### **P-SERIES**

# SUBMITTAL DATA: PVA-A12AA7 & PUY-A12NKA7(-BS) 12,000 BTU/H AIR HANDLER AIR-CONDITIONING SYSTEM



Job Name:	
System Reference:	Date:

	24.0.
Indoor Unit: PVA-A12AA7	Outdoor Unit:  PUY-A12NKA7 PUY-A12NKA7-BS
A TOWNS	MILEONIC CONTROL CONTR

#### **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.WG
- · 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
- Power receiver pre-charged with refrigerant volume for piping length up to 100 ft (70 ft. for A12/18/24/30)
- · Low ambient cooling down to -40°F providing 100% capacity (only for PUY models with wind baffles installed)
- · 24-hour continuous operation (cooling mode)
- · High pressure protection
- Fast restarts in cooling mode (15 seconds for 12/18/36/42; 50 seconds for 24/30)
- · Superior energy and operational efficiency

# SPECIFICATIONS: PVA-A12AA7 & PUY-A12NKA7(-BS)

	Indoor Unit		PVA-A12AA7				
Model Number			PUY-A12NKA7				
	Outdoor Unit	PUY-A12NKA7-BS					
	Maximum Capacity	Btu/h	12,000				
	Rated Capacity	Btu/h	12,000				
	Minimum Capacity	Btu/h	4,800				
On a the self	Maximum Power Input	W	890				
Cooling <sup>1</sup>	Rated Power Input	W	890				
	Moisture Removal	2.5					
	Sensible Heat Factor	·	0.77				
	Power Factor	87.90					
E#: -i	SEER		21.40				
Efficiency	EER <sup>1</sup>	13.40					
Electrical	Voltage, Phase, Frequency		208 / 230V, 1-phase, 60 Hz				
	Guaranteed Voltage Range	V AC	198 – 253				
	Voltage: Indoor - Outdoor, S1-S2	V AC	208 / 230				
Electrical	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				
	MCA	A	3.00				
	Fan Motor Full Load Amperage	А	2.40				
	Fan Motor Output	W	121				
	Airflow Rate, Dry	CFM	280-340-400				
	Airflow Rate, Wet	CFM	n/a				
	External Static Pressure	in.WG	0.30-0.50-0.80				
	Sound Pressure Level	dB(A)	24-28-32				
Indoor Unit	Drain Pipe Size	In. (mm)	3/4 FPT (19.05)				
mader erm	Condensate Lift Mechanism, Max. Distance	In. (mm)	n/a				
	Heat Exchanger Type	Heat Exchanger Type					
	External Finish Color	Galvanized steel cabinet-Powder coated Slate Gray					
		W: In. (mm)	17 (432)				
	Unit Dimensions	D: In. (mm)	21-5/8 (548)				
		H: In. (mm)	50-1/4 (1275)				
	Unit Weight	Lbs. (kg)	113 (51)				
Indoor Unit Operating Temperature Range	Cooling Intake Air Temp (Maximum / Minimum)	°F	90 DB, 73 WB / 66 DB, 59 WB				
	MCA	А	11				
	MOCP	А	28				
Outdoor Unit	Fan Motor Full Load Amperage	A	0.50				
	Fan Motor Output	46					

### SPECIFICATIONS: PVA-A12AA7 & PUY-A12NKA7(-BS)

	Indoor Unit	PVA-A12AA7			
Model Number	Outdoor Unit	PUY-A12NKA7			
	Suluson Shirt	PUY-A12NKA7-BS			
	Airflow Rate	CFM	1,590		
	Refrigerant Control	Electronic Expansion Valve			
	Heat Exchanger Type		Cross fin		
	Sound Pressure Level, Cooling <sup>1</sup>	44			
	Compressor Type		Inverter-driven twin rotary		
	Compressor Model		SNB092FNCM		
	Compressor Rated Load Amps	A	7		
	Compressor Locked Rotor Amps	A	12		
	Compressor Oil Type // Charge	OZ.	FV50S // 12		
	External Finish Color		Ivory Munsell 3Y 7.8/1.1		
	Base Pan Heater		n/a		
		W: In. (mm)	31-13/16 + 7/16 (809+62)		
	Unit Dimensions	D: In. (mm)	11-3/16 (300)		
		H: In. (mm)	24-13/16 (630)		
		W: In.	37-1/16		
	Package Dimensions	D: In.	16-3/16		
		H: In.	27-7/16		
	Unit Weight	Lbs. (kg)	92 (41)		
	Package Weight	Lbs. (kg)	104 (47)		
Outdoor Unit Operating Temperature Range	Cooling Intake Air Temp (Maximum / Minimum)	°F	115 DB / -40* DB		
Refrigerant	Туре		R410A		
Reingerani	Charge	Lbs, oz	4 lbs, 7 oz		
	Gas Pipe Size O.D. (Flared)	In.(mm)	1/2 (12.7)		
	Liquid Pipe Size O.D. (Flared)	In.(mm)	1/4 (6.35)		
Piping	Maximum Piping Length	Ft. (m)	165 (50)		
	Maximum Height Difference	100 (30)			
	Maximum Number of Bends	15			

