

PVA-A12AA7 & PUZ-A12NKA7(-BS)
12,000 BTU/H MULTI-POSITION AIR HANDLER
12,000 BTU/H HEAT PUMP UNIVERSAL OUTDOOR



Job Name:

System Reference:

Date:

Indoor Unit.....PVA-A12AA7

Outdoor Unit

Standard Model.....PUZ-A12NKA7

Seacoast Model.....PUZ-A12NKA7-BS



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
- Power receiver 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

SPECIFICATIONS: PVA-A12AA7 & PUZ-A12NKA7(-BS)

| | | | |
|---|--|--|---|
| Cooling at 95°F ¹ | Maximum Capacity | BTU/H | 12,000 |
| | Rated Capacity | BTU/H | 12,000 |
| | Minimum Capacity | BTU/H | 4,800 |
| | Maximum Power Input | W | 890 |
| | Rated Power Input | W | 890 |
| | Moisture Removal | Pints/h | 1.2 |
| | Sensible Heat Factor | | 0.77 |
| Heating at 47°F ² | Power Factor | % | 87.9/87.9 |
| | Maximum Capacity | BTU/H | 19,000 |
| | Rated Capacity | BTU/H | 14,000 |
| | Minimum Capacity | BTU/H | 5,700 |
| | Maximum Power Input | W | 1,730 |
| | Rated Power Input | W | 1,070 |
| Heating at 17°F ³ | Power Factor | % | 96.4/96.4 |
| | Maximum Capacity | BTU/H | 12,000 |
| | Rated Capacity | BTU/H | 9,900 |
| | Maximum Power Input | W | 1,440 |
| Efficiency | Rated Power Input | W | 1,400 |
| | SEER | | 21.4 |
| | EER ¹ | | 13.4 |
| | HSPF [IV] | | 10.3 |
| | COP at 47°F ² | | 3.82 |
| | COP at 17°F at Maximum Capacity ³ | | 2.45 |
| 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 | 15 |
| | Recommended Wire Size [Indoor - Outdoor] | AWG | 14 |
| Indoor Unit | Power Supply | | Indoor unit is powered by the outdoor unit |
| | MCA | A | 3.0 |
| | Fan Motor Full Load Amperage | A | 2.4 |
| | Fan Motor Output | W | 121 |
| | Fan Motor Type | | DC Motor |
| | Airflow Rate at Cooling, Dry | CFM | 280–340–400 |
| | Airflow Rate at Heating, Dry | CFM | 280–340–400 |
| | Sound Pressure Level [Cooling] | dB[A] | 27–31–35 |
| | Sound Pressure Level [Heating] | dB[A] | 27–31–35 |
| | 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] | 17 x 21-5/8 x 50-1/4 [432 x 548 x 1275] |
| Package Dimensions | W x D x H: In. [mm] | 13-7/16 x 34-11/16 x 45-5/16 [340 x 880 x 1,150] | |
| Unit Weight | Lbs. [kg] | 113 [51] | |
| 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]):

- 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.

SEACOAST PROTECTION (-BS MODELS)

- 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 condenser coil to protect it against airborne contaminants.

SPECIFICATIONS: PVA-A12AA7 & PUZ-A12NKA7(-BS)

| | | | |
|--|--|---------------------|---|
| Outdoor Unit | MCA | A | 11.0 |
| | MOCP | A | 28 |
| | Fan Motor Full Load Amperage | A | 0.5 |
| | Fan Motor Output | W | 46 |
| | Airflow Rate | CFM | 1590/1590 |
| | Refrigerant Control | | LEV |
| | Defrost Method | | Reverse Cycle |
| | Coating on Heat Exchanger | | Blue Fin Coating (BS Model only) |
| | Sound Pressure Level, Cooling ¹ | dB(A) | 44 |
| | Sound Pressure Level, Heating ² | dB(A) | 46 |
| | Compressor Type | | INVERTER-driven twin rotary |
| | Compressor Model | | SNB092FQCMC |
| | Compressor Rated Load Amps | A | 7 |
| | Compressor Locked Rotor Amps | A | 12.0 |
| | Compressor Oil Type // Charge | oz. | FV50S // 12 |
| | External Finish Color | | Ivory Munsell 3Y 7.8/1.1 |
| | Base Pan Heater | | N/A |
| | Unit Dimensions | W x D x H: In. [mm] | 31-13/16 (2+7/16) x 11-13/16 x 24-13/16 [809 (+62) x 300 x 630] |
| | Package Dimensions | W x D x H: In. [mm] | 37-1/16 x 16-3/16 x 27-7/16 [941 x 411 x 697] |
| | Unit Weight | Lbs. [kg] | 93 [42] |
| Package Weight | Lbs. [kg] | 104 [47] | |
| 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 / 12 DB, 14 WB |
| | Heating Thermal Lock-out / Re-start Temperatures** | °F | 8 / 12 |
| Refrigerant | Type | | R410A |
| | Charge | Lbs, oz | 4, 7.0 |
| | Chargeless Piping Length | Ft. [m] | 70.0 [21.0] |
| | Additional Refrigerant Charge Per Additional Piping Length | oz./Ft. [g/m] | 0.2 [19] |
| Piping | Gas Pipe Size O.D. [Flared] | In.[mm] | 1/2 [12.7] |
| | Liquid Pipe Size O.D. [Flared] | In.[mm] | 1/4 [6.35] |
| | Maximum Piping Length | Ft. [m] | 100 [30] |
| | Maximum Height Difference | Ft. [m] | 100 [30] |
| | Maximum Number of Bends | | 15 |

