

**PEAD-A24AA9 & SUZ-KA24NAHZ-R1**  
**MID STATIC HORIZONTAL-DUCTED INDOOR UNIT**  
**24,000 BTU/H HYPER-HEATING UNIVERSAL OUTDOOR UNIT**



Job Name:

System Reference:

Date:



Indoor Unit.....PEAD-A24AA9

Outdoor Unit.....SUZ-KA24NAHZ-R1

**INDOOR UNIT FEATURES**

- Unobtrusive ceiling-concealed design for short-run ductwork
- Wide ranging external static pressure (0.14-0.60 in. WG)
- Built-in condensate lift mechanism (up to 27-9/16")
- Auto fan speed mode
- Optional FB Series filter boxes for easy access and service
- Ideal for residential homes, retail shopping centers, larger classrooms, office complexes, conference rooms, ballrooms, fitness centers, and more
- Multiple control options available:
  - kumo cloud® smart device app for remote access
  - Third-party interface options
  - Wired or wireless controllers

**OUTDOOR UNIT FEATURES**

- The outdoor unit powers the indoor unit, and should a power outage occur, the system is automatically restarted when power returns
- INVERTER-driven compressor and LEV provide high efficiency and comfort while using only the energy needed to maintain maximum performance
- Hyper-heating performance offers 100% heating capacity at 5° F
- Hot-Start Technology: no cold air rush at equipment startup or when restarting after Defrost Cycle
- Quiet operation
- Built-in base pan heater
- Innovative Joint Lap DC Motor leads to high efficiency and reliability
- Pulse Amplitude Modulation technology

