

**PEAD-A24AA7 & SUZ-KA24NAHZ
MID STATIC HORIZONTAL-DUCTED INDOOR UNIT
24,000 BTU/H HYPER-HEATING UNIVERSAL OUTDOOR UNIT**



Job Name:

System Reference:

Date:



Indoor Unit.....PEAD-A24AA7

Outdoor Unit.....SUZ-KA24NAHZ

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
- H2i® hyper heat 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-A24AA7 & SUZ-KA24NAHZ

| | | | |
|---|---|---|---|
| Cooling at 95°F ¹ | Maximum Capacity | BTU/H | 24,000 |
| | Rated Capacity | BTU/H | 24,000 |
| | Minimum Capacity | BTU/H | 10,000 |
| | Maximum Power Input | W | 2,080 |
| | Rated Power Input | W | 2,080 |
| | Moisture Removal | Pints/h | 6.9 |
| | Sensible Heat Factor | | 0.68 |
| Heating at 47°F ² | Power Factor | % | 93.0/93.0 |
| | Maximum Capacity | BTU/H | 28,000 |
| | Rated Capacity | BTU/H | 25,000 |
| | Minimum Capacity | BTU/H | 10,000 |
| | Maximum Power Input | W | 2,280 |
| | Rated Power Input | W | 1,920 |
| Heating at 17°F ³ | Power Factor | % | 92.0/92.0 |
| | Maximum Capacity | BTU/H | 25,000 |
| | Rated Capacity | BTU/H | 18,000 |
| | Maximum Power Input | W | 3,450 |
| Heating at 5°F ⁴ | Rated Power Input | W | 2,096 |
| | Maximum Capacity | BTU/H | 25,000 |
| Heating at -13°F ⁷ | Maximum Power Input | W | 3,826 |
| | Maximum Capacity | BTU/H | 20,000 |
| Efficiency | SEER | | 15.0 |
| | EER ¹ | | 10.3 |
| | HSPF [IV] | | 9.0 |
| | COP at 47°F ² | | 3.8 |
| | COP at 17°F at Maximum Capacity ³ | | 2.1 |
| | COP at 5°F at Maximum Capacity ⁴ | | 1.75 |
| | COP at -13°F at Maximum Capacity ⁷ | | 1.4 |
| ENERGY STAR [®] Certified | | No | |
| Electrical | Voltage, Phase, Frequency | | 208/230, 1, 60 |
| | Guaranteed Voltage Range | V AC | 198 - 253, 187 - 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 | 2.63 |
| | Fan Motor Full Load Amperage | A | 2.1 |
| | Fan Motor Output | W | 121 |
| | Fan Motor Type | | DC Motor |
| | Airflow Rate at Cooling, Dry | CFM | 512-635-741 |
| | Airflow Rate at Cooling, Wet | CFM | 461-572-667 |
| | Airflow Rate at Heating, Dry | CFM | 512-635-741 |
| | Sound Pressure Level [Cooling] | dB[A] | 30-33-37 |
| | Sound Pressure Level [Heating] | dB[A] | 30-33-37 |
| | 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 [1100 x 732 x 250] |
| Package Dimensions | W x D x H: In. [mm] | 53-3/16 x 34-11/16 x 13-7/16 [1350 x 880 x 341] | |
| Unit Weight | Lbs. [kg] | 69 [31] | |
| Package Weight | Lbs. [kg] | 82 [37] | |
| Indoor Unit Operating Temperature Range | Cooling Intake Air Temp [Maximum / Minimum]* | °F | 90 DB, 72 WB / 66 DB, 61 WB |
| | Heating Intake Air Temp [Maximum / Minimum] | °F | 77 DB / 59 DB |

NOTES:

AHRI Rated Conditions

(Rated data is determined at a fixed compressor speed)

| | | |
|--|----|------------------------------|
| ¹ Cooling (Indoor // Outdoor) | °F | 80 DB, 67 WB // 95 DB, 75 WB |
| ² Heating at 47°F (Indoor // Outdoor) | °F | 70 DB, 60 WB // 47 DB, 43 WB |
| ³ Heating at 17°F (Indoor // Outdoor) | °F | 70 DB, 60 WB // 17 DB, 15 WB |

Conditions

| | | |
|---|----|--------------------------------|
| ⁴ Heating at 5°F (Indoor // Outdoor) | °F | 70 DB, 60 WB // 5 DB, 4 WB |
| ⁵ Heating at -4°F (Indoor // Outdoor) | °F | 70 DB, 60 WB // -4 DB, -5 WB |
| ⁶ Heating at -5°F (Indoor // Outdoor) | °F | 70 DB, 60 WB // -5 DB, -6 WB |
| ⁷ Heating at -13°F (Indoor // Outdoor) | °F | 70 DB, 60 WB // -13 DB, -14 WB |

