

PVA-AA42NL & PUZ-AK42NL
42,000 BTU/H MULTI-POSITION AIR HANDLER INDOOR UNIT
42,000 BTU/H HEAT PUMP OUTDOOR UNIT



Job Name:

System Reference:

Date:



INDOOR Unit ... PVA-AA42NL
OUTDOOR Unit ... PUZ-AK42NL

INDOOR UNIT FEATURES

- Multi-Position Installation: Versatile installation options, including horizontal (left or right) and vertical (up or down) orientations, with included drain pans to facilitate easy setup for any configuration.
- Wi-Fi Optional: A Wireless Interface Adapter can be ordered as an accessory for field installation.
- Three Speed Fan: Adjust the fan between three speed settings to optimal comfort.
- Blow-through design: Unique blow-through design allows simple coil cleaning when the blower is removed.
- Auto Changeover: The unit will automatically switch between heating and cooling modes to maintain your desired temperature.

OUTDOOR UNIT FEATURES

- Inverter Driven Compressor: Inverter technology uses only the precise amount of energy needed to keep a space comfortable.
- Blue Fin Coating: Anti-corrosion coating that protects the outdoor heat exchanger against salt, sulfur, and other airborne contaminants that impact the efficiency and performance of the outdoor units.
- Seacoast Protection: 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.
- Low Ambient Cooling: Low ambient cooling down to 0°F providing 100% capacity with front wind baffle kit

SPECIFICATIONS: PVA-AA42NL & PUZ-AK42NL

Cooling at 95F ¹	Maximum Capacity	Btu/h	44000
	Rated Capacity	Btu/h	42000
	Minimum Capacity	Btu/h	14100
	Maximum Power Input	W	3970
	Rated Power Input	W	3760
	Moisture Removal	Pints/h	12.50
	Sensible Heat Factor		0.68
	Power Factor [208V / 230V]	%	91 / 91
Heating at 47F ²	Maximum Capacity	Btu/h	49700
	Rated Capacity	Btu/h	48000
	Minimum Capacity	Btu/h	13300
	Maximum Power Input	W	3702
	Rated Power Input	W	3702
	Power Factor [208V / 230V]	%	90 / 90
Heating at 17F ³	Maximum Capacity	Btu/h	29600
	Rated Capacity	Btu/h	29600
	Maximum Power Input	W	3150
	Rated Power Input	W	3150
Heating at 5F ⁵	Maximum Capacity	Btu/h	25400
	Maximum Power Input	W	2977
Heating at -4F ⁶	Maximum Capacity	Btu/h	22400
Efficiency	SEER2		19.10
	EER2 ¹		11.10
	HSPF2 [IV]		9.40
	COP at 47°F ²		3.80
	COP at 17°F at Maximum Capacity ³		2.70
	COP at 5°F at Maximum Capacity ⁵		2.50
	COP at -4°F at Maximum Capacity ⁶		2.32
	ENERGY STAR® Certified		Yes
Electrical	Voltage, Phase, Frequency	V AC / V AC , Ø , Hz	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	12-24
	Short-circuit Current Rating [SCCR]	kA	5
	Recommended Fuse/Breaker Size (Outdoor)	A	35
	Recommended Wire Size [Indoor - Outdoor]	AWG	14
Indoor Unit	MCA	A	5.63
	MOCP	A	15
	Fan Motor Output	W	430
	Fan Motor Type		Direct-driven DC Brushless Motor
	Airflow Rate at Cooling, Dry	CFM	1040 , 1262 , 1485
	Airflow Rate at Heating, Dry	CFM	1040 , 1262 , 1485
	Sound Pressure Level [Cooling]	dB (A)	45 , 48 , 52
	Sound Pressure Level [Heating]	dB (A)	45 , 48 , 52
	External Static Pressure	in.WG	0.30 , 0.50 , 0.80
	Drain Pipe Size O.D.	inch [mm]	3/4 [19.05]
	External Finish Color		Galvanized steel cabinet-Powder coated Slate Gray
	Unit Dimensions (W x D x H)	inch x inch x inch [mm x mm x mm]	25 x 21-5/8 x 59-1/2 [635 x 548 x 1511]
	Package Dimensions (W x D x H)	inch x inch x inch [mm x mm x mm]	26 x 28-11/16 x 66-1/4 [660 x 728 x 1682]
	Unit Weight	lbs [kg]	172 [78]
	Package Weight	lbs [kg]	198 [90]
IDU Operating Temp. Range	Cooling Intake Air Temp [Maximum / Minimum]	°FDB , °FWB / °FDB , °FWB	90 , 72 / 66 , 61
	Heating Intake Air Temp [Maximum / Minimum]	°FDB	77 / 59
Outdoor Unit	MCA	A	34
	MOCP	A	56

