

PCA-AK24NL & PUY-AH24NL
21,800 BTU/H CEILING-SUSPENDED INDOOR UNIT
21,800 BTU/H COOLING ONLY OUTDOOR UNIT



Job Name:

System Reference:

Date:



Indoor Unit.....PCA-AK24NL

Outdoor Unit.....PUY-AH24NL



INDOOR UNIT FEATURES

- Auto fan speed mode: Automatic adjustment of fan speed
- Easy-to-clean, washable filter
- Filter status indicator
- Ideal PCA Spaces: Ideal for larger retail stores, classrooms, and restaurants
- Knock-out for outside-air intake
- Light commercial: Units with this icon are suitable for light commercial applications such as small offices, restaurants, and retail.
- Multi-Airflow settings: Airflow settings for high and low ceiling applications
- Multiple control options, including the comfort app for remote access, third-party interfaces, and both wired and wireless controllers
- Suspends from ceiling for quick and easy installation
- Up and down swing-mode: An indoor unit with this capability can move air up and down throughout the room like an oscillating fan using the horizontal vanes.

OUTDOOR UNIT FEATURES

- Blue Fin Coating: An anti-corrosion treatment applied to the aluminum fins of the heat exchanger of the outdoor unit to protect against corrosion caused by salt, sulfur, and other airborne contaminants, especially in coastal and industrial areas.
- Continuous operation: 24-hour continuous operation (cooling mode)
- Fast restart
- High pressure protection
- INVERTER-driven compressor: An inverter-driven compressor generates the precise capacity needed to maintain a temperature set point.
- Low ambient cooling: Low ambient cooling down to -40°F providing 100% capacity (with wind baffles)
- Pre-charged refrigerant: 12k -30k BTU/h come pre-charged for ease of installation. 24k – 30k BTU/h are pre-charged to maximum line length of 225 feet. 12k – 18k BTU/h are pre-charged for up to 165 feet of line length. For units with a capacity of 36,000 BTU/h and above, additional refrigerant charges will be required.
- Seacoast protection: Seacoast Protection, made standard in the 2022 production, features a robust anti-corrosion system with phosphate and acrylic-enamel coated external panels, epoxy resin-coated fan motor support and separator assembly valve beds, and Blue Fin treatment for the heat exchanger coil. These components are rated for 2,000 hours of durability under ASTM B117 testing standards, ensuring longevity in corrosive coastal environments.
- Superior energy and operational efficiency

