

PVA-A24AA7 & PUZ-A24NHA7
24,000 BTU/H MULTI-POSITION AIR HANDLER
24,000 BTU/H HEAT PUMP UNIVERSAL OUTDOOR



Job Name:

System Reference:

Date:

Indoor Unit.....PVA-A24AA7

Outdoor Unit.....PUZ-A24NHA7



INDOOR UNIT FEATURES

- Ducted air handler provides a solution to cool and heat large zones
- Highly efficient totally enclosed ECM motor
- Selectable external static pressure: 0.30, 0.50 and 0.80 in.WG with 3 fan speeds at each static setting
- 1 inch R4.2 fiberglass free insulation reduces condensation and boosts efficiency
- Positive pressure cabinet with air leakage of less than 1.0% at 1.0 in.WG
- Unique blow through design allows simple coil cleaning when the blower is removed
- Multi-position installation: horizontal (left or right), vertical (up or down). For downflow configurations, the CMA-1 is recommended for proper management of condensate to prevent water blow-off in certain conditions
- Optional electric heat kit for additional heat capacity
- Optional humidifier control and ERV control
- Multiple control options available:
 - kumo cloud® smart device app for remote access
 - Third-party interface options
 - Wired or wireless controllers

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: PVA-A24AA7 & PUZ-A24NHA7

| | | | |
|---|--|---------------------|---|
| 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 | 1,960 |
| | Rated Power Input | W | 1,960 |
| | Moisture Removal | Pints/h | 3.0 |
| | Sensible Heat Factor | | 0.83 |
| | Power Factor [208V / 230V] | % | 89.7 / 89.7 |
| Heating at 47°F ² | Maximum Capacity | BTU/H | 28,000 |
| | Rated Capacity | BTU/H | 26,000 |
| | Minimum Capacity | BTU/H | 12,000 |
| | Maximum Power Input | W | 2,300 |
| | Rated Power Input | W | 1,920 |
| | Power Factor [208V / 230V] | % | 96.6 / 96.6 |
| Heating at 17°F ³ | Maximum Capacity | BTU/H | 17,500 |
| | Rated Capacity | BTU/H | 15,000 |
| | Maximum Power Input | W | 1,830 |
| | Rated Power Input | W | 1,760 |
| Heating at 5°F ⁴ | Maximum Capacity | BTU/H | 14,500 |
| | Maximum Power Input | W | 1,900 |
| Efficiency | SEER SEER2 | | 20.5 20.5 |
| | EER ¹ EER2 ¹ | | 12.2 12.1 |
| | HSPF [IV] HSPF2 [IV] | | 9.3 8.3 |
| | COP at 47°F ² | | 3.96 |
| | COP at 17°F at Maximum Capacity ³ | | 2.81 |
| | COP at 5°F at Maximum Capacity ⁴ | | 2.24 |
| Electrical | ENERGY STAR® Certified | | No |
| | 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 | 4.13 |
| | Fan Motor Full Load Amperage | A | 3.3 |
| | Fan Motor Type | | DC Motor |
| | Airflow Rate at Cooling, Dry | CFM | 613–744–875 |
| | Airflow Rate at Heating, Dry | CFM | 613–744–875 |
| | Sound Pressure Level [Cooling] | dB[A] | 30–34–38 |
| | Sound Pressure Level [Heating] | dB[A] | 30–34–38 |
| | External Static Pressure | in.WG | 0.30–0.5–0.8 |
| | Drain Pipe Size | In. [mm] | 3/4 FPT [19.05] |
| | Coating on Heat Exchanger | | — |
| | External Finish Color | | Galvanized steel cabinet-Powder coated Slate Gray |
| | Unit Dimensions | W x D x H: In. [mm] | 21 x 21-5/8 x 54-1/4 [534 x 548 x 1,378] |
| | Package Dimensions | W x D x H: In. [mm] | 13-7/16 x 34-11/16 x 53-3/16 [340 x 880 x 1,350] |
| | Unit Weight | Lbs. [kg] | 141 [64] |
| 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 |
| ⁴ Heating at 5°F (Indoor // Outdoor) | °F | 70 DB, 60 WB // 5 DB, 4 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.
 - » Wind baffles required to operate below 23°F DB in cooling mode.
 - » Heat pump system with wind baffle: 0°F - 115°F.
 - » Refer to wind baffle documentation for further information.