Notes

¹Cooling at 95°F (Indoor // Outdoor) °F 80 DB, 67 WB // 95 DB, 75 WB

²Heating at 47°F (Indoor // Outdoor) °F 70 DB, 60 WB // 47 DB, 43 WB

³Heating at 17°F (Indoor // Outdoor) °F 70 DB, 60 WB // 17 DB, 15 WB

⁵Heating at 5°F (Indoor // Outdoor) °F 70 DB, 60 WB // 5 DB, 4 WB

*Indoor/Outdoor Unit Operating Temperature Range (Cooling Air Temp [Maximum / Minimum]): • 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 and automatically restarts at these temperatures.

⁶Heating at -4°F (Indoor // Outdoor) °F 70 DB, 60 WB // -4 DB, -5 WB

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Outdoor Unit	Fan Motor Output	W	74+74
	Airflow Rate Cooling	CFM	3910
	Airflow Rate Heating	CFM	3910
	Defrost Method		Reverse Cycle
	Coating on Heat Exchanger (Bluefin, Sea Coast)		Yes , Yes
	Sound Pressure Level, Cooling ¹	dB (A)	52
	Sound Pressure Level, Heating ²	dB (A)	53
	Compressor Type		Twin Rotary
	Compressor Model		MRB36FEGMC
	Compressor Oil [Type // Charge]	// oz	RM68EH // 45
	External Finish Color		Munsell 3Y 7.8/1.1
	Base Pan Heater		Optional
	Unit Dimensions (W x D x H)	inch x inch x inch [mm x mm x mm]	41-11/32 x 14 x 52-43/64 [1050 x 355 x 1338]
	Package Dimensions (W x D x H)	inch x inch x inch [mm x mm x mm]	42-15/16 x 17-3/4 x 58-5/16 [1090 x 450 x 1480]
ODU Operating Temp. Range	Unit Weight	lbs [kg]	224 [102]
	Package Weight	lbs [kg]	251 [114]
	Cooling Intake Air Temp [Maximum / Minimum*]	°FDB	115 / 23
	Heating Intake Air Temp [Maximum / Minimum]	°FDB , °FWB / °FDB , °FWB	70 , 59 / -4 , -4
Refrigerant	Heating Thermal Lock-out / Re-start Temperatures**	°FDB	-13 / -4
	Type		R454B
	Pre-Charged Refrigerant Amount	lbs , oz	9 , 14
	Maximum Pre-Charged Piping Length	ft [m]	100 [30]
	Additional Refrigerant Charge Per Additional Piping Length	oz/ft	0.6
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]	165 [50]
	Maximum Height Difference	ft [m]	100 [30]
	Maximum Number of Bends		15

Notes

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**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 and automatically restarts at these temperatures.

