# **M-SERIES**

# **SUBMITTAL DATA: MFZ-KJ15NA-U1**

15,000 BTU/H WALL-MOUNTED INDOOR UNIT FOR MXZ-C MULTI-ZONE HEAT-PUMP SYSTEMS



Job Name: System Reference: Date:





Wireless Remote Controller

### **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-WHS01WF-E)
- □ Thermostat Interface (PAC-US444CN-1)

## **SPECIFICATIONS:**

| Rated Capacity*               |           |        |
|-------------------------------|-----------|--------|
| Cooling <sup>1</sup>          | Btu/h / W | 15,000 |
| Heating at 47° F <sup>2</sup> | Btu/h / W | 18,000 |

- 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
- <sup>2</sup> 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

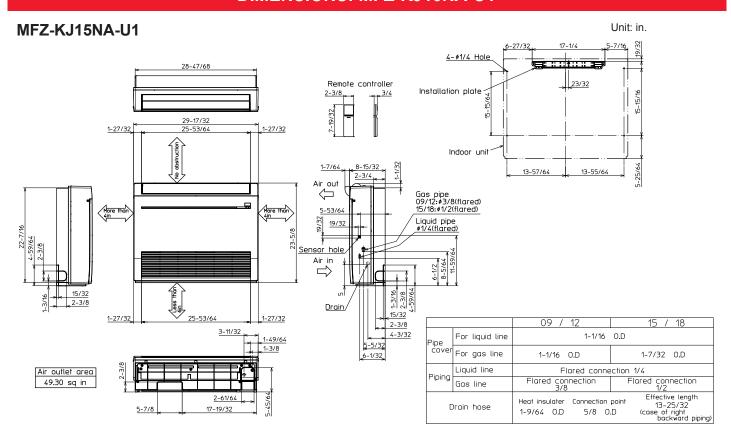
For data on specific indoor units (all ducted, all non-ducted, and both ducted and non-ducted) combinations, see the MXZ Technical and Service Manual.

| Applications should be restricted to comfort cooling only; equipment cooling applications are not recommended for low ambient temperature conditions. |             |                            |                     |  |
|---|-------------|----------------------------|---------------------|--|
| Electrical Power<br>Requirements  |             | 208 / 230V, 1-Phase, 60 Hz |                     |  |
| Minimum Circuit<br>Ampacity (MCA)   |             | А                          | 1                   |  |
| Blower Motor (ECM)  |             | F.L.A.                     | 0.62                |  |
| 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                        | 198-237-282-328-374 |  |
|   | WET         |                            | 168-201-240-279-318 |  |
| Heating   | Heating DRY |                            | 212-254-290-325-470 |  |
| Sound Pressure Level (Quiet - Lo - Med - Hi - Super Hi)   |             |                            |                     |  |
| Cooling   |             | dB(A)                      | 28-31-36-40-43      |  |
|   |             | 1 UD(A)                    |                     |  |

| Airflow Rate (Quiet - Lo - Med - Hi - Super Hi) |   |                        |  |  |  |
|---|---|------------------------|--|--|--|
| Cooling   | DRY   |                        | 198-237-282-328-374                              |  |  |
| Cooling   | WET   | CFM                    | 168-201-240-279-318                              |  |  |
| Heating   | DRY   |                        | 212-254-290-325-470                              |  |  |
| Sound Press                                     | Sound Pressure Level (Quiet - Lo - Med - Hi - Super Hi) |                        |  |  |  |
| Cooling   |   | -ID(A)                 | 28-31-36-40-43                                   |  |  |
| Heating   |   | dB(A)                  | 29-34-36-39-49                                   |  |  |
| Unit Dimensions<br>(H x W x D)                  |   | In.(mm)                | 23-5/8 x 29-17/32 x 8-15/32<br>(600 x 750 x 215) |  |  |
| Package Dimensions<br>(H x W x D)               |   | In.(mm)                | 27-3/4 x 32-3/4 x 12<br>(693 x 816 x 275)        |  |  |
| Unit/Package Weight                             |   |                        |  |  |  |
| Unit  |   | Lbs.(kg)               | 33 (15)  |  |  |
| Package   |   | Lbs.(kg)               | 41 (18.5)  |  |  |
| External Finis                                  | sh  | Munsell 1.0Y 9.2 / 0.2 |  |  |  |
| Refrigerant Piping (Flared)                     |   |                        |  |  |  |
| Lieuviel / Lliede D                             |   |                        | 1/4 (0.05)                                       |  |  |

| External Finish             | Munsell 1.0Y 9.2 / 0.2 |            |  |
|-----------------------------|------------------------|------------|--|
| Refrigerant Piping (Flared) |                        |            |  |
| Liquid (High Pressure)      | la (a.a.)              | 1/4 (6.35) |  |
| Gas (Low Pressure)          | In.(mm)                | 1/2 (12.7) |  |

