

PEAD-A24AA9 & PUZ-HA24NHA1
MID STATIC HORIZONTAL-DUCTED INDOOR UNIT
24,000 BTU/H HYPER-HEATING UNIVERSAL OUTDOOR

American Standard
HEATING & AIR CONDITIONING



Job Name:

System Reference:

Date:



Indoor Unit.....PEAD-A24AA9

Outdoor Unit.....PUZ-HA24NHA1

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
- Wide heating range: heating performance down to -13°F (average of 80% heating capacity)
- High speed heating at start up: Hyper-Heating INVERTER® reduces the time for heating at start up by about half compared to standard models
- Pre-charged with refrigerant volume for piping length up to 70 ft.
- High pressure/temperature protection
- Built-in base pan heater

SPECIFICATIONS: PEAD-A24AA9 & PUZ-HA24NHA1

Cooling at 95°F ¹	Maximum Capacity	BTU/H	24,000
	Rated Capacity	BTU/H	24,000
	Minimum Capacity	BTU/H	10,100
	Maximum Power Input	W	2,040
	Rated Power Input	W	2,040
	Moisture Removal	Pints/h	6.9
	Sensible Heat Factor		0.68
Heating at 47°F ²	Power Factor [208V / 230V]	%	93.0 / 93.0
	Maximum Capacity	BTU/H	28,000
	Rated Capacity	BTU/H	25,000
	Minimum Capacity	BTU/H	10,100
	Maximum Power Input	W	2,310
	Rated Power Input	W	1,940
Heating at 17°F ³	Power Factor [208V / 230V]	%	92.0 / 92.0
	Maximum Capacity	BTU/H	25,000
	Rated Capacity	BTU/H	18,200
	Maximum Power Input	W	3,550
Heating at 5°F ⁴	Rated Power Input	W	2,156
	Maximum Capacity	BTU/H	25,000
Heating at 5°F ⁴	Maximum Power Input	W	3,510
Heating at -4°F ⁵	Maximum Capacity	BTU/H	22,400
Heating at -13°F ⁷	Maximum Capacity	BTU/H	20,000
Efficiency	SEER2		16.7
	EER2 ¹		11.7
	HSPF2 [I/V]		9.4
	COP at 47°F ²		3.7
	COP at 17°F at Maximum Capacity ³		2.0
	COP at 5°F at Maximum Capacity ⁴		2.1
	COP at -13°F at Maximum Capacity ⁷		1.63
Electrical	ENERGY STAR® Certified		No
	Voltage, Phase, Frequency		208/230, 1, 60
	Guaranteed Voltage Range	V AC	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
	MCA	A	2.25
Indoor Unit	Fan Motor Full Load Amperage	A	1.80
	Fan Motor Output	W	121
	Fan Motor Type		DC Motor
	Airflow Rate at Cooling, Dry	CFM	512-565-636-742
	Airflow Rate at Heating, Dry	CFM	512-565-636-742
	Sound Pressure Level [Cooling]	dB[A]	27-29-31-35
	Sound Pressure Level [Heating]	dB[A]	27-29-31-35
	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 [1,100 x 732 x 250]
	Package Dimensions	W x D x H: In. [mm]	53-15/16 x 35-7/16 x 13 [1,370 x 900 x 330]
	Unit Weight	Lbs. [kg]	67 [30]
	Package Weight	Lbs. [kg]	78 [35]
Indoor Unit Operating Temperature Range	Cooling Intake Air Temp [Maximum / Minimum]*	°F	95 DB, 71 WB / 67 DB, 57 WB
	Heating Intake Air Temp [Maximum / Minimum]	°F	80 DB / 70 DB

NOTES:

AHRI Rated Conditions

(Rated data is determined at a fixed compressor speed)

¹Cooling (Indoor // Outdoor)

²Heating at 47°F (Indoor // Outdoor)

³Heating at 17°F (Indoor // Outdoor)

°F 80 DB, 67 WB // 95 DB, 75 WB

°F 70 DB, 60 WB // 47 DB, 43 WB

°F 70 DB, 60 WB // 17 DB, 15 WB

Conditions

⁴Heating at 5°F (Indoor // Outdoor)

⁷Heating at -13°F (Indoor // Outdoor)

°F 70 DB, 60 WB // 5 DB, 4 WB

°F 70 DB, 60 WB // -13 DB, -14 WB

* Indoor/Outdoor Unit Operating Temperature Range (Cooling Air Temp [Maximum / Minimum]):

• Wind baffles required to operate below 23°F DB in cooling mode.

• 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.