NOTES:

| | | | |
|--|---|----|--------------------------------|
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| (Rated data is determined at a fixed compressor speed) | ² Heating at 47°F (Indoor // Outdoor) | °F | 70 DB, 60 WB // 47 DB, 43 WB |
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INDOOR UNIT ACCESSORIES: PVA-A12AA7

| | | |
|----------------------------|---|-------------------|
| 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 |
| 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 Controller | PAR-FA32MA-W |
| | Wireless MA Remote Controller | PAR-FL32MA-E |
| | Wireless Remote Controller | PAR-SL100A-E |
| Condensate | 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 |
| Downflow Kit | Condensate Management Kit for downflow installation | CMA-1 |
| Electric Heat Lockout | Electric Heat Lockout | ETC-211000-MIT |
| Electric Kit Heats | 3kW Electric Heater | EH03-MPA-SB |
| | 5kW Electric Heater | EH05-MPA-SB |
| Lineset | 100' x 1/4" x 100' / 1/2" Lineset (Twin-Tube Insulation) | MLS141212T-100 |
| | 15' x 1/4" x 15' / 1/2" Lineset (Twin-Tube Insulation) | MLS141212T-15 |
| | 30' x 1/4" x 30' / 1/2" Lineset (Twin-Tube Insulation) | MLS141212T-30 |
| | 50' x 1/4" x 50' / 1/2" Lineset (Twin-Tube Insulation) | MLS141212T-50 |
| | 65' x 1/4" x 65' / 1/2" Lineset (Twin-Tube Insulation) | MLS141212T-65 |
| Terminal Block | Separate Terminal Power Block | SPTB1 |

NOTES:

