

PEAD-AA42NL & PUZ-AK42NLHZ
42,000 BTU/H HORIZONTAL-DUCTED INDOOR UNIT
42,000 BTU/H HYPER HEAT PUMP OUTDOOR UNIT



Job Name:

System Reference:

Date:



Indoor Unit.....PEAD-AA42NL

Outdoor Unit.....PUZ-AK42NLHZ



INDOOR UNIT FEATURES

- Built-in condensate lift mechanism (up to 27-9/16")
- Wide ranging external static pressure (0.14-0.60 in. WG)
- Unobtrusive ceiling-concealed design for short-run ductwork
- Multiple control options including: comfort app, third-party interfaces and both wired and wireless controllers
- Auto fan speed mode
- Optional FB Series filter boxes for easy access and service

OUTDOOR UNIT FEATURES

- Built-in base pan heater
- High Speed Start-up: High speed heating at start up: Hyper-Heating INVERTER® reduces the time for heating at start up by about half compared to standard models
- Hyper-Heating INVERTER®: Variable speed INVERTER-driven compressor
- Pre-charged refrigerant: volume for piping length up to 100 ft
- Pressure/temp protection
- Seacoast protection: components are rated for 2,000 hours of durability under ASTM B117 testing standards, ensuring longevity in corrosive coastal environments.
- Wide Heating Range: Wide heating range: heating performance down to -13°F (average of 80% heating capacity)

SPECIFICATIONS: PEAD-AA42NL & PUZ-AK42NLHZ

Cooling at 95F ¹	Maximum Capacity	Btu/h	43,000
	Rated Capacity	Btu/h	42,000
	Minimum Capacity	Btu/h	18,000
	Maximum Power Input	W	3,910
	Rated Power Input	W	3,790
	Moisture Removal	Pints/h	6.6
	Sensible Heat Factor	-	0.83
Heating at 47F ²	Power Factor [208V / 230V]	%	95 / 95
	Maximum Capacity	Btu/h	54,000
	Rated Capacity	Btu/h	54,000
	Minimum Capacity	Btu/h	16,100
	Maximum Power Input	W	4,655
	Rated Power Input	W	4,655
	Power Factor [208V / 230V]	%	96 / 96
Heating at 17F ³	Maximum Capacity	Btu/h	48,000
	Rated Capacity	Btu/h	33,000
	Maximum Power Input	W	7,650
	Rated Power Input	W	3,800
Heating at 5F ⁵	Maximum Capacity	Btu/h	48,000
Heating at 5F ⁴	Maximum Power Input	W	8,000
Heating at -13F ⁹	Maximum Capacity	Btu/h	36,200
Efficiency	SEER2		18.3
	EER2 ¹		11
	HSPF2 [IV]		8.5
	COP at 47°F ²		3.4
	COP at 17°F at Maximum Capacity ³		1.8
	COP at 5°F at Maximum Capacity ⁴		1.75
	COP at -13°F at Maximum Capacity ⁸		1.82
Electrical	ENERGY STAR® Certified		Yes
	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	40
Indoor Unit	Recommended Wire Size [Indoor - Outdoor]	AWG	14
	MCA	A	4.25
	Fan Motor Output	W	300
	Airflow Rate at Cooling, Dry	CFM	1,042, 1,148, 1,254, 1,483
	Airflow Rate at Heating, Dry	CFM	1,042, 1,148, 1,254, 1,483
	Sound Pressure Level [Cooling]	dB (A)	37, 39, 41, 45
	Sound Pressure Level [Heating]	dB (A)	37, 39, 41, 45
	External Static Pressure	in.WG	0.14, 0.20, 0.28, 0.40, 0.60
	Drain Pipe Size O.D.	inch [mm]	1-1/4 [32]
	Unit Dimensions (W x D x H)	inch x inch x inch [mm x mm x mm]	55-1/8 x 28-7/8 x 9-7/8 [1,400 x 732 x 250]
	Package Dimensions (W x D x H)	inch x inch x inch [mm x mm x mm]	65-3/4 x 35-7/16 x 13 [1,670 x 900 x 330]
	Unit Weight	lbs [kg]	86 [39]
	Package Weight	lbs [kg]	97 [46]
	Fan Motor Type		DC Motor
IDU Operating Temp. Range	Cooling Intake Air Temp [Maximum / Minimum]	°FDB, °FWB / °FDB, °FWB	90, 73 / 66, 59
	Heating Intake Air Temp [Maximum / Minimum]	°FDB	82 / 50