SPECIFICATIONS: PEAD-A24AA9 & PUZ-HA24NHA1

Outdoor Unit	MCA	A	17.0
	MOCP	A	27
	Fan Motor Output	W	74
	Airflow Rate [Cooling / Heating]	CFM	1940 / 1940
	Refrigerant Control		Linear expansive valve
	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 Oil [Type // Charge]	oz.	FVC68D
	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 13 (+1-3/16) x 37-1/8 [950 x 330 (+30) 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	115 DB / 23 DB
	Heating Air Temp [Maximum / Minimum]	°F	70 DB, 59 WB / -13 DB, -13 WB
	Heating Thermal Lock-out / Re-start Temperatures**	°F	-22 / -13
Refrigerant	Type		R410A
	Pre-Charged Refrigerant Amount	Lbs, oz	7.0, 11.0
	Maximum Pre-Charged Piping Length	Ft. [m]	70.0 [21.0]
	Additional Refrigerant Charge Per Additional Piping Length	oz./Ft. [g/m]	3.5 [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]	165 [50]
	Maximum Number of Bends		15

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

* Indoor/Outdoor Unit Operating Temperature Range (Cooling Air Temp [Maximum / Minimum]):

- Wind baffles required to operate below 23°F DB in cooling mode.
- 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.

INDOOR UNIT ACCESSORIES: PEAD-A24AA9

Control Interface	3-Pin Connector	☐ PAC-715AD
	Airzone Wired Blueface Principal Controller White	☐ AZZBSBLUEZEROCB
	Airzone Wired Lite Controller White	☐ AZZBSLITECB
	Airzone Wireless Lite Controller White	☐ AZZBSLITERB
	Airzone Wireless Think Controller White	☐ AZZBSTHINKRB
	CN24 Relay Kit	☐ CN24RELAY-KIT-CM3
	Deluxe Wired MA Remote Controller	☐ AAR-41MAAU
	IT Extender	☐ PAC-WHS01IE-E
	kumo station® for kumo cloud®	☐ TAC-WHS01HC-E
	Procon BACnet® and Modbus® Interface	☐ PAC-UKPRC001-CN-1
	Remote Operation Adapter†	☐ PAC-SF40RM-E
	Thermostat Interface	☐ PAC-US445CN-1
	USNAP Adapter	☐ PAC-WHS01UP-E
	Wireless Interface for kumo cloud®	☐ PAC-USWHS002-WF-2
Remote Sensor	Flush Mount Remote Temperature Sensor	☐ PAC-USSEN002-FM-1
	Remote Temperature Sensor	☐ PAC-SE41TS-E
	Wireless temperature and humidity sensor for kumo cloud®	☐ PAC-USWHS003-TH-1
Wired Remote Controller	Simple Ductless Wired Remote Controller	☐ PAC-SDW01RC-1
	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-SR32MA-E
	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
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: PUZ-HA24NHA1

