

**PAA-A18AA1 & PUZ-A24NHA7**  
**intelli-HEAT™ CASED COIL, 14.5" WIDTH, 18,000 BTU/H**  
**24,000 BTU/H HEAT PUMP UNIVERSAL OUTDOOR**



Job Name:

System Reference:

Date:

Indoor Unit.....PAA-A18AA1

Outdoor Unit.....PUZ-A24NHA7



#### INDOOR UNIT FEATURES

- Compatible with any thermostatically controlled (24VAC) natural gas or LP furnace\*
- Intelligent Comfort Control Function (automatic switchover between heat pump and furnace\*)
- Includes cased coil and control box
- Available in 14.5", 17.5", and 21" widths
- Optimized heat exchanger design for increased efficiency and longevity
- Flared piping connection
- High quality drain pan material with high heat tolerance and low moisture absorption
- Multi-position installation: horizontal (left or right), vertical (up or down)
  - Drain pans for all multi-position configurations are included for easy installation
- Optional humidifier control and ERV control
- Oxygen free copper coils
- Multiple control options available:
  - kumo cloud® smart device app for remote access
  - Third-party interface options
  - Wired or wireless controllers

\*Mitsubishi Electric air conditioner and heat pump systems should only be connected with ANSI-Z21.47/CSA2.3 certified furnaces.

#### OUTDOOR UNIT FEATURES

- Variable speed INVERTER-driven compressor
- Pre-charged with refrigerant volume for piping length up to 70 ft
- Low ambient cooling down to 0°F providing 100% capacity
- 24-hour continuous operation (cooling mode)
- High pressure protection
- Fast restart
- Superior energy and operational efficiency
- Seacoast protection\*
  - External Outer Panel: Phosphate coating + Acrylic-Enamel coating
  - Fan Motor Support: Epoxy resin coating (at edge face)
  - Separator Assembly Valve Bed: Epoxy resin coating (at edge face)
  - Blue Fin treatment is an anti-corrosion treatment that is applied to the Heat exchanger coil to protect it against airborne contaminants.
  - Heat exchanger coil and base panel rated for 2,000 hours in accordance with ASTM B117 testing

