P-SERIES

SUBMITTAL DATA: PVA-A18AA7 & PUZ-A18NKA7(-BS) 18,000 BTU/H AIR HANDLER HEAT PUMP SYSTEM



Job Name:	
System Reference:	Date:

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Indoor Unit: PVA-A18AA7	Outdoor Unit: □ PUZ-A18NKA7	
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INDOOR UNIT FEATURES

- · Ducted air handler provides a solution to cool and heat large zones
- · Highly efficient totally enclosed ECM motor
- Selectable external static pressure: 0.30, 0.50 and 0.80 in.WG with 3 fan speeds at each static setting
- 1 inch R4.2 fiberglass free insulation reduces condensation and boosts efficiency
- Positive pressure cabinet with air leakage of less than 1.0% at 1.0 in. w.g.
- · Unique blow through design allows simple coil cleaning when the blower is removed
- 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
- Optional electric heat kit for additional heat capacity
- · Optional humidifier control and ERV control

OUTDOOR UNIT FEATURES

- Variable speed INVERTER-driven compressor
- Suction accumulator pre-charged with refrigerant volume for piping length up to 100 ft (70 ft. for A12/18/24/30)
- 24-hour continuous operation (cooling mode)
- · High pressure protection
- · Fast restart due to bypass valve make it ideal for equipment cooling applications, such as data centers
- Superior energy and operational efficiency

Model number	Indoor unit	PVA-A18AA7		
	Outdoor unit	PUZ-A18NKA7		
		PUZ-A18NKA7-BS		
Cooling*1	Maximum Capacity	Btu/h	18,000	
	Rated Capacity	Btu/h	18,000	
	Minimum Capacity	Btu/h	7,000	
	Maximum Power Input	W	1,570	
	Rated Power Input	W	1,570	
	Moisture Removal	2.40		
	Sensible Heat Factor		0.76	
	Power factor	%	89.80	
Heating at 47° F*2	Maximum Capacity	Btu/h	23,000	
	Rated Capacity	Btu/h	19,000	
	Minimum Capacity	Btu/h	7,700	
	Maximum Power Input	W	2,030	
	Rated Power Input	W	1,470	
	Power factor	%	96.20	
Heating at 17° F *3	Maximum Capacity	Btu/h	14,700	
	Rated Capacity	Btu/h	12,000	
	Maximum Power Input	W	1,620 1,520	
	Rated Power Input	1,520		
Efficiency	SEER	20.20		
	EER *1	11.40		
	HSPF (IV)	10.40		
	COP at 47° F *2	3.78		
	COP at 17° F *3	2.31		
Electrical	Voltage, Phase, Frequency		208 / 230V, 1-phase, 60 Hz	
	Guaranteed Voltage Range	V AC	187 - 253	
	Voltage: Indoor - Outdoor, S1-S2	V AC	208V / 230	
	Voltage: Indoor - Outdoor, S2-S3	V DC	24	
	Voltage: Indoor - Remote controller	V DC	12	
	Recommended Fuse/Breaker Size	А	15	
	Recommended Wire Size (Indoor - Outdoor)	AWG	14	
Indoor unit	MCA	А	3.00	
	Fan Motor Full Load Amperage	А	2.40	
	Fan Motor Output	W	121	