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

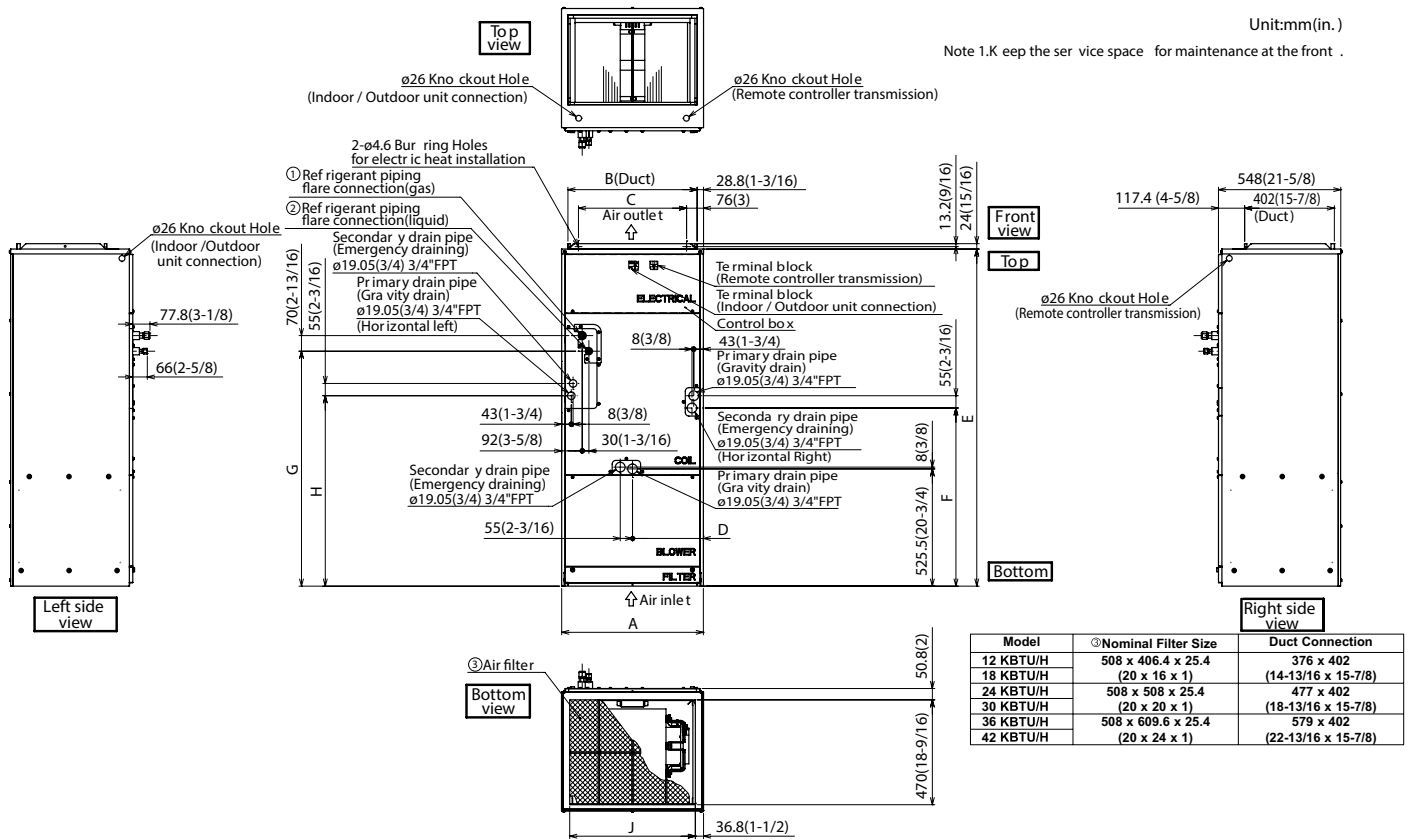
OUTDOOR UNIT ACCESSORIES: PUZ-A12NKA7(-BS)

| | | |
|-----------------------|--|--------------|
| Air Outlet Guide | Air Outlet Guide | PAC-SJ07SG-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 |
| Drain Socket | Drain Socket | MAC-871DS |
| Hail Guards | Hail Guard | HG-A5 |
| M-NET Converter | M-NET Converter | PAC-SJ96MA-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: 16" x 36" x 3" | ULTRILITE1 |
| Stand | 18" Single Fan Stand | QSMS1801M |
| | 24" Single Fan Stand | QSMS2401M |
| | Condenser Wall Bracket | QSWB2000M-1 |
| | Condenser Wall Bracket -Stainless Steel Finish | QSWBSS |
| Wind Baffle | Outdoor Unit Stand — 12" High | QSMS1201M |
| | Front Wind Baffle | WB-PA4 |
| | Rear Wind Baffle | WB-RE4 |
| | Side Advanced Wind Baffle | WB-SD4 |

INDOOR UNIT DIMENSIONS: PVA-A12AA7

Unit:mm(in.)

Note 1.Keep the service space for maintenance at the front.

