

# MODEL: PAC-MKA30BC, PAC-MKA31BC, PAC-MKA32BC PAC-MKA50BC, PAC-MKA51BC, AND PAC-MKA52BC BRANCH BOX



Job Name:

System Reference:

Date:



PAC-MKA30BC  
PAC-MKA31BC  
PAC-MKA32BC



PAC-MKA50BC  
PAC-MKA51BC  
PAC-MKA52BC

## DESCRIPTIONS

- The PAC-MKA32/52 have a thermal differential from set point of 1F regardless of which MXZ outdoor unit generation they are connected to.

## SPECIFICATIONS

| Model Name                                                                                                                                                                                                                                                                                                                                                                                            |                       |           | PAC-MKA50BC<br>PAC-MKA51BC<br>PAC-MKA52BC |                                               | PAC-MKA30BC<br>PAC-MKA31BC<br>PAC-MKA32BC |                         |  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-----------|-------------------------------------------|-----------------------------------------------|-------------------------------------------|-------------------------|--|
| Connectable number of indoor units                                                                                                                                                                                                                                                                                                                                                                    |                       |           | Maximum 5                                 |                                               | Maximum 3                                 |                         |  |
| Power supply                                                                                                                                                                                                                                                                                                                                                                                          |                       |           | Single phase, 208/230 V, 60 Hz            |                                               |                                           |                         |  |
| Input                                                                                                                                                                                                                                                                                                                                                                                                 |                       | kW        | 0.003                                     |                                               |                                           |                         |  |
| Running current                                                                                                                                                                                                                                                                                                                                                                                       |                       | A         | 0.05                                      |                                               |                                           |                         |  |
| External finish                                                                                                                                                                                                                                                                                                                                                                                       |                       |           | Galvanized steel                          |                                               |                                           |                         |  |
| Dimensions                                                                                                                                                                                                                                                                                                                                                                                            | Width                 | Inch (mm) | 17-23/32 (450)                            |                                               |                                           |                         |  |
|                                                                                                                                                                                                                                                                                                                                                                                                       | Depth                 | Inch (mm) | 11-1/32 (280)                             |                                               |                                           |                         |  |
|                                                                                                                                                                                                                                                                                                                                                                                                       | Height                | Inch (mm) | 6-11/16 (170)                             |                                               |                                           |                         |  |
| Package Dimensions                                                                                                                                                                                                                                                                                                                                                                                    | Width                 | Inch (mm) | 20.1 (511)                                |                                               |                                           |                         |  |
|                                                                                                                                                                                                                                                                                                                                                                                                       | Depth                 | Inch (mm) | 24.4 (620)                                |                                               |                                           |                         |  |
|                                                                                                                                                                                                                                                                                                                                                                                                       | Height                | Inch (mm) | 8.3 (211)                                 |                                               |                                           |                         |  |
| Weight                                                                                                                                                                                                                                                                                                                                                                                                |                       | lb (kg)   | 23.4 (10.6)                               |                                               | 21.8 (9.9)                                |                         |  |
| Piping Connection (Flare)                                                                                                                                                                                                                                                                                                                                                                             | Branch (indoor side)* | Liquid    | Inch (mm)                                 | ø1/4 (6.35) x 5 {A,B,C,D,E}                   |                                           | ø1/4 (6.35 x 3 {A,B,C}  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                       |                       | Gas       | Inch (mm)                                 | ø3/8 (9.52) x 4 {A,B,C,D}, ø1/2 (12.7) x 1{E} |                                           | ø3/8 (9.52) x 3 {A,B,C} |  |
|                                                                                                                                                                                                                                                                                                                                                                                                       | Main (outdoor side)   | Liquid    | Inch (mm)                                 | ø3/8 (9.52)                                   |                                           |                         |  |
|                                                                                                                                                                                                                                                                                                                                                                                                       |                       | Gas       | Inch (mm)                                 | ø5/8 (15.88)                                  |                                           |                         |  |
| *The piping connection size differs according to the type of and capacity of indoor units. Match the piping connection size for indoor and branch box. If the piping connection size of the branch does not match the piping connection size of the indoor units, use optional different-diameter (deformed) joints to the branch box side. (Connect deformed joint directly to the branch box side.) |                       |           |                                           |                                               |                                           |                         |  |

## ACCESSORIES

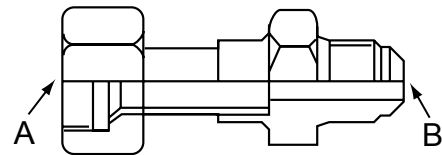
|              |                                     |
|--------------|-------------------------------------|
| BBE-1        | Branch Box Enclosure                |
| MAC-A454JP-E | Port Adapter                        |
| MAC-A455JP-E | Port Adapter                        |
| MAC-A456JP-E | Port Adapter                        |
| PAC-493PI    | Port Adapter                        |
| PAC-SG76RJ-E | Port Adapter                        |
| ADP5834      | Port Adapter                        |
| MSDD-50AR-D  | Flare connection distribution pipe  |
| MSDD-50BR-E  | Brazed connection distribution pipe |

## NOTES:

For the MXZ-8C60 outdoor unit:

- When connecting the outdoor unit to the branch box directly, the reduction in pipe size must be made at the branch box using the port adaptor: ADP5834 (5/8" F x 3/4" M).
- When connecting the outdoor unit to the distribution pipe (MSDD-50AR-D, for using 2 branch boxes), the reduction in pipe size must be made at the distribution pipe using the port adaptor: ADP5834 (5/8" F x 3/4" M).

## OPTIONAL PORT ADAPTORS



| Model name   | Connected pipes diameter  | Diameter A  | Diameter B  |
|--------------|---------------------------|-------------|-------------|
|              | Inch, mm                  | Inch, mm    | Inch, mm    |
| MAC-A454JP-E | 3/8, ø9.52 → 1/2, ø12.7   | 3/8, ø9.52  | 1/2, ø12.7  |
| MAC-A455JP-E | 1/2, ø12.7 → 3/8, ø9.52   | 1/2, ø12.7  | 3/8, ø9.52  |
| MAC-A456JP-E | 1/2, ø12.7 → 5/8, ø15.88  | 1/2, ø12.7  | 5/8, ø15.88 |
| PAC-493PI    | 1/4, ø6.35 → 3/8, ø9.52   | 1/4, ø6.35  | 3/8, ø9.52  |
| PAC-SG76RJ-E | 3/8, ø9.52 → 5/8, ø15.88  | 3/8, ø9.52  | 5/8, ø15.88 |
| ADP5834      | 5/8, ø15.88 → 3/4, ø19.05 | 5/8, ø15.88 | 3/4, ø19.05 |

