

PVA-AA12NL & PUZ-AK12NL
12,000 BTU/H MULTI-POSITION AIR HANDLER INDOOR UNIT
12,000 BTU/H HEAT PUMP OUTDOOR UNIT



Job Name:

System Reference:

Date:



Indoor Unit.....PVA-AA12NL

Outdoor Unit.....PUZ-AK12NL



INDOOR UNIT FEATURES

- Ducted air handler: Ducted air handler provides a solution to cool and heat large zones
- Enclosed ECM motor: Highly efficient totally enclosed ECM motor
- Fiberglass free insulation: 1 inch R4.2 fiberglass free insulation reduces condensation and boosts efficiency
- Light commercial: Units with this icon are suitable for light commercial applications such as small offices, restaurants, and retail.
- Multi-position installation: Multi-position installation: horizontal (left or right), vertical (up or down). For downflow configurations, the CMA-1 is recommended for proper management of condensate to prevent water blow-off in certain conditions
- Multiple control options, including the comfort app for remote access, third-party interfaces, and both wired and wireless controllers
- Optional electric heat kit: Optional electric heat kit for additional heat capacity
- Optional humidifier control and ERV control
- Positive pressure cabinet: Positive pressure cabinet with air leakage of less than 1.0% at 1.0 in.WG
- Selectable external static pressure: Selectable external static pressure: 0.30, 0.50 and 0.80 in.WG with 3 fan speeds at each static setting
- Single-zone: One outdoor unit connects to one indoor unit to control the comfort in a single space.
- Unique blow through design: Unique blow through design allows simple coil cleaning when the blower is removed

OUTDOOR UNIT FEATURES

- Blue Fin Coating: 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.
- Continuous operation: 24-hour continuous operation (cooling mode)
- Fast restart
- High pressure protection
- High pressure/temperature protection
- INVERTER-driven compressor: An inverter-driven compressor generates the precise capacity needed to maintain a temperature set point.
- Low ambient cooling : Low ambient cooling down to 0°F providing 100% capacity
- Pre-charged refrigerant: 12k -30k BTU/h come pre-charged for ease of installation. 24k – 30k BTU/h are pre-charged to maximum line length of 165 feet. 12k – 18k BTU/h are pre-charged for up to 100 feet of line length. For units with a capacity of 36,000 BTU/h and above, additional refrigerant charges will be required.
- Seacoast protection: Seacoast Protection, made standard in the 2022 production, features a robust anti-corrosion system with phosphate and acrylic-enamel coated external panels, epoxy resin-coated fan motor support and separator assembly valve beds, and Blue Fin treatment for the heat exchanger coil. These components are rated for 2,000 hours of durability under ASTM B117 testing standards, ensuring longevity in corrosive coastal environments.
- Superior energy and operational efficiency

SPECIFICATIONS: PVA-AA12NL & PUZ-AK12NL

Cooling at 95F ¹	Maximum Capacity	Btu/h	12,400
	Rated Capacity	Btu/h	12,000
	Minimum Capacity	Btu/h	4,500
	Maximum Power Input	W	880
	Rated Power Input	W	840
	Moisture Removal	Pints/h	3.8
	Sensible Heat Factor	-	0.66
Heating at 47F ²	Power Factor [208V / 230V]	%	80 / 80
	Maximum Capacity	Btu/h	19,000
	Rated Capacity	Btu/h	19,000
	Minimum Capacity	Btu/h	4,500
	Maximum Power Input	W	1,730
	Rated Power Input	W	1,730
Heating at 17F ³	Power Factor [208V / 230V]	%	93 / 93
	Maximum Capacity	Btu/h	10,200
	Rated Capacity	Btu/h	10,200
	Maximum Power Input	W	1,150
Heating at 5F ⁴	Rated Power Input	W	1,150
	Maximum Capacity	Btu/h	8,500
Heating at -4F ⁵	Maximum Power Input	W	1,245
	Maximum Capacity	Btu/h	7,500
Efficiency	SEER2		20
	EER2 ¹		14.2
	HSPF2 [IV]		9.8
	COP at 47°F ²		3.2
	COP at 17°F at Maximum Capacity ³		2.5
	COP at 5°F at Maximum Capacity ⁴		2
	COP at -4°F at Maximum Capacity ⁵		1.92
	ENERGY STAR [®] Certified		Yes
Electrical	Voltage, Phase, Frequency	V AC / V AC, ϕ , 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	20
	Recommended Wire Size [Indoor - Outdoor]	AWG	14
Indoor Unit	MCA	A	3
	Fan Motor Output	W	121
	Airflow Rate at Cooling, Dry	CFM	280, 340, 400
	Airflow Rate at Heating, Dry	CFM	280, 340, 400
	Sound Pressure Level [Cooling]	dB (A)	31, 35, 38
	Sound Pressure Level [Heating]	dB (A)	31, 35, 38
	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]	17 x 21-5/8 x 50-1/4 [432 x 548 x 1,275]
	Package Dimensions (W x D x H)	inch x inch x inch [mm x mm x mm]	18-1/8 x 28-11/16 x 56-15/16 [460 x 728 x 1,446]
	Unit Weight	lbs [kg]	113 [51]
	Package Weight	lbs [kg]	133 [60]
Fan Motor Type		Direct-driven DC Brushless Motor	
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