Model number	Indoor unit		PVA-A18AA7		
	Outdoor unit	PUZ-A18NKA7			
		PUZ-A18NKA7-BS			
	Airflow Rate, Dry	CFM	515-625-735		
	Airflow Rate, Wet	CFM	n/a		
	External Static Pressure	in.WG	0.30-0.50-0.80		
	Sound Pressure Level	dB(A)	28-33-36		
	Drain Pipe Size	In. (mm)	3/4 FPT (19.05)		
	Condensate Lift Mechanism, Max. Distance	In. (mm)	n/a		
	Heat Exchanger Type		Plate fin coil		
	External Finish Color		Galvanized steel cabinet-Powder coated Slate Gray		
	Unit Dimensions // Grille Dimensions	W: In. (mm)	17 (432)		
		D: In. (mm)	21-5/8 (548)		
		H: In. (mm)	50-1/4 (1275)		
	Unit Weight	Lbs. (kg)	51 (113)		
Indoor unit operating	Cooling Intake Air Temp (Maximum / Minimum)	°F	90 DB, 73 WB / 66 DB, 59 WB		
temperature range	Heating Intake Air Temp (Maximum / Minimum)	°F	82 DB / 50 DB		
Outdoor unit	MCA	А	11		
	MOCP	А	28		
	Fan Motor Full Load Amperage	А	0.50		
	Fan Motor Output	W	46		
	Airflow Rate	CFM	1,590		
	Refrigerant Control	Refrigerant Control			
	Defrost Method	Reverse Cycle			
	Heat Exchanger Type		Cross fin		
	Sound Pressure Level, Cooling*1 dB(A)		44		
	Sound Pressure Level, Heating*2	dB(A)	46		
	Compressor Type		INVERTER-driven twin rotary		
	Compressor Model	SNB130FNCM2			
	Compressor Rated Load Amps	А	7		
	Compressor Locked Rotor Amps A		12		
	Compressor Oil Type // Charge	OZ.	FV50S // 16		
	External Finish Color	Ivory Munsell 3Y 7.8/1.1			
	Base pan heater		n/a		

Model number	Indoor unit	PVA-A18AA7		
	Outdoor unit	PUZ-A18NKA7		
			PUZ-A18NKA7-BS	
	Unit Dimensions	W: In. (mm)	31-13/16 + 7/16 (809+62)	
		D: In. (mm)	11-3/16 (300)	
		H: In. (mm)	24-13/16 (630)	
	Package Dimensions	W: In.	37-1/16	
		D: In.	16-3/16	
		H: In.	27-7/16	
	Unit Weight	Lbs. (kg)	100 (45)	
	Package Weight	Lbs. (kg)	104 (47)	
Outdoor unit operating	Cooling Intake Air Temp (Maximum / Minimum)	°F	115 DB / 0* DB	
temperature range	Heating Intake Air Temp (Maximum / Minimum)	°F	70 DB, 59 WB / 12 DB, 10 WB	
	Thermal Lock-out / Re-start Temperatures**	°F	8 / 12 DB	
Refrigerant	Туре		R410A	
	Charge	Lbs, oz	4 lbs, 14 oz	
Piping	Gas Pipe Size O.D. (Flared)	In.(mm)	1/2 (12.7)	
	Liquid Pipe Size O.D. (Flared)	In.(mm)	1/4 (6.35)	
	Maximum Piping Length	Ft. (m)	100 (30)	
	Maximum Height Difference	Ft. (m)	100 (30)	
	Maximum Number of Bends		15	

AHRI Rated	*1 Cooling (Indoor // Outdoor)	°F	80°F DB, 67°F WB // 95°F DB, 75°F WB
Conditions (Rated data is determined	*2 Heating at 47°F (Indoor // Outdoor)	°F	70°F DB, 60°F WB // 47°F DB, 43°F WB
at a fixed compressor speed)	*3 Heating at 17°F (Indoor // Outdoor)	°F	70°F DB, 60°F WB // 17°F DB, 15°F WB
Conditions	*4 Heating at 5°F (Indoor // Outdoor)	°F	70°F DB, 60°F WB // -4°F DB, -5°F WB

Notes

*Wind baffles required to operate below 23°F DB in cooling mode. PUZ with wind baffle: 0°F - 115°F.

