

**PEAD-A24AA8 & SUZ-KA24NAHZ**  
**MID STATIC HORIZONTAL-DUCTED INDOOR UNIT**  
**24,000 BTU/H HYPER-HEATING UNIVERSAL OUTDOOR UNIT**



Job Name:

System Reference:

Date:



Indoor Unit.....PEAD-A24AA8

Outdoor Unit.....SUZ-KA24NAHZ

**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**

- The outdoor unit powers the indoor unit, and should a power outage occur, the system is automatically restarted when power returns
- INVERTER-driven compressor and LEV provide high efficiency and comfort while using only the energy needed to maintain maximum performance
- Hyper-heating performance offers 100% heating capacity at 5° F
- Hot-Start Technology: no cold air rush at equipment startup or when restarting after Defrost Cycle
- Quiet operation
- Built-in base pan heater
- Innovative Joint Lap DC Motor leads to high efficiency and reliability
- Pulse Amplitude Modulation technology

# SPECIFICATIONS: PEAD-A24AA8 & SUZ-KA24NAHZ

Cooling at 95°F <sup>1</sup>	Maximum Capacity	BTU/H	24,000
	Rated Capacity	BTU/H	24,000
	Minimum Capacity	BTU/H	10,000
	Maximum Power Input	W	2,080
	Rated Power Input	W	2,080
	Moisture Removal	Pints/h	6.9
	Sensible Heat Factor		0.68
	Power Factor [208V / 230V]	%	93.0 / 93.0
Heating at 47°F <sup>2</sup>	Maximum Capacity	BTU/H	28,000
	Rated Capacity	BTU/H	25,000
	Minimum Capacity	BTU/H	10,000
	Maximum Power Input	W	2,280
	Rated Power Input	W	1,920
	Power Factor [208V / 230V]	%	92.0 / 92.0
Heating at 17°F <sup>3</sup>	Maximum Capacity	BTU/H	25,000
	Rated Capacity	BTU/H	18,000
	Maximum Power Input	W	3,450
	Rated Power Input	W	2,096
Heating at 5°F <sup>4</sup>	Maximum Capacity	BTU/H	25,000
	Maximum Power Input	W	3,826
Heating at -4°F <sup>5</sup>	Maximum Capacity	BTU/H	22,400
Heating at -13°F <sup>7</sup>	Maximum Capacity	BTU/H	20,000
Efficiency	SEER		15.0
	EER <sup>1</sup>		10.3
	HSPF [IV]		9.0
	COP at 47°F <sup>2</sup>		3.8
	COP at 17°F at Maximum Capacity <sup>3</sup>		2.1
	COP at 5°F at Maximum Capacity <sup>4</sup>		1.75
	ENERGY STAR® Certified		No
Electrical	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
Indoor Unit	MCA	A	2.28
	Fan Motor Full Load Amperage	A	1.82
	Fan Motor Output	W	121
	Fan Motor Type		DC Motor
	Airflow Rate at Cooling, Dry	CFM	512–635–741
	Airflow Rate at Cooling, Wet	CFM	461–572–667
	Airflow Rate at Heating, Dry	CFM	512–635–741
	Sound Pressure Level [Cooling]	dB[A]	28–32–36
	Sound Pressure Level [Heating]	dB[A]	28–32–36
	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]	80 [36]
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)

<sup>2</sup>Heating at 47°F (Indoor // Outdoor)

<sup>3</sup>Heating 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

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

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

<sup>7</sup>Heating at -13°F (Indoor // Outdoor)

°F 70 DB, 60 WB // 5 DB, 4 WB

°F 70 DB, 60 WB // -4 DB, -5 WB

°F 70 DB, 60 WB // -13 DB, -14 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.

\*\*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-A24AA8 & SUZ-KA24NAHZ

Outdoor Unit	MCA	A	17.0
	MOCP	A	27
	Fan Motor Output	W	74
	Airflow Rate [Cooling / Heating]	CFM	800 / 800
	Refrigerant Control		LEV
	Defrost Method		Reverse Cycle
	Sound Pressure Level, Cooling <sup>1</sup>	dB(A)	52
	Sound Pressure Level, Heating <sup>2</sup>	dB(A)	53
	Compressor Type		Scroll
	Compressor Model		DNB28FBAMT
	Compressor Rated Load Amps	A	9
	Compressor Locked Rotor Amps	A	18.0
	Compressor Oil [Type // Charge]	oz.	FVC68D // 1,34
	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 14-3/16 x 37-1/8 [950 x 360 x 943]
	Package Dimensions	W x D x H: In. [mm]	41 x 18 x 41 [1040 x 450 x 1033]
Outdoor Unit Operating Temperature Range	Unit Weight	Lbs. [kg]	190 [86]
	Package Weight	Lbs. [kg]	210 [95]
	Cooling Air Temp [Maximum / Minimum]*	°F	115 DB / 0 DB
Refrigerant	Heating Air Temp [Maximum / Minimum]	°F	75 DB, 65 WB / -13 DB, -14 WB
	Heating Thermal Lock-out / Re-start Temperatures**	°F	-22 / -13
	Type		R410A
	Maximum Charge Quantity	Lbs, oz	7.0, 11.0
Piping	Initial Charge Quantity	Ft. [m]	70.0 [30.0]
	Additional Refrigerant Charge Per Additional Piping Length	oz./Ft. [g/m]	0.7 [65]
	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]	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

<sup>7</sup>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]):

- Applications should be restricted to comfort cooling only; equipment cooling applications are not recommended for low ambient temperature conditions.

