

PCA-A24KA7 & PUZ-A24NHA7-BS
24,000 BTU/H CEILING-SUSPENDED INDOOR UNIT
24,000 BTU/H HEAT PUMP UNIVERSAL OUTDOOR



Job Name:

System Reference:

Date:



Indoor Unit.....PCA-A24KA7

Outdoor Unit.....PUZ-A24NHA7-BS

INDOOR UNIT FEATURES

- Airflow settings for high and low ceiling applications
- Knock-out for outside-air intake
- Optional i-see Sensor™ for air distribution and energy saving
- Auto fan speed mode
- Filter status indicator
- Easy-to-clean, washable filter
- Suspends from ceiling for quick and easy installation
- Ideal for larger retail stores, classrooms, and restaurants
- Multiple control options available:
 - kumo cloud® smart device app for remote access
 - Third-party interface options
 - Wired or wireless controllers

OUTDOOR UNIT FEATURES

- Variable speed INVERTER-driven compressor
- Power receiver pre-charged with refrigerant volume for piping length up to 70 ft
- Low ambient cooling down to 0°F providing 100% capacity
- 24-hour continuous operation (cooling mode)
- High pressure protection
- Fast restart
- Superior energy and operational efficiency

SPECIFICATIONS: PCA-A24KA7 & PUZ-A24NHA7-BS

Cooling at 95°F ¹	Maximum Capacity	BTU/H	24,000
	Rated Capacity	BTU/H	24,000
	Minimum Capacity	BTU/H	10,000
	Maximum Power Input	W	1,960
	Rated Power Input	W	1,960
	Moisture Removal	Pints/h	5.8
	Sensible Heat Factor		0.73
Heating at 47°F ²	Power Factor [208V / 230V]	%	94.7 / 94.7
	Maximum Capacity	BTU/H	28,000
	Rated Capacity	BTU/H	26,000
	Minimum Capacity	BTU/H	8,800
	Maximum Power Input	W	2,230
	Rated Power Input	W	1,800
Heating at 17°F ³	Power Factor [208V / 230V]	%	94.3 / 94.3
	Maximum Capacity	BTU/H	17,900
	Rated Capacity	BTU/H	15,400
	Maximum Power Input	W	1,770