# SPECIFICATIONS: PEAD-A24AA9 & SUZ-KA24NAHZ-R1

|   |   |                     |  |
|---|---|---------------------|--|
| Cooling at 95°F <sup>1</sup>            | Maximum Capacity                              | BTU/H               | 24,000                                       |
|   | Rated Capacity                                | BTU/H               | 24,000                                       |
|   | Minimum Capacity                              | BTU/H               | 10,100                                       |
|   | Maximum Power Input                           | W                   | 2,040  |
|   | Rated Power Input                             | W                   | 2,040  |
|   | Moisture Removal                              | Pints/h             | 6.9  |
|   | Sensible Heat Factor                          |                     | 0.68   |
|   | Power Factor [208V / 230V]                    | %                   | 93.0 / 93.0                                  |
| Heating at 47°F <sup>2</sup>            | Maximum Capacity                              | BTU/H               | 28,000                                       |
|   | Rated Capacity                                | BTU/H               | 25,000                                       |
|   | Minimum Capacity                              | BTU/H               | 10,100                                       |
|   | Maximum Power Input                           | W                   | 2,310  |
|   | Rated Power Input                             | W                   | 1,940  |
|   | Power Factor [208V / 230V]                    | %                   | 92.0 / 92.0                                  |
| Heating at 17°F <sup>3</sup>            | Maximum Capacity                              | BTU/H               | 25,200                                       |
|   | Rated Capacity                                | BTU/H               | 18,200                                       |
|   | Maximum Power Input                           | W                   | 3,550  |
|   | Rated Power Input                             | W                   | 2,156  |
| Heating at 5°F <sup>4</sup>             | Maximum Capacity                              | BTU/H               | 25,000                                       |
|   | Maximum Power Input                           | W                   | 3,510  |
| Heating at -4°F <sup>5</sup>            | Maximum Capacity                              | BTU/H               | 22,400                                       |
| Efficiency                              | SEER2   |                     | 16.7   |
|   | EER2 <sup>1</sup>                             |                     | 11.7   |
|   | HSPF2 [IV]                                    |                     | 9.4  |
|   | COP at 47°F <sup>2</sup>                      |                     | 3.7  |
|   | COP at 17°F at Maximum Capacity <sup>3</sup>  |                     | 2.0  |
|   | COP at 5°F at Maximum Capacity <sup>4</sup>   |                     | 1.75   |
|   | COP at -4°F at Maximum Capacity <sup>5</sup>  |                     | 1.83   |
|   | COP at -13°F at Maximum Capacity <sup>7</sup> |                     | 1.63   |
| Electrical                              | ENERGY STAR® Certified                        |                     | Yes  |
|   | 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   |
| Indoor Unit                             | Power Supply                                  |                     | Indoor unit is powered by the outdoor unit   |
|   | MCA   | A                   | 2.25   |
|   | Fan Motor Full Load Amperage                  | A                   | 1.80   |
|   | Fan Motor Output                              | W                   | 121  |
|   | Fan Motor Type                                |                     | DC Motor                                     |
|   | Airflow Rate at Cooling, Dry                  | CFM                 | 512–565–636–742                              |
|   | Airflow Rate at Heating, Dry                  | CFM                 | 512–565–636–742                              |
|   | Sound Pressure Level [Cooling]                | dB[A]               | 27–29–31–35                                  |
|   | Sound Pressure Level [Heating]                | dB[A]               | 27–29–31–35                                  |
|   | External Static Pressure                      | in.WG               | 0.14–0.2–0.28–0.4–0.6                        |
|   | Drain Pipe Size                               | In. [mm]            | 1-1/4 [32]                                   |
|   | Condensate Lift Mechanism, Maximum Distance   | In. [mm]            | 27-9/16 [700]                                |
|   | Coating on Heat Exchanger                     |                     | —  |
|   | External Finish Color                         |                     | Galvanized                                   |
|   | Unit Dimensions                               | W x D x H: In. [mm] | 43-5/16 x 28-7/8 x 9-7/8 [1,100 x 732 x 250] |
|   | Package Dimensions                            | W x D x H: In. [mm] | 53-15/16 x 35-7/16 x 13 [1,370 x 900 x 330]  |
| Indoor Unit Operating Temperature Range | Unit Weight                                   | Lbs. [kg]           | 67 [30]                                      |
|   | Package Weight                                | Lbs. [kg]           | 78 [35]                                      |
| Indoor Unit Operating Temperature Range | Cooling Intake Air Temp [Maximum / Minimum]*  | °F                  | 95 DB, 71 WB / 67 DB, 57 WB                  |
|   | Heating Intake Air Temp [Maximum / Minimum]   | °F                  | 80 DB / 70 DB                                |

## 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)

°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

\*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.

\*\*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.

# SPECIFICATIONS: PEAD-A24AA9 & SUZ-KA24NAHZ-R1

|  |  |                     |  |
|--|--|---------------------|--|
| Outdoor Unit                             | MCA  | A                   | 17.0   |
|  | MOCP   | A                   | 27   |
|  | Fan Motor Output   | W                   | 74   |
|  | Airflow Rate [Cooling / Heating]                           | CFM                 | 1940 / 1940  |
|  | Refrigerant Control  |                     | Linear expansive valve                             |
|  | Defrost Method   |                     | Reverse Cycle                                      |
|  | Sound Pressure Level, Cooling <sup>1</sup>                 | dB(A)               | 52   |
|  | Sound Pressure Level, Heating <sup>2</sup>                 | dB(A)               | 53   |
|  | Compressor Type  |                     | scroll   |
|  | Compressor Model   |                     | DNB28FBAMT   |
|  | Compressor Rated Load Amps                                 | A                   | 9  |
|  | Compressor Locked Rotor Amps                               | A                   | 18.0   |
|  | Compressor Oil [Type // Charge]                            | oz.                 | FVC68D // 34                                       |
|  | External Finish Color                                      |                     | Ivory Munsell 3Y 7.8/1.1                           |
|  | Base Pan Heater  |                     | Built-in   |
|  | Unit Dimensions  | W x D x H: In. [mm] | 37-13/32 x 13 (+1-3/16) x 37-1/8 [950 x 360 x 943] |
|  | Package Dimensions   | W x D x H: In. [mm] | 41 x 18 x 41 [1040 x 450 x 1033]                   |
|  | Unit Weight  | Lbs. [kg]           | 190 [86]   |
|  | Package Weight   | Lbs. [kg]           | 210 [95]   |
| 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 / -13 DB, -13 WB                      |
|  | Heating Thermal Lock-out / Re-start Temperatures**         | °F                  | -22 / -13  |
| Refrigerant                              | Type   |                     | R410A  |
|  | Pre-Charged Refrigerant Amount                             | Lbs, oz             | 7.0, 11.0  |
|  | Maximum Pre-Charged Piping Length                          | Ft. [m]             | 70.0 [21.0]  |
|  | Additional Refrigerant Charge Per Additional Piping Length | oz./Ft. [g/m]       | 0.7 [65]   |
| 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]             | 165 [50]   |
|  | Maximum Height Difference                                  | Ft. [m]             | 100 [30]   |
|  | Maximum Number of Bends                                    |                     | 15   |