**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: PVA-A24AA7 & 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 | 1940 / 1940 |
| | Refrigerant Control | | LEV |
| | Defrost Method | | Reverse Cycle |
| | Coating on Heat Exchanger | | Blue Fin Coating*** |
| | Sound Pressure Level, Cooling ¹ | dB(A) | 47 |
| | Sound Pressure Level, Heating ² | 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 [1040 x 450 x 1033] |
| | Unit Weight | Lbs. [kg] | 153 [69] |
| Outdoor Unit Operating Temperature Range | Cooling Air Temp [Maximum / Minimum]* | °F | 115 DB / 0 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] | 165 [50] |
| | 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

*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.

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» Heat pump system with wind baffle: 0°F - 115°F.

» Refer to wind baffle documentation for further information.

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• 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*****

INDOOR UNIT ACCESSORIES: PVA-A24AA7

| | | |
|----------------------------|---|-------------------|
| Control Interface | 3-Pin Connector | PAC-715AD |
| | Airzone ZBS Wired Blueface Principal Controller White | AZZBSBLUEFACECB |
| | Airzone ZBS Wired Blueface Principal Controller White | AZZBSBLUEZEROCB |
| | Airzone ZBS Wired Lite Controller White | AZZBSLITECB |
| | Airzone ZBS Wireless Lite Controller White | AZZBSLITERB |
| | Airzone ZBS Wireless Think Controller White | AZZBSTHINKRB |
| | BACnet® and Modbus® Interface | PAC-UKPRC001-CN-1 |
| | CN24 Relay Kit | CN24RELAY-KIT-CM3 |
| | Connector cable for remote display | PAC-SA88HA-EP |
| | kumo station® for kumo cloud® | PAC-WHS01HC-E |
| | Remote Operation Adapter† | PAC-SF40RM-E |
| | Thermostat Interface | PAC-US445CN-1 |
| | USNAP Adapter | PAC-WHS01UP-E |
| 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 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 | 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 |
| Downflow Kit | Condensate Management Kit for downflow installation | CMA-1 |
| Electric Heat Lockout | Electric Heat Lockout | ETC-211020-MIT |
| Electric Kit Heats | 10kW Electric Heater | EH10-MPA-MB |
| | 3kW Electric Heater | EH03-MPA-MB |
| | 5kW Electric Heater | EH05-MPA-MB |
| | 5kW Electric Heater Module-Medium Cabinet | EH05-MPA-M |
| | 8kW Electric Heater | EH08-MPA-MB |
| 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 |
| Terminal Block | Separate Terminal Power Block | SPTB1 |

