

# MXZ-2D20NLHZ

## 20,000 BTU/H HYPER HEAT PUMP OUTDOOR UNIT



Job Name:

System Reference:

Date:



### GENERAL FEATURES

- INVERTER-driven compressor: An inverter-driven compressor generates the precise capacity needed to maintain a temperature set point.
- Thermal Differential 1°F
- Seacoast protection: Seacoast protection on heat exchanger and base panel (rated for 2,000 hrs. in accordance with ASTM B117 testing)
- Quiet operation: Outdoor units are as quiet as a typical conversation, and most indoor units are whisper quiet.
- Hyper-Heating INVERTER®: Hyper-heating performance offers 100% heating capacity at 5°F and 75% heating capacity at -13°F
- Fan motor overheating/voltage protection
- Compressor thermal protection
- Compressor overcurrent detection
- Built-in base pan heater
- High pressure protection

| Specifications                                               |                                              |                    | System                     |
|--------------------------------------------------------------|----------------------------------------------|--------------------|----------------------------|
| Unit Type                                                    |                                              |                    | MXZ-2D20NLHZ               |
| Cooling at 95F <sup>1</sup> (Non-Ducted // Mixed // Ducted)  | Maximum Capacity                             | Btu/h              | 20,000 // 20,000 // 20,000 |
|                                                              | Rated Capacity                               | Btu/h              | 18,000 // 19,000 // 20,000 |
|                                                              | Minimum Capacity                             | Btu/h              | 11,600 // 13,800 // 16,000 |
|                                                              | Maximum Power Input                          | W                  | 2,680 // 2,340 // 2,000    |
|                                                              | Rated Power Input                            | W                  | 1,333 // 1,568 // 1,802    |
|                                                              | Power Factor (208V)                          | %                  | 0.99 // 0.99 // 0.99       |
|                                                              | Power Factor (230V)                          | %                  | 0.99 // 0.99 // 0.99       |
| Heating at 47F <sup>2</sup> (Non-Ducted // Mixed // Ducted)  | Maximum Capacity                             | Btu/h              | 25,500 // 25,500 // 25,500 |
|                                                              | Rated Capacity                               | Btu/h              | 22,000 // 22,000 // 22,000 |
|                                                              | Minimum Capacity                             | Btu/h              | 11,400 // 13,850 // 16,300 |
|                                                              | Maximum Power Input                          | W                  | 2,400 // 2,520 // 2,640    |
|                                                              | Rated Power Input                            | W                  | 1,612 // 1,650 // 1,688    |
|                                                              | Power Factor (208V)                          | %                  | 0.99 // 0.99 // 0.99       |
|                                                              | Power Factor (230V)                          | %                  | 0.99 // 0.99 // 0.99       |
| Heating at 17F <sup>3</sup> (Non-Ducted // Mixed // Ducted)  | Maximum Capacity                             | Btu/h              | 22,000 // 22,000 // 22,000 |
|                                                              | Rated Capacity                               | Btu/h              | 14,300 // 13,400 // 12,500 |
|                                                              | Maximum Power Input                          | W                  | 3,300 // 3,325 // 3,350    |
|                                                              | Rated Power Input                            | W                  | 1,518 // 1,501 // 1,510    |
| Heating at 5F <sup>4</sup> (Non-Ducted // Mixed // Ducted)   | Maximum Capacity                             | Btu/h              | 22,000 // 22,000 // 22,000 |
|                                                              | Maximum Power Input                          | W                  | 3,220 // 3,256 // 3,256    |
| Heating at -13F <sup>5</sup> (Non-Ducted // Mixed // Ducted) | Maximum Capacity                             | Btu/h              | 19,200 // 19,200 // 19,200 |
|                                                              | Maximum Power Input                          | W                  | 2,622 // 2,622 // 2,622    |
| Efficiency (Non-Ducted // Mixed // Ducted)                   | SEER <sup>2</sup> <sup>1</sup>               |                    | 19.30 // 16.80 // 14.30    |
|                                                              | EER <sup>2</sup> <sup>1</sup>                |                    | 13.50 // 12.30 // 11.10    |
|                                                              | HSPF <sup>2</sup> (IV) <sup>2</sup>          |                    | 10 // 8.95 // 7.90         |
|                                                              | COP at 47°F <sup>2</sup>                     |                    | 4.00 // 3.90 // 3.82       |
|                                                              | COP at 17°F at Maximum Capacity <sup>3</sup> |                    | 1.94 // 1.92 // 1.92       |
|                                                              | COP at 5°F at Maximum Capacity <sup>4</sup>  |                    | 2 // 1.98 // 1.98          |
|                                                              | ENERGY STAR® Certified                       |                    | Yes // Yes // No           |
| Electrical                                                   | Electrical Power Requirements                | V AC / V AC, ø, Hz | 208 / 230, 1, 60           |
|                                                              | Guaranteed Voltage Range                     | V AC               | 198 - 253                  |
|                                                              | Voltage: Indoor - Outdoor, S1-S2             | V AC               | 208/230                    |
|                                                              | Voltage: Indoor - Outdoor, S2-S3             | V DC               | 24                         |
|                                                              | Recommended Wire Size (Indoor - Outdoor)     | AWG                | 14                         |
|                                                              | Short-circuit Current Rating (SCCR)          | kA                 | 5                          |
|                                                              | Recommended Fuse/Breaker Size                | A                  | 20                         |
|                                                              | MCA                                          | A                  | 21.7                       |
|                                                              | MOCP                                         | A                  | 38                         |