\*Seacoast protection standard from 2022 production

# SPECIFICATIONS: PAA-A18AA1 & PUZ-A24NHA7

|                                         |                                              |                     |                                            |
|-----------------------------------------|----------------------------------------------|---------------------|--------------------------------------------|
| Cooling at 95°F <sup>1</sup>            | Maximum Capacity                             | BTU/H               | 18,000                                     |
|                                         | Rated Capacity                               | BTU/H               | 18,000                                     |
|                                         | Minimum Capacity                             | BTU/H               | 9,600                                      |
|                                         | Maximum Power Input                          | W                   | 1,440                                      |
|                                         | Rated Power Input                            | W                   | 1,440                                      |
|                                         | Moisture Removal                             | Pints/h             | 3.7                                        |
|                                         | Sensible Heat Factor                         |                     | 0.77                                       |
|                                         | Power Factor [208V / 230V]                   | %                   | 87.8 / 87.8                                |
| Heating at 47°F <sup>2</sup>            | Maximum Capacity                             | BTU/H               | 22,400                                     |
|                                         | Rated Capacity                               | BTU/H               | 19,000                                     |
|                                         | Minimum Capacity                             | BTU/H               | 11,900                                     |
|                                         | Maximum Power Input                          | W                   | 1,740                                      |
|                                         | Rated Power Input                            | W                   | 1,740                                      |
|                                         | Power Factor [208V / 230V]                   | %                   | 97.3 / 97.3                                |
| Heating at 17°F <sup>3</sup>            | Maximum Capacity                             | BTU/H               | 13,800                                     |
|                                         | Rated Capacity                               | BTU/H               | 13,800                                     |
|                                         | Maximum Power Input                          | W                   | 1,800                                      |
|                                         | Rated Power Input                            | W                   | 1,800                                      |
| Heating at 5°F <sup>4</sup>             | Maximum Capacity                             | BTU/H               | 12,400                                     |
|                                         | Maximum Power Input                          | W                   | 1,400                                      |
| Heating at -4°F <sup>5</sup>            | Maximum Capacity                             | BTU/H               | 10,400                                     |
| Efficiency                              | SEER   SEER2                                 |                     | 17.5   16.5                                |
|                                         | EER <sup>1</sup>   EER2 <sup>1</sup>         |                     | 12.5   12.0                                |
|                                         | HSPF [IV]   HSPF2 [IV]                       |                     | 9.5   9.0                                  |
|                                         | COP at 47°F <sup>2</sup>                     |                     | 3.2                                        |
|                                         | COP at 17°F at Maximum Capacity <sup>3</sup> |                     | 2.24                                       |
|                                         | COP at 5°F at Maximum Capacity <sup>4</sup>  |                     | 3.22                                       |
|                                         | COP at -4°F at Maximum Capacity <sup>5</sup> |                     | 2.34                                       |
|                                         | ENERGY STAR® Certified                       |                     | Yes                                        |
| Electrical                              | Voltage, Phase, Frequency                    |                     | 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                                         |
|                                         | Short-circuit Current Rating [SCCR]          | kA                  | 5                                          |
|                                         | Recommended Fuse/Breaker Size [Outdoor]      | A                   | 25                                         |
|                                         | Recommended Wire Size [Indoor - Outdoor]     | AWG                 | 14                                         |
|                                         | Power Supply                                 |                     | Indoor unit is powered by the outdoor unit |
| Indoor Unit                             | MCA                                          | A                   | 0.2                                        |
|                                         | Rated Airflow, Dry                           | CFM                 | 525                                        |
|                                         | Maximum Airflow, Dry                         | CFM                 | 812                                        |
|                                         | Minimum Airflow, Dry                         | CFM                 | 424                                        |
|                                         | Internal Static Pressure [at Rated CFM]      | in. WG              | 0.09                                       |
|                                         | Drain Pipe Size                              | In. [mm]            | 3/4 [19.05]                                |
|                                         | External Finish Color                        |                     | Galvanized Steel                           |
|                                         | Unit Dimensions                              | W x D x H: In. [mm] | 14.5 x 21.7 x 27.4 [368.3 x 551.2 x 696.0] |
|                                         | Package Dimensions                           | W x D x H: In. [mm] | 22.5 x 28.8 x 31.1 [572 x 732 x 790]       |
|                                         | Unit Weight [Cased Coil Only]                | Lbs. [kg]           | 47 [21.0]                                  |
|                                         | Control Box Weight                           | Lbs. [kg]           | 11.00 [4.99]                               |
|                                         | Package Weight                               | Lbs. [kg]           | 70.9 [32.2]                                |
| Indoor Unit Operating Temperature Range | Cooling Intake Air Temp [Maximum / Minimum]  | °F                  | 90 DB, 73 WB / 66 DB, 59 WB                |
|                                         | Heating Intake Air Temp [Maximum / Minimum]  | °F                  | 82 DB / 50 DB                              |

## 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 |

Airflow rate 350 CFM per rated ton of cooling at 95°F

Internal static pressure 0.3 in. WG (According to AHRI Standard - 210/240, where this is the maximum allowable internal static pressure for "Coil Only" systems)

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

\*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 to avoid thermistor error and automatically restarts at these temperatures.

\*\*Blue Fin Coating Standard from 2022 production:

- PU(Y/Z)-A(12/18)NKA7 - Beginning with serial number 12U\*\*\*\*\*
- PU(Y/Z)-A(24/30/36/42)NKA7 - Beginning with serial number 12U\*\*\*\*\*

