

**PEAD-A42AA7 & PUZ-HA42NKA1**  
**42,000 BTU/H HORIZONTAL MID STATIC DUCTED**  
**42,000 BTU/H HYPER-HEATING UNIVERSAL OUTDOOR**



Job Name:

System Reference:

Date:



Indoor Unit.....PEAD-A42AA7

Outdoor Unit.....PUZ-HA42NKA1

#### 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
- Power receiver pre-charged with refrigerant volume for piping length up to 100 ft.
- High pressure/temperature protection
- Built-in base pan heater
- Flash injection circuit provides efficient high heating capacities at low ambient temperatures

# SPECIFICATIONS: PEAD-A42AA7 & PUZ-HA42NKA1

Cooling at 95°F <sup>1</sup>	Maximum Capacity	BTU/H	42,000
	Rated Capacity	BTU/H	42,000
	Minimum Capacity	BTU/H	17,100
	Maximum Power Input	W	3,900
	Rated Power Input	W	3,900
	Moisture Removal	Pints/h	4.1
	Sensible Heat Factor		0.89
Heating at 47°F <sup>2</sup>	Power Factor	%	92.0/92.0
	Maximum Capacity	BTU/H	54,000
	Rated Capacity	BTU/H	48,000
	Minimum Capacity	BTU/H	21,200
	Maximum Power Input	W	4,760
	Rated Power Input	W	3,990
Heating at 17°F <sup>3</sup>	Power Factor	%	92.0/92.0
	Maximum Capacity	BTU/H	48,000
	Rated Capacity	BTU/H	39,000
	Maximum Power Input	W	6,715
Heating at 5°F <sup>4</sup>	Rated Power Input	W	5,095
	Maximum Capacity	BTU/H	48,000
Heating at 5°F <sup>4</sup>	Maximum Power Input	W	7,185
Heating at -13°F <sup>7</sup>	Maximum Capacity	BTU/H	38,400
Efficiency	SEER		15.0
	EER <sup>1</sup>		10.7
	HSPF [IV]		9.8
	COP at 47°F <sup>2</sup>		3.5
	COP at 17°F at Maximum Capacity <sup>3</sup>		2.0
	COP at 5°F at Maximum Capacity <sup>4</sup>		1.9
	COP at -13°F at Maximum Capacity <sup>7</sup>		1.5
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	40
Indoor Unit	Recommended Wire Size [Indoor - Outdoor]	AWG	14
	MCA	A	3.5
	Fan Motor Full Load Amperage	A	2.8
	Fan Motor Output	W	244
	Airflow Rate at Cooling, Dry	CFM	1042–1254–1483
	Airflow Rate at Cooling, Wet	CFM	1002–1214–1443
	Airflow Rate at Heating, Dry	CFM	1042–1254–1483
	Sound Pressure Level [Cooling]	dB[A]	36–40–44
	Sound Pressure Level [Heating]	dB[A]	36–40–44
	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]	55-1/8 x 28-7/8 x 9-7/8 [1400 x 732 x 250]
	Package Dimensions	W x D x H: In. [mm]	65 x 34-11/16 x 13-7/16 [1650 x 880 x 341]
	Unit Weight	Lbs. [kg]	91 [41]
	Package Weight	Lbs. [kg]	106 [48]
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:			
(Rated data is determined at a fixed compressor speed)	AHRI Rated Conditions	<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>6</sup> Heating at -5°F (Indoor // Outdoor)	°F 70 DB, 60 WB // -5 DB, -6 WB
		<sup>7</sup> 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)):
- 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.
    - » Cooling-only system with wind baffle: -40°F - 115°F.
    - » 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.

# SPECIFICATIONS: PEAD-A42AA7 & PUZ-HA42NKA1

Outdoor Unit	MCA	A	36.0
	MOCP	A	44
	Fan Motor Output	W	74
	Airflow Rate	CFM	3319/3319
	Refrigerant Control		LEV
	Defrost Method		Reverse Cycle
	Sound Pressure Level, Cooling <sup>1</sup>	dB(A)	49
	Sound Pressure Level, Heating <sup>2</sup>	dB(A)	51
	Compressor Type		Scroll
	Compressor Model		ANB42FJTMT
	Compressor Rated Load Amps	A	19.0
	Compressor Locked Rotor Amps	A	28.0
	Compressor Oil Type // Charge	oz.	FVC68D // 1.7,57
	External Finish Color		Ivory Munsell 3Y 7.8/1.1
	Base Pan Heater		Built-in
	Unit Dimensions	W x D x H: In. [mm]	41-5/16 x 14-3/16 x 52-11/16 [1050 x 360 x 1338]
	Package Dimensions	W x D x H: In. [mm]	43 x 18 x 57 [1110 x 480 x 1440]
Outdoor Unit Operating Temperature Range	Unit Weight	Lbs. [kg]	283 [128]
	Package Weight	Lbs. [kg]	307 [139]
	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	-22.0 / -13
	Type		R410A
Piping	Charge	Lbs, oz	13, 4.0
	Chargeless Piping Length	Ft. [m]	0.0 [30.0]
	Additional Refrigerant Charge Per Additional Piping Length	oz./Ft. [g/m]	0.6 [56]
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]	245 [75]
	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>6</sup>Heating at -5°F (Indoor // Outdoor) °F 70 DB, 60 WB // -5 DB, -6 WB

<sup>7</sup>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)):

• 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.