### NOTES

<sup>1</sup>Cooling at 95°F (Indoor: 80°F DB, 67°F WB // Outdoor: 95°F DB, 75°F WB)

<sup>2</sup>Heating at 47°F (Indoor: 70°F DB, 60°F WB // Outdoor: 47°F DB, 43°F WB)

<sup>3</sup>Heating at 17°F (Indoor: 70°F DB, 60°F WB // Outdoor: 17°F DB, 15°F WB)

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

<sup>5</sup>Heating at -13°F (Indoor: 70°F DB, 60°F WB // Outdoor: -13°F DB, -14°F WB)

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 to Multi-zone Outdoor Unit Operational Performance.

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> Indoor/Outdoor Unit Operating Temperature Range (Cooling Air Temp [Maximum / Minimum]):

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

<sup>\*\*</sup> Outdoor Unit Operating Temperature Range (Cooling Thermal Lock-out / Re-start Temperatures; Heating Thermal Lock-out / Re-start Temperatures):

• System cuts out in heating mode and automatically restarts at these temperatures.

# SPECIFICATIONS: MXZ-2D20NLHZ

| Specifications            |                                                           |                                      | System                                            |
|---------------------------|-----------------------------------------------------------|--------------------------------------|---------------------------------------------------|
| Unit Type                 |                                                           |                                      | MXZ-2D20NLHZ                                      |
| Outdoor Unit              | Fan Motor Full Load Amperage                              | A                                    | 1.74                                              |
|                           | Fan Motor Output                                          | W                                    | 88                                                |
|                           | Defrost Method                                            |                                      | Reverse Cycle                                     |
|                           | Blue Fin Heat Exchanger Coating                           |                                      | Yes                                               |
|                           | Airflow Rate Cooling/Heating                              | CFM                                  | 2,119 / 2,228                                     |
|                           | Sound Pressure Level, Cooling <sup>1</sup>                | dB (A)                               | 51                                                |
|                           | Sound Pressure Level, Heating <sup>2</sup>                | dB (A)                               | 53                                                |
|                           | Compressor Type                                           |                                      | Twin Rotary                                       |
|                           | Compressor Model                                          |                                      | SRB220FQYMC-L                                     |
|                           | Compressor Oil Type // Charge                             | Type // oz                           | RM68EH // 20.3                                    |
|                           | External Finish Color                                     |                                      | Munsell 3.0Y 7.8/1.1                              |
|                           | Base Pan Heater                                           |                                      | Built-in                                          |
|                           | Unit Dimensions (W x D x H)                               | inch x inch x inch<br>[mm x mm x mm] | 37-13/32 x 13 x 31-11/32 [950 x 330 x 796]        |
|                           | Package Dimensions (W x D x H)                            | inch x inch x inch<br>[mm x mm x mm] | 41-11/32 x 17-5/16 x 38-31/32 [1,050 x 440 x 990] |
| ODU Operating Temp. Range | Unit Weight                                               | lbs [kg]                             | 137 [62]                                          |
|                           | Package Weight                                            | lbs [kg]                             | 163 [74]                                          |
|                           | Cooling Intake Air Temp (Maximum / Minimum <sup>3</sup> ) | °FDB                                 | 115 / 14                                          |
|                           | Cooling Thermal Lock-out / Re-start Temperatures          | °FDB                                 | 10 / 14                                           |
|                           | Heating Intake Air Temp [Maximum / Minimum]               | °FDB, °FWB / °FDB, °FWB              | 75, 65 / -13, -14                                 |
| Refrigerant               | Heating Thermal Lock-out / Re-start Temperatures**        | °FDB                                 | -22.5 / -14                                       |
|                           | Type                                                      |                                      | R454B                                             |
|                           | Pre-Charged Refrigerant Amount                            | lbs, oz                              | 5, 5                                              |
| IDU Connection            | Maximum Pre-Charged Piping Length                         | ft                                   | 164                                               |
|                           | Minimum Number of Connected IDU                           |                                      | 2                                                 |
|                           | Maximum Number of Connected IDU                           |                                      | 2                                                 |
|                           | Minimum Connected Capacity                                | Btu/h                                | 12,000                                            |
|                           | Maximum connected capacity                                | Btu/h                                | 24,000                                            |
| Piping                    | Liquid Pipe Size O.D. (Flared)                            | inch                                 | A: 1/4 B: 1/4                                     |
|                           | Gas Pipe Size O.D. (Flared)                               | inch                                 | A: 3/8 B: 3/8                                     |
|                           | Total Piping Length                                       | ft [m]                               | 164 [50]                                          |
|                           | Farthest Piping Length                                    | ft [m]                               | 82 [25]                                           |
|                           | Maximum Height Difference <sup>4</sup> , ODU above IDU    | ft [m]                               | 49 [15]                                           |
|                           | Maximum Height Difference <sup>4</sup> , ODU below IDU    | ft [m]                               | 49 [15]                                           |
|                           | Maximum Number of Bends for IDU                           |                                      | 50                                                |