# DIMENSIONS: PAC-MKA30BC, PAC-MKA31BC, AND PAC-MKA32BC

## PAC-MKA30BC, PAC-MKA31BC, AND PAC-MKA32BC (3-BRANCHES TYPE)

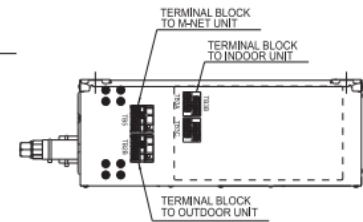
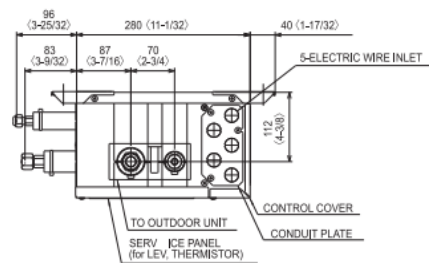
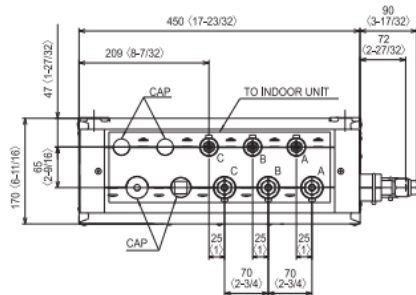
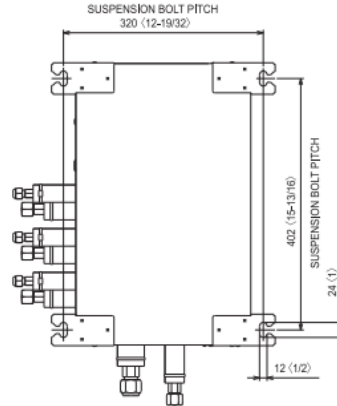
Suspension bolt: W3/8 (M10)  
Refrigerant pipe flared connection

inch, mm

|             | To indoor unit |            |            | To outdoor unit |
|-------------|----------------|------------|------------|-----------------|
|             | A              | B          | C          |                 |
| Liquid pipe | 1/4, ø6.35     | 1/4, ø6.35 | 1/4, ø6.35 | 3/8, ø9.52      |
| Gas pipe    | 3/8, ø9.52     | 3/8, ø9.52 | 3/8, ø9.52 | 5/8, ø15.88     |

| Conversion formula |        |
|--------------------|--------|
| 3/8F               | ø9.52  |
| 5/8F               | ø15.88 |

Unit: mm (inch)



# DIMENSIONS: PAC-MKA50BC, PAC-MKA51BC, AND PAC-MKA52BC

## PAC-MKA50BC, PAC-MKA51BC, AND PAC-MKA52BC (5-BRANCHES TYPE)

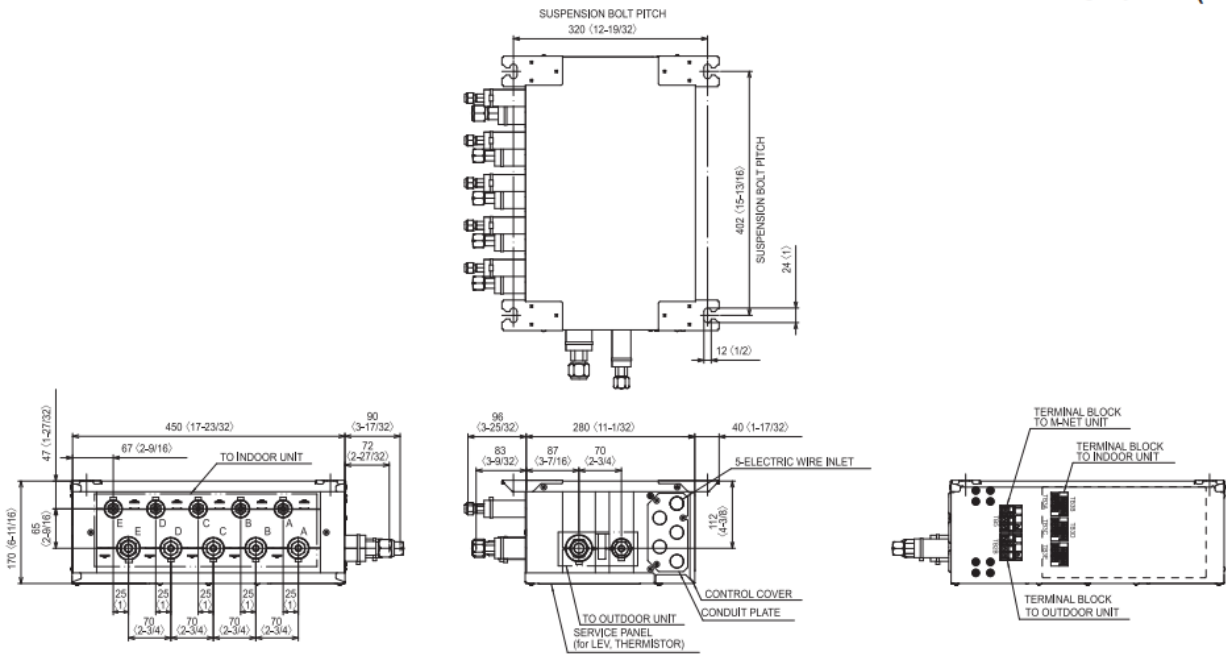
Suspension bolt: W3/8 (M10)  
Refrigerant pipe flared connection

inch, mm

|             | To indoor unit |            |            |            |            | To outdoor unit |
|-------------|----------------|------------|------------|------------|------------|-----------------|
|             | A              | B          | C          | D          | E          |                 |
| Liquid pipe | 1/4, ø6.35     | 1/4, ø6.35 | 1/4, ø6.35 | 1/4, ø6.35 | 1/4, ø6.35 | 3/8, ø9.52      |
| Gas pipe    | 3/8, ø9.52     | 3/8, ø9.52 | 3/8, ø9.52 | 3/8, ø9.52 | 1/2, ø12.7 | 5/8, ø15.88     |

| Conversion formula |        |
|--------------------|--------|
| 1/4F               | ø6.35  |
| 3/8F               | ø9.52  |
| 1/2F               | ø12.7  |
| 5/8F               | ø15.88 |
| 3/4F               | ø19.05 |

Unit: mm (inch)



1340 Satellite Boulevard, Suwanee, GA 30024  
Toll Free: 800-433-4822 [www.mehvac.com](http://www.mehvac.com)

# MSZ-GS09NA

## 9,000 BTU/H WALL-MOUNTED INDOOR UNIT



Job Name:

System Reference:

Date:



### GENERAL FEATURES

- Slim wall-mounted indoor units provide zone comfort control
- Dual Barrier Coating applied to the heat exchanger, vanes and fan to prevent hydrophilic and hydrophobic dirt build-up
- Optional Microparticle Filter designed to capture PM2.5
- The outdoor unit powers the indoor unit, and should a power outage occur, the system is automatically restarted when power returns
- Quiet operation
- Smart Set: recalls a preferred preset temperature setting at the touch of a button
- Built-in backup/auxiliary heater control available
- Multiple fan speed options: Quiet, Low, Medium, High, Super-high, Auto
- Multiple control options available:
  - Back-lit screen handheld remote controller (provided with the unit)
  - kumo cloud® smart device app for remote access
  - Third-party interface options
  - Wired or wireless controllers

| Specifications                  |                                     |                     | System                                     |
|---------------------------------|-------------------------------------|---------------------|--------------------------------------------|
| Unit Type                       |                                     |                     | MSZ-GS09NA                                 |
| Cooling Capacity <sup>1,3</sup> | BTU/H                               |                     | 9,000                                      |
| Heating Capacity <sup>2,3</sup> | BTU/H                               |                     | 10,900                                     |
| Electrical                      | Voltage, Phase, Frequency           |                     | 208/230, 1, 60                             |
|                                 | Guaranteed Voltage Range            | V AC                | 187 - 253                                  |
|                                 | Voltage: Indoor - Outdoor, S1-S2    | V AC                | 208/230                                    |
|                                 | Voltage: Indoor - Outdoor, S2-S3    | V DC                | 24                                         |
|                                 | Short-circuit Current Rating [SCCR] | kA                  | 5                                          |
| Indoor Unit                     | MCA                                 | A                   | 1.0                                        |
|                                 | Fan Motor Full Load Amperage        | A                   | 0.5                                        |
|                                 | Fan Motor Output                    | W                   | 30                                         |
|                                 | Airflow Rate at Cooling, Dry        | CFM                 | 134-160-222-307-381                        |
|                                 | Airflow Rate at Cooling, Wet        | CFM                 | 121-144-200-276-343                        |
|                                 | Airflow Rate at Heating, Dry        | CFM                 | 134-160-222-307-390                        |
|                                 | Sound Pressure Level [Cooling]      | dB[A]               | 19-22-30-37-43                             |
|                                 | Sound Pressure Level [Heating]      | dB[A]               | 19-22-30-37-43                             |
|                                 | Drain Pipe Size                     | In. [mm]            | 5/8 [15.88]                                |
|                                 | Coating on Heat Exchanger           |                     | Dual Barrier Coating                       |
|                                 | External Finish Color               |                     | Munsell 1.0Y 9.2/0.2                       |
|                                 | Unit Dimensions                     | W x D x H: In. [mm] | 31-7/16 x 9-1/8 x 11-5/8 [798 x 232 x 295] |
|                                 | Package Dimensions                  | W x D x H: In. [mm] | 33-1/2 x 12 x 14 [850 x 300 x 350]         |
|                                 | Unit Weight                         | Lbs. [kg]           | 23 [10.4]                                  |
|                                 | Package Weight                      | Lbs. [kg]           | 26 [11.5]                                  |
| Refrigerant                     | Type                                |                     | R410A                                      |
| Piping                          | Gas Pipe Size O.D. [Flared]         | In.[mm]             | 3/8 [9.52]                                 |
|                                 | Liquid Pipe Size O.D. [Flared]      | In.[mm]             | 1/4 [6.35]                                 |

#### NOTES:

Conditions

<sup>1</sup>Cooling (Indoor // Outdoor)

°F

80 DB, 67 WB // 95 DB, 75 WB

<sup>2</sup>Heating at 47°F (Indoor // Outdoor)

°F

70 DB, 60 WB // 47 DB, 43 WB

<sup>3</sup>Capacity varies based on the number of indoor units operating and the model of the Multi-zone Outdoor Unit. For reference to connected capacity charts, please refer Multi-zone Outdoor Unit Operational Performance.

## INDOOR UNIT ACCESSORIES: MSZ-GS09NA

|                            |                                                                                             |                   |
|----------------------------|---------------------------------------------------------------------------------------------|-------------------|
| Control Interface          | BACnet® and Modbus® Interface                                                               | PAC-UKPRC001-CN-1 |
|                            | CN24 Relay Kit                                                                              | CN24RELAY-KIT-CM3 |
|                            | IT Extender                                                                                 | PAC-WHS01IE-E     |
|                            | kumo station® for kumo cloud®                                                               | PAC-WHS01HC-E     |
|                            | System Control Interface                                                                    | MAC-334IF-E       |
|                            | Thermostat Interface                                                                        | PAC-US444CN-1     |
|                            | Thermostat Interface                                                                        | PAC-US445CN-1     |
|                            | USNAP Adapter                                                                               | PAC-WHS01UP-E     |
|                            | Wireless Interface for kumo cloud®                                                          | PAC-USWHS002-WF-2 |
| Remote Sensor              | Wired Remote Sensor                                                                         | M21EAA307         |
|                            | Wireless temperature and humidity sensor for kumo cloud®                                    | PAC-USWHS003-TH-1 |
| Wired Remote Controller    | Deluxe Wired MA Remote Controller†                                                          | PAR-40MAAU        |
|                            | Simple Ductless Wired Remote Controller                                                     | PAC-SDW01RC-1     |
|                            | Simple MA Remote Controller†                                                                | PAC-YT53CRAU-J    |
|                            | Touch MA Controller†                                                                        | PAR-CT01MAU-SB    |
| Wireless Remote Controller | kumo touch™ RedLINK™ Wireless Controller                                                    | MHK2              |
|                            | Lockdown bracket for remote controller                                                      | RCMKP1CB          |
| Condensate                 | Blue Diamond (Advanced) Mini Condensate Pump w/ Reservoir & Sensor (208/230V) [recommended] | X87-721           |
|                            | Blue Diamond (MegaBlue Advanced) Condensate Pump w/ Reservoir & Sensor                      | X87-835           |
|                            | Blue Diamond Alarm Extension Cable — 6.5 Ft.                                                | C13-192           |
|                            | Blue Diamond MultiTank — collection tank for use with multiple pumps                        | C21-014           |
|                            | Blue Diamond Sensor Extension Cable — 15 Ft.                                                | C13-103           |
|                            | Drain Pan Level Sensor/Control                                                              | SS610E            |
|                            | Fascia Kit for MicroBlue Pump, mounts the MicroBlue and sensor directly beneath indoor unit | T18-016           |
|                            | Refco Condensate Pump (100-240 VAC)                                                         | GOBI-II           |
|                            | Refco Condensate Pump (100-240 VAC) up to 120,000 BTU/H                                     | COMBI             |
|                            | Sauermann Condensate Pump                                                                   | SI30-230          |
| Disconnect Switch          | (30A/600V/UL) [fits 2" X 4" utility box] - Black                                            | TAZ-MS303         |
|                            | (30A/600V/UL) [fits 2" X 4" utility box] - White                                            | TAZ-MS303W        |
| Filter                     | Anti-allergy Enzyme Filter                                                                  | MAC-408FT-E       |
|                            | Microparticle (PM2.5) Filter                                                                | MAC-EMF515FT-E    |

