossover wiring for grouping across indoor units.
- Dimensions: 2-3/4 x 9/16 x 4-3/4" (70 x 14.5 x 120mm).

Notes:

Model: PAC-YT53CRAU – DIMENSIONS

Unit:mm[in.]



1340 Satellite Boulevard
Suwanee, GA 30024
Tele: 678-376-2900 • Fax: 800-889-9904
Toll Free: 800-433-4822
www.mehvac.com

Job Name: _____ Location: _____

Drawing Reference: _____ Schedule No. _____

System No.: _____ Date: _____



OVERVIEW OF CITY MULTI® CONTROLS NETWORK (CMCN)

- Consists of TG-2000 integrated system software, AG-150/GB-50ADA/GB-24/TC-24 centralized controllers, web browsers, timers, remote controllers, and BMS interfaces.
- TG-2000 integrated system software supports up to 40 AG-150/GB-50ADA centralized controllers (licensed for PC software features) for a maximum of 2,000 indoor units from a single PC.
- AG-150 centralized controller operates up to 50 indoor units with optional control via a field-supplied PC with licensed software.
- GB-50ADA centralized controller operates up to 50 indoor units via a field-supplied PC with licensed software.
- GB-24 central controller operates up to 24 indoor units via a field-supplied PC with licensed software.
- TC-24 standalone centralized controller operates up to 24 indoor units via an integral touch screen interface.
- Remote controllers consist of Deluxe MA, Simple MA, Wireless MA, and ME.
- I/O controllers consist of DIDO (PAC-YG66DCA) and AI (PAC-YG63MCA) for third-party equipment control.
- LonWorks® and BACnet® interfaces also available.
- Interlocking of LOSSNAY® ERV units for control via the AG-150/GB-50ADA/GB-24/TC-24 centralized controllers.

REMOTE SENSOR (PAC-SE41TSE)

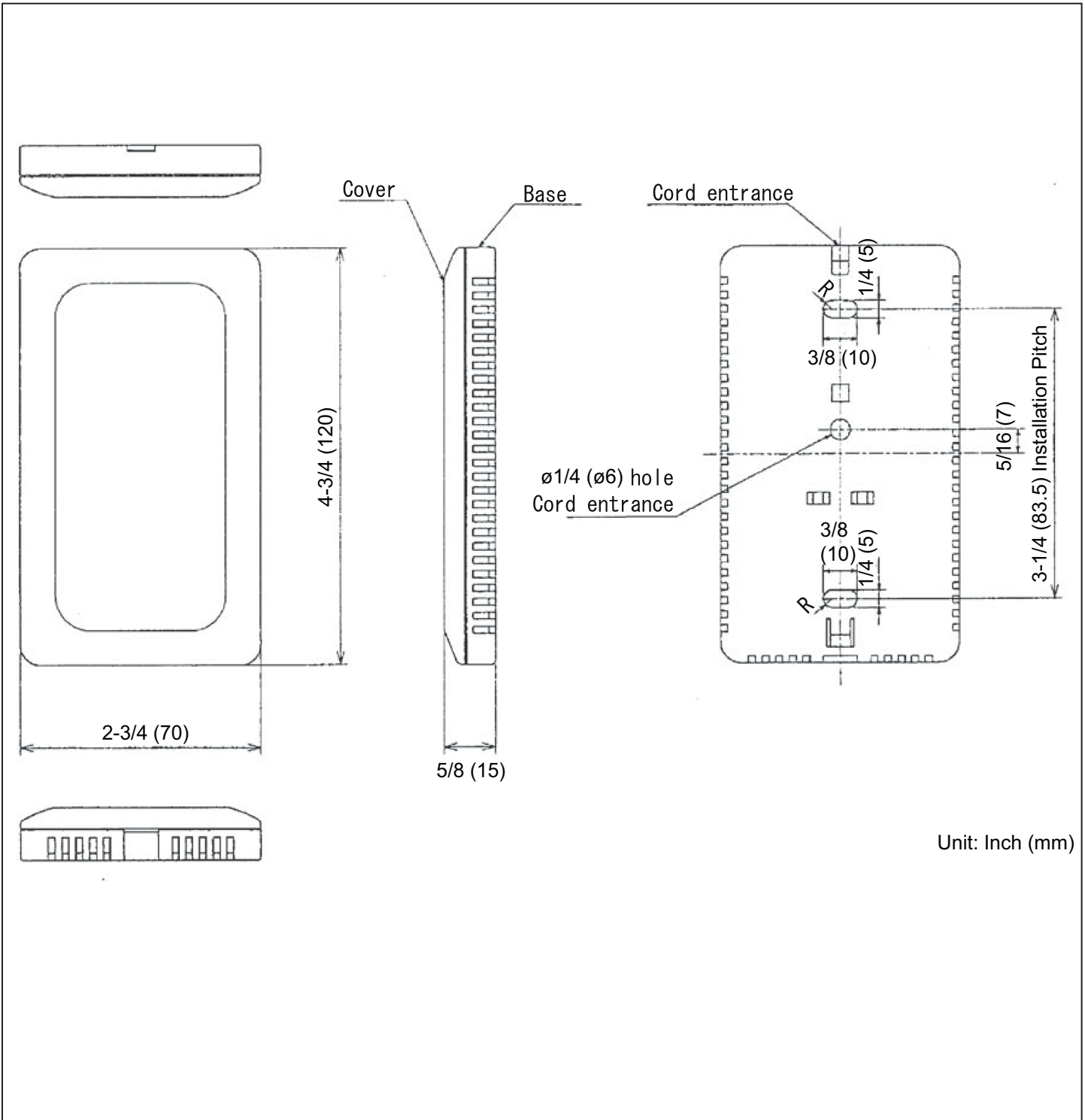
Capabilities

- Allows for remote temperature monitoring within an area for the indoor unit.
- Wires back to the indoor unit at CN20 to replace the return air temperature sensor.

General Specifications

- Power supply: Through the indoor unit.
- Dimensions: 2-3/4 W x 4-3/4 H x 5/8" D (70 x 120 x 15 mm).
- Exterior: ABS resin (Munsell No. 4.48Y 7.92 / 0.66)
- Environment Conditions
 - Operating temperature range: -4° to +149° F (-20° to +65° C).
 - Relative humidity: 30 to 90% (no condensation).
 - Install in a single-type switch box or directly on a wall.
- Maximum wiring length: 39' (12 m).
- If combined with environmental measurement controller:
 - Temperature measurement range: -4° to +149° F (-20° to +65° C).
 - Measurement resolution: 0.2° F (0.1° C) for 50° to 95° F (10° to 35° C); 0.9° F (0.5° C) for temperatures outside specified range.

Model: PAC-SE41TSE



Mitsubishi Electric Air Conditioning & Refrigeration Systems Works acquired ISO 9001 certification under Series 9000 of the International Standard Organization (ISO) based on a review of quality warranties for the production of refrigeration and air conditioning equipment.

ISO Authorization System
The ISO 9000 series is a plant authorization system relating to quality warranties as stipulated by the ISO. ISO 9001 certifies quality warranties based on the "design, development, production, installation and auxiliary services" for products built at an authorized plant.



Mitsubishi Electric Air Conditioning & Refrigeration Systems Works acquired environmental management system standard ISO 14001 certification.

The ISO 14000 series is a set of standards applying to environmental protection set by the International Standard Organization (ISO).

Certificate Number EC97J1227



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Specifications are subject to change without notice.