## NOTES

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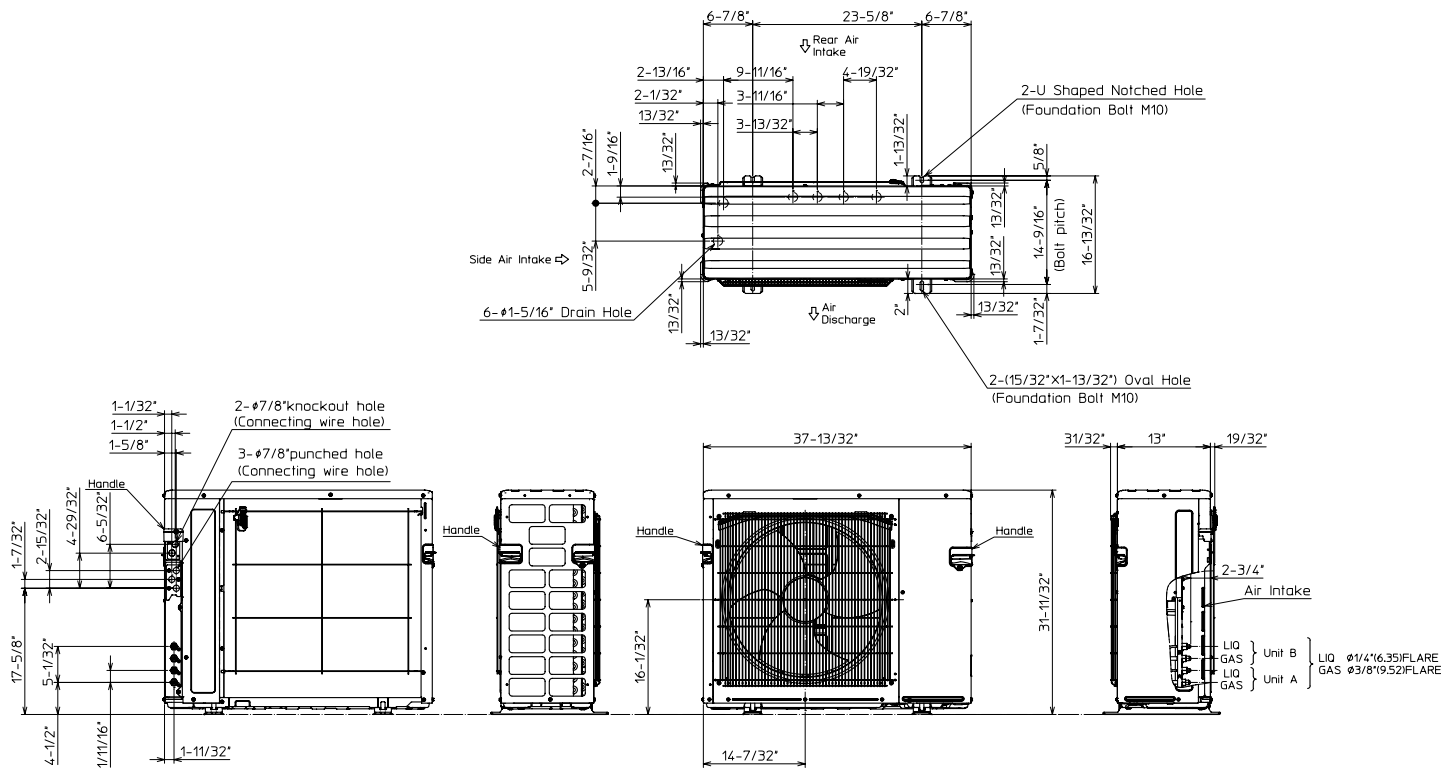
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## OUTDOOR UNIT ACCESSORIES: MXZ-2D20NLHZ