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INDOOR UNIT ACCESSORIES: PVA-AA42NL

Condensate	Refco Condensate Pump 100-240 VAC up to 120000 BTUH	☐ COMBI
	Sauermann Condensate Pump	☐ SI30-230
	Blue Diamond Advanced Mini Condensate Pump w Reservoir Sensor 208230V recommended	☐ X88-721
	Blue Diamond MegaBlue Advanced Condensate Pump w Reservoir Sensor	☐ X87-835
	Blue Diamond MaxiBlue Advanced Mini Condensate Pump w Reservoir Sensor 110V up to 48000 BTUH recommended	☐ X87-711
	Blue Diamond Sensor Extension Cable 15 Ft	☐ C13-103
Control Interface	Airzone Wireless Think Controller Black	☐ AZZBSTHINKRN
	Airzone Wired Blueface Controller Black	☐ AZZBSBLUEZEROCN
	Wireless Interface Adapter for the Comfort app	☐ PAC-USWHS002-WF-2
	IT Extender for kumo station	☐ PAC-WHS01IE-E
	Procon BACnet and Modbus Interface	☐ PAC-UKPRC001-CN-1
	Airzone Wireless Think Controller White	☐ AZZBSTHINKRB
	kumo station for the Comfort app	☐ PAC-WHS01HC-E
	Airzone Wired Blueface Controller White	☐ AZZBSBLUEZEROCB
	Airzone Wired Lite Controller White	☐ AZZBSLITECB
	Thermostat Interface for 3rd Party Thermostats	☐ PAC-US445CN-1
	Airzone Wireless Lite Controller White	☐ AZZBSLITERB
	Operation and Error Status Output Adapter	☐ PAC-SF40RM-E
Control Wire	202PR 1PR shielded 1PR plenum wire for Airzone 100 ft reel	☐ CW2042S2-100
	202PR shielded 1PR plenum wire for Airzone 500 ft reel	☐ CW2042S2-500
Disconnect Switch	30A600VUL fits 2 X 4 utility box - White	☐ TAZ-MS303W
	30A600VUL fits 2 X 4 utility box - Black	☐ TAZ-MS303
Downflow Kit	Downflow Kit	☐ CMA-1
Electric Heat Lockout	Electric Heat Lockout	☐ ETC-211020-MIT
Electric Kit Heats	17kW Electric Heater	☐ EH17-MPAS-LB
	15kW Electric Heater	☐ EH15-MPAS-LB
	10kW Electric Heater	☐ EH10-MPA-LB
Lineset	3/8 x 5/8 Lineset Twin-Tube Insulation - 15 feet	☐ MPLS385812T-15
	3/8 x 5/8 Lineset Twin-Tube Insulation - 50 feet	☐ MPLS385812T-50
	3/8 x 5/8 Lineset Twin-Tube Insulation - 65 feet	☐ MPLS385812T-65
	3/8 x 5/8 Lineset Twin-Tube Insulation - 100 feet	☐ MPLS385812T-100
	3/8 x 5/8 Lineset Twin-Tube Insulation - 30 feet	☐ MPLS385812T-30
	3/8 x 5/8 Lineset Twin-Tube Insulation - 10 feet	☐ MPLS385812T-10
Remote Sensor	Wireless temperature and humidity sensor for the Comfort app	☐ PAC-USWHS003-TH-1
	Wall Mount Remote Temperature Sensor	☐ PAC-SE41TS-E
	Flush Mount Remote Temperature Sensor for SEZ SLZ SVZ and all P-Series models	☐ PAC-USSEN002-FM-1
Terminal Block	Separate Terminal Power Block	☐ SPTB1
Terminal Signal Adapter	ERV On/Off Input Adapter for CNER on SVZ PEAD and PVA models	☐ PAC-740
	5-Pin Wiring Harness	☐ PAC-725AD
	Backup Heat Relay Kit Adapter for CN24 or CN152 Connector	☐ CN24RELAY-KIT-CM3
	3-Pin Wiring Harness	☐ PAC-715AD
Wired Remote Controller	Deluxe Wired MA Remote Controller	☐ PAR-42MAAUB
	Touch MA Wired Remote Controller	☐ PAR-CT01MAU-SB
	Simple Direct Wired Remote Controller	☐ PAC-SDW01RC-1
	Simple MA Remote Controller	☐ PAC-YT53CRAU-J
Wireless Remote Controller	Lockdown Bracket for Wireless Handheld Remote Controllers	☐ RCMKP1CB
	Wireless MA Remote Controller	☐ PAR-FL32MA-E
	Wireless Remote Controller	☐ PAR-SL101A-E
	RedLINK Wireless Remote Controller	☐ MHK2
	Universal Wireless Receiver for PAR-FL32MA-E	☐ PAR-FA32MA-W