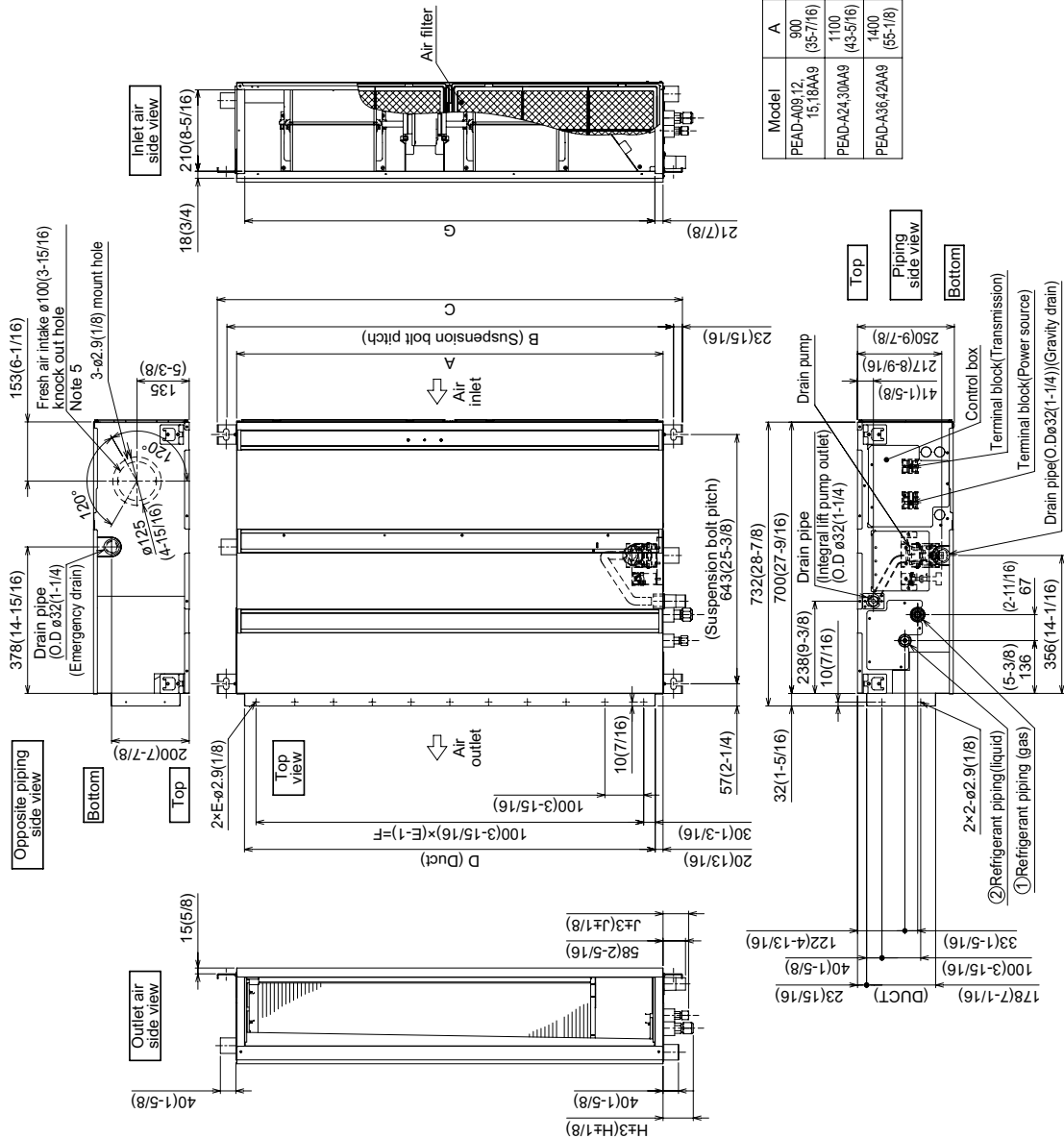
Air Outlet Guide	Air Outlet Guide (1 Piece)	☐ PAC-SG59SG-E
Control/Service Tool	Control/Service Tool	☐ PAC-SK52ST
Hail Guards	Hail Guard	☐ HG-A6
M-NET Converter	M-NET Converter	☐ PAC-SJ95MA-E
	M-NET Converter	☐ PAC-SJ96MA-E
Mini-Split Wire	14 Gauge, 4 wire MiniSplit Cable—250 ft. roll	☐ S144-250
	14 Gauge, 4 wire MiniSplit Cable—250 ft. roll	☐ SW144-250
	14 Gauge, 4 wire MiniSplit Cable—50 ft. roll	☐ S144-50
	14 Gauge, 4 wire MiniSplit Cable—50 ft. roll	☐ SW144-50
	16 Gauge, 4 wire MiniSplit Cable—250 ft. roll	☐ S164-250
	16 Gauge, 4 wire MiniSplit Cable—250 ft. roll	☐ SW164-250
	16 Gauge, 4 wire MiniSplit Cable—50 ft. roll	☐ S164-50
	16 Gauge, 4 wire MiniSplit Cable—50 ft. roll	☐ SW164-50
Mounting Pad	Condensing Unit Mounting Pad: 24" x 42" x 3"	☐ ULTRILITE2
Snow/Rain Diverter	Snow/Rain Diverter	☐ SRD-4
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: PEAD-A24AA9

INDOOR UNIT

PEAD-A09, 12, 15, 18, 24, 30, 36, 42AA9

- 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-A09-12-15-18-24-30AA9 models which have 2 fans. PEAD-A36-42AA9 models have 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.



Model	J	① Gas pipe	② Liquid pipe
PEAD-A09AA9	62	ø9.52 (3/8)	ø6.35 (1/4)
PEAD-A12, 15, 18AA9	62	ø12.7 (1/2)	ø6.35 (1/4)
PEAD-A24, 30AA9	66	ø15.88 (5/8)	ø9.52 (3/8)
PEAD-A36, 42AA9	66	ø15.88 (5/8)	ø9.52 (3/8)

Model	A	B	C	D	E	F	G	H
PEAD-A09, 12, 15, 18AA9	900 (35-7/16)	954 (37-9/16)	1000 (39-3/8)	860 (33-7/8)	9 (31-1/2)	800 (31-13/16)	858 (33-13/16)	72 (2-7/8)
PEAD-A24, 30AA9	1100 (43-3/8)	1154 (45-7/16)	1200 (47-1/4)	1080 (41-3/4)	11 (39-3/8)	1000 (39-3/8)	1058 (41-11/16)	78 (3-1/8)
PEAD-A36, 42AA9	1400 (55-1/8)	1454 (57-1/4)	1500 (59-1/16)	1360 (53-9/16)	14 (51-3/16)	1300 (51-3/16)	1358 (53-1/2)	78 (3-1/8)

OUTDOOR UNIT DIMENSIONS: PUZ-HA24NHA1

Unit: mm<in>

