

**PEAD-A12AA8 & PUZ-A12NKA7**  
**MID STATIC HORIZONTAL-DUCTED INDOOR UNIT**  
**12,000 BTU/H HEAT PUMP UNIVERSAL OUTDOOR**



Job Name:

System Reference:

Date:



Indoor Unit.....PEAD-A12AA8

Outdoor Unit.....PUZ-A12NKA7



**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**

- 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: PEAD-A12AA8 & PUZ-A12NKA7

Cooling at 95°F <sup>1</sup>	Maximum Capacity	BTU/H	12,000
	Rated Capacity	BTU/H	12,000
	Minimum Capacity	BTU/H	5,000
	Maximum Power Input	W	920
	Rated Power Input	W	920
	Moisture Removal	Pints/h	1.8
	Sensible Heat Factor		0.83
	Power Factor [208V / 230V]	%	90.9 / 90.9
Heating at 47°F <sup>2</sup>	Maximum Capacity	BTU/H	18,000
	Rated Capacity	BTU/H	14,000
	Minimum Capacity	BTU/H	5,800
	Maximum Power Input	W	1,520
	Rated Power Input	W	1,030
	Power Factor [208V / 230V]	%	91.4 / 91.4
Heating at 17°F <sup>3</sup>	Maximum Capacity	BTU/H	10,500
	Rated Capacity	BTU/H	8,700
	Maximum Power Input	W	1,130
	Rated Power Input	W	1,100
Heating at -4°F <sup>5</sup>	Maximum Capacity	BTU/H	8,600
Efficiency	SEER   SEER2		21.1   20.7
	EER <sup>1</sup>   EER2 <sup>1</sup>		13.0   12.5
	HSPF [IV]   HSPF2 [IV]		10.2   9.4
	COP at 47°F <sup>2</sup>		3.9
	COP at 17°F at Maximum Capacity <sup>3</sup>		2.7
	COP at -4°F at Maximum Capacity <sup>5</sup>		2.0
	ENERGY STAR® Certified		Yes
Electrical	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
	Power Supply		Indoor unit is powered by the outdoor unit
Indoor Unit	MCA	A	2.23
	Fan Motor Full Load Amperage	A	1.78
	Fan Motor Output	W	121
	Fan Motor Type		DC Motor
	Airflow Rate at Cooling, Dry	CFM	353–424–494
	Airflow Rate at Cooling, Wet	CFM	318–382–445
	Airflow Rate at Heating, Dry	CFM	353–424–494
	Sound Pressure Level [Cooling]	dB[A]	27–31–34
	Sound Pressure Level [Heating]	dB[A]	27–31–34
	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]	35-7/16 x 28-7/8 x 9-7/8 [900 x 732 x 250]
	Package Dimensions	W x D x H: In. [mm]	46-1/16 x 35-7/16 x 13 [1,170 x 900 x 330]
	Unit Weight	Lbs. [kg]	58 [26]
	Package Weight	Lbs. [kg]	69 [31]
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)

<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

Conditions

<sup>4</sup>Heating at 5°F (Indoor // Outdoor)

°F 70 DB, 60 WB // 5 DB, 4 WB

<sup>5</sup>Heating at -4°F (Indoor // Outdoor)

°F 70 DB, 60 WB // -4 DB, -5 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: PEAD-A12AA8 & PUZ-A12NKA7

Outdoor Unit	MCA	A	11.0
	MOCP	A	28
	Fan Motor Full Load Amperage	A	0.5
	Fan Motor Output	W	46
	Airflow Rate [Cooling / Heating]	CFM	1590 / 1590
	Refrigerant Control		LEV
	Defrost Method		Reverse Cycle
	Coating on Heat Exchanger		Blue Fin Coating***
	Sound Pressure Level, Cooling <sup>1</sup>	dB(A)	44
	Sound Pressure Level, Heating <sup>2</sup>	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]
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
	Pre-Charged Refrigerant Amount	Lbs, oz	4.0, 7.0
	Maximum Pre-Charged 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:

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

Conditions

<sup>4</sup> Heating at 5°F (Indoor // Outdoor)	°F	70 DB, 60 WB // 5 DB, 4 WB
<sup>5</sup> Heating at -4°F (Indoor // Outdoor)	°F	70 DB, 60 WB // -4 DB, -5 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\*\*\*\*\*

## INDOOR UNIT ACCESSORIES: PEAD-A12AA8

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
	IT Extender	PAC-WHS01IE-E
	kumo station® for kumo cloud®	PAC-WHS01HC-E
	Remote Operation Adapter†	PAC-SF40RM-E
	Thermostat Interface	PAC-US444CN-1
	Thermostat Interface	PAC-US445CN-1
	USNAP Adapter	PAC-WHS01UP-E
Remote Sensor	Wireless Interface for kumo cloud®	PAC-USWHS002-WF-2
	Flush Mount Remote Temperature Sensor	PAC-USSEN002-FM-1
	Flush Mount Temperature Sensor	PAC-USSEN001-FM-1
	Remote Temperature Sensor	PAC-SE41TS-E
Wired Remote Controller	Wireless temperature and humidity sensor for kumo cloud®	PAC-USWHS003-TH-1
	Deluxe Wired MA Remote Controller†	PAR-40MAAU
	Simple Ductless Wired Remote Controller	PAC-SDW01RC-1
	Simple MA Remote Controller†	PAC-YT53CRAU-J
Wireless Remote Controller	Touch MA Controller†	PAR-CT01MAU-SB
	kumo touch™ RedLINK™ Wireless Controller	MHK2
	Lockdown bracket for remote controller	RCMKP1CB
	Wireless MA Receiver	PAR-FA32MA-W
Condensate	Wireless MA Remote Controller	PAR-FL32MA-E
	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	Refco Condensate Pump (100-240 VAC) up to 120,000 BTU/H	COMBI
	20/2PR, 1PR shielded + 1PR plenum wire for Airzone, 100 ft reel	CW2042S2-100
Disconnect Switch	20/2PR, shielded + 1PR plenum wire for Airzone, 500 ft reel	CW2042S2-500
	(30A/600V/UL) [fits 2" X 4" utility box] - Black	TAZ-MS303
Filter Box	(30A/600V/UL) [fits 2" X 4" utility box] - White	TAZ-MS303W
	Filter Box with MERV 13 Filter	FBM2-2-A
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