*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-A24AA7 & SUZ-KA24NAHZ

| | | | |
|--|--|---------------------------------------|---|
| Outdoor Unit | MCA | A | 17.0 |
| | MOCP | A | 27 |
| | Fan Motor Output | W | 74 |
| | Airflow Rate | CFM | 800/800 |
| | Refrigerant Control | | LEV |
| | Defrost Method | | Reverse Cycle |
| | Sound Pressure Level, Cooling ¹ | dB(A) | 52 |
| | Sound Pressure Level, Heating ² | dB(A) | 53 |
| | Compressor Type | | Scroll |
| | Compressor Model | | DNB28FBAMT |
| | Compressor Rated Load Amps | A | 9.0 |
| | Compressor Locked Rotor Amps | A | 18.0 |
| | Compressor Oil Type // Charge | oz. | FVC68D // 1,34 |
| | 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 14-3/16 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 |
| Heating Air Temp [Maximum / Minimum] | | °F | 75 DB, 65 WB / -13 DB, -14 WB |
| Heating Thermal Lock-out / Re-start Temperatures** | | °F | -22 / -13 |
| Refrigerant | Type | | R410A |
| | Charge | Lbs, oz | 7, 11.0 |
| | Chargeless Piping Length | Ft. [m] | 100.0 [30.0] |
| | 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] | 100 [30] |
| | Maximum Height Difference | Ft. [m] | 100 [30] |
| | Maximum Number of Bends | | 15 |

NOTES:

AHRI Rated Conditions

(Rated data is determined at a fixed compressor speed)

¹Cooling (Indoor // Outdoor) °F 80 DB, 67 WB // 95 DB, 75 WB

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

³Heating 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

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

⁶Heating at -5°F (Indoor // Outdoor) °F 70 DB, 60 WB // -5 DB, -6 WB

⁷Heating at -13°F (Indoor // Outdoor) °F 70 DB, 60 WB // -13 DB, -14 WB

*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.

INDOOR UNIT ACCESSORIES: PEAD-A24AA7

| | | |
|----------------------------|---|-------------------|
| Control Interface | 3-Pin Connector | PAC-715AD |
| | BACnet® and Modbus Interface | PAC-UKPRC001-CN-1 |
| | CN24 Relay Kit | CN24RELAY-KIT-CM3 |
| | Connector cable for remote display | PAC-SA88HA-EP |
| | IT Extender | PAC-WHS01IE-E |
| | kumo station® for kumo cloud® | PAC-WHS01HC-E |
| | Lockdown bracket for remote controller | RCMKP1CB |
| | Remote Operation Adapter† | PAC-SF40RM-E |
| | Thermostat Interface | PAC-US444CN-1 |
| | USNAP Adapter | PAC-WHS01UP-E |
| | Wireless Interface for kumo cloud® | PAC-USWHS002-WF-2 |
| Remote Sensor | 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 | Airzone ZBS Wired Blueface Principal Controller White | AZZBSBLUEFACECB |
| | Airzone ZBS Wired Lite Controller White | AZZBSLITECB |
| | Airzone ZBS Wired Think Controller White | AZZBSTHINKCB |
| | Airzone ZBS Wireless Lite Controller White | AZZBSLITERB |
| | Airzone ZBS Wireless Think Controller White | AZZBSTHINKRB |
| | Deluxe Wired MA Remote Controller† | PAR-40MAAU |
| | Simple MA Remote Controller† | PAC-YT53CRAU-J |
| | Touch MA Controller† | PAR-CT01MAU-SB |
| Wireless Remote Controller | kumo touch™ RedLINK™ Wireless Controller | MHK2 |
| | Wireless MA Receiver | PAR-FA32MA-W |
| 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 |
| 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 | 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 |