SPECIFICATIONS: PCA-AK24NL & PUY-AH24NL

| | | | |
|--------------------------------|--|--------------------------------------|---|
| Cooling at 95F ¹ | Maximum Capacity | Btu/h | 24,000 |
| | Rated Capacity | Btu/h | 21,800 |
| | Minimum Capacity | Btu/h | 9,800 |
| | Maximum Power Input | W | 2,120 |
| | Rated Power Input | W | 1,810 |
| | Moisture Removal | Pints/h | 4 |
| | Sensible Heat Factor | - | 0.8 |
| | Power Factor [208V / 230V] | % | 95 / 95 |
| Efficiency | SEER2 | | 20.2 |
| | EER2 ¹ | | 12 |
| | ENERGY STAR [®] Certified | | Yes |
| Electrical | Voltage, Phase, Frequency | V AC / V AC, , Hz | 208 / 230, 1, 60 |
| | Guaranteed Voltage Range | V AC | 198 - 264 |
| | Voltage: Indoor - Outdoor, S1-S2 | V AC | 208/230 |
| | Voltage: Indoor - Outdoor, S2-S3 | V DC | 12-24 |
| | Short-circuit Current Rating [SCCR] | kA | 5 |
| | Recommended Fuse/Breaker Size (Outdoor) | A | 25 |
| | Recommended Wire Size [Indoor - Outdoor] | AWG | 14 |
| | Indoor Unit | Fan Motor Output | W |
| Airflow Rate at Cooling, Dry | | CFM | 495, 530, 565, 635 |
| Airflow Rate at Cooling, Wet | | CFM | 530, 565, 600, 670 |
| Airflow Rate at Heating, Dry | | CFM | 495, 530, 565, 635 |
| Sound Pressure Level [Cooling] | | dB (A) | 33, 35, 37, 40 |
| External Finish Color | | | 6.4Y 8.9/0.4 |
| Unit Dimensions (W x D x H) | | inch x inch x inch [mm x mm x mm] | 50-3/8 x 26-3/4 x 9-1/16 [1,280 x 680 x 230] |
| Package Dimensions (W x D x H) | | inch x inch x inch [mm x mm x mm] | 53-3/16 x 29-15/16 x 12-5/8 [1,350 x 760 x 320] |
| Unit Weight | | lbs [kg] | 71 [32] |
| Package Weight | | lbs [kg] | 82 [37] |
| IDU Operating Temp. Range | Fan Motor Type | | DC Motor |
| | Cooling Intake Air Temp [Maximum / Minimum] | °FDB, °FWB / °FDB, °FWB | 90, 73 / 66, 59 |
| Outdoor Unit | MCA | A | 22 |
| | MOCP | A | 37 |
| | Fan Motor Output | W | 74 |
| | Airflow Rate Cooling | CFM | 1,940 |
| | Coating on Heat Exchanger (Bluefin, Sea Coast) | | Yes, Yes |
| | Sound Pressure Level, Cooling ¹ | dB (A) | 49 |
| | Compressor Type | | Twin Rotary |
| | Compressor Model | | SRB172FQHMC-L1 |
| | Compressor Oil [Type // Charge] | Type // oz | RM68EH // 23 |
| | External Finish Color | | Munsell No.3Y 7.8/1.1 |
| | Unit Dimensions (W x D x H) | inch x inch x inch [mm x mm x mm] | 37-13/32 x 14 x 37-1/8 [950 x 355 x 943] |
| | Package Dimensions (W x D x H) | inch x inch x inch [mm x mm x mm] | 41.94 x 17.75 x 42.50 [1,065 x 450 x 1,079] |
| | Unit Weight | lbs [kg] | 155 [70] |
| Package Weight | lbs [kg] | 179 [81] | |
| ODU Operating Temp. Range | Cooling Intake Maximum Air Temp [Maximum / Minimum*] | °FDB | 115 / 23 |
| | Type | | R454B |
| Refrigerant | Pre-Charged Refrigerant Amount | lbs, oz | 7, 11 |
| | Maximum Pre-Charged Piping Length | ft [m] | 225 [69] |
| | Additional Refrigerant Charge Per Additional Piping Length | oz/ft | 0 |
| Piping | Gas Pipe Size O.D. [Flared] | inch [mm] | 5/8 [15.88] |
| | Liquid Pipe Size O.D. [Flared] | inch [mm] | 3/8 [9.52] |
| | Maximum Piping Length | ft [m] | 225 [69] |
| | Maximum Height Difference | ft [m] | 100 [30] |
| | Maximum Number of Bends | | 15 |

NOTES

- ¹Cooling at 95°F (Indoor: 80°F DB, 67°F WB // Outdoor: 95°F DB, 75°F WB)
- * Indoor/Outdoor Unit Operating Temperature Range (Cooling Air Temp [Maximum / Minimum]):
- Wind baffles required to operate below 23°F DB in cooling mode.
- Cooling-only system with advanced wind baffle: -40°F - 115°F.
- Refer to wind baffle documentation for further information.
- ** Outdoor Unit Operating Temperature Range (Cooling Thermal Lock-out / Re-start Temperatures):