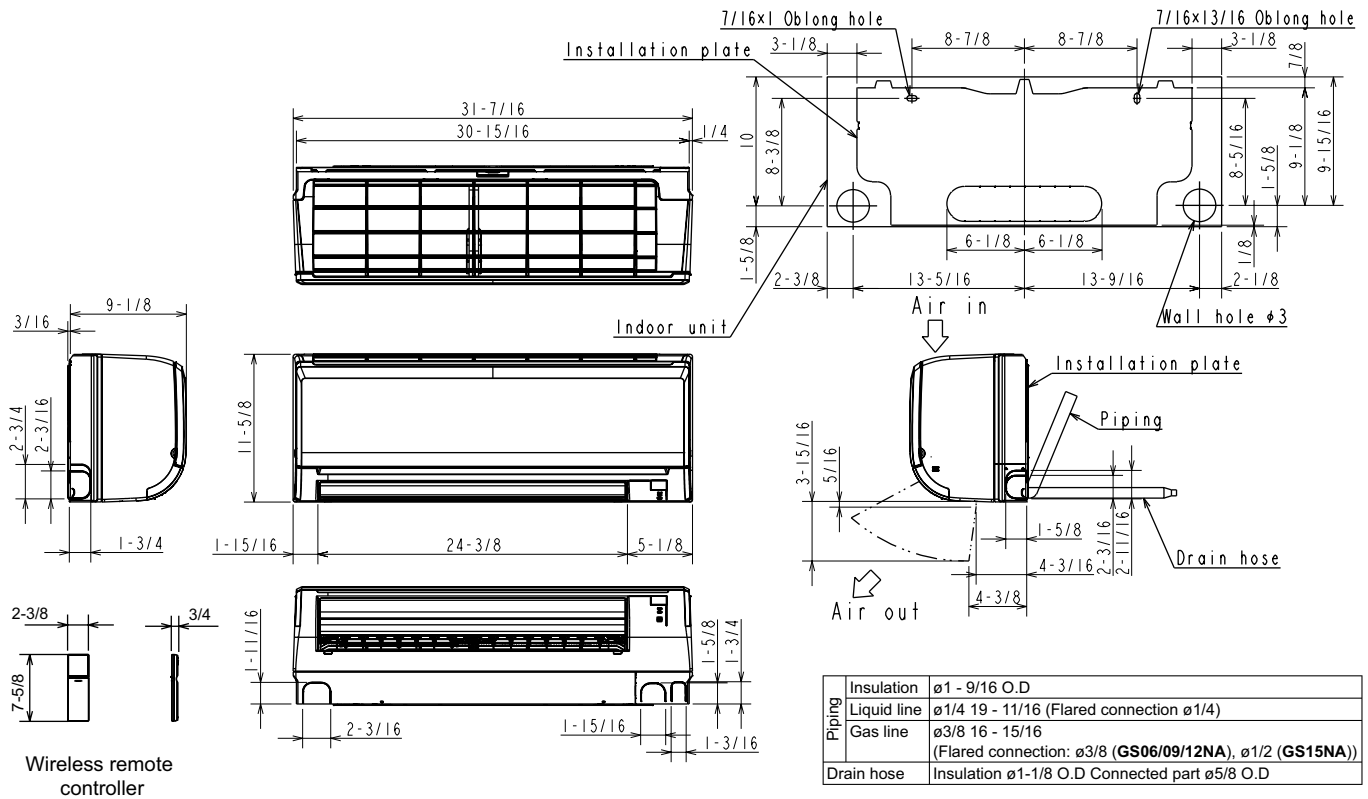
### NOTES:

†Requires MAC-334IF-E

- M-Series EZ FIT® Recessed Ceiling Cassette, Floor-mount and Wall-mount  
Allows indoor units to connect to an MA Controller:  
Deluxe MA Remote Controller  
Simple MA Controller  
Touch MA Controller

# INDOOR UNIT DIMENSIONS: MSZ-GS09NA

Unit: inch



1340 Satellite Boulevard Suwanee, GA 30024  
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FORM# MSZ-GS09NA-U1 - 202304

# MSZ-GS12NA

## 12,000 BTU/H WALL-MOUNTED INDOOR UNIT



Job Name:

System Reference:

Date:



### GENERAL FEATURES

- Slim wall-mounted indoor units provide zone comfort control
- Dual Barrier Coating applied to the heat exchanger, vanes and fan to prevent hydrophilic and hydrophobic dirt build-up
- Optional Microparticle Filter designed to capture PM2.5
- The outdoor unit powers the indoor unit, and should a power outage occur, the system is automatically restarted when power returns
- Quiet operation
- Smart Set: recalls a preferred preset temperature setting at the touch of a button
- Built-in backup/auxiliary heater control available
- Multiple fan speed options: Quiet, Low, Medium, High, Super-high, Auto
- Multiple control options available:
  - Back-lit screen handheld remote controller (provided with the unit)
  - kumo cloud® smart device app for remote access
  - Third-party interface options
  - Wired or wireless controllers

| Specifications                  |                                     |                     | System                                     |
|---------------------------------|-------------------------------------|---------------------|--------------------------------------------|
| Unit Type                       |                                     |                     | MSZ-GS12NA                                 |
| Cooling Capacity <sup>1,3</sup> |                                     | BTU/H               | 12,000                                     |
| Heating Capacity <sup>2,3</sup> |                                     | BTU/H               | 14,400                                     |
| Electrical                      | Voltage, Phase, Frequency           |                     | 208/230, 1, 60                             |
|                                 | Guaranteed Voltage Range            | V AC                | 187 - 253                                  |
|                                 | Voltage: Indoor - Outdoor, S1-S2    | V AC                | 208/230                                    |
|                                 | Voltage: Indoor - Outdoor, S2-S3    | V DC                | 24                                         |
|                                 | Short-circuit Current Rating [SCCR] | kA                  | 5                                          |
| Indoor Unit                     | MCA                                 | A                   | 1.0                                        |
|                                 | Fan Motor Full Load Amperage        | A                   | 0.5                                        |
|                                 | Fan Motor Output                    | W                   | 30                                         |
|                                 | Airflow Rate at Cooling, Dry        | CFM                 | 134-160-222-307-381                        |
|                                 | Airflow Rate at Cooling, Wet        | CFM                 | 121-144-200-276-343                        |
|                                 | Airflow Rate at Heating, Dry        | CFM                 | 134-160-222-307-390                        |
|                                 | Sound Pressure Level [Cooling]      | dB[A]               | 19-22-30-37-45                             |
|                                 | Sound Pressure Level [Heating]      | dB[A]               | 19-22-30-37-43                             |
|                                 | Drain Pipe Size                     | In. [mm]            | 5/8 [15.88]                                |
|                                 | Coating on Heat Exchanger           |                     | Dual Barrier Coating                       |
|                                 | External Finish Color               |                     | Munsell 1.0Y 9.2/0.2                       |
|                                 | Unit Dimensions                     | W x D x H: In. [mm] | 31-7/16 x 9-1/8 x 11-5/8 [798 x 232 x 295] |
|                                 | Package Dimensions                  | W x D x H: In. [mm] | 33-1/2 x 12 x 14 [850 x 300 x 350]         |
|                                 | Unit Weight                         | Lbs. [kg]           | 23 [10.4]                                  |
|                                 | Package Weight                      | Lbs. [kg]           | 26 [11.5]                                  |
| Refrigerant                     | Type                                |                     | R410A                                      |
| Piping                          | Gas Pipe Size O.D. [Flared]         | In. [mm]            | 3/8 [9.52]                                 |
|                                 | Liquid Pipe Size O.D. [Flared]      | In. [mm]            | 1/4 [6.35]                                 |

#### NOTES:

Conditions

<sup>1</sup>Cooling (Indoor // Outdoor)

<sup>2</sup>Heating at 47°F (Indoor // Outdoor)

°F

80 DB, 67 WB // 95 DB, 75 WB

°F

70 DB, 60 WB // 47 DB, 43 WB

<sup>3</sup>Capacity varies based on the number of indoor units operating and the model of the Multi-zone Outdoor Unit. For reference to connected capacity charts, please refer Multi-zone Outdoor Unit Operational Performance.