#### Notes

AHRI Rated Conditions (Rated data is determined at a fixed compressor	<sup>1</sup> Cooling (Indoor // Outdoor)	°F	80 DB, 67 WB // 95 DB, 75 WB
speed)			

<sup>\*</sup>Wind baffles required to operate below 23F DB in cooling mode. For PUY models, wind baffles can be utilized to extend the cooling operation range to -40F. Please refer to the wind baffle submittals to determine which baffles are required to meet the desired operation range.

### 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 contaminants.

<sup>\*\*</sup>System cuts out in heating mode to avoid thermistor error and automatically restarts at these temperatures.

### **ACCESSORIES: PVA-A12AA7**

Signal Receiver	□ PAR-SA9CA-E
Wireless Remote Controller	□ PAR-FL32MA-E
Wireless Remote Receiver	□ PAR-FA32MA-E
Backlit, Wall-mounted, Wireless Controller	□ MHK1
Portable Central Controller	□ MCCH1
Wired MA Controller	□ PAR-33MAA
Simple MA Controller	□ PAC-YT53CRAU
Touch MA Controller	□ PAR-CT01MAU-SB
Wired Remote Sensor	□ PAC-SE41TS-E
Wireless Temperature and Humidity Sensor	□ PAC-USWHS003-TH-1
Outside Air Sensor for MHK1	□ MOS1
Wireless Interface	□ PAC-USWHS002-WF-1
Thermostat Interface	□ PAC-US444CN-1
kumo station®	□ PAC-WHS01HC-E
USNAP Interface	□ PAC-WHS01UP-E
IT Extender	□ PAC-WHS01IE-E
BACnet® and MODBUS® Interface	□ PAC-UKPRC001-CN-1
External Fan / Heater Control Relay Adapter	□ CN24RELAY-KIT-CM3
Connector cable for remote display	□ PAC-SA88HA-EP
Connector for CN32 (remote on/off)	□ PAC-SE55RA-E
Remote Operation Adapter (with wire terminals for remote ON/OFF and operation status/ error) <sup>1</sup>	□ PAC-SF40RM-E
Blue Diamond Sensor Extension Cable—15 Ft.	□ C13-103
MegaBlue Advanced Blue Diamond Condensate Pump w/ Reservoir & Sensor	□ X87-835 - 110 to 250V
MaxiBlue Advanced Blue Diamond Mini Condensate Pump w/ Reservoir & Sensor (208/230V) up to 48,000 Btu/h [recommended]	□ X87-721 - 208/230V
MegaBlue Blue Diamond Condensate Pump (110-230V) up to 170,000 Btu/h	□ X87-835
Drain Pan Level Sensor (Control for indoor unit shut off to prevent drain pan overflow)	□ DPLS2
3 Pole Disconnect Switch (30A/600VUL) [fits 2"X4" utility] - Black	□ TAZ-MS303
Separate Power Terminal Block Kit	□ SPTB1
Electric Heat Lockout Control	□ ETC-211000-MIT
	1

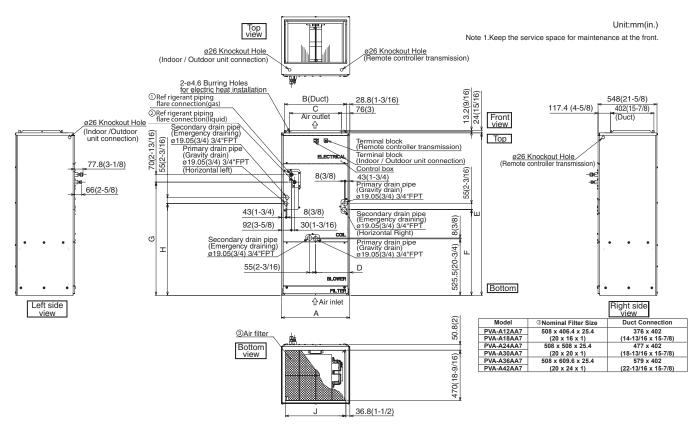
<sup>&</sup>lt;sup>1</sup> Unable to use with wireless remote controller