# **DIMENSIONS: MFZ-KJ15NA-U1**





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# MXZ-3C24NAHZ3 2-TON MULTI-ZONE INVERTER HEAT-PUMP SYSTEM



Job Name:

System Reference: Date:



### **FEATURES**

- · Variable speed INVETER-driven compressor
- · Built-in base pan heater
- Quiet outdoor unit operation as low as 54 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 90% heating capacity at -13°F
- ENERGY STAR® certified (non-ducted)

# **SPECIFICATIONS: MXZ-3C24NAHZ3**

|   |  | DTIME                        | 00 000 // 00 000 // 00 000             |
|---|--|------------------------------|--|
|   | Maximum Capacity   | BTU/H                        | 23,600 // 23,600 // 23,600             |
| Cooling¹ (Non-Ducted // Mix // Ducted)    | Rated Capacity   | BTU/H                        | 22,000 // 22,800 // 23,600             |
|   | Minimum Capacity   | BTU/H                        | 12,600 // 12,600 // 12,600             |
|   | Maximum Power Input  | W                            | 3,770 // 3,770 // 3,770                |
|   | Rated Power Input  | W                            | 1,630 // 1,995 // 2,360                |
|   | Power Factor (208V, 230V)  | %                            | 98.5, 98.5 // 98.5, 98.5 // 98.5, 98.5 |
|   | Maximum Capacity   | BTU/H                        | 30,600 // 30,600 // 30,600             |
|   | Rated Capacity   | BTU/H                        | 25,000 // 24,800 // 24,600             |
| Heating at 47°F2 (Non-Ducted // Mix //    | Minimum Capacity   | BTU/H                        | 11,400 // 11,400 // 11,400             |
| Ducted)                                   | Maximum Power Input  | W                            | 4,540 // 4,540 // 4,540                |
|   | Rated Power Input  | W                            | 1,725 // 1,809 // 1,871                |
|   | Power Factor (208V, 230V)  | %                            | 97.3, 97.3 // 97.6, 97.4 // 97.4, 97.6 |
|   | Maximum Capacity   | BTU/H                        | 25,000 // 24,800 // 24,600             |
| Heating at 17°F3 (Non-Ducted // Mix //    | Rated Capacity   | BTU/H                        | 14,000 // 14,000 // 14,000             |
| Ducted)                                   | Maximum Power Input  | W                            | 3,557 // 3,671 // 3,795                |
|   | Rated Power Input  | W                            | 1,622 // 1,629 // 1,635                |
| Heating at 5°F4 (Non-Ducted // Mix //     | Maximum Capacity   | BTU/H                        | 25,000 // 24,800 // 24,600             |
| Ducted)                                   | Maximum Power Input  | W                            | 3,760 // 3,980 // 4,200                |
|   | SEER   |                              | 19.0 // 17.2 // 15.5                   |
|   | EER¹   |                              | 13.5 // 11.7 // 10.0                   |
|   | HSPF (IV)  |                              |  |
| Efficiency (Non-Ducted // Mix // Ducted)  | COP at 47°F <sup>2</sup>   |                              | 10.0 // 9.5 // 9.0                     |
| Emolericy (Non-Ducted // IVIIX // Ducted) |  |                              | 4.25 // 4.02 // 3.8                    |
|   | COP at 17°F at Maximum Capacity³   |                              | 2.06 // 1.95 // 1.9                    |
|   | COP at 5°F at Maximum Capacity <sup>4</sup>  |                              | 1.95 // 2.11 // 1.72                   |
|   | ENERGY STAR® Certified   |                              | Yes // No // No                        |
|   | Electrical Power Requirements  | Voltage, Phase,<br>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                                     |
| Electrical                                | Short-circuit Current Rating (SCCR)  | kA                           | 5                                      |
|   | Recommended Fuse/Breaker Size  | Α                            | 40                                     |
|   | Recommended Wire Size  | AWG                          | 14                                     |
|   | Minimum Circuit Ampacity   | Α                            | 30.5                                   |
|   | Maximum Overcurrent Protection   | A                            | 40                                     |
|   | Fan Motor Full Load Amperage   | A                            | 2.43                                   |
|   | Airflow Rate (Cooling / Heating)   | CFM                          | 2,150 / 2,550                          |
|   | Refrigerant Control  |                              | LEV                                    |
|   | Defrost Method   |                              | Reverse Cycle                          |
|   | Heat Exchanger Type  |                              | Plate fin coil                         |
|   | Sound Pressure Level, Cooling <sup>1</sup>   | dB(A)                        | 54                                     |
|   | Sound Pressure Level, Heating <sup>2</sup>   | dB(A)                        | 58                                     |
|   | Compressor Type  | UD(A)                        |  |
|   |  |                              | DC INVERTER-driven Twin Rotary         |
|   | Compressor Model   |                              | MNB33FBTMC-L                           |
|   | Compressor Rated Load Amps   | A                            | 20                                     |
| Outdoor unit                              | Compressor Locked Rotor Amps   | A                            | 28.8                                   |
|   | Compressor Oil Type // Charge  | OZ.                          | FV50S // 37.2                          |
|   | Base Pan Heater  |                              | Built-in                               |
|   |  | W: In. [mm]                  | 37-13/32 [950]                         |
|   | Unit Dimensions  | D: In. [mm]                  | 13 [330]                               |
|   |  | H: In. [mm]                  | 41-17/64 [1,048]                       |
|   |  | W: In. [mm]                  | 41-3/8 [1,050]                         |
|   | Package Dimensions   | D: In. [mm]                  | 17-3/8 [440]                           |
|   |  | H: In. [mm]                  | 46-3/4 [1,190]                         |
|   | Unit Weight  | Lbs.[kg]                     | 189 [86]                               |
|   | Package Weight   | Lbs.[kg]                     | 212 [96]                               |
|   | Cooling Intake Air Temp (Maximum / Minimum <sup>*</sup> A)                           | °FDB                         | 115 / 14                               |
| Outdoor unit operating temperature        | Cooling Thermal Lock-out / Re-start Temperatures                                     | °FDB                         | 10.4 / 14                              |
| range                                     | Heating Intake Air Temp (Maximum / Minimum)  | °FWB                         | 65 / -13                               |
|   | Heating Thermal Lock-out / Re-start Temperatures                                     | °FDB                         | -18 / -14                              |
|   | Charge   | Lbs, oz                      | 8.0, 13.0                              |
| Definement                                |  | Ft. [m]                      | 98.0 [30.0]                            |
| Remderant                                 |  |                              |  |
| Refrigerant                               | Chargeless Piping Length  Additional Refrigerant Charge Per Additional Piping Length | oz./Ft. [g/m]                | 0.216 [20]                             |