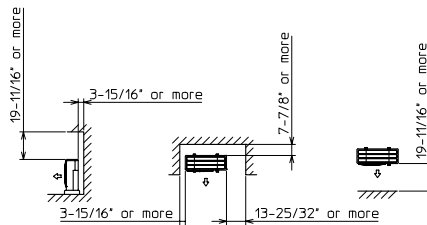
|                      |                                                     |                |
|----------------------|-----------------------------------------------------|----------------|
| Ball Valve           | Refrigeration Ball Valve - 1/2                      | BV12FFSI2      |
|                      | Refrigeration Ball Valve - 1/4                      | BV14FFSI2      |
|                      | Refrigeration Ball Valve - 3/8                      | BV38FFSI2      |
|                      | Refrigeration Ball Valve - 5/8                      | BV58FFSI2      |
| 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 3-14 inch Mounting Base Pair - Plastic | DSD-400P       |
|                      | Outdoor Unit Stand 12 High                          | QSMS1201M      |
| Port Adaptor         | Adaptor 1/2 x 3/8                                   | PAC-SK88RJ-E   |
|                      | Adaptor 1/2 x 5/8                                   | PAC-SK89RJ-E   |
|                      | Adaptor 1/4 x 3/8                                   | PAC-493PI      |
|                      | Adaptor 3/8 x 1/2                                   | ADP3812        |
|                      | Adaptor 3/8 x 5/8                                   | PAC-SK90RJ-E   |
| Mini-Split Wire      | 14 Gauge 4 wire Armored MiniSplit Cable250 ft roll  | SW144-250      |
|                      | 14 Gauge 4 wire Armored MiniSplit Cable50 ft roll   | SW144-50       |
|                      | 14 Gauge 4 wire MiniSplit Cable250 ft roll          | S144-250       |
|                      | 14 Gauge 4 wire MiniSplit Cable50 ft roll           | S144-50        |
|                      | 16 Gauge 4 wire Armored MiniSplit Cable250 ft roll  | SW164-250      |
|                      | 16 Gauge 4 wire Armored MiniSplit Cable50 ft roll   | SW164-50       |
|                      | 16 Gauge 4 wire MiniSplit Cable250 ft roll          | S164-250       |
|                      | 16 Gauge 4 wire MiniSplit Cable50 ft roll           | S164-50        |
| Mounting Pad         | Condensing Unit Mounting Pad 16 x 36 x 3            | ULTRILITE1     |
| Drain Socket         | Drain Socket                                        | PAC-SG60DS-E   |
| Hail Guards          | Hail Guard                                          | HG-A9          |
| Snow/Rain Diverter   | SnowRain Diverter                                   | SRD-4          |
| Control Interface    | M-NET Interface for MXZ                             | PAC-IF01MNT-E  |
| Air Outlet Guide     | Air Outlet Guide 1 Piece                            | PAC-SH96SG-E   |
| Control/Service Tool | Maintenance Tool Interface                          | PAC-USCMS-MN-1 |
| NOTES                |                                                     |                |

# OUTDOOR UNIT DIMENSIONS: MXZ-2D20NLHZ

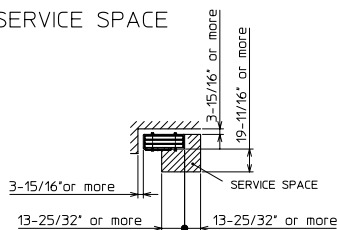
## MXZ-2D20NLHZ-U1



### 1.FREE SPACE



### 2.SERVICE SPACE



1340 Satellite Boulevard Suwanee, GA 30024  
Toll Free: 800-433-4822 <https://mitsubishi.com/comfort>

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