**System cuts out in heating mode to avoid thermistor error and automatically restarts at these temperatures

SEACOAST PROTECTION

External Outer Panel: Phosphate coating + Acrylic-Enamel coating

Fan Motor Support: Epoxy resin coating (at edge face)

Separator Assembly; Valve Bed: Epoxy resin coating (at edge face)

"Blue Fin"	treatment is an anti-corrosion treatment that is	applied to the condenser	coil to protect it against airborne
contamina	ants.		

Notes:

ACCESSORIES: PVA-A18AA7 & PUZ-A18NKA7(-BS)

PVA-A18AA7	
3-Pole Disconnect Switch (30A/600V/UL) [fits 2" X 4" utility box]	□ TAZ-MS303
Drain Pan Level Sensor (Control for indoor unit shut off to prevent drain pan overflow)	□ DPLS2
Advanced Blue Diamond Mini-Condensation pump w/ Resevoir & Sensor (110V)	□ X87-711 - 110
Advanced Blue Diamond Mini-Condensation pump w/ Resevoir & Sensor (208/230V)	□ X87-721 - 208/230
Extension Cord for Blue Diamond Pump	□ C13-103
MegaBlue Blue Diamond Condensate Pump (110-230V)	□ X87-835
Remote Sensor (extensible)	□ PAC-SE41TS-E
Connector Cable for Remote Display	□ PAC-SA88HA-EP
	□ PAC-725AD-E(10pcs)
Connector for CN32 (remote on/off)	□ PAC-SE55RA-E
Connector for CN24 (Back up heating)	□ PAC-SE56RA-E
Connector for CN30 (LLC)	□ PAC-SE57RA-E
Remote Operation Adapter (with wire terminals for remote ON/OFF and operation status/error)	□ PAC-SF40RM-E*1
External fan / Heater control relay adapter	□ CN24RELAY-KIT-CM3
Backlit, wall-mounted, wireless	□ MHK1
Wireless adapter	□ PAC-USWHS002-WF-1
BACnet® and Modbus Interface	□ PAC-UKPRC001-CN-1
Wall-mounted, Wired	□ PAC-YT53CRAU-J
Wired remote controller	□ PAR-32MAA-J
T-STAT Interface	□ PAC-US444CN-1*2
Wired remote controller	□ PAR-32MAA
Signal Receiver	□ PAR-SA9CA-E
Wireless Remote Controller	□ PAR-FL32MA-E
Wireless Signal Receiver	□ PAR-FA32MA-E
Wire for Remote ON/OFF with CN32 connector	□ PAC-715AD
Lockdown Bracket for wireless, hand-held, remote controllers	□ RCMKP1CB
1 Inable to use with wireless remote controller	

^{*1} Unable to use with wireless remote controller

^{*2} Unable to use with the electric heat time delay

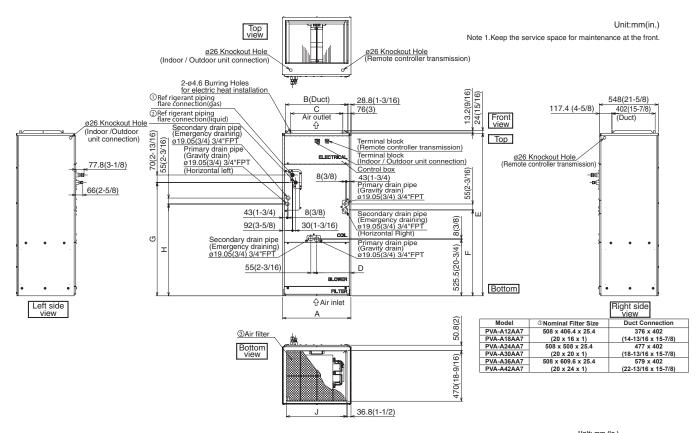
PUZ-A18NKA7(-BS)						
Air Outlet Guide	□ PAC-SJ07SG-E					
Front Wind Baffle	□ WB-PA4					
Drain socket	□ PAC-SJ08DS-E					
Centralized Drain Pan	□ PAC-SG63DP-E					
M-NET Converter	□ PAC-SJ19MA-E					