Notes

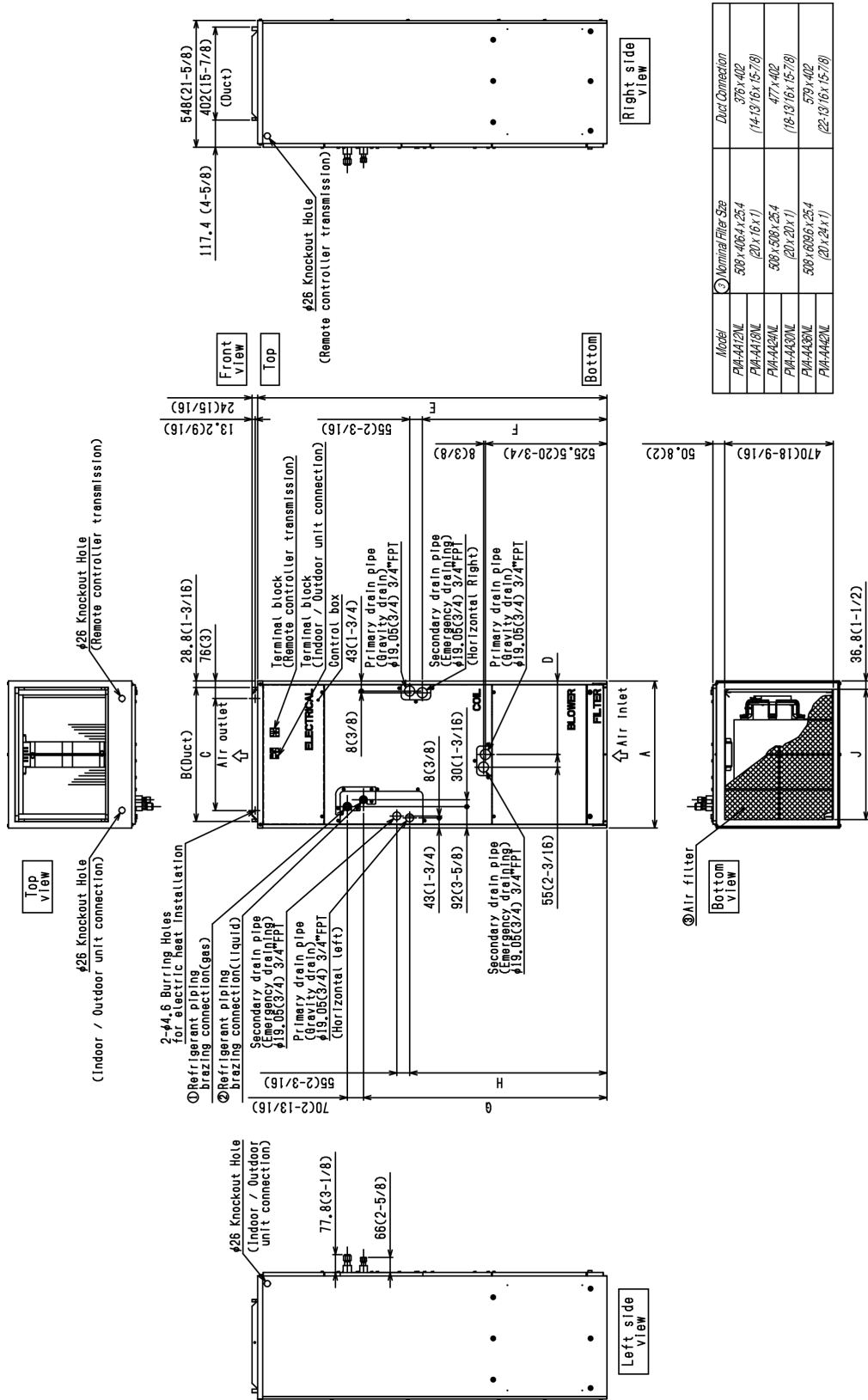
¹Unable to use with Wireless Handheld Remote Controller