## INDOOR UNIT ACCESSORIES: MSZ-GS12NA

|                            |                                                                                             |                   |
|----------------------------|---------------------------------------------------------------------------------------------|-------------------|
| Control Interface          | BACnet® and Modbus® Interface                                                               | PAC-UKPRC001-CN-1 |
|                            | CN24 Relay Kit                                                                              | CN24RELAY-KIT-CM3 |
|                            | IT Extender                                                                                 | PAC-WHS01IE-E     |
|                            | kumo station® for kumo cloud®                                                               | PAC-WHS01HC-E     |
|                            | System Control Interface                                                                    | MAC-334IF-E       |
|                            | Thermostat Interface                                                                        | PAC-US444CN-1     |
|                            | Thermostat Interface                                                                        | PAC-US445CN-1     |
|                            | USNAP Adapter                                                                               | PAC-WHS01UP-E     |
|                            | Wireless Interface for kumo cloud®                                                          | PAC-USWHS002-WF-2 |
| Remote Sensor              | Wired Remote Sensor                                                                         | M21EAA307         |
|                            | Wireless temperature and humidity sensor for kumo cloud®                                    | PAC-USWHS003-TH-1 |
| Wired Remote Controller    | Deluxe Wired MA Remote Controller†                                                          | PAR-40MAAU        |
|                            | Simple Ductless Wired Remote Controller                                                     | PAC-SDW01RC-1     |
|                            | Simple MA Remote Controller†                                                                | PAC-YT53CRAU-J    |
|                            | Touch MA Controller†                                                                        | PAR-CT01MAU-SB    |
| Wireless Remote Controller | kumo touch™ RedLINK™ Wireless Controller                                                    | MHK2              |
|                            | Lockdown bracket for remote controller                                                      | RCMKP1CB          |
| Condensate                 | Blue Diamond (Advanced) Mini Condensate Pump w/ Reservoir & Sensor (208/230V) [recommended] | X87-721           |
|                            | Blue Diamond (MegaBlue Advanced) Condensate Pump w/ Reservoir & Sensor                      | X87-835           |
|                            | Blue Diamond Alarm Extension Cable — 6.5 Ft.                                                | C13-192           |
|                            | Blue Diamond MultiTank — collection tank for use with multiple pumps                        | C21-014           |
|                            | Blue Diamond Sensor Extension Cable — 15 Ft.                                                | C13-103           |
|                            | Drain Pan Level Sensor/Control                                                              | SS610E            |
|                            | Fascia Kit for MicroBlue Pump, mounts the MicroBlue and sensor directly beneath indoor unit | T18-016           |
|                            | Refco Condensate Pump (100-240 VAC)                                                         | GOBI-II           |
|                            | Refco Condensate Pump (100-240 VAC) up to 120,000 BTU/H                                     | COMBI             |
|                            | Sauermann Condensate Pump                                                                   | SI30-230          |
| Disconnect Switch          | (30A/600V/UL) [fits 2" X 4" utility box] - Black                                            | TAZ-MS303         |
|                            | (30A/600V/UL) [fits 2" X 4" utility box] - White                                            | TAZ-MS303W        |
| Filter                     | Anti-allergy Enzyme Filter                                                                  | MAC-408FT-E       |
|                            | Microparticle (PM2.5) Filter                                                                | MAC-EMF515FT-E    |

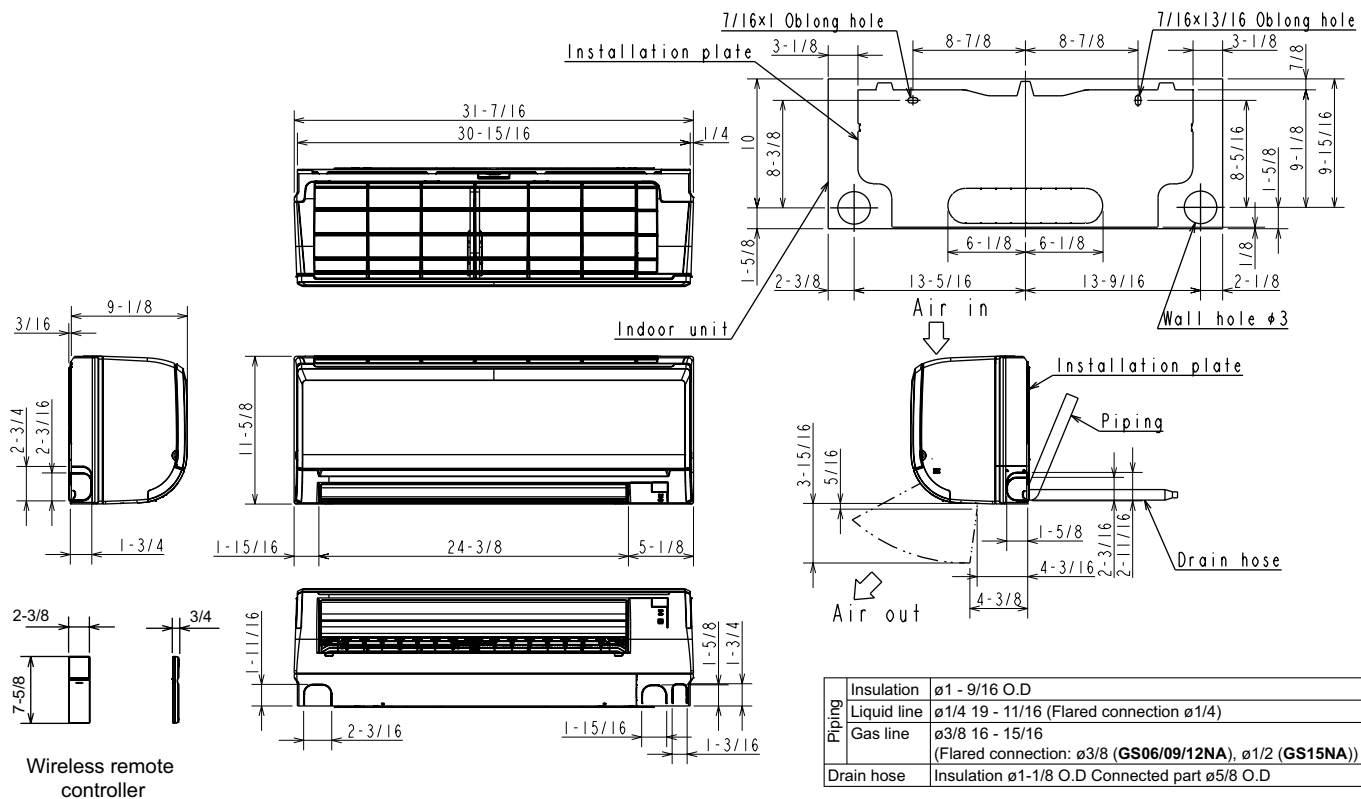
### NOTES:

†Requires MAC-334IF-E

- M-Series EZ FIT® Recessed Ceiling Cassette, Floor-mount and Wall-mount  
Allows indoor units to connect to an MA Controller:  
Deluxe MA Remote Controller  
Simple MA Controller  
Touch MA Controller

### INDOOR UNIT DIMENSIONS: MSZ-GS12NA

Unit: inch



FORM# MSZ-GS12NA-U1 - 202304

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# MXZ-SM48NAMHZ-U1

## 4-TON MULTI-ZONE INVERTER HEAT-PUMP SYSTEM



Job Name:

System Reference:

Date:



### FEATURES

- Compatible with M- and P-Series and CITY MULTI indoor units. Branch box required for connection with M- and P-Series
- Variable speed INVERTER-driven compressor
- Seacoast protection on heat exchanger and base panel (rated for 2,000 hrs in accordance with ASTM B117 testing)
- Thermal Differential 1°F (with PAC-MKA32/52BC only)
- Built-in base pan heater
- Quiet outdoor unit operation, rated sound pressure as low as 51 dB(A)
- High pressure protection
- Compressor thermal protection
- Compressor overcurrent detection
- Fan motor overheating/voltage protection
- Hyper-heating performance offers 100% heating capacity at 5°F and 75% heating capacity at -13°F

ENERGY STAR products are third-party certified by an EPA-recognized Certification Body.

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# SPECIFICATIONS: MXZ-SM48NAMHZ-U1

|                                                            |                                                                                 |             |                                        |
|------------------------------------------------------------|---------------------------------------------------------------------------------|-------------|----------------------------------------|
| Cooling <sup>1</sup> (Non-Ducted // Mix // Ducted)         | Maximum Capacity                                                                | BTU/H       | 48,000 // 48,000 // 48,000             |
|                                                            | Rated Capacity                                                                  | BTU/H       | 48,000 // 48,000 // 48,000             |
|                                                            | Minimum Capacity                                                                | BTU/H       | 16,000 // 16,000 // 16,000             |
|                                                            | Maximum Power Input                                                             | W           | 3,665 // 3,930 // 4,245                |
|                                                            | Rated Power Input                                                               | W           | 3,665 // 3,930 // 4,245                |
| Heating at 47°F <sup>2</sup> (Non-Ducted // Mix // Ducted) | Power Factor (208V, 230V)                                                       | %           | 98.5, 98.5 // 98.5, 98.5 // 98.5, 98.5 |
|                                                            | Maximum Capacity                                                                | BTU/H       | 54,000 // 54,000 // 54,000             |
|                                                            | Rated Capacity                                                                  | BTU/H       | 54,000 // 54,000 // 54,000             |
|                                                            | Minimum Capacity                                                                | BTU/H       | 27,000 // 27,000 // 27,000             |
|                                                            | Maximum Power Input                                                             | W           | 3,955 // 4,335 // 4,795                |
| Heating at 17°F <sup>3</sup> (Non-Ducted // Mix // Ducted) | Rated Power Input                                                               | W           | 3,955 // 4,335 // 4,795                |
|                                                            | Power Factor (208V, 230V)                                                       | %           | 98.5, 98.5 // 98.5, 98.5 // 98.5, 98.5 |
|                                                            | Maximum Capacity                                                                | BTU/H       | 54,000 // 54,000 // 54,000             |
|                                                            | Rated Capacity                                                                  | BTU/H       | 39,000 // 39,000 // 39,000             |
|                                                            | Maximum Power Input                                                             | W           | 6,330 // 7,750 // 3,665                |
| Heating at 5°F <sup>4</sup> (Non-Ducted // Mix // Ducted)  | Rated Power Input                                                               | W           | 4,230 // 4,680 // 5,130                |
|                                                            | Maximum Capacity                                                                | BTU/H       | 54,000 // 54,000 // 54,000             |
| Efficiency (Non-Ducted // Mix // Ducted)                   | Maximum Power Input                                                             | W           | 7,915 // 8,120 // 8,330                |
|                                                            | SEER                                                                            |             | 23.0 // 19.75 // 16.5                  |
|                                                            | EER <sup>1</sup>                                                                |             | 13.1 // 12.2 // 11.3                   |
|                                                            | HSPF (IV)                                                                       |             | 12.0 // 11.5 // 11.0                   |
|                                                            | COP at 47°F <sup>2</sup>                                                        |             | 4.0 // 3.65 // 3.3                     |
|                                                            | COP at 17°F at Maximum Capacity <sup>3</sup>                                    |             | 2.5 // 2.0 // 1.8                      |
|                                                            | COP at 5°F at Maximum Capacity <sup>4</sup>                                     |             | 2.1 // 1.95 // 1.9                     |
| Electrical                                                 | ENERGY STAR® Certified                                                          |             | Yes // No // No                        |
|                                                            | Voltage, Phase, Frequency                                                       |             | 208/230, 1, 60                         |
|                                                            | Guaranteed Voltage Range                                                        | V AC        | 187-253                                |
|                                                            | Voltage: Indoor - Outdoor, S1-S2                                                | V AC        | 208/230                                |
|                                                            | Voltage: Indoor - Outdoor, S2-S3                                                | V DC        | 24                                     |
|                                                            | Short-circuit Current Rating (SCCR)                                             | kA          | 5                                      |
|                                                            | Recommended Fuse/Breaker Size if Branch Box Powered by Outdoor Unit             | A           | 45                                     |
|                                                            | Recommended Fuse/Breaker Size without Branch Box or Branch Box Powered Separate | A           | 40                                     |
|                                                            | Recommended Wire Size (Indoor - Outdoor)                                        | AWG         | 16                                     |
|                                                            | MCA if Branch Box Powered by Outdoor Unit                                       | A           | 42.0                                   |
|                                                            | MCA without Branch Box or Branch Box Powered Separate                           | A           | 36                                     |
|                                                            | MOCP if Branch Box Powered by Outdoor Unit                                      | A           | 50                                     |
|                                                            | MOCP without Branch Box or Branch Box Powered Separate                          | A           | 40                                     |
|                                                            | Fan Motor Full Load Amperage                                                    | A           | 0.6+0.6                                |
|                                                            | Fan Motor Output                                                                | W           | 74                                     |
| Outdoor unit                                               | Airflow Rate (Cooling / Heating)                                                | CFM         | 3,885 / 3,885                          |
|                                                            | Refrigerant Control                                                             |             | LEV                                    |
|                                                            | Defrost Method                                                                  |             | Reverse Cycle                          |
|                                                            | Heat Exchanger Type                                                             |             | Plate fin coil                         |
|                                                            | Heat Exchanger Coating                                                          |             | Blue Fin Coating                       |
|                                                            | Sound Pressure Level, Cooling <sup>1</sup>                                      | dB(A)       | 51                                     |
|                                                            | Sound Pressure Level, Heating <sup>2</sup>                                      | dB(A)       | 54                                     |
|                                                            | Compressor Type                                                                 |             | Hermetic                               |
|                                                            | Compressor Model                                                                |             | ANB33FJSMT                             |
|                                                            | Compressor Motor Output                                                         | kW          | 3.4                                    |
|                                                            | Compressor Rated Load Amps                                                      | A           | 19                                     |
|                                                            | Compressor Locked Rotor Amps                                                    | A           | 22.0                                   |
|                                                            | Compressor Oil Type // Charge                                                   | oz.         | FV50S // 73                            |
|                                                            | Base Pan Heater                                                                 |             | Built-in                               |
|                                                            | Unit Dimensions                                                                 | W: In. [mm] | 41-11/32[1,050]                        |
|                                                            |                                                                                 | D: In. [mm] | 13[330]                                |
|                                                            |                                                                                 | H: In. [mm] | 52-11/16[1,338]                        |
|                                                            | Package Dimensions                                                              | W: In. [mm] | 43 [1,090]                             |
|                                                            |                                                                                 | D: In. [mm] | 18 [450]                               |
|                                                            |                                                                                 | H: In. [mm] | 57 [1,430]                             |
|                                                            | Unit Weight                                                                     | Lbs.[kg]    | 278 [126]                              |
|                                                            | Package Weight                                                                  | Lbs.[kg]    | 302 [137]                              |

