#### MXZ-2C20NAHZ4 1.66-TON MULTI-ZONE INVERTER HEAT-PUMP SYSTEM

Job Name:

System Reference:

Date:



#### FEATURES

- Variable speed INVERTER-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 93% heating capacity at -13°F
- Blue Fin anti-corrosion treatment applied to the outdoor unit heat exchanger for increased coil protection and longer life
  - $\circ~$  Rated for 2,000 hours spraying time per ASTM B117 Standard

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ENERGY STAR products are third-party certified by an EPA-recognized Certification Body.
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## **SPECIFICATIONS: MXZ-2C20NAHZ4**

|  | Maximum Capacity   | BTU/H                        | 20,000 // 20,000 // 20,000   20,000 // 20,000                     |
|--|--|------------------------------|---|
| Cooling <sup>1</sup>   | Rated Capacity   | BTU/H                        | 18,000 // 19,000 // 20,000   19,000 // 20,000                     |
| Non-Ducted // Mix (Low-static) // Ducted   | Minimum Capacity   | BTU/H                        | 12,600 // 12,600 // 12,600   14,300 // 16,000                     |
| Low-static)   Mix (High-static) // Ducted  | Maximum Power Input  | W                            | 2,680 // 2,680 // 2,680   2,750 // 2,820                          |
| ligh-static))  | Rated Power Input  | W                            | 1,334 // 1,577 // 1,819   1,577 // 1,819                          |
|  | Power Factor (208V, 230V)                                  | %                            | 99.0, 99.0 // 99.0, 99.0 // 99.0, 99.0   99.0, 99.0 // 99.0, 99.1 |
|  | Maximum Capacity   | BTU/H                        | 25,500 // 25,500 // 25,500   25,500 // 25,500                     |
| _  | Rated Capacity   | BTU/H                        | 22,000 // 22,000 // 22,000 // 22,000                              |
| Heating at 47°F <sup>2</sup><br>Non-Ducted // Mix (Low-static) // Ducted                               | Minimum Capacity   | BTU/H                        | 11,400 // 11,400 // 11,400   13,850 // 16,300                     |
| Low-static)   Mix (High-static) // Ducted  | Maximum Power Input  | W                            | 3,650 // 3,650 // 3,650   3,808 // 3,965                          |
| High-static))  | Rated Power Input  | W                            | 1,612 // 1,681 // 1,750   1,681 // 1,750                          |
| 5 <i>//</i>  | Power Factor (208V, 230V)                                  | %                            | 99.0, 99.0 // 99.0, 99.0 // 99.0, 99.0   99.0, 99.0 // 99.0, 99.  |
|  |  |                              |   |
| leating at 17°F <sup>3</sup>   | Maximum Capacity   | BTU/H                        | 22,000 // 22,000 // 22,000 // 22,000 // 22,000                    |
| Non-Ducted // Mix (Low-static) // Ducted   | Rated Capacity   | BTU/H                        | 13,700 // 13,700 // 13,700    13,700 // 13,700                    |
| Low-static)   Mix (High-static) // Ducted<br>High-static))   | Maximum Power Input  | W                            | 3,071 // 3,148 // 3,224   3,308 // 3,545                          |
| •  | Rated Power Input  | W                            | 1,450 // 1,519 // 1,588   1,650 // 1,850                          |
| leating at 5°F <sup>4</sup>  | Maximum Capacity   | BTU/H                        | 22,000 // 22,000 // 22,000   22,000 // 22,000                     |
| Non-Ducted // Mix (Low-static) // Ducted<br>Low-static)   Mix (High-static) // Ducted<br>High-static)) | Maximum Power Input  | w                            | 3,410 // 3,547 // 3,684   3,547 // 3,684                          |
| ligh oldio)/   | SEER2  |                              | 17.0 // 16.5 // 16.0   15.65 // 14.3                              |
|  | EER21  |                              | 13.5 // 12.25 // 11.0   12.25 // 11.0                             |
| Efficiency   | HSPF2 (IV)   |                              | 10.0 // 9.35 // 8.7   8.95 // 7.9                                 |
| Non-Ducted // Mix (Low-static) // Ducted   | COP at 47°F <sup>2</sup>                                   |                              | 4.0 // 3.83 // 3.68   3.84 // 3.68                                |
| Low-static)   Mix (High-static) // Ducted  | COP at 17°F at Maximum Capacity <sup>3</sup>               |                              | 2.1 // 2.04 // 2.0   1.96 // 1.82                                 |
| High-static))  | COP at 5°F at Maximum Capacity <sup>4</sup>                |                              |   |
|  |  |                              | 1.89 // 1.77 // 1.75   1.82 // 1.75                               |
|  | ENERGY STAR® Certified                                     |                              | Yes // Yes // No   Yes // 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                              | A                            | 40  |
|  | Recommended Wire Size (Indoor - Outdoor)                   | AWG                          | 14  |
|  | Minimum Circuit Ampacity                                   | A                            | 26.9  |
|  | Maximum Overcurrent Protection                             | A                            | 40  |
|  | Fan Motor Full Load Amperage                               | Α                            | 2.43  |
|  | Airflow Rate (Cooling / Heating)                           | CFM                          | 2,150 / 2,550   |
|  | Refrigerant Control  |                              | LEV   |
|  | Defrost Method   |                              | Reverse Cycle   |
|  | Heat Exchanger Type  |                              | Plate Fin Coil  |
|  |  |                              |   |
|  | Heat Exchanger Coating                                     | 15(4)                        | Blue Fin Coating  |
|  | Sound Pressure Level, Cooling <sup>1</sup>                 | dB(A)                        | 54  |
| Outdoor unit   | Sound Pressure Level, Heating <sup>2</sup>                 | dB(A)                        | 58  |
|  | Compressor Type  |                              | DC INVERTER-driven Twin Rotary                                    |
|  | Compressor Model   |                              | MNB33FBTMC  |
|  | Compressor Rated Load Amps                                 | A                            | 17.1  |
|  | Compressor Locked Rotor Amps                               | A                            | 28.8  |
|  | Compressor Oil Type // Charge                              | OZ.                          | FV50S // 37.2   |
|  | Base Pan Heater  |                              | Optional  |
|  | Unit Dimensions  | W: In. [mm]                  | 37-13/32 [950]  |
|  |  | D: In. [mm]                  | 13 [330]  |
|  |  | H: In. [mm]                  | 41-17/64 [1,048]  |
|  | Package Dimensions   | W: In. [mm]                  | 41-3/8 [1,050]  |
|  |  | D: In. [mm]                  | 17-3/8 [440]  |
|  |  | H: In. [mm]                  | 48-7/16 [1,230]   |
|  | Unit Weight  |                              |   |
|  |  | Lbs.[kg]                     | 187 [85]  |
|  | Package Weight   | Lbs.[kg]                     | 216 [98]  |
|  | Cooling Intake Air Temp (Maximum / Minimum <sup>*A</sup> ) | °FDB                         | 115 / 14  |
| Outdoor unit operating temperature<br>range  | Cooling Thermal Lock-out / Re-start Temperatures           | °FDB                         | 10.4 / 14   |
|  | Heating Intake Air Temp (Maximum / Minimum)                | °FWB                         | 65 / -13  |
| ange   | Heating Thermal Lock-out / Re-start Temperatures           | °FDB                         | -4 / 5  |