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 -4°F (Indoor: 70°F DB, 60°F WB // Outdoor: -4°F DB, -5°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: PVA-AA12NL & PUZ-AK12NL

Outdoor Unit	MCA	A	16
	MOCP	A	27
	Fan Motor Output	W	51
	Airflow Rate Cooling	CFM	1,590
	Airflow Rate Heating	CFM	1,590
	Defrost Method		Reverse Cycle
	Coating on Heat Exchanger (Bluefin, Sea Coast)		Yes, Yes
	Sound Pressure Level, Cooling ¹	dB (A)	44
	Sound Pressure Level, Heating ²	dB (A)	46
	Compressor Type		Twin Rotary
	Compressor Model		SRB140FQHMC-L1
	Compressor Oil [Type // Charge]	Type // oz	RM68EH // 16
	External Finish Color		Munsell 3Y 7.8/1.1
	Unit Dimensions (W x D x H)	inch x inch x inch [mm x mm x mm]	34-19/16 x 11-13/16 x 24-13/16 [871 x 300 x 630]
	Package Dimensions (W x D x H)	inch x inch x inch [mm x mm x mm]	37-1/16 x 16-3/16 x 32-1/4 [941 x 411 x 819]
Unit Weight	lbs [kg]	99 [45]	
Package Weight	lbs [kg]	112.44 [51]	
ODU Operating Temp. Range	Cooling Intake Air Temp [Maximum / Minimum*]	°FDB	115 / 23
	Heating Intake Air Temp [Maximum / Minimum]	°FDB, °FWB / °FDB, °FWB	70, 59 / -4, -4
	Heating Thermal Lock-out / Re-start Temperatures**	°FDB	-13 / -4
Refrigerant	Type		R454B
	Pre-Charged Refrigerant Amount	lbs, oz	4, 6
	Maximum Pre-Charged Piping Length	ft [m]	100 [30]
Piping	Gas Pipe Size O.D. [Flared]	inch [mm]	1/2 [12.72]
	Liquid Pipe Size O.D. [Flared]	inch [mm]	1/4 [6.35]
	Maximum Piping Length	ft [m]	100 [30]
	Maximum Height Difference	ft [m]	100 [30]
	Maximum Number of Bends		15