## NOTES:

AHRI Rated Conditions

(Rated data is determined at a fixed compressor speed)

<sup>1</sup>Cooling (Indoor // Outdoor)

<sup>2</sup>Heating at 47°F (Indoor // Outdoor)

<sup>3</sup>Heating at 17°F (Indoor // Outdoor)

<sup>4</sup>Heating at 5°F (Indoor // Outdoor)

°F 80 DB, 67 WB // 95 DB, 75 WB

°F 70 DB, 60 WB // 47 DB, 43 WB

°F 70 DB, 60 WB // 17 DB, 15 WB

°F 70 DB, 60 WB // 5 DB, 4 WB

Conditions

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

<sup>A</sup> when 1 or more PLA-A-EA7 connected

<sup>B</sup> Branch box should be placed within the level between the outdoor unit and indoor units

<sup>C</sup> 5°F DB - 115°F DB when optional wind baffles are installed

For actual capacity performance based on indoor unit type and number of indoor units connected, please refer to MXZ Operational Performance.

Although the maximum connectable capacity is 130%, the outdoor unit cannot provide more than 100% of the rated capacity. Please utilize this over capacity capability for load shedding or applications where it is known that all connected units will NOT be operating at the same time.

# SPECIFICATIONS: MXZ-SM48NAMHZ-U1

|                                          |                                                                       |         |                    |
|------------------------------------------|-----------------------------------------------------------------------|---------|--------------------|
| Outdoor unit operating temperature range | Cooling Intake Air Temp (Maximum / Minimum)                           | °FDB    | 115 / 23           |
|                                          | Cooling Thermal Lock-out / Re-start Temperatures                      | °FDB    | N/A / N/A          |
|                                          | Heating Intake Air Temp (Maximum / Minimum)                           | °FWB    | 59 / -13           |
|                                          | Heating Thermal Lock-out / Re-start Temperatures                      | °FDB    | -24 / -14          |
| Refrigerant                              | Type                                                                  |         | R410A              |
|                                          | Charge                                                                | Lbs, oz | 10, 9.0            |
| Indoor unit connection                   | Maximum Number of Connected IDU with Branch Box                       |         | 8 (6) <sup>A</sup> |
|                                          | Maximum Number of Connected IDU without Branch Box                    |         | 12                 |
|                                          | Minimum Number of Connected IDU with Branch Box                       |         | 2                  |
|                                          | Minimum Number of Connected IDU without Branch Box                    |         | 1                  |
|                                          | Minimum Connected Capacity with Branch Box                            | BTU/H   | 12,000             |
|                                          | Maximum Connected Capacity                                            | BTU/H   | 62,000             |
| Piping                                   | Liquid Pipe Size O.D. (Flared)                                        | In.[mm] | 3/8 [9.52]         |
|                                          | Gas Pipe Size O.D. (Flared)                                           | In.[mm] | 5/8 [15.88]        |
|                                          | Total Piping Length when using Branch Box                             | Ft. [m] | 492 [150]          |
|                                          | Total Piping Length without Branch Box                                | Ft. [m] | 984 [300]          |
|                                          | Maximum Height Difference <sup>B</sup> , ODU above IDU                | Ft. [m] | 164 [50]           |
|                                          | Maximum Height Difference <sup>B</sup> , ODU below IDU                | Ft. [m] | 131 [40]           |
|                                          | Maximum Height Difference <sup>B</sup> , between branch boxes         | Ft. [m] | 49 [15]            |
|                                          | Maximum Height Difference <sup>B</sup> , between branch boxes and IDU | Ft. [m] | 49 [15]            |
|                                          | Maximum Height Difference between IDU and IDU without branch box      | Ft. [m] | 49 [15]            |
|                                          | Max. Piping Length between ODU and Branch Box                         | Ft. [m] | 180 [55]           |
|                                          | Farthest Piping Length from ODU to IDU with Branch Box                | Ft. [m] | 262 [80]           |
|                                          | Farthest Piping Length from ODU to IDU without Branch Box             | Ft. [m] | 492 [150]          |
|                                          | Farthest Piping Length after Branch Box                               | Ft. [m] | 82 [25]            |
|                                          | Total Piping Length between Branch Boxes and IDU                      | Ft. [m] | 311 [95]           |
|                                          | Maximum Number of Bends for IDU                                       |         | 15                 |

## NOTES:

AHRI Rated Conditions

(Rated data is determined at a fixed compressor speed)

<sup>1</sup>Cooling (Indoor // Outdoor)

°F 80 DB, 67 WB // 95 DB, 75 WB

<sup>2</sup>Heating at 47°F (Indoor // Outdoor)

°F 70 DB, 60 WB // 47 DB, 43 WB

<sup>3</sup>Heating at 17°F (Indoor // Outdoor)

°F 70 DB, 60 WB // 17 DB, 15 WB

Conditions

<sup>4</sup>Heating at 5°F (Indoor // Outdoor)