¹Requires MAC-334IF-E Interface to connect MA controller

OUTDOOR UNIT ACCESSORIES: PUZ-AK42NL

Air Outlet Guide	Air Outlet Guide 1 Piece	☐	PAC-SH96SG-E (two pieces required)
Centralized Drain Pan	Centralized Drain Pan	☐	PAC-SH97DP-E
Control/Service Tool	M- & P-Series Maintenance Tool Cable Set	☐	M21EC0397
	ControlService Tool	☐	PAC-SK52ST
	Maintenance Tool Interface	☐	PAC-USCMS-MN-1
Drain Socket	Drain Socket	☐	PAC-SG61DS-E
Hail Guards	Hail Guard	☐	HG-A2
M-NET Converter	M-Net Interface for P-Series	☐	PAC-SJ95MA-E
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 Cable50 ft roll	☐	S144-50
	14 Gauge 4 wire MiniSplit Cable250 ft roll	☐	S144-250
Mounting Pad	Condensing Unit Mounting Pad 24 x 42 x 3	☐	ULTRILITE2
Optional Defrost Heater	Optional Defrost Heater	☐	PAC-SL11BH-E
Snow/Rain Diverter	SnowRain Diverter	☐	SRD-5
Stand	18 Dual Fan Stand	☐	QSMS1802M
	24 Dual Fan Stand	☐	QSMS2402M
	Outdoor Unit Stand 12 High	☐	QSMS1202M
	Outdoor Unit 3-14 inch Mounting Base Pair - Plastic	☐	DSD-400P
Terminal Signal Adapter	5-Pin Wiring Harness	☐	PAC-725AD
	3-Pin Wiring Harness	☐	PAC-715AD
Wind Baffle	Front Wind Baffle	☐	WB-PA3 (two pieces required)
	Rear Wind Baffle	☐	WB-RE6
	Side Advanced Wind Baffle	☐	WB-SD6
Notes			

INDOOR UNIT DIMENSIONS: PVA-AA42NL



Model	Nominal Filter Size	Duct Connection
PVA-AA12NL	509 x 406 x 25.4 (20 x 16 x 1)	376 x 402 (14.3 x 15.78)
PVA-AA18NL	509 x 509 x 25.4 (20 x 20 x 1)	477 x 402 (18.75 x 15.78)
PVA-AA24NL	509 x 509 x 25.4 (20 x 20 x 1)	477 x 402 (18.75 x 15.78)
PVA-AA30NL	509 x 509 x 25.4 (20 x 20 x 1)	477 x 402 (18.75 x 15.78)
PVA-AA36NL	509 x 509 x 25.4 (20 x 20 x 1)	477 x 402 (18.75 x 15.78)
PVA-AA42NL	509 x 509 x 25.4 (20 x 20 x 1)	477 x 402 (18.75 x 15.78)

Model	A	B	C	D	E	F	G	H	J	Gas Pipe	Liquid Pipe
PVA-AA12NL	432 (17)	376 (14-3/16)	281 (11-1/8)	224 (8-7/8)	1275 (50-1/4)	680 (26-13/16)	823 (32-7/16)	765 (29)	360 (14-3/16)	12.7 (1/2)	6.35 (1/4)
PVA-AA18NL	534 (21)	477 (18-13/16)	382 (15-1/8)	286 (11-1/2)	1378 (54-1/4)	737 (29-1/16)	933 (37-1/16)	792 (31-3/16)	461 (18-3/16)	15.88 (5/8)	9.52 (3/8)
PVA-AA24NL	635 (25)	579 (22-13/16)	484 (19-1/8)	317 (12-1/2)	1511 (59-1/2)	786 (31-1/16)	1033 (41-1/2)	883 (35-3/8)	563 (22-3/16)	15.88 (5/8)	9.52 (3/8)

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