» Cooling-only system with wind baffle: -40°F - 115°F.

» 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.

## INDOOR UNIT ACCESSORIES: PEAD-A42AA7

Control Interface	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 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
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	FBM2-4-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

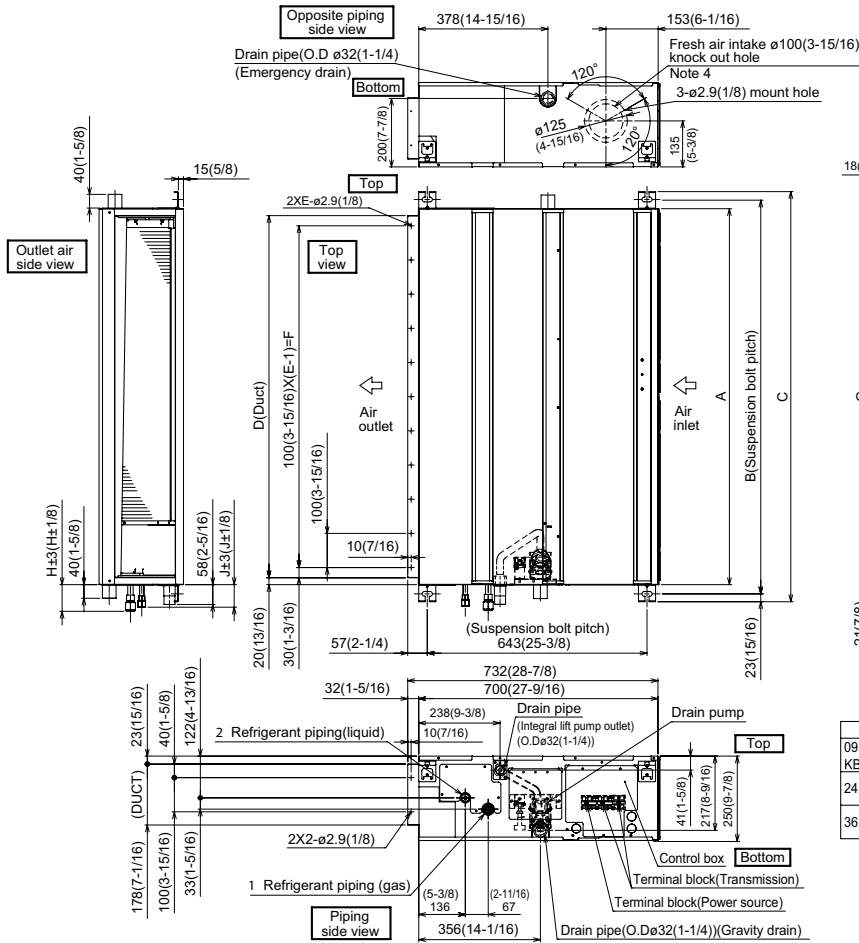
**NOTES:**

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

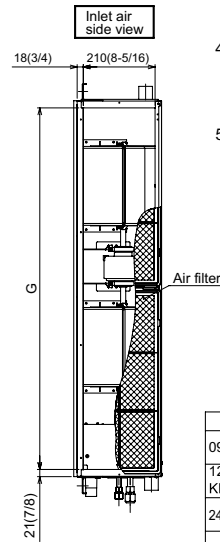
## OUTDOOR UNIT ACCESSORIES: PUZ-HA42NKA1

Air Outlet Guide	Air Outlet Guide (1 Piece)	PAC-SH96SG-E (two pieces are required)
Centralized Drain Pan	Central Drain Pan	PAC-SH97DP-E
Control/Service Tool	Control/Service Tool	PAC-SK52ST
Drain Socket	Drain Socket	PAC-SG61DS-E
Hail Guards	Hail Guard	HG-A2
M-NET Converter	M-NET Converter	PAC-SJ85MA-E
	M-NET Converter	PAC-SJ95MA-E
Mounting Pad	Condensing Unit Mounting Pad: 24" x 42" x 3"	ULTRILITE2
Optional Defrost Heater	Optional Defrost Heater	PAC-SJ20BH-E
Stand	18" Dual Fan Stand	QSMS1802M
	24" Dual Fan Stand	QSMS2402M
	Condenser Wall Bracket	QSWB2000M-1
	Condenser Wall Bracket -Stainless Steel Finish	QSWBSS
	Outdoor Unit Stand — 12" High	QSMS1202M
Wind Baffle	Front Wind Baffle	WB-PA3 (two pieces are required)

# INDOOR UNIT DIMENSIONS: PEAD-A42AA7



- Note 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 24·30·36·42 KBTU/H models, which have 2 fans.  
 09·12·15·18 KBTU/H models have 1 fan.  
 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.)