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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

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## INDOOR UNIT ACCESSORIES: PEAD-A24AA9

|                            |   |                   |
|----------------------------|---|-------------------|
| Control Interface          | Airzone Wired Blueface Controller (White)   | AZZBSBLUEZEROCB   |
|                            | Airzone Wired Lite Controller (White)   | AZZBSLITECB       |
|                            | Airzone Wireless Lite Controller (White)  | AZZBSLITERB       |
|                            | Airzone Wireless Think Controller (White)   | AZZBSTHINKRB      |
|                            | Backup Heat Relay Kit Adapter for CN24 or CN152 on ducted models                            | CN24RELAY-KIT-CM3 |
|                            | IT Extender for kumo station™   | PAC-WHS01IE-E     |
|                            | kumo station™ for kumo cloud®   | PAC-WHS01HC-E     |
|                            | On/Off Input Adapter for CN32 and Forced Fan Operation Input Adapter for SWE                | PAC-715AD         |
|                            | Operation and Error Status Output Adapter   | PAC-SF40RM-E      |
|                            | Procon BACnet® and Modbus® Interface  | PAC-UKPRC001-CN-1 |
|                            | Thermostat Interface for 3rd Party Thermostats  | PAC-US445CN-1     |
|                            | USNAP Adapter for Demand Response   | PAC-WHS01UP-E     |
|                            | Wireless Interface for kumo cloud®  | PAC-USWHS002-WF-2 |
| Remote Sensor              | Flush Mount Remote Temperature Sensor for SEZ, SLZ, SVZ and all P-Series models             | PAC-USSEN002-FM-1 |
|                            | Wall Mount Remote Temperature Sensor  | PAC-SE41TS-E      |
|                            | Wireless temperature and humidity sensor for kumo cloud®                                    | PAC-USWHS003-TH-1 |
| Wired Remote Controller    | Deluxe MA Wired Remote Controller†  | PAR-41MAAU        |
|                            | Simple Ductless Wired Remote Controller   | PAC-SDW01RC-1     |
|                            | Simple MA Remote Controller   | PAC-YT53CRAU-J    |
|                            | Touch MA Wired Remote Controller  | PAR-CT01MAU-SB    |
| Wireless Remote Controller | kumo touch™ RedLINK™ Wireless Controller & Receiver kit                                     | MHK2              |
|                            | Lockdown Bracket for Wireless Handheld Remote Controllers                                   | RCMKP1CB          |
|                            | Universal Wireless MA Handheld Remote Controller  | PAR-FL32MA-E      |
|                            | Universal Wireless Receiver for PAR-FL32MA-E  | PAR-FA32MA-W      |
|                            | Wireless Signal Receiver  | PAR-SA9CA-E       |
| 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 Sensor Extension Cable — 15 Ft.  | C13-103           |
|                            | Refco Condensate Pump (100-240 VAC) up to 120,000 BTU/H                                     | COMBI             |
| Control Wire               | 20/2PR, 1PR shielded + 1PR plenum wire for Airzone, 100 ft reel                             | CW2042S2-100      |
|                            | 20/2PR, shielded + 1PR plenum wire for Airzone, 500 ft reel                                 | CW2042S2-500      |
| 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 Box                 | Filter Box with MERV 13 Filter  | FBM2-3-A          |
| Lineset                    |   | Lineset 3/8x5/8   |
|                            | 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    |