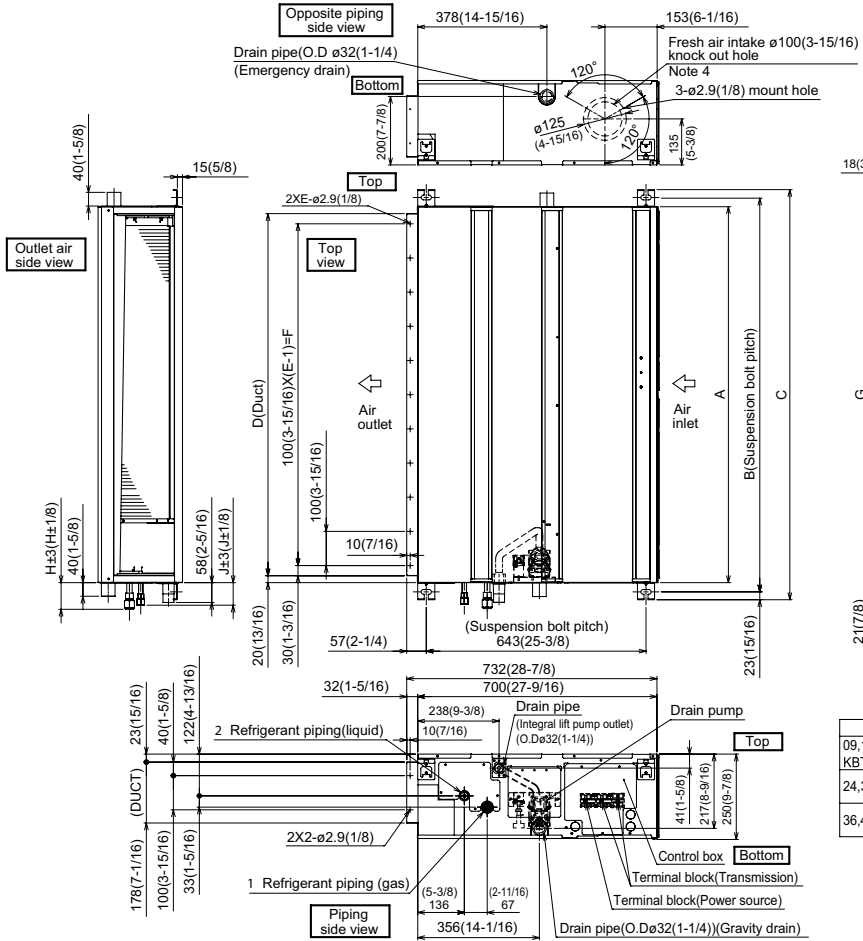
NOTES:

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

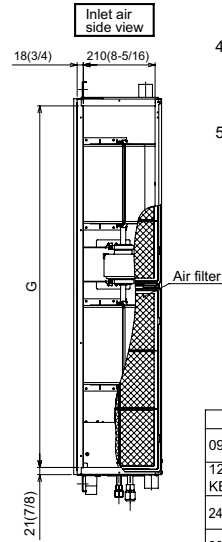
OUTDOOR UNIT ACCESSORIES: SUZ-KA24NAHZ

| | | |
|-----------------------|--|--------------|
| Air Outlet Guide | Air Outlet Guide (1 Piece) | PAC-SG59SG-E |
| Centralized Drain Pan | Drain Pan | PAC-SG64DS-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 |
| Mounting Pad | Condensing Unit Mounting Pad: 24" x 42" x 3" | ULTRILITE2 |
| Stand | 18" Single Fan Stand | QSMS1801M |
| | 24" Single Fan Stand | QSMS2401M |
| | Outdoor Unit Stand — 12" High | QSMS1201M |

INDOOR UNIT DIMENSIONS: PEAD-A24AA7



- Note 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 24·30·36·42 KBTU/H models, which have 2 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.



Unit:mm(in.)

| Model | J | 1 Gas pipe | 2 Liquid pipe |
|-------------------|---------------|-----------------|----------------|
| 09 KBTU/H | 62 (2-1/2) | ø9.52 (3/8) | ø6.35 (1/4) |
| 12, 15, 18 KBTU/H | 62 (2-1/2) | ø12.7 (1/2) | ø6.35 (1/4) |
| 24, 30 KBTU/H | 66 (2-5/8) | ø15.88 (5/8) | ø9.52 (3/8) |
| 36, 42 KBTU/H | | | |

Unit:mm(in.)

| Model | A | B | C | D | E | F | G | H |
|-----------------------|-------------------|-------------------|-------------------|-------------------|----|-------------------|--------------------|---------------|
| 09, 12, 15, 18 KBTU/H | 900 (35-7/16) | 954 (37-9/16) | 1000 (39-3/8) | 860 (33-7/8) | 9 | 800 (31-1/2) | 858 (33-13/16) | 72 (2-7/8) |
| 24, 30 KBTU/H | 1100 (43-5/16) | 1154 (45-7/16) | 1200 (47-1/4) | 1060 (41-3/4) | 11 | 1000 (39-3/8) | 1058 (41-11/16) | 78 (3-1/8) |
| 36, 42 KBTU/H | 1400 (55-1/8) | 1454 (57-1/4) | 1500 (59-1/16) | 1360 (53-9/16) | 14 | 1300 (51-3/16) | 1358 (53-1/2) | |

OUTDOOR UNIT DIMENSIONS: SUZ-KA24NAHZ

Unit: mm<in>