ACCESSORIES: PVA-A18AA7 & PUZ-A18NKA7(-BS)

PUZ-A18NKA7(-BS)							
Control/Service Tool	□ PAC-SK52ST						
Wall mounting bracket (powder-coated steel)	□ QCWB2000M-1						
Wall mounting bracket (316 Series Stainless Steel)	□ QCWBSS						
M-NET control adapter for Building Management System	□ PAC-SF83MA-E						
Outdoor Unit Mounting Pad 16" x 36" x 3"	□ ULTRILITE1						
Outdoor Unit 3-1/4 inch Mounting Base - Pair (Plastic)	□ DSD-400N						
MiniSplit Mounting Stand-Single Fan models - 12"	□ QSMS1201M						
MiniSplit Mounting Stand-Single Fan models - 18"	□ QSMS1801M						
MiniSplit Mounting Stand-Single Fan models - 24"	□ QSMS2401M						
1/4 x 1/2 x 15' / 1/2" Lineset (Twin-Tube Insulation)	□ MLS141212T-15						
1/4 x 1/2 x 30' / 1/2" Lineset (Twin-Tube Insulation)	□ MLS141212T-30						
1/4 x 1/2 x 50' / 1/2" Lineset (Twin-Tube Insulation)	□ MLS141212T-50						
1/4 x 1/2 x 65' / 1/2" Lineset (Twin-Tube Insulation)	□ MLS141212T-65						
1/4 x 1/2 x 100' / 1/2" Lineset (Twin-Tube Insulation)	□ MLS141212T-100						

DIMENSIONS: PVA-A18AA7 & PUZ-A18NKA7 (-BS)

PVA-A18AA7

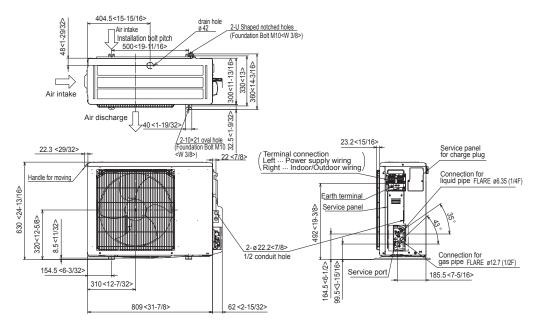


Model	Α	В	С	D	E	F	G	Н	J	①Gas Pipe	©Liquid Pipe
PVA-A12AA7 PVA-A18AA7	432 (17)	376 (14-13/16)	281 (11-1/8)	224 (8-7/8)	1275 (50-1/4)	680 (26-13/16)	823 (32-7/16)	735.5 (29)	360 (14-3/16)	Φ 12.7 (1/2)	Ф 6.35 (1/4)
PVA-A18AA7	. ,	, ,	, ,	, ,	· ,	, ,	, ,	. ,	, ,	, ,	. ,
PVA-A30AA7	534 (21)	477 (18-13/16)	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)	₼ 4E 99 (E/9)	Ф 9.52 (3/8)
PVA-A36AA7 PVA-A42AA7	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)	Ф 15.88 (5/8)	Ψ 9.52 (3/6)

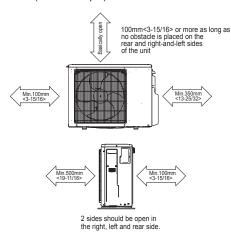
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PUZ-A18NKA7(-BS)

Unit: mm<in>



Free space around the outdoor unit (basic example)



FOUNDATION BOLTS

Please secure the unit firmly with 4 foundation (M10<W3/8>) bolts (Bolts, washers and nut must be purchased locally).

<Foundation bolt height>



PIPING-WIRING DIRECTION

Piping and wiring connection can be made from the rear direction only.



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FORM# PVA-A18AA7 / PUZ-A18NKA7(-BS) - 201702Ver2