NOTES

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- ⁴Heating at 5°F (Indoor: 70°F DB, 60°F WB // Outdoor: 5°F DB, 4°F WB)
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 - Wind baffles required to operate below 23°F DB in cooling mode.
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 - Refer to wind baffle documentation for further information.
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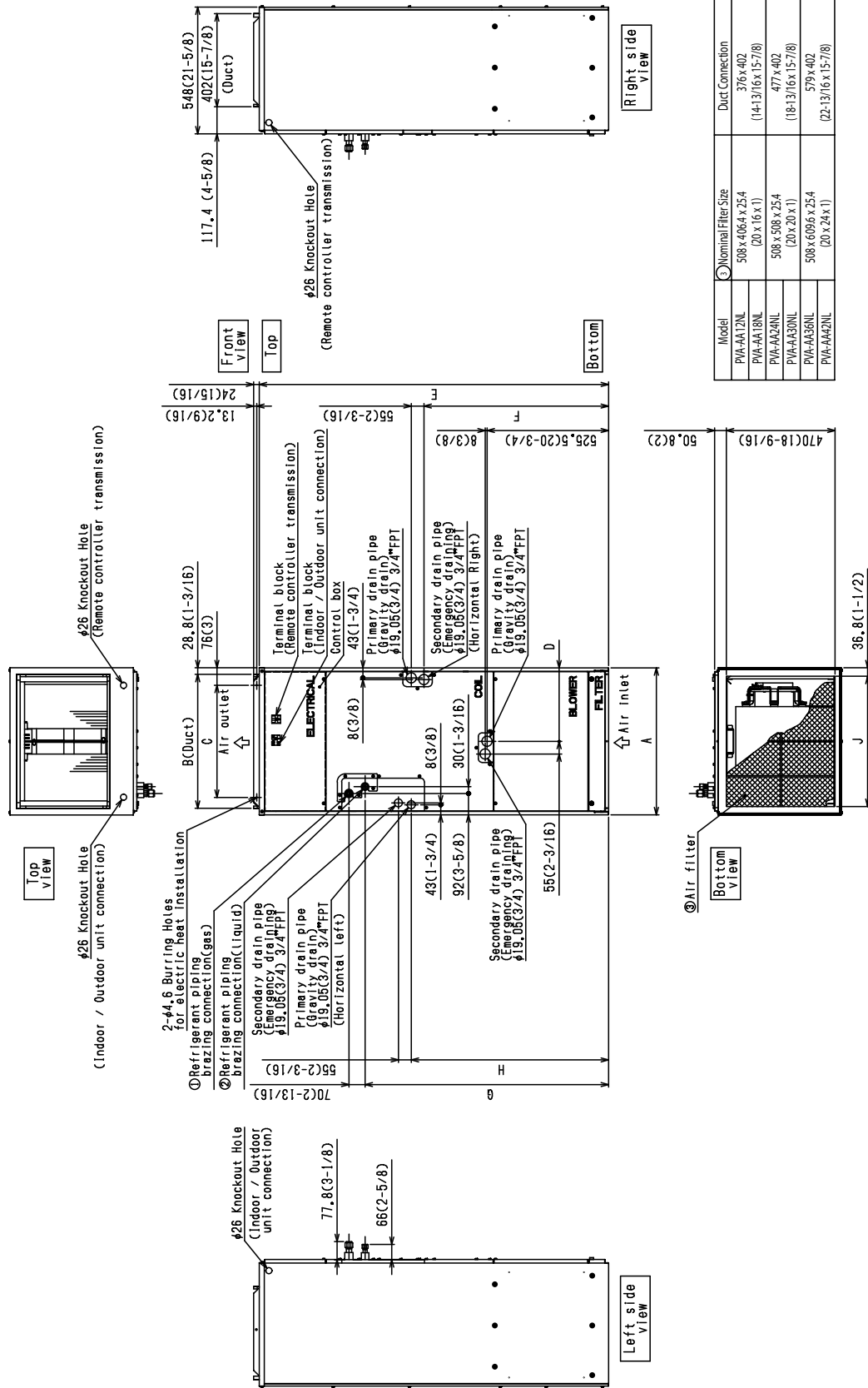
INDOOR UNIT ACCESSORIES: PVA-AA12NL