NOTES

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

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

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

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

⁵Heating at -13°F (Indoor: 70°F DB, 60°F WB // Outdoor: -13°F DB, -14°F 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.

SPECIFICATIONS: PEAD-AA42NL & PUZ-AK42NLHZ

Outdoor Unit	MCA	A	35
	MOCP	A	60
	Fan Motor Output	W	200+200
	Airflow Rate Cooling	CFM	4,020
	Airflow Rate Heating	CFM	4,020
	Defrost Method		Reverse Cycle
	Coating on Heat Exchanger (Bluefin, Sea Coast)		Yes, Yes
	Sound Pressure Level, Cooling ¹	dB (A)	60
	Sound Pressure Level, Heating ²	dB (A)	62
	Compressor Type		Twin Rotary
	Compressor Model		MRK53FFJMC-L
	Compressor Oil [Type // Charge]	Type // oz	RM68EH // 60
	External Finish Color		Munsell 3Y 7.8/1.1
	Base Pan Heater		Built-in
	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 [1,050 x 355 x 1,338]
	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 [1,090 x 450 x 1,480]
ODU Operating Temp. Range	Unit Weight	lbs [kg]	271 [123]
	Package Weight	lbs [kg]	298 [135]
	Cooling Intake Air Temp [Maximum / Minimum*]	°FDB	115 / 23
Refrigerant	Heating Intake Air Temp [Maximum / Minimum]	°FDB, °FWB / °FDB, °FWB	70, 59 / -13, -13
	Heating Thermal Lock-out / Re-start Temperatures**	°FDB	-22 / -13
	Type		R454B
Piping	Pre-Charged Refrigerant Amount	lbs, oz	11, 7
	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]	245 [75]
	Maximum Height Difference	ft [m]	100 [30]
	Maximum Number of Bends		15

NOTES

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

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

⁵Heating at -13°F (Indoor: 70°F DB, 60°F WB // Outdoor: -13°F DB, -14°F 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.