**NOTES:**

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

OUTDOOR UNIT ACCESSORIES: SUZ-KA24NAHZ-R1

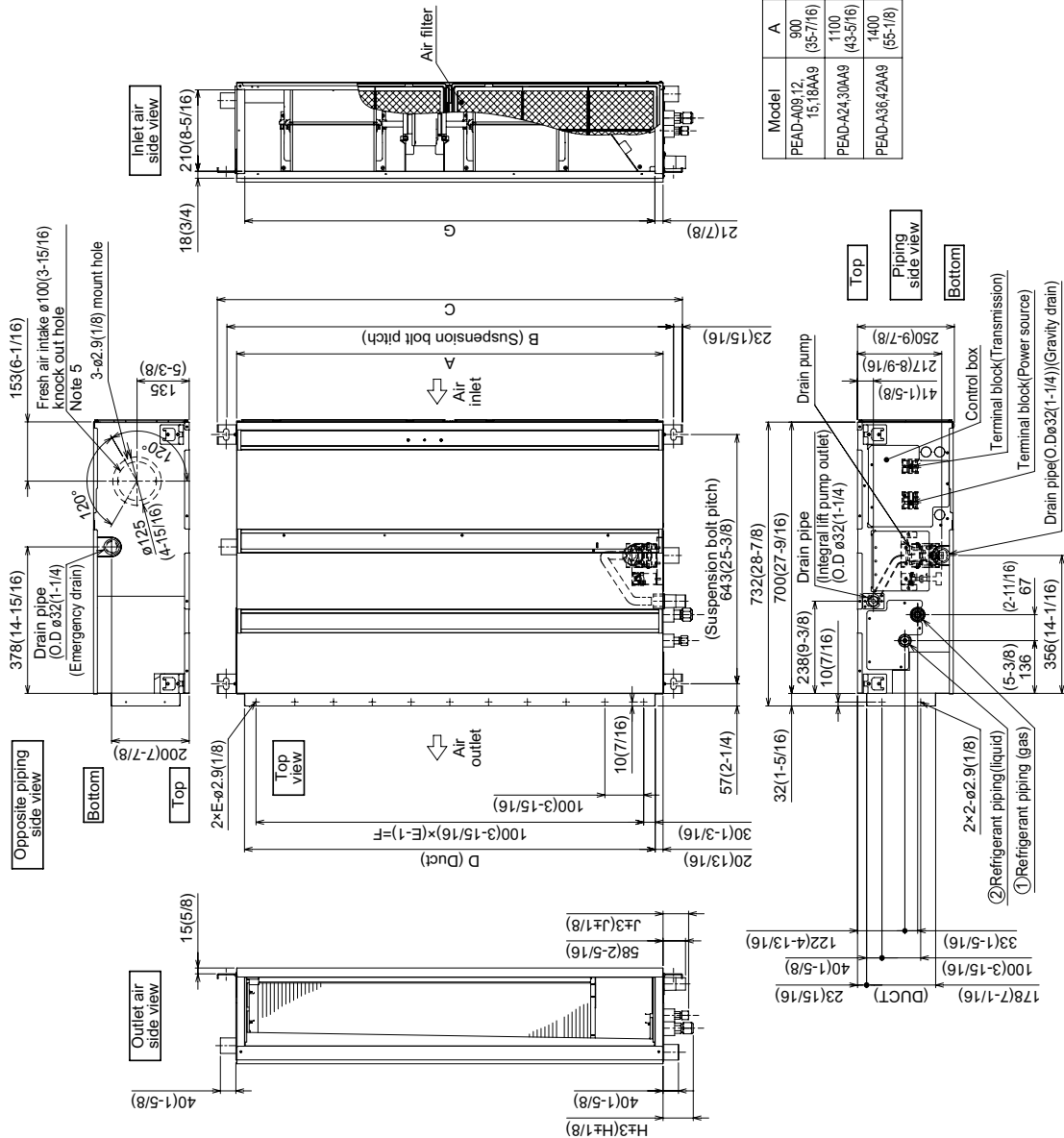
|                       |  |              |
|-----------------------|--|--------------|
| Air Outlet Guide      | Air Outlet Guide (1 Piece)                             | PAC-SG59SG-E |
| Centralized Drain Pan | Drain Pan  | PAC-SG64DP-E |
| Control/Service Tool  | M- & P-Series Maintenance Tool Cable Set               | M21EC0397    |
| Drain Socket          | Drain Socket   | PAC-SH71DS-E |
| Hail Guards           | Hail Guard   | HG-A6        |
| 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   |
| Snow/Rain Diverter    | Snow/Rain Diverter                                     | SRD-4        |
| 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 3-1/4 inch Mounting Base (Pair) - Plastic | DSD-400P     |
|                       | Outdoor Unit Stand — 12" High                          | QSMS1201M    |