NOTES:

| AHRI Rated Conditions <sup>1</sup> Cooling (Indoor // Outdoor) |    | °F 80 DB, 67 WB // 95 DB, 75 WB                     |
|--|----|---|
| (Rated data is determined at a fixed compressor speed)         |    | <sup>2</sup> Heating at 47°F (Indoor // Outdoor) °F |
| <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                          |

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

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

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.

Low, mid and high external static pressure tests conducted at 0.1, 0.3 and 0.5 in.w.g. respectively, according to AHRI 210/240. The external static pressures utilized have no bearing on the capabilities of the indoor unit, please refer to the indoor unit manual to select the correct external static pressure setting for the application.

# SPECIFICATIONS: MXZ-2C20NAHZ4

|                        | Туре   |               | R410A                |
|------------------------|--|---------------|----------------------|
| Refrigerant            | Pre-Charged Refrigerant Amount                             | Lbs, oz       | 8.0, 13.0            |
|                        | Maximum Pre-Charged Piping Length                          | Ft. [m]       | 98.0 [30.0]          |
|                        | Additional Refrigerant Charge Per Additional Piping Length | oz./Ft. [g/m] | 0.216 [20]           |
| Indoor unit connection | Maximum Number of Connected IDU                            |               | 2                    |
|                        | Minimum 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)                             | In.[mm]       | A,B: 1/4 [A,B: 6.35] |
|                        | Gas Pipe Size O.D. (Flared)                                | In.[mm]       | A,B: 3/8 [A,B: 9.52] |
|                        | Total Piping Length  | Ft. [m]       | 164 [50]             |
|                        | 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                            |               | 50                   |