°F 70 DB, 60 WB // 5 DB, 4 WB

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

<sup>A</sup> when 1 or more PLA-A-EA7 connected

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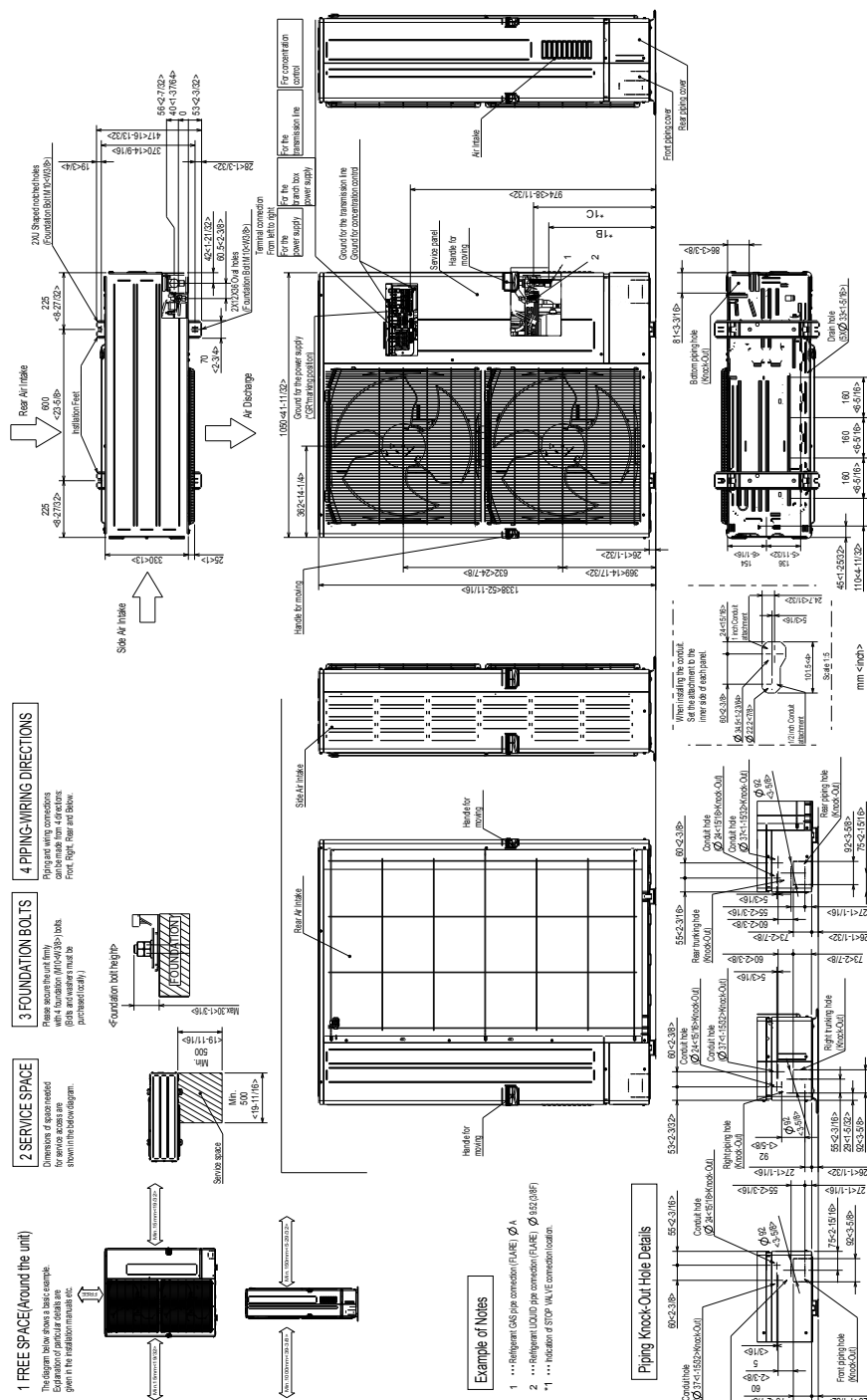
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## OUTDOOR UNIT ACCESSORIES: MXZ-SM48NAMHZ-U1

|                       |                                                                                                    |                                        |
|-----------------------|----------------------------------------------------------------------------------------------------|----------------------------------------|
| Air Deflector         | Vertical Air Deflector                                                                             | ADV-1                                  |
| Air Outlet Guide      | Air Outlet Guide (1 Piece)                                                                         | PAC-SH96SG-E (two pieces are required) |
| Ball Valve            | Refrigeration Ball Valve - 1/2"                                                                    | BV12FFSI2                              |
|                       | Refrigeration Ball Valve - 1/4"                                                                    | BV14FFSI2                              |
|                       | Refrigeration Ball Valve - 3/8"                                                                    | BV38FFSI2                              |
|                       | Refrigeration Ball Valve - 5/8"                                                                    | BV58FFSI2                              |
| Branch Box            | Branch Box                                                                                         | PAC-MKA32BC                            |
|                       | Branch Box                                                                                         | PAC-MKA52BC                            |
|                       | Branch Box Enclosure                                                                               | BBE-1                                  |
| Centralized Drain Pan | Central Drain Pan                                                                                  | PAC-SH97DP-E                           |
| Control Wire          | M-Net Control Wire, 1,000' Roll (16-AWG, Standard, Twisted Pair, Shielded, Jacketed- Plenum rated) | CW162S-1000                            |
|                       | M-Net Control Wire, 250' Roll (16-AWG, Standard, Twisted Pair, Shielded, Jacketed- Plenum rated)   | CW162S-250                             |
| Control/Service Tool  | Maintenance Tool Interface                                                                         | PAC-USCMS-MN-1                         |
| Distribution pipe     | Brazed Connection                                                                                  | MSDD-50BR-E                            |
|                       | Flare Connection                                                                                   | MSDD-50AR-E                            |
| Hail Guards           | Hail Guard                                                                                         | HG-A2                                  |
| Mini-Split Wire       | 14 Gauge, 4 wire MiniSplit Cable—250 ft. roll                                                      | S144-250                               |
|                       | 14 Gauge, 4 wire MiniSplit Cable—50 ft. roll                                                       | S144-50                                |
|                       | 16 Gauge, 4 wire MiniSplit Cable—250 ft. roll                                                      | S164-250                               |
|                       | 16 Gauge, 4 wire MiniSplit Cable—50 ft. roll                                                       | S164-50                                |
| Mounting Pad          | Condensing Unit Mounting Pad: 24" x 42" x 3"                                                       | ULTRILITE2                             |
|                       | Outdoor Unit 3-1/4 inch Mounting Base (Pair) - Plastic                                             | DSD-400P                               |
| Port Adapter          | Adaptor: 1/2" x 3/8"                                                                               | MAC-A455JP-E                           |
|                       | Adaptor: 1/2" x 5/8"                                                                               | MAC-A456JP-E                           |
|                       | Adaptor: 3/8" x 1/2"                                                                               | MAC-A454JP-E                           |
|                       | Adaptor: 3/8" x 5/8"                                                                               | PAC-SG76RJ-E                           |
| Stand                 | 18" Dual Fan Stand                                                                                 | QSMS1802M                              |
|                       | 24" Dual Fan Stand                                                                                 | QSMS2402M                              |
|                       | Condenser Wall Bracket                                                                             | QSWB2000M-1                            |
|                       | Condenser Wall Bracket - Stainless Steel Finish                                                    | QSWBSS                                 |
|                       | Outdoor Unit Stand — 12" High                                                                      | QSMS1202M                              |
| Wind Baffle           | Front Wind Baffle                                                                                  | WB-PA3 (two pieces are required)       |

## OUTDOOR UNIT DIMENSIONS: MXZ-SM48NAMHZ-U1

Unit: mm  
<inch>

| MODEL NAME    | DIMENSION B | DIMENSION C   |
|---------------|-------------|---------------|
| XXZ-SN68NAMHZ | 15.88 (56F) | 485 <19-332>  |
| XXZ-SN42NAMHZ | 15.88 (56F) | 426 <16-2532> |
| XXZ-SN48NAMHZ | 19.05 (34F) | 393 <15-1532> |
| XXZ-SN60NAM   | 19.05 (34F) | 450 <17-2332> |
| XXZ-SN6NAM    | 15.88 (56F) | 485 <19-332>  |
| XXZ-SN48NAM   | 15.88 (56F) | 426 <16-2532> |