Power Supplies and Auxiliary Components	Backup Heat Relay Kit Adapter for CN24 or CN152 Connector	CN24RELAY-KIT-CM3
Wired Remote Controller	Simple Direct Wired Remote Controller	PAC-SDW01RC-1
	Simple MA Remote Controller ¹	PAC-YT53CRAU-J
	Touch MA Wired Remote Controller ¹	PAR-CT01MAU-SB
Terminal Block	Separate Terminal Power Block	SPTB1
Control Interface	Airzone Wired Blueface Controller White	AZZBSBLUEZEROCN
	Airzone Wired Blueface Controller White	AZZBSBLUEZEROCB
	Airzone Wired Lite Controller White	AZZBSLITECB
	Airzone Wireless Lite Controller White	AZZBSLITERB
	Airzone Wireless Think Controller White	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 ¹	PAC-SF40RM-E
	Procon BACnet and Modbus Interface	PAC-UKPRC001-CN-1
	Thermostat Interface for 3rd Party Thermostats	PAC-US445CN-1
	Wireless Interface Adapter for the Comfort app	PAC-USWHS002-WF-2
Downflow Kit	Condensate Management Kit for downflow installation	CMA-1
Lineset	100 x 1/4 x 100 1/2 Lineset Twin-Tube Insulation	MLS141212T-100
	15 x 1/4 x 15 1/2 Lineset Twin-Tube Insulation	MLS141212T-15
	30 x 1/4 x 30 1/2 Lineset Twin-Tube Insulation	MLS141212T-30
	50 x 1/4 x 50 1/2 Lineset Twin-Tube Insulation	MLS141212T-50
	65 x 1/4 x 65 1/2 Lineset Twin-Tube Insulation	MLS141212T-65
Wireless Remote Controller	Deluxe Wired MA Remote Controller	PAR-42MAAUB
	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
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 MicroBlue Mini Condensate Pump 110208230V up to 18000 BTUH	X86-003
	Blue Diamond Sensor Extension Cable 15 Ft	C13-103
	Refco Condensate Pump 100-240 VAC up to 120000 BTUH	COMBI
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
Disconnect Switch	30A600VUL fits 2 X 4 utility box - Black	TAZ-MS303
	30A600VUL fits 2 X 4 utility box - White	TAZ-MS303W
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
Electric Kit Heats	3kW Electric Heater	EH03-MPA-SB
	5kW Electric Heater	EH05-MPA-SB
Power Supplies & Auxiliary Components	3-Pin Wiring Harness	PAC-715AD
	5-Pin Wiring Harness	PAC-725AD
	ERV On/Off Input Adapter for CNER on SVZ PEAD and PVA models	PAC-740
Electric Heat Lockout	Electric Heat Lockout	ETC-211020-MIT
NOTES		
¹ Unable to use with Wireless Handheld Remote Controller		

OUTDOOR UNIT ACCESSORIES: PUZ-AK12NL

Wind Baffle	Front Wind Baffle	WB-PA4
	Rear Wind Baffle	WB-RE4
	Side Advanced Wind Baffle	WB-SD4
Power Supplies & Auxiliary Components	3-Pin Wiring Harness	PAC-715AD
	5-Pin Wiring Harness	PAC-725AD
Drain Socket	Drain Socket	MAC-871DS
Control/Service Tool	ControlService Tool	PAC-SK52ST
	M- & P-Series Maintenance Tool Cable Set	M21EC0397
	Maintenance Tool Interface	PAC-USCMS-MN-1
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
Stand	18 Single Fan Stand	QSMS1801M
	24 Single Fan Stand	QSMS2401M
	Condenser Wall Bracket - Stainless Steel Finish	QSWBSS
	Condenser Wall Bracket	QSWB2000M-1
	Outdoor Unit 3-14 inch Mounting Base Pair - Plastic	DSD-400P
	Outdoor Unit Stand 12 High	QSMS1201M
Air Outlet Guide	Air Outlet Guide	PAC-SJ07SG-E
Mounting Pad	Condensing Unit Mounting Pad 16 x 36 x 3	ULTRILITE1
Centralized Drain Pan	Centralized Drain Pan	PAC-SG63DP-E
M-NET Converter	M-Net Interface for P-Series	PAC-SJ96MA-E
Hail Guards	Hail Guard	HG-A5
Snow/Rain Diverter	SnowRain Diverter	SRD-2
NOTES		

INDOOR UNIT DIMENSIONS: PVA-AA12NL

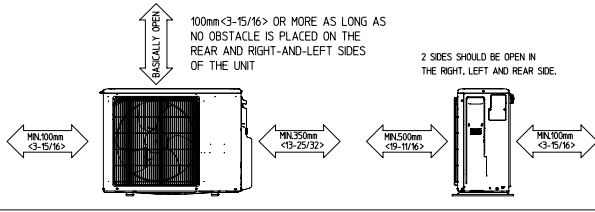


Model	Nominal Filter Size	Duct Connection
PVA-AA12NL	508×406×25.4 (20×16×1)	376×402 (14-13/16×15-7/8)
PVA-AA18NL	508×508×25.4 (20×20×1)	477×402 (18-13/16×15-7/8)
PVA-AA30NL	508×609.6×25.4 (20×24×1)	579×402 (22-13/16×15-7/8)