## SPECIFICATIONS: PAA-A18AA1 & PUZ-A24NHA7

|                                          |                                                            |                     |                                                          |
|------------------------------------------|------------------------------------------------------------|---------------------|----------------------------------------------------------|
| Outdoor Unit                             | MCA                                                        | A                   | 19.0                                                     |
|                                          | MOCP                                                       | A                   | 26                                                       |
|                                          | Fan Motor Full Load Amperage                               | A                   | 0.4                                                      |
|                                          | Fan Motor Output                                           | W                   | 86                                                       |
|                                          | Airflow Rate [Cooling / Heating]                           | CFM                 | 1,940 / 1,940                                            |
|                                          | Refrigerant Control                                        |                     | LEV                                                      |
|                                          | Defrost Method                                             |                     | Reverse Cycle                                            |
|                                          | Coating on Heat Exchanger                                  |                     | Blue Fin Coating**                                       |
|                                          | Sound Pressure Level, Cooling <sup>1</sup>                 | dB(A)               | 47                                                       |
|                                          | Sound Pressure Level, Heating <sup>2</sup>                 | dB(A)               | 48                                                       |
|                                          | Compressor Type                                            |                     | INVERTER-driven twin rotary                              |
|                                          | Compressor Model                                           |                     | SNB172FWHM1                                              |
|                                          | Compressor Rated Load Amps                                 | A                   | 7                                                        |
|                                          | Compressor Locked Rotor Amps                               | A                   | 11.0                                                     |
|                                          | Compressor Oil [Type // Charge]                            | oz.                 | FV50S // 23                                              |
|                                          | External Finish Color                                      |                     | Ivory Munsell 3Y 7.8/1.1                                 |
|                                          | Base Pan Heater                                            |                     | N/A                                                      |
|                                          | Unit Dimensions                                            | W x D x H: In. [mm] | 37-13/32 x 13 (+1-3/16) x 37-1/8 [950 x 330 (+30) x 943] |
|                                          | Package Dimensions                                         | W x D x H: In. [mm] | 40-15/16 x 17-11/16 x 40-11/16 [1,040 x 450 x 1,033]     |
|                                          | Unit Weight                                                | Lbs. [kg]           | 153 [69]                                                 |
|                                          | Package Weight                                             | Lbs. [kg]           | 179 [81]                                                 |
| Outdoor Unit Operating Temperature Range | Cooling Air Temp [Maximum / Minimum]                       | °F                  | 115 DB / 23 DB                                           |
|                                          | Heating Air Temp [Maximum / Minimum]                       | °F                  | 70 DB, 59 WB / -4 DB, -4 WB                              |
|                                          | Heating Thermal Lock-out / Re-start Temperatures*          | °F                  | -8 / -4                                                  |
| Refrigerant                              | Type                                                       |                     | R410A                                                    |
|                                          | Pre-Charged Refrigerant Amount                             | Lbs, oz             | 7.0, 11.0                                                |
|                                          | Maximum Pre-Charged Piping Length                          | Ft. [m]             | 70.0 [20.0]                                              |
|                                          | Additional Refrigerant Charge Per Additional Piping Length | oz./Ft. [g/m]       | 0.7 [50]                                                 |
| Piping                                   | Gas Pipe Size O.D. [Flared]                                | In.[mm]             | 5/8 [15.88]                                              |
|                                          | Liquid Pipe Size O.D. [Flared]                             | In.[mm]             | 3/8 [9.52]                                               |
|                                          | Maximum Piping Length                                      | Ft. [m]             | 100 [30]                                                 |
|                                          | Maximum Height Difference                                  | Ft. [m]             | 100 [30]                                                 |
|                                          | Maximum Number of Bends                                    |                     | 15                                                       |

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Airflow rate 350 CFM per rated ton of cooling at 95°F

Internal static pressure 0.3 in. WG (According to AHRI Standard - 210/240, where this is the maximum allowable internal static pressure for "Coil Only" systems)

|            |                                                  |    |                              |
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| Conditions | <sup>4</sup> Heating at 5°F (Indoor // Outdoor)  | °F | 70 DB, 60 WB // 5 DB, 4 WB   |
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## INDOOR UNIT ACCESSORIES: PAA-A18AA1

|                            |                                                          |                   |
|----------------------------|----------------------------------------------------------|-------------------|
| Control Interface          | BACnet® and Modbus® Interface                            | PAC-UKPRC001-CN-1 |
|                            | Connector and wire for Operation status/error using CN51 | PAC-725AD         |
|                            | IT Extender                                              | PAC-WHS01IE-E     |
|                            | kumo station® for kumo cloud®                            | PAC-WHS01HC-E     |
|                            | Remote Operation Adapter†                                | PAC-SF40RM-E      |
|                            | Thermostat Interface                                     | PAC-US445CN-1     |
|                            | USNAP Adapter                                            | PAC-WHS01UP-E     |
|                            | Wireless Interface for kumo cloud®                       | PAC-USWHS002-WF-2 |
| Remote Sensor              | Flush Mount Remote Temperature Sensor                    | PAC-USSEN002-FM-1 |
|                            | Flush Mount Temperature Sensor                           | PAC-USSEN001-FM-1 |
|                            | Remote Temperature Sensor                                | PAC-SE41TS-E      |
|                            | 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          |
|                            | Wireless MA Receiver                                     | PAR-FA32MA-W      |
|                            | Wireless MA Remote Controller                            | PAR-FL32MA-E      |
| Condensate                 | Refco Condensate Pump (100-240 VAC) up to 120,000 BTU/H  | COMBI             |
| Lineset                    | 10' x 3/8" x 10' x 5/8" Lineset (Twin-Tube Insulation)   | MPLS385812T-10    |
|                            | 100' x 3/8" x 100' x 5/8" Lineset (Twin-Tube Insulation) | MPLS385812T-100   |
|                            | 15' x 3/8" x 15' x 5/8" Lineset (Twin-Tube Insulation)   | MPLS385812T-15    |
|                            | 30' x 3/8" x 30' x 5/8" Lineset (Twin-Tube Insulation)   | MPLS385812T-30    |
|                            | 50' x 3/8" x 50' x 5/8" Lineset (Twin-Tube Insulation)   | MPLS385812T-50    |
|                            | 65' x 3/8" x 65' x 5/8" Lineset (Twin-Tube Insulation)   | MPLS385812T-65    |
| Port Adaptor               | Adaptor: 1/2" x 5/8" (required)                          | MAC-A456JP-E      |
|                            | Adaptor: 1/4" x 3/8" (required)                          | PAC-493PI         |