\*\*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-A24AA8

Control Interface	3-Pin Connector	PAC-715AD
	Airzone ZBS Wired Blueface Principal Controller White	AZZBSBLUEFACECB
	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-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
	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
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

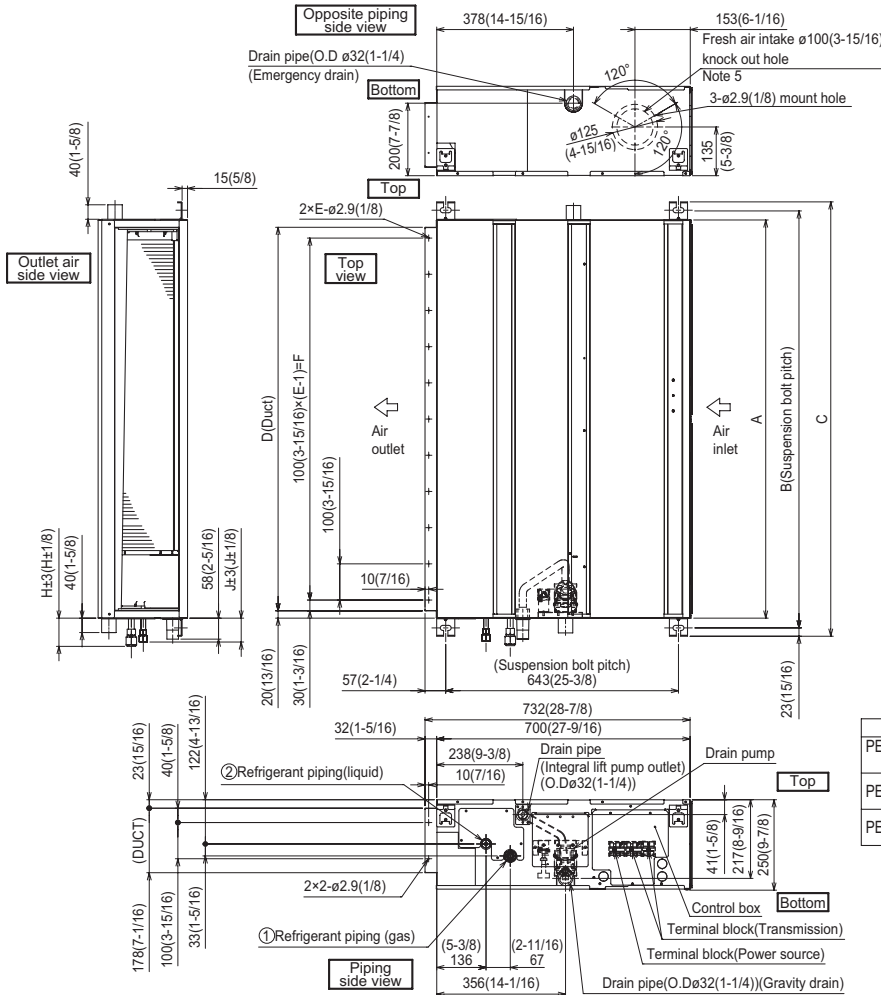
**NOTES:**

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

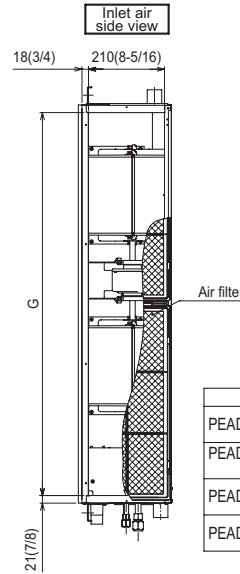
## OUTDOOR UNIT ACCESSORIES: SUZ-KA24NAHZ

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	M- & P-Series Maintenance Tool Cable Set	M21EC0397
Drain Socket	Drain Socket	PAC-SH71DS-E
Hail Guards	Hail Guard	HG-A6
Mounting Pad	Condensing Unit Mounting Pad: 24" x 42" x 3"	ULTRILITE2
Stand	18" Single Fan Stand	QSMS1801M
	24" Single Fan Stand	QSMS2401M
	Outdoor Unit Stand — 12" High	QSMS1201M

# INDOOR UNIT DIMENSIONS: PEAD-A24AA8



- 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.



Unit:mm(in.)

Model	J	① Gas pipe	② Liquid pipe
PEAD-A09AA8	62 (2-1/2)	$\phi 9.52$ (3/8)	$\phi 6.35$ (1/4)
PEAD-A12, 15, 18AA8	62 (2-1/2)	$\phi 12.7$ (1/2)	$\phi 6.35$ (1/4)
PEAD-A24, 30AA8	66 (2-5/8)	$\phi 15.88$ (5/8)	$\phi 9.52$ (3/8)
PEAD-A36AA8			

Unit:mm(in.)

Model	A	B	C	D	E	F	G	H
PEAD-A09, 12, 15, 18AA8	900 (35-7/16)	954 (37-9/16)	1000 (39-3/8)	860 (33-7/8)	9	800 (31-1/2)	858 (33-13/16)	72 (2-7/8)
PEAD-A24, 30AA8	1100 (43-5/16)	1154 (45-7/16)	1200 (47-1/4)	1060 (41-3/4)	11	1000 (39-3/8)	1058 (41-11/16)	78 (3-1/8)
PEAD-A36AA8	1400 (55-1/8)	1454 (57-1/4)	1500 (59-1/16)	1360 (53-9/16)	14	1300 (51-3/16)	1358 (53-1/2)	

# OUTDOOR UNIT DIMENSIONS: SUZ-KA24NAHZ

Unit: mm<in>