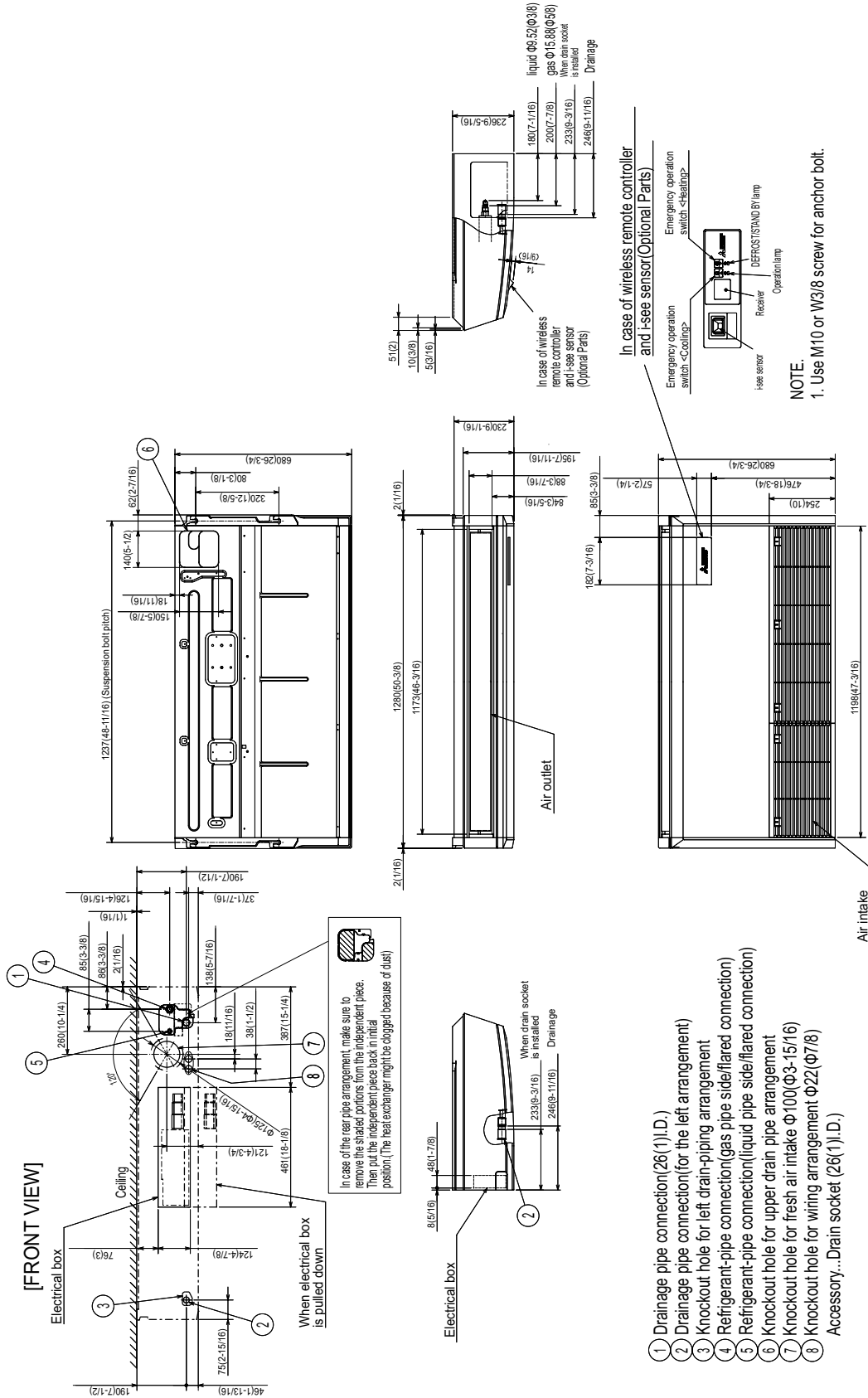
INDOOR UNIT ACCESSORIES: PCA-AK24NL

| | | |
|--|--|---|
| 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 |
| Filter | 65 Medium Efficiency Filter MERV 8 | PAC-SH89KF-E |
| Wireless Remote Controller | Lockdown Bracket for Wireless Handheld Remote Controllers | RCMKP1CB |
| | RedLINK Wireless Remote Controller | MHK2 |
| | Universal Wireless MA Handheld Remote Controller | PAR-FL32MA-E |
| | Universal Wireless Receiver for PAR-FL32MA-E | PAR-FA32MA-W |
| | Wireless Handheld Controller kit with Receiver and i-See Sensor for Ceiling Suspended Models | PAR-SA92MW-E |
| | Wireless Handheld Controller kit with Receiver for PCA models | PAR-SL93B-E |
| Control Interface | Airzone Wired Blueface Controller Black | AZZBSBLUEZEROCN |
| | Airzone Wired Blueface Controller White | AZZBSBLUEZEROCB |
| | Airzone Wireless Lite Controller Black | AZZBSLITERN |
| | Airzone Wireless Lite Controller White | AZZBSLITERB |
| | Airzone Wireless Think Controller Black | AZZBSTHINKRN |
| | Airzone Wireless Think Controller White | AZZBSTHINKRB |
| | IT Extender for kumo station | PAC-WHS01IE-E |
| | kumo station for the Comfort app | PAC-WHS01HC-E |
| | Operation and Error Status Output Adapter ¹ | PAC-SF40RM-E |
| | Procon BACnet and Modbus Interface | PAC-UKPRC001-CN-1 |
| | Thermostat Interface for 3rd Party Thermostats | PAC-US445CN-1 |
| | Wireless Interface Adapter for the Comfort app | PAC-USWHS002-WF-2 |
| | Condensate | Blue Diamond Advanced Mini Condensate Pump w Reservoir Sensor 208230V recommended |
| Blue Diamond MaxiBlue Advanced Mini Condensate Pump w Reservoir Sensor 110V up to 48000 BTUH recommended | | X87-711 |
| 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 120000 BTUH | | COMBI |
| 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 the Comfort app | PAC-USWHS003-TH-1 |
| Wired Remote Controller | Deluxe Wired MA Remote Controller ¹ | PAR-42MAAUB |
| | Simple Direct Wired Remote Controller | PAC-SDW01RC-1 |
| | Simple MA Remote Controller ¹ | PAC-YT53CRAU-J |
| | Touch MA Wired Remote Controller ¹ | PAR-CT01MAU-SB |
| Disconnect Switch | 30A600VUL fits 2 X 4 utility box - Black | TAZ-MS303 |
| | 30A600VUL fits 2 X 4 utility box - White | TAZ-MS303W |