**NOTES:**

†PAC-SF40RM-E (Unable to use with wireless remote controller)

## OUTDOOR UNIT ACCESSORIES: PUZ-A24NHA7

|                       |                                                                |              |
|-----------------------|----------------------------------------------------------------|--------------|
| Air Outlet Guide      | Air Outlet Guide (1 Piece)                                     | PAC-SG59SG-E |
| Centralized Drain Pan | Centralized Drain Pan                                          | PAC-SG63DP-E |
|                       | Drain Pan                                                      | PAC-SG64DP-E |
| Control/Service Tool  | Control/Service Tool                                           | PAC-SK52ST   |
|                       | M- & P-Series Maintenance Tool Cable Set                       | M21EC0397    |
|                       | USB/UART Conversion Cable (Required for all laptop connection) | M21EC1397    |
| Hail Guards           | Hail Guard                                                     | HG-A6        |
| M-NET Converter       | M-NET Converter                                                | PAC-SJ85MA-E |
|                       | M-NET Converter                                                | PAC-SJ95MA-E |
| 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   |
| 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    |
| Wind Baffle           | Front Wind Baffle                                              | WB-PA5       |
|                       | Rear Wind Baffle                                               | WB-RE5       |
|                       | Side Advanced Wind Baffle                                      | WB-SD5       |



# OUTDOOR UNIT DIMENSIONS: PUZ-A24NHA7

Unit: mm<in>

## 1 FREE SPACE (Around the unit)

The diagram below shows a basic example.  
Explanation of particular details are given in the installation manuals etc.



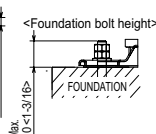
## 2 SERVICE SPACE

Dimensions of space needed for service access are shown in the below diagram.



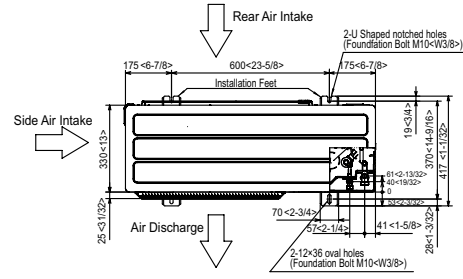
## 3 FOUNDATION BOLTS

Please secure the unit firmly with 4 foundation (M10<W3/8>) bolts. (Bolts and washers must be purchased locally.)



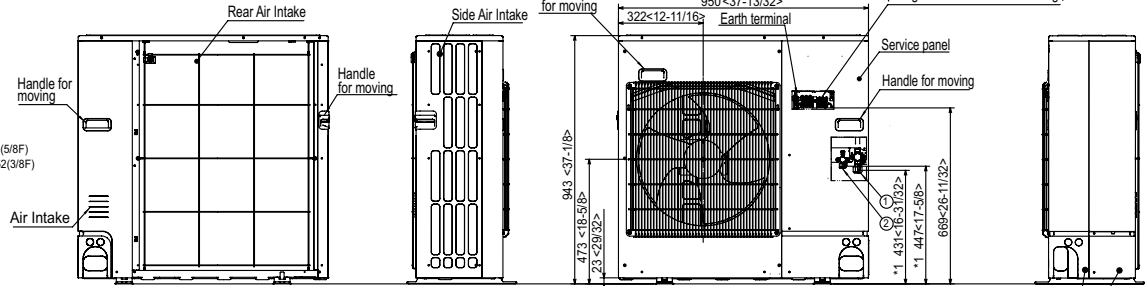
## 4 PIPING-WIRING DIRECTIONS

Piping and wiring connections can be made from 4 directions: FRONT, Right, Rear and Below.



## Example of Notes

- ① --- Refrigerant GAS pipe connection (FLARE) ø15.88(5/8F)
- ② --- Refrigerant LIQUID pipe connection (FLARE) ø9.52(3/8F)
- \*1 --- Indication of STOP VALVE connection location.



## Piping knockout Hole Details



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

FORM# PAA-A18AA1 & PUZ-A24NHA7 - 202304