# INDOOR UNIT DIMENSIONS: PEAD-A24AA9

## INDOOR UNIT

### PEAD-A09, 12, 15, 18, 24, 30, 36, 42AA9

- Notes
1. Use an M10 screw for the suspension bolt (field supply).
  2. Keep the service space for maintenance at the bottom.
  3. This drawing is for PEAD-A09-12-15-18-24-30AA9 models which have 2 fans. PEAD-A36-42AA9 models have 3 fans.
  4. If the inlet duct is used, remove the air filter (supplied with the unit), then install the filter (field supply) at the suction side.
  5. Heat air to 0°C(32°F) or higher when taking fresh air with a fresh air intake.



| Model               | J  | ① Gas pipe   | ② Liquid pipe |
|---------------------|----|--------------|---------------|
| PEAD-A09AA9         | 62 | ø9.52 (3/8)  | ø6.35 (1/4)   |
| PEAD-A12, 15, 18AA9 | 62 | ø12.7 (1/2)  | ø6.35 (1/4)   |
| PEAD-A24, 30AA9     | 66 | ø15.88 (5/8) | ø9.52 (3/8)   |
| PEAD-A36, 42AA9     | 66 | ø15.88 (5/8) | ø9.52 (3/8)   |

| Model                   | A             | B              | C              | D              | E            | F              | G               | H          |
|-------------------------|---------------|----------------|----------------|----------------|--------------|----------------|-----------------|------------|
| PEAD-A09, 12, 15, 18AA9 | 900 (35-7/16) | 954 (37-9/16)  | 1000 (39-3/8)  | 860 (33-7/8)   | 9 (31-1/2)   | 800 (31-13/16) | 858 (33-13/16)  | 72 (2-7/8) |
| PEAD-A24, 30AA9         | 1100 (43-3/8) | 1154 (45-7/16) | 1200 (47-1/4)  | 1080 (41-3/4)  | 11 (39-3/8)  | 1000 (39-3/8)  | 1058 (41-11/16) | 78 (3-1/8) |
| PEAD-A36, 42AA9         | 1400 (55-1/8) | 1454 (57-1/4)  | 1500 (59-1/16) | 1360 (53-9/16) | 14 (51-3/16) | 1300 (51-3/16) | 1358 (53-1/2)   | 78 (3-1/8) |

# OUTDOOR UNIT DIMENSIONS: SUZ-KA24NAHZ-R1

Unit: mm<in>