NOTES: AHRI Rated Conditions (Rated data is determined at a fixed compressor speed)

¹Cooling (Indoor // Outdoor) °F
²Heating at 47°F (Indoor // Outdoor) °F
³Heating at 17°F (Indoor // Outdoor) °F

80 DB, 67 WB // 95 DB, 75 WB 70 DB, 60 WB // 47 DB, 43 WB 70 DB, 60 WB // 17 DB, 15 WB

Conditions <sup>4</sup>Heating at 5°F (Indoor // Outdoor) 70 DB, 60 WB // 5 DB, 4 WB

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.

<sup>&#</sup>x27;Applications should be restricted to comfort cooling only; equipment cooling applications are not recommended for low ambient temperature conditions. 'A 5°F DB - 115°F DB when optional wind baffles are installed

# **SPECIFICATIONS: MXZ-3C24NAHZ3**

|                        | Maximum Number of Connected IDU          | Maximum Number of Connected IDU |  |  |
|------------------------|--|---------------------------------|--|--|
| Indoor unit connection | Minimum Number of Connected IDU          | Minimum Number of Connected IDU |  |  |
|                        | Minimum connected capacity               | BTU/H                           | 12,000                                 |  |
|                        | Maximum connected capacity               | BTU/H                           | 27,000                                 |  |
| Piping                 | Liquid Pipe Size O.D. (Flared)           | In.[mm]                         | A,B,C: 1/4 [A,B,C: 6.35]               |  |
|                        | Gas Pipe Size O.D. (Flared)              | In.[mm]                         | A: 1/2; B,C: 3/8 [A: 12.72; B,C: 9.52] |  |
|                        | Total Piping Length                      | Ft. [m]                         | 230 [70]                               |  |
|                        | Maximum Height Difference, ODU above IDU | Ft. [m]                         | 49 [15]                                |  |
|                        | Maximum Height Difference, ODU below IDU | Ft. [m]                         | 49 [15]                                |  |
|                        | Farthest Piping Length from ODU to IDU   | Ft. [m]                         | 82 [25]                                |  |
|                        | Maximum Number of Bends for IDU          |                                 | 70                                     |  |