| Power Supplies & Auxiliary Components | 3-Pin Wiring Harness | PAC-715AD |
| | 5-Pin Wiring Harness | PAC-725AD |
| Power Supplies and Auxiliary Components | Backup Heat Relay Kit Adapter for CN24 or CN152 Connector | CN24RELAY-KIT-CM3 |
| NOTES | | |
| ¹ Unable to use with Wireless Remote Controller | | |

OUTDOOR UNIT ACCESSORIES: PUY-AH24NL

| | | |
|---------------------------------------|---|----------------|
| Mini-Split Wire | 14 Gauge 4 wire Armored MiniSplit Cable250 ft roll | SW144-250 |
| | 14 Gauge 4 wire Armored MiniSplit Cable50 ft roll | SW144-50 |
| | 14 Gauge 4 wire MiniSplit Cable250 ft roll | S144-250 |
| | 14 Gauge 4 wire MiniSplit Cable50 ft roll | S144-50 |
| 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 3-14 inch Mounting Base Pair - Plastic | DSD-400P |
| | Outdoor Unit Stand 12 High | QSMS1201M |
| Wind Baffle | Front Wind Baffle | WB-PA5 |
| | Rear Wind Baffle | WB-RE5 |
| | Side Advanced Wind Baffle | WB-SD5 |
| Air Outlet Guide | Air Outlet Guide 1 Piece | PAC-SG59SG-E |
| Control/Service Tool | ControlService Tool | PAC-SK52ST |
| | M- & P-Series Maintenance Tool Cable Set | M21EC0397 |
| | Maintenance Tool Interface | PAC-USCMS-MN-1 |
| Hail Guards | Hail Guard | HG-A6 |
| Power Supplies & Auxiliary Components | 3-Pin Wiring Harness | PAC-715AD |
| | 5-Pin Wiring Harness | PAC-725AD |
| Mounting Pad | Condensing Unit Mounting Pad 24 x 42 x 3 | ULTRILITE2 |
| Snow/Rain Diverter | SnowRain Diverter | SRD-4 |
| M-NET Converter | M-Net Interface for P-Series | PAC-SJ95MA-E |
| Drain Socket | Drain Socket | PAC-SG61DS-E |
| Centralized Drain Pan | Centralized Drain Pan | PAC-SG64DP-E |
| NOTES | | |

INDOOR UNIT DIMENSIONS: PCA-AK24NL

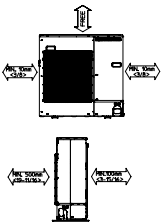


- ① Drainage pipe connection(26(1)I.D.)
 - ② Drainage pipe connection(for the left arrangement)
 - ③ Knockout hole for left drain-piping arrangement
 - ④ Refrigerant-pipe connection(gas pipe side/flared connection)
 - ⑤ Refrigerant-pipe connection(liquid pipe side/flared connection)
 - ⑥ Knockout hole for upper drain pipe arrangement
 - ⑦ Knockout hole for fresh air intake $\Phi 100(\Phi 3'-15/16)$
 - ⑧ Knockout hole for wiring arrangement $\Phi 22(\Phi 7/8)$
- Accessory...Drain socket (26(1)I.D.)