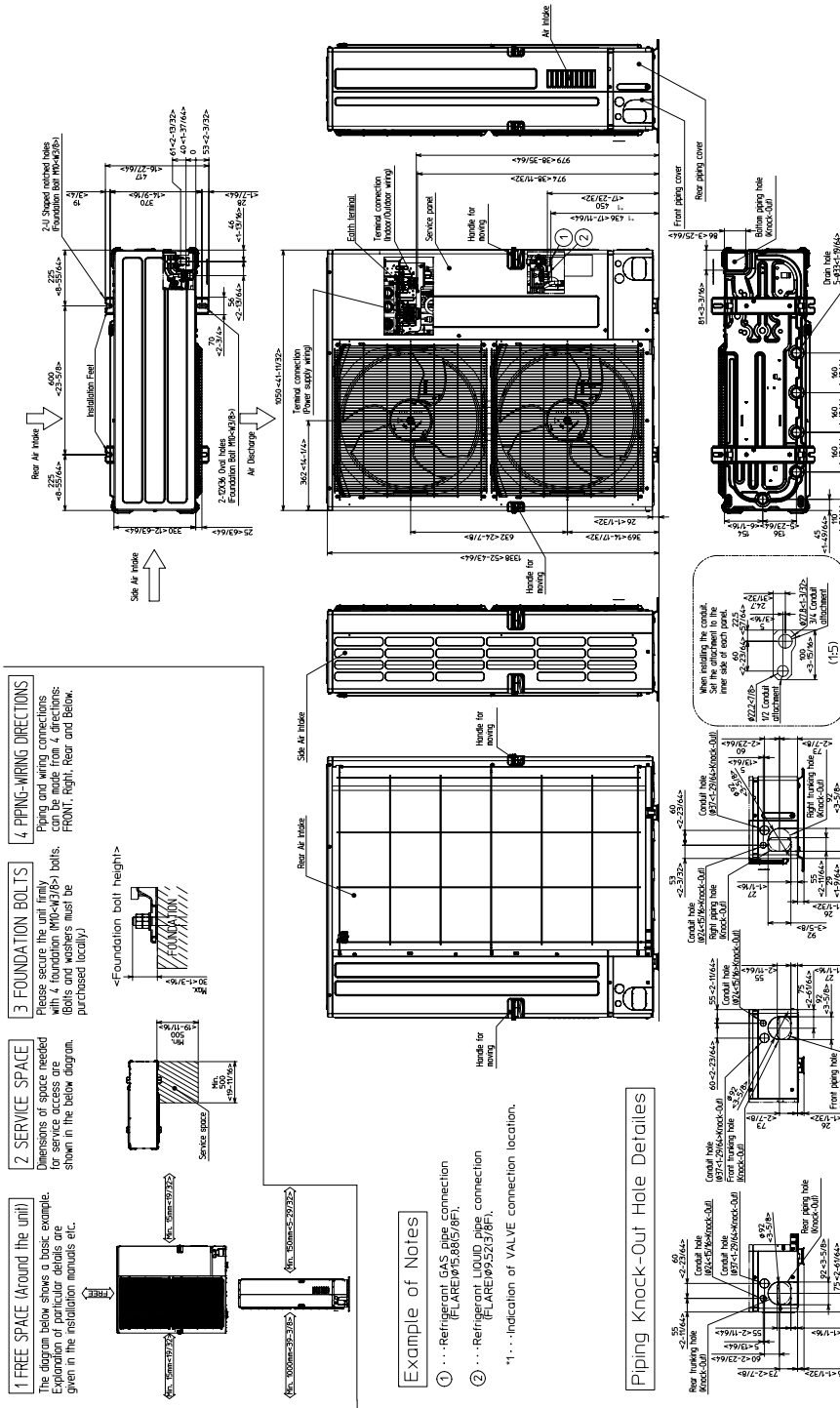
Model	J	1 Gas pipe	2 Liquid pipe
09 KBTU/H	62 (2-1/2)	ø9.52 (3/8)	ø6.35 (1/4)
12,15,18 KBTU/H	62 (2-1/2)	ø12.7 (1/2)	ø6.35 (1/4)
24,30 KBTU/H	66 (2-5/8)	ø15.88 (5/8)	ø9.52 (3/8)
36,42 KBTU/H			

Unit:mm(in.)

Model	A	B	C	D	E	F	G	H
09,12,15,18 KBTU/H	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)
24,30 KBTU/H	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)
36,42 KBTU/H	1400 (55-1/8)	1454 (57-1/4)	1500 (59-1/16)	1360 (53-9/16)	14	1300 (51-1/16)	1358 (53-1/2)	

# OUTDOOR UNIT DIMENSIONS: PUZ-HA42NKA1

Unit: mm<in>



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