## ACCESSORIES: PUY-A12NKA7(-BS)

Air Outlet Guide	□ PAC-SJ07SG-E
Front Wind Baffle	□ WB-PA4
Side Advanced Wind Baffle	□ WB-SD4
Rear Advanced Wind Baffle	□ WB-RE4
Drain Socket	□ PAC-SJ08DS-E
Centralized Drain Pan	□ PAC-SG63DP-E
M-NET Converter	□ PAC-SJ19MA-E
M-NET Converter	□ PAC-SJ96MA-E
Control/Service Tool	□ PAC-SK52ST
Hail Guard	□ HG-A5
Condensing Unit Mounting Pad 16" x 36" x 3"	□ ULTRILITE1
Outdoor Unit Stand—12" High	□ QSMS1201M
Outdoor Unit Stand—18" High	□ QSMS1801M
Outdoor Unit Stand—24" High	□ QSMS2401M
Heavy Duty Wall Mounting Bracket for Outdoor Units—Coated Steel	□ QSWB2000M-1
Heavy Duty Wall Mounting Bracket for Outdoor Units—316 Series Stainless Steel	□ QSWBSS
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-A12AA7 & PUY-A12NKA7 (-BS)**

#### PVA-A12AA7

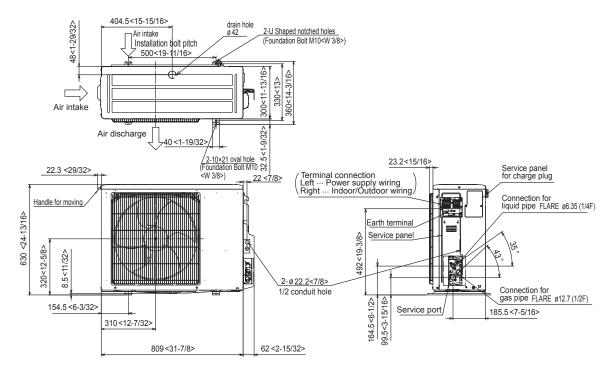


											Unit: mm (in.)
Model	Α	В	С	D	E	F	G	Н	J	①Gas Pipe	©Liquid Pipe
PVA-A12AA7	432 (17)	376 (14-13/16)	281 (11-1/8)	224 (8-7/8)	1275 (50-1/4)	680 (26-13/16)	823 (32-7/16)	735.5 (29)	360 (14-3/16)	Φ 12.7 (1/2)	Φ 6.35 (1/4)
PVA-A18AA7	452 (17)	370 (14-13/10)	201 (11-1/0)	224 (0-110)	1273 (30-1/4)	000 (20-13/10)	023 (32-7/10)	733.3 (23)	300 (14-3/10)	Ψ 12.7 (1/2)	Ψ 0.33 (1/4)
PVA-A24AA7	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)		
PVA-A30AA7	334 (21)	477 (10-13/10)	302.0 (13-1/0)	200.5 (10-1/2)	1376 (34-1/4)	131 (25-1/10)	333.3 (37-3/10)	732 (31-3/10)	401 (10-5/10)	Ф 15.88 (5/8)	Ф 9.52 (3/8)
PVA-A36AA7	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)	Ψ 15.00 (5/0)	
PVA-A42AA7	033 (23)	373 (22-13/10)	404.0 (13-1/0)	317.3 (12-1/2)	1311 (35-1/2)	730.3 (31-7710)	1003 (41-1/2)	000.0 (00-0/0)	303 (22-3/10)		

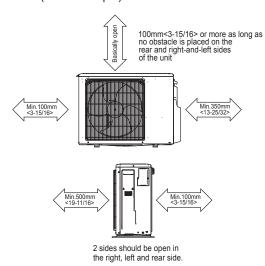
### DIMENSIONS: PVA-A12AA7 & PUY-A12NKA7 (-BS)

#### PUY-A12NKA7(-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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