INDOOR UNIT ACCESSORIES: PEAD-AA42NL

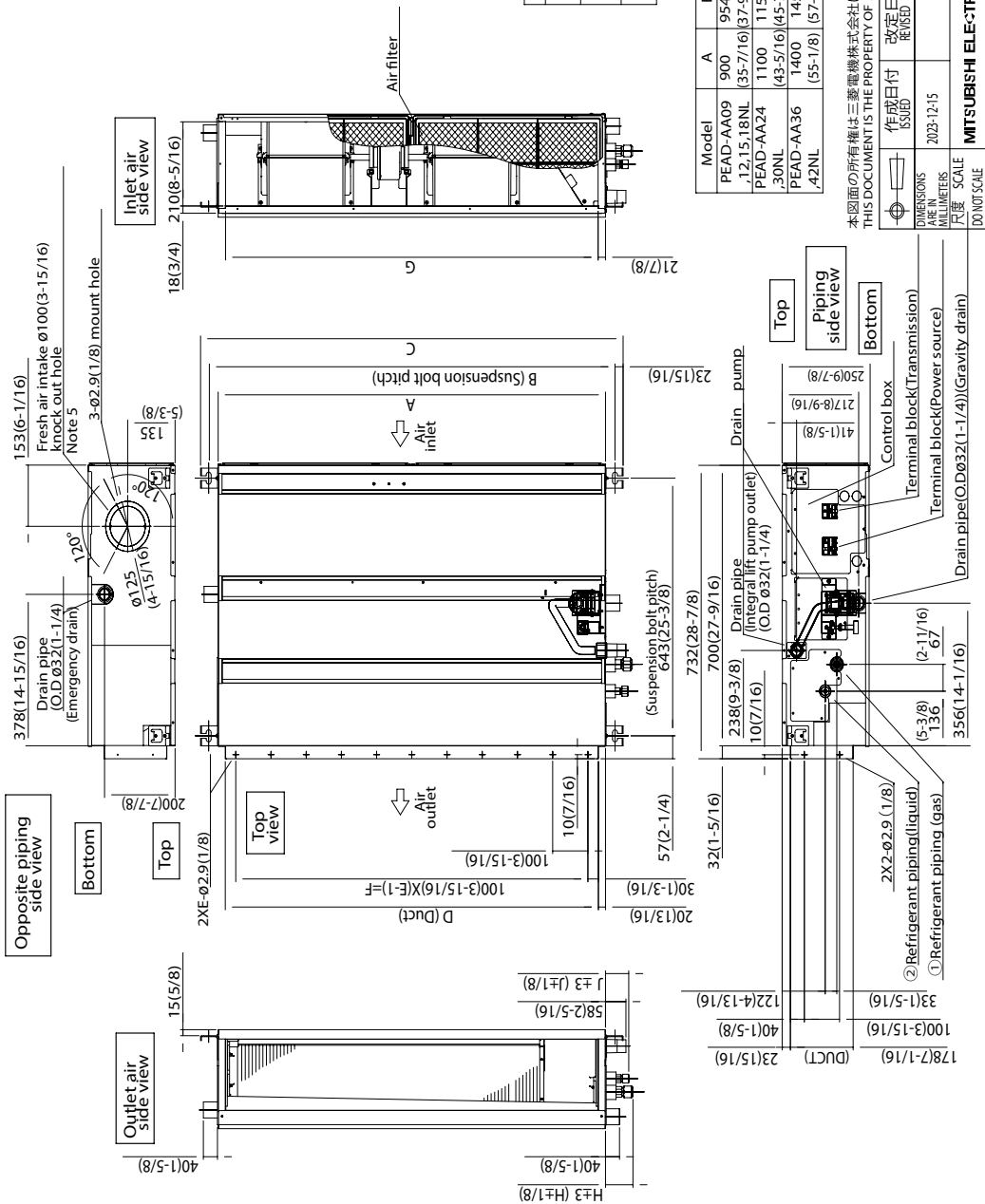
Condensate	Blue Diamond Advanced Mini Condensate Pump w Reservoir Sensor 208230V recommended	X87-721
	Blue Diamond MaxiBlue Advanced Mini Condensate Pump w Reservoir Sensor 110V up to 48000 BTUH recommended	X87-711
	Blue Diamond MegaBlue Advanced Condensate Pump w Reservoir Sensor	X87-835
	Blue Diamond Sensor Extension Cable 15 Ft	C13-103
	Refco Condensate Pump 100-240 VAC up to 120000 BTUH	COMBI
	Sauermann Condensate Pump	SI30-230
Control Interface	Airzone Wired Blueface Controller Black	AZZBSBLUEZEROCN
	Airzone Wired Blueface Controller White	AZZBSBLUEZEROCB
	Airzone Wireless Lite Controller Black	AZZBSLITERN
	Airzone Wireless Lite Controller White	AZZBSLITERB
	Airzone Wireless Think Controller Black	AZZBSTHINKRN
	Airzone Wireless Think Controller White	AZZBSTHINKRB
	IT Extender for kumo station	PAC-WHS01IE-E
	kumo station for the Comfort app	PAC-WHS01HC-E
	Operation and Error Status Output Adapter	PAC-SF40RM-E
	Procon BACnet and Modbus Interface	PAC-UKPRC001-CN-1
	Thermostat Interface for 3rd Party Thermostats	PAC-US445CN-1
Power Supplies and Auxiliary Components	Wireless Interface Adapter for the Comfort app	PAC-USWHS002-WF-2
	Backup Heat Relay Kit Adapter for CN24 or CN152 Connector	CN24RELAY-KIT-CM3
Remote Sensor	Flush Mount Remote Temperature Sensor for SEZ SLZ SVZ and all P-Series models	PAC-USSEN002-FM-1
	Wall Mount Remote Temperature Sensor	PAC-SE41TS-E
	Wireless temperature and humidity sensor for the Comfort app	PAC-USWHS003-TH-1
Wireless Remote Controller	Lockdown Bracket for Wireless Handheld Remote Controllers	RCMKP1CB
	RedLINK Wireless Remote Controller	MHK2
	Universal Wireless MA Handheld Remote Controller	PAR-FL32MA-E
	Universal Wireless Receiver for PAR-FL32MA-E	PAR-FA32MA-W
Filter Box	Filter Box with MERV 13 Filter	FBM2-4-A
Wired Remote Controller	Deluxe Wired MA Remote Controller ¹	PAR-42MAAUB
	Simple Direct Wired Remote Controller	PAC-SDW01RC-1
	Simple MA Remote Controller	PAC-YT53CRAU-J
	Touch MA Wired Remote Controller ¹	PAR-CT01MAU-SB
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
Power Supplies & Auxiliary Components	3-Pin Wiring Harness	PAC-715AD
	5-Pin Wiring Harness	PAC-725AD
Disconnect Switch	30A600VUL fits 2 X 4 utility box - Black	TAZ-MS303
	30A600VUL fits 2 X 4 utility box - White	TAZ-MS303W
NOTES ¹ Requires MAC-334IF-E Interface to connect MA controller ¹ Unable to use with Wireless Handheld Remote Controller ¹ Requires MAC-334IF-E Interface to connect MA controller ¹ Requires MAC-334IF-E Interface to connect MA controller ¹ Requires MAC-334IF-E Interface to connect MA controller		