**NOTES:**

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

## OUTDOOR UNIT ACCESSORIES: PUZ-A12NKA7

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
	Outdoor Unit Stand — 12" High	QSMS1201M
Wind Baffle	Front Wind Baffle	WB-PA4
	Rear Wind Baffle	WB-RE4
	Side Advanced Wind Baffle	WB-SD4

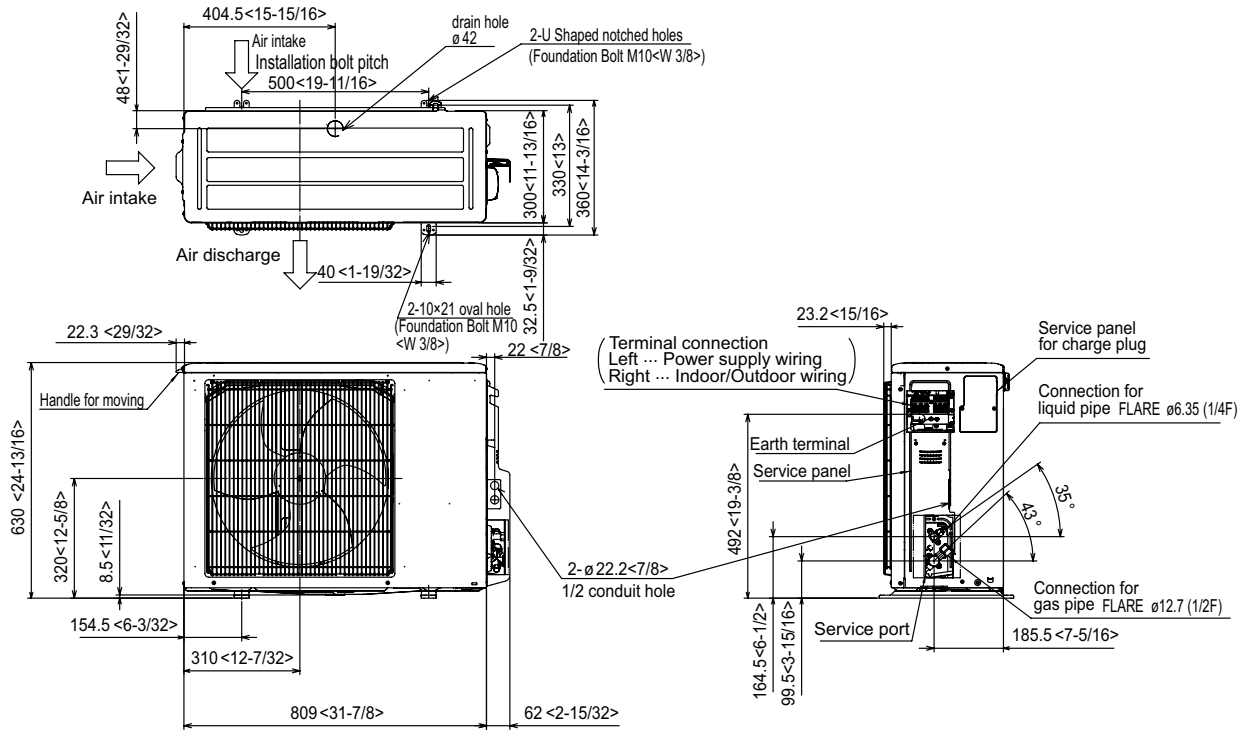
# INDOOR UNIT DIMENSIONS: PEAD-A12AA8



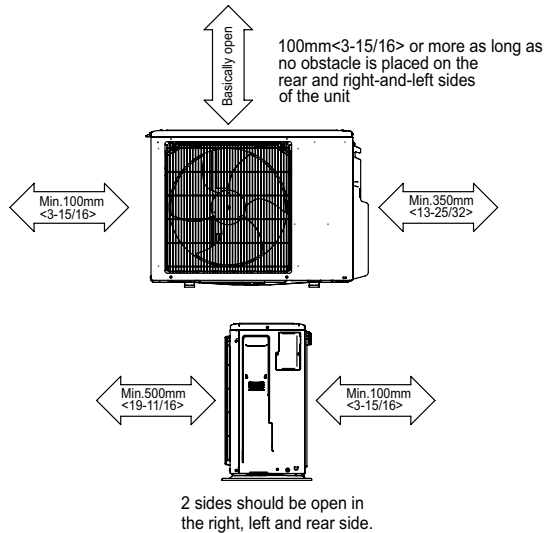
- Notes
1. Use an M10 screw for the suspension bolt (field supply).
  2. Keep the service space for maintenance at the bottom.
  3. This drawing is for PEAD-A09-12-15-18-24-30AA8 models, which have 2 fans. PEAD-A36AA8 model has 3 fans.
  4. If the inlet duct is used, remove the air filter (supplied with 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.

# OUTDOOR UNIT DIMENSIONS: PUZ-A12NKA7

Unit: mm<in>



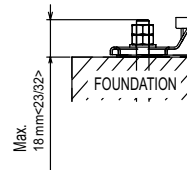
## Free space around the outdoor unit (basic example)



## 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.