NOTES: AHRI Rated Conditions (Rated data is determined at a fixed compressor speed)

¹Cooling (Indoor // Outdoor) °F ²Heating at 47°F (Indoor // Outdoor) °F ³Heating at 17°F (Indoor // Outdoor) °F

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

70 DB, 60 WB // 47 DB, 43 WB 70 DB, 60 WB // 17 DB, 15 WB

4Heating at 5°F (Indoor // Outdoor) °F 70 DB, 60 WB // 5 DB, 4 WB

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

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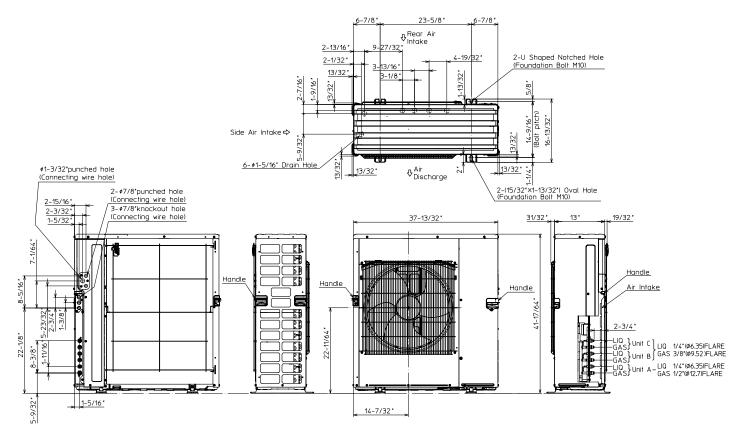
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# **OUTDOOR UNIT ACCESSORIES: MXZ-3C24NAHZ3**

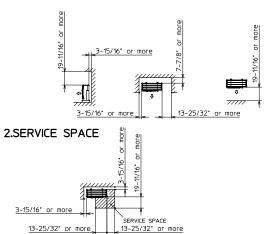
| Air Outlet Guide | Air Outlet Guide (1 Piece)                             | PAC-SH96SG-E  |
|------------------|--|---------------|
|                  | Refrigeration Ball Valve - 1/2"                        | BV12FFSI2     |
| Ball Valve       | Refrigeration Ball Valve - 1/4"                        | BV14FFSI2     |
| Ball valve       | Refrigeration Ball Valve - 3/8"                        | BV38FFSI2     |
|                  | Refrigeration Ball Valve - 5/8"                        | BV58FFSI2     |
| Drain Socket     | Drain Socket   | PAC-SG60DS-E  |
| Hail Guards      | Hail Guard   | HG-A1         |
| M-NET Converter  | M-NET Converter  | PAC-IF01MNT-E |
| 5 .              | Condensing Unit Mounting Pad: 16" x 36" x 3"           | ULTRILITE1    |
| Mounting Pad     | Outdoor Unit 3-1/4 inch Mounting Base (Pair) - Plastic | DSD-400P      |
|                  | Adaptor: 1/2" x 3/8"                                   | MAC-A455JP-E  |
| Port Adapter     | 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" Single Fan Stand                                   | QSMS1801M     |
|                  | 24" Single Fan Stand                                   | QSMS2401M     |
|                  | Condenser Wall Bracket                                 | QSWB2000M-1   |
|                  | Condenser Wall Bracket - Stainless Steel Finish        | QSWBSS        |
|                  | Outdoor Unit Stand — 12" High                          | QSMS1201M     |

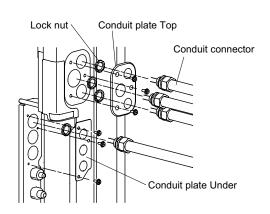
# **OUTDOOR UNIT DIMENSIONS: MXZ-3C24NAHZ3**

Unit: inch (mm)



## 1.FREE SPACE





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