Model	A	B	C	D	E	F	G	H	J	Gas Pipe	Liquid Pipe
PVA-AA12NL	432 (17)	376 (14-13/16)	281 (11-1/8)	224 (8-7/8)	1275 (50-1/4)	680 (26-13/16)	823 (32-7/16)	735.5 (29)	360 (14-3/16)	12.7 (1/2)	6.35 (1/4)
PVA-AA18NL	534 (21)	477 (18-13/16)	382.6 (15-1/8)	266.5 (10-1/2)	1378 (54-1/4)	737 (29-1/16)	953.5 (37-9/16)	792 (31-3/16)	461 (18-3/16)	15.88 (5/8)	9.52 (3/8)
PVA-AA30NL	635 (25)	579 (22-13/16)	484.6 (19-1/8)	317.5 (12-1/2)	1511 (59-1/2)	798.5 (31-7/16)	1053 (41-1/2)	853.5 (33-5/8)	563 (22-3/16)		

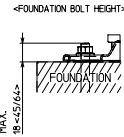
OUTDOOR UNIT DIMENSIONS: PUZ-AK12NL

FREE SPACE AROUND THE OUTDOOR UNIT (BASIC EXAMPLE)



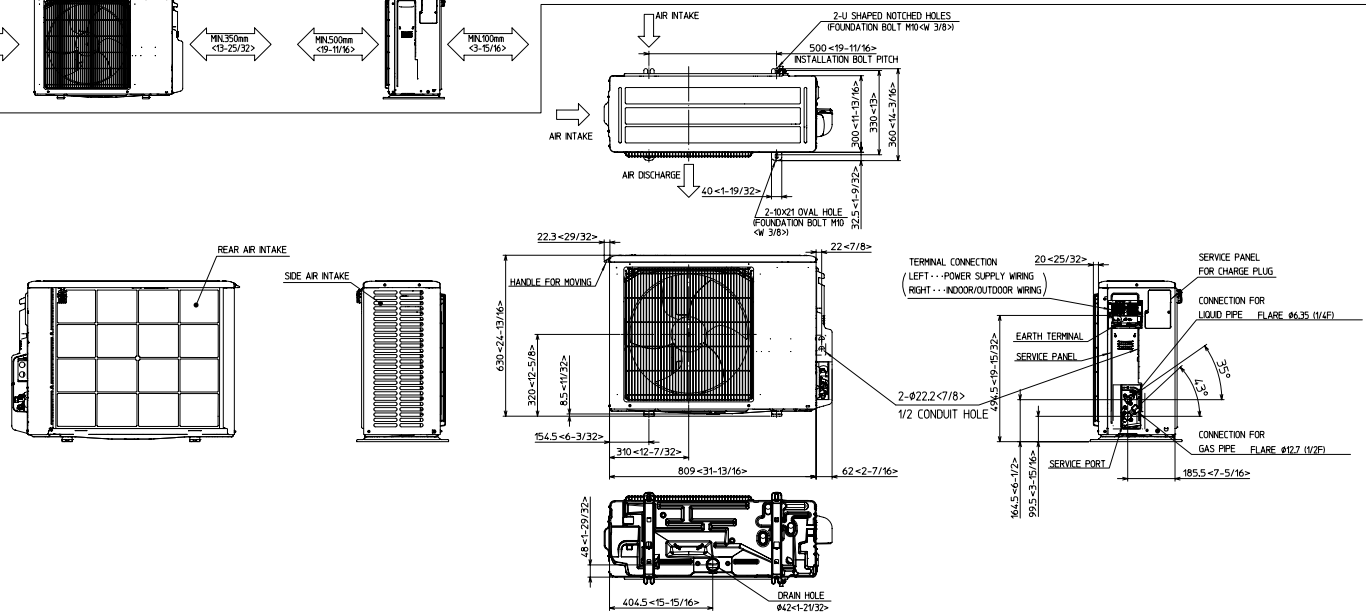
FOUNDATION BOLTS

PLEASE SECURE THE BASE OF THE UNIT FIRMLY USING M10- $\langle W3/8 \rangle$ FOUNDATION BOLTS AT FOUR PLACES WITH A NUT. (BOLTS, WASHERS AND NUT MUST BE PURCHASED LOCALLY).



PIPING-WIRING DIRECTION

PIPING AND WIRING CONNECTION CAN BE MADE FROM THE REAR DIRECTION ONLY.



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