OUTDOOR UNIT ACCESSORIES: PUZ-AK42NLHZ

M-NET Converter	M-Net Interface for P-Series	PAC-SJ95MA-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 3-14 inch Mounting Base Pair - Plastic	DSD-400P
	Outdoor Unit Stand 12 High	QSMS1202M
Air Outlet Guide	Air Outlet Guide 1 Piece	PAC-SH96SG-E (two pieces are required)
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 Cable250 ft roll	S144-250
	14 Gauge 4 wire MiniSplit Cable50 ft roll	S144-50
Control/Service Tool	ControlService Tool	PAC-SK52ST
	M- & P-Series Maintenance Tool Cable Set	M21EC0397
	Maintenance Tool Interface	PAC-USCMS-MN-1
Drain Socket	Drain Socket	PAC-SG61DS-E
Centralized Drain Pan	Centralized Drain Pan	PAC-SH97DP-E
Hail Guards	Hail Guard	HG-A2
Power Supplies & Auxiliary Components	3-Pin Wiring Harness	PAC-715AD
	5-Pin Wiring Harness	PAC-725AD
Wind Baffle	Front Wind Baffle	WB-PA3 (two pieces are required)
Mounting Pad	Condensing Unit Mounting Pad 24 x 42 x 3	ULTRILITE2
Snow/Rain Diverter	SnowRain Diverter	SRD-5
NOTES		

INDOOR UNIT DIMENSIONS: PEAD-AA42NL

- 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-AA09-12-15-18-24-30NL models, which have 2 fans.
PEAD-AA36-42NL 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-AA09 NL	62 (2-1/2)	φ9.52 (3/8)	φ6.35 (1/4)
PEAD-AA12, 15, 18NL		φ12.7 (1/2)	
PEAD-AA24, 30, 36, 42NL	66 (2-5/8)	φ15.88 (5/8)	φ9.52 (3/8)

Model	A	B	C	D	E	F	G	H
PEAD-AA09	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-AA24, 30NL	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-AA36, 42NL	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)	

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EXTERNAL DIMENSION			
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