NOTES:

| AHRI Rated Conditions <sup>1</sup> Cooling (Indoor // Outdoor) | °F 80 DB, 67 WB // 95 DB, 75 WB                     |                              |
|--|---|------------------------------|
| (Rated data is determined at a fixed compressor speed)         | <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 4Heating at 5°F (Indoor // Outdoor) °F 70 DB, 60 WB // 5 DB, 4 WB

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

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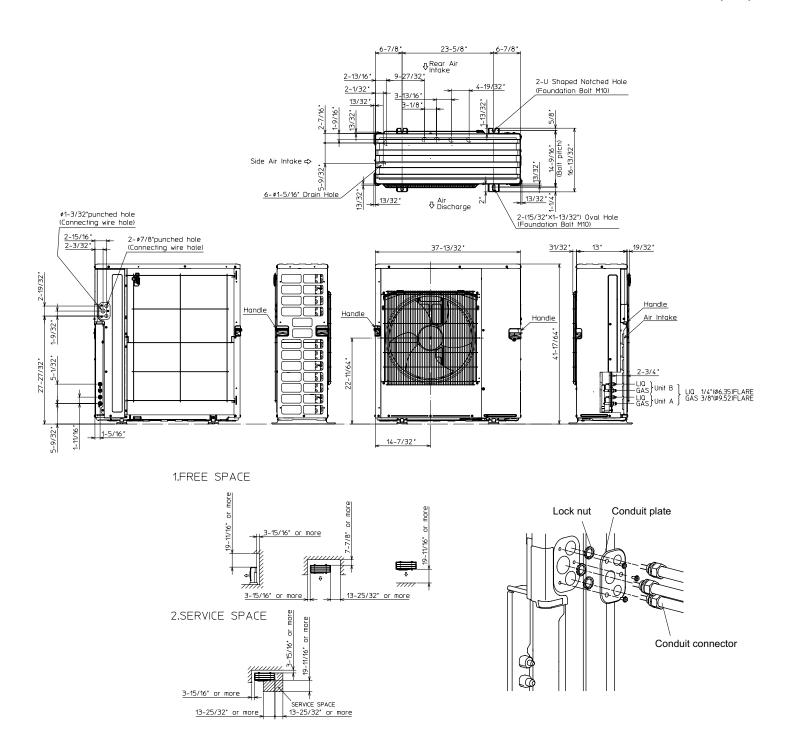
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# OUTDOOR UNIT ACCESSORIES: MXZ-2C20NAHZ4

| Air Outlet Guide | Air Outlet Guide (1 Piece)                             | PAC-SH96SG-E  |
|------------------|--|---------------|
| 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     |
| Drain Socket     | Drain Socket   | PAC-SG60DS-E  |
| Hail Guards      | Hail Guard   | HG-A1         |
| M-NET Converter  | M-NET Converter  | PAC-IF01MNT-E |
|                  | 14 Gauge, 4 wire MiniSplit Cable—250 ft. roll          | S144-250      |
|                  | 14 Gauge, 4 wire MiniSplit Cable—250 ft. roll          | SW144-250     |
|                  | 14 Gauge, 4 wire MiniSplit Cable—50 ft. roll           | S144-50       |
|                  | 14 Gauge, 4 wire MiniSplit Cable—50 ft. roll           | SW144-50      |
| Mini-Split Wire  | 16 Gauge, 4 wire MiniSplit Cable—250 ft. roll          | S164-250      |
|                  | 16 Gauge, 4 wire MiniSplit Cable—250 ft. roll          | SW164-250     |
|                  | 16 Gauge, 4 wire MiniSplit Cable—50 ft. roll           | S164-50       |
|                  | 16 Gauge, 4 wire MiniSplit Cable—50 ft. roll           | SW164-50      |
| Mounting Pad     | Condensing Unit Mounting Pad: 16" x 36" x 3"           | ULTRILITE1    |
|                  | Outdoor Unit 3-1/4 inch Mounting Base (Pair) - Plastic | DSD-400P      |
| Port Adaptor     | 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" 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-2C20NAHZ4

Unit: inch (mm)



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FORM# MXZ-2C20NAHZ4 - 202311