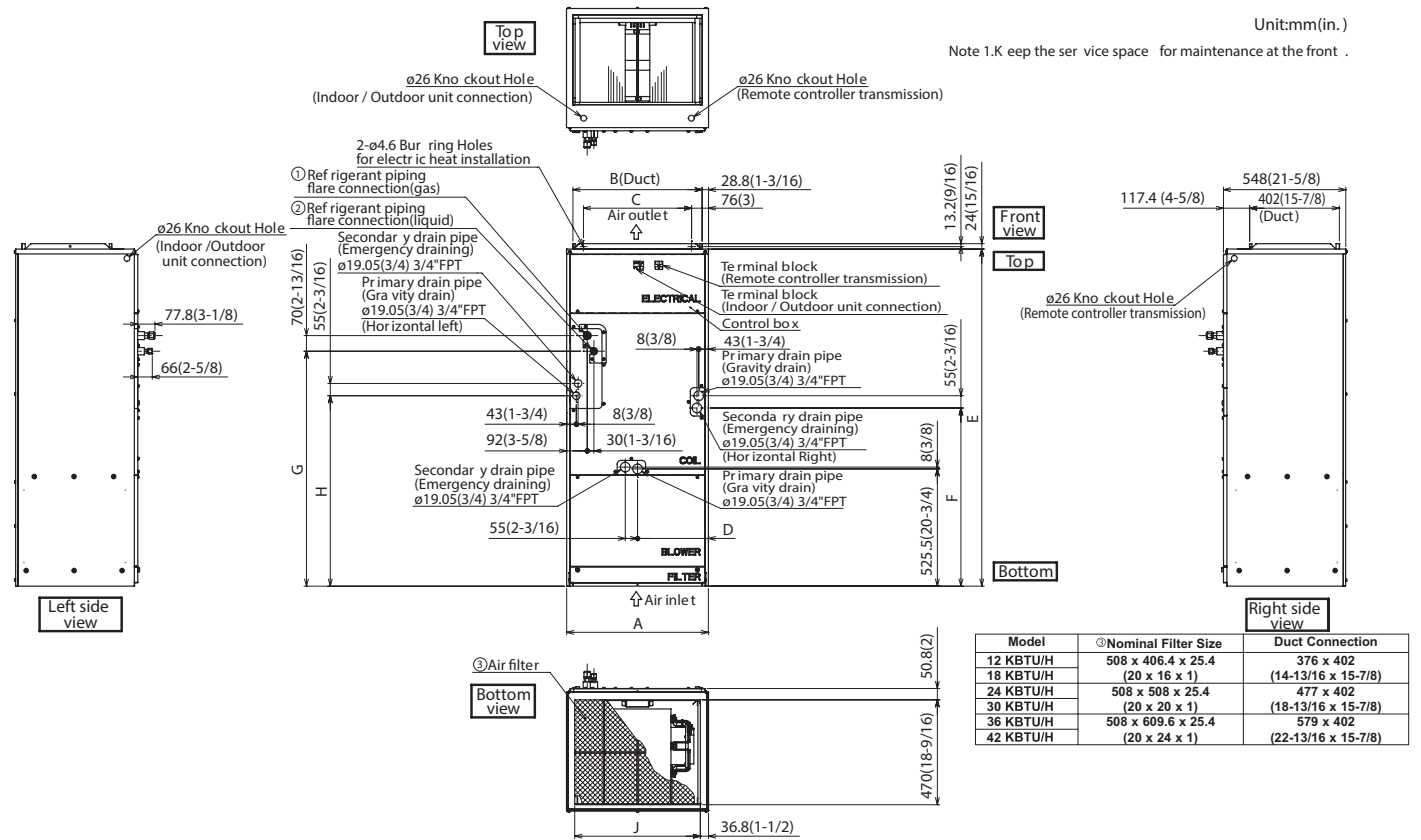
NOTES:

†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 |

INDOOR UNIT DIMENSIONS: PVA-A24AA7



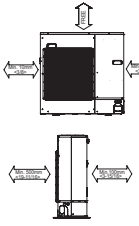
| Model | Unit: mm (in.) | | | | | | | | | | Unit: mm (in.) | |
|-----------|----------------|----------------|----------------|----------------|---------------|-----------------|-----------------|----------------|---------------|---------------|----------------|--|
| | A | B | C | D | E | F | G | H | J | ①Gas Pipe | ②Liquid Pipe | |
| 12 KBTU/H | 432 (17) | 376 (14-13/16) | 281 (11-1/8) | 224 (8-7/8) | 1275 (50-1/4) | 680 (26-3/16) | 823 (32-7/16) | 735.5 (29) | 360 (14-3/16) | Φ 12.7 (1/2) | Φ 6.35 (1/4) | |
| 18 KBTU/H | 534 (21) | 477 (18-13/16) | 382.6 (15-1/8) | 266.5 (10-1/2) | 1378 (54-1/4) | 737 (29-1/16) | 953.5 (37-9/16) | 792 (31-3/16) | 461 (18-3/16) | Φ 15.88 (5/8) | Φ 9.52 (3/8) | |
| 24 KBTU/H | 534 (21) | 477 (18-13/16) | 382.6 (15-1/8) | 266.5 (10-1/2) | 1378 (54-1/4) | 737 (29-1/16) | 953.5 (37-9/16) | 792 (31-3/16) | 461 (18-3/16) | Φ 15.88 (5/8) | Φ 9.52 (3/8) | |
| 30 KBTU/H | 635 (25) | 579 (22-13/16) | 484.6 (19-1/8) | 317.5 (12-1/2) | 1511 (59-1/2) | 798.5 (31-7/16) | 1053 (41-1/2) | 853.5 (33-5/8) | 563 (22-3/16) | Φ 15.88 (5/8) | Φ 9.52 (3/8) | |
| 36 KBTU/H | 635 (25) | 579 (22-13/16) | 484.6 (19-1/8) | 317.5 (12-1/2) | 1511 (59-1/2) | 798.5 (31-7/16) | 1053 (41-1/2) | 853.5 (33-5/8) | 563 (22-3/16) | Φ 15.88 (5/8) | Φ 9.52 (3/8) | |
| 42 KBTU/H | 635 (25) | 579 (22-13/16) | 484.6 (19-1/8) | 317.5 (12-1/2) | 1511 (59-1/2) | 798.5 (31-7/16) | 1053 (41-1/2) | 853.5 (33-5/8) | 563 (22-3/16) | Φ 15.88 (5/8) | Φ 9.52 (3/8) | |

OUTDOOR UNIT DIMENSIONS: PUZ-A24NHA7

Unit: mm<in>

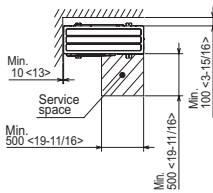
1 FREE SPACE (Around the unit)

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



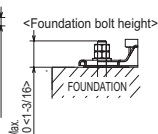
2 SERVICE SPACE

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



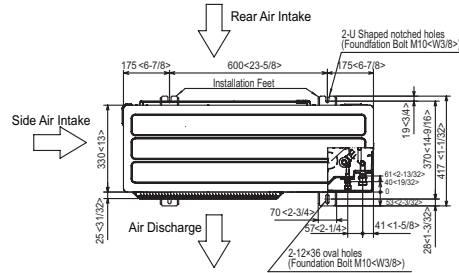
3 FOUNDATION BOLTS

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



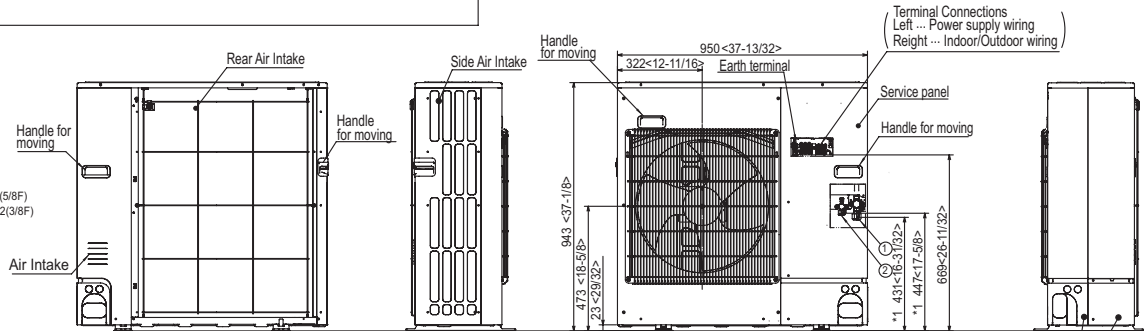
4 PIPING-WIRING DIRECTIONS

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

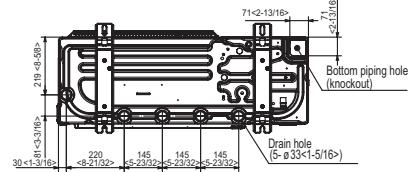
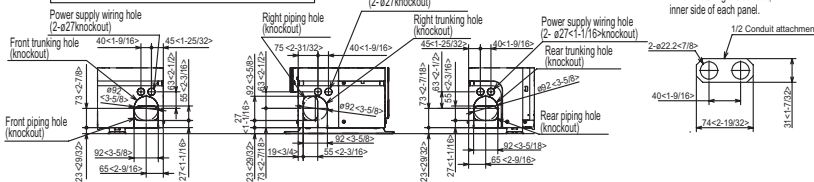


Example of Notes

- 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# PVA-A24AA7 & PUZ-A24NHA7 - 202303