OUTDOOR UNIT DIMENSIONS: PUY-AH24NL

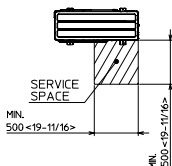
1 FREE SPACE (AROUND THE UNIT)

THE DIAGRAM BELOW SHOWS A BASIC EXAMPLE. EXPLANATION OF PARTICULAR DETAILS ARE GIVEN IN THE INSTALLATION MANUALS ETC.



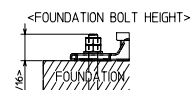
2 SERVICE SPACE

DIMENSIONS OF SPACE NEEDED FOR SERVICE ACCESS ARE SHOWN IN THE BELOW DIAGRAM.



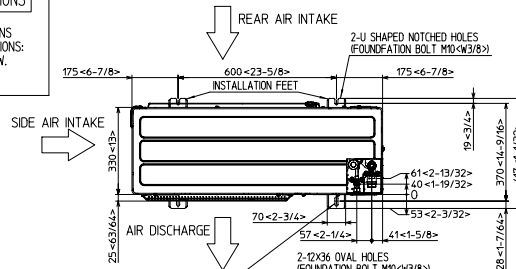
3 FOUNDATION BOLTS

PLEASE SECURE THE BASE OF THE UNIT FIRMLY USING M10\timesW3/8\times FOUNDATION BOLTS AT FOUR PLACES WITH DOUBLE NUTS. BOLTS, WASHERS AND NUT MUST BE PURCHASED LOCALLY.



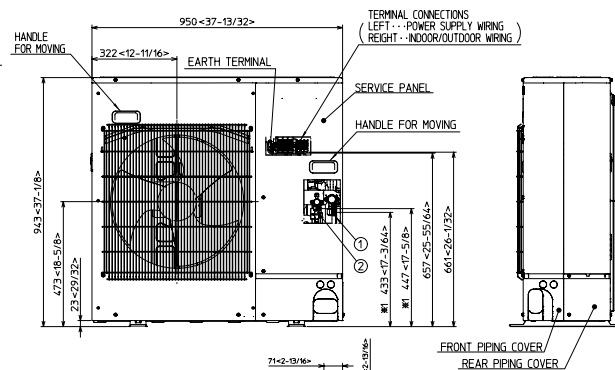
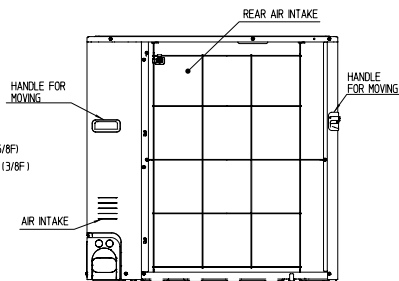
4 PIPING-WIRING DIRECTIONS

PIPING AND WIRING CONNECTIONS CAN BE MADE FROM 4 DIRECTIONS: FRONT, RIGHT, REAR AND BELOW.

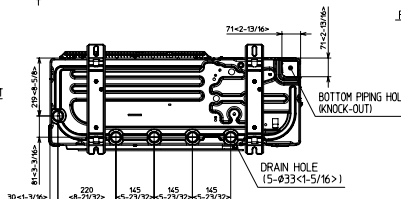
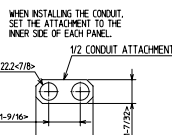
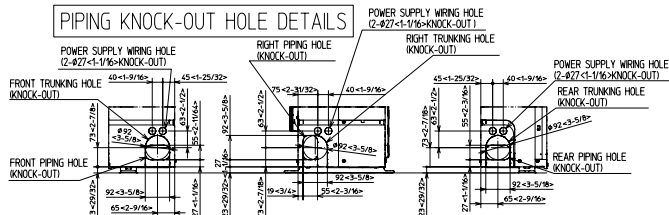


EXAMPLE OF NOTES

- ① --- REFRIGERANT GAS PIPE CONNECTION (FLARE) #15.88 (5/8F)
- ② --- REFRIGERANT LIQUID PIPE CONNECTION (FLARE) # 9.52 (3/8F)
- 1 --- INDICATION OF STOP VALVE CONNECTION LOCATION.



PIPING KNOCK-OUT HOLE DETAILS



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