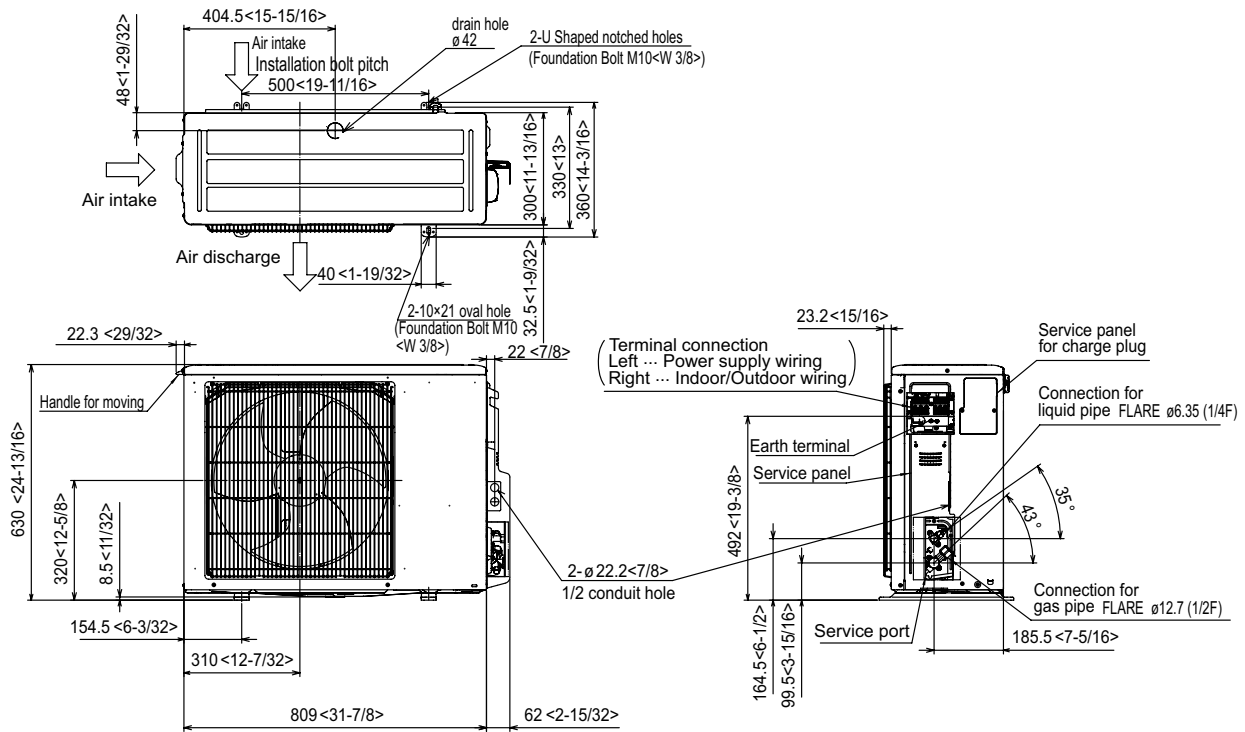


| Model | ①Nominal Filter Size | Duct Connection |
|-----------|----------------------|---------------------|
| 12 KBTU/H | 508 x 406.4 x 25.4 | 376 x 402 |
| 18 KBTU/H | (20 x 16 x 1) | (14-13/16 x 15-7/8) |
| 24 KBTU/H | 508 x 508 x 25.4 | 477 x 402 |
| 30 KBTU/H | (20 x 20 x 1) | (18-13/16 x 15-7/8) |
| 36 KBTU/H | 508 x 609.6 x 25.4 | 579 x 402 |
| 42 KBTU/H | (20 x 24 x 1) | (22-13/16 x 15-7/8) |

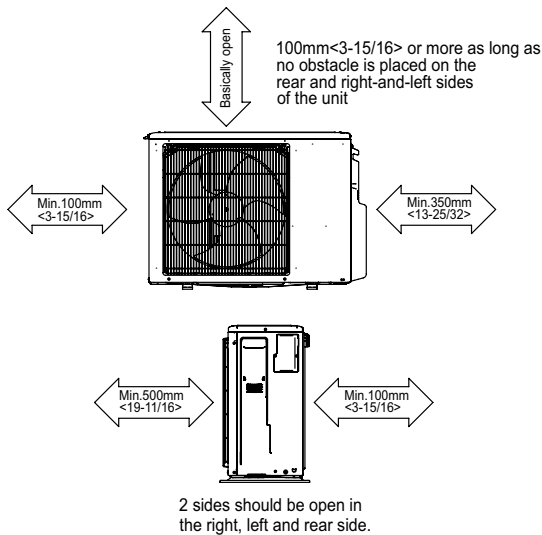
| Model | A | B | C | D | E | F | G | H | J | Unit: mm (in.) | |
|-----------|----------|----------------|----------------|----------------|---------------|-----------------|-----------------|----------------|---------------|----------------|--------------|
| | | | | | | | | | | ①Gas Pipe | ②Liquid Pipe |
| 12 KBTU/H | 432 (17) | 376 (14-13/16) | 281 (11-1/8) | 224 (8-7/8) | 1275 (50-1/4) | 680 (26-13/16) | 823 (32-7/16) | 735.5 (29) | 360 (14-3/16) | Φ 12.7 (1/2) | Φ 6.35 (1/4) |
| 18 KBTU/H | | | | | | | | | | | |
| 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) | | |
| 30 KBTU/H | | | | | | | | | | | |
| 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 | | | | | | | | | | | |

OUTDOOR UNIT DIMENSIONS: PUZ-A12NKA7(-BS)

Unit: mm<in>



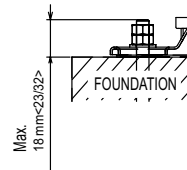
Free space around the outdoor unit (basic example)



FOUNDATION BOLTS

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

<Foundation bolt height>



PIPING-WIRING DIRECTION

Piping and wiring connection can be made from the rear direction only.

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Toll Free: 800-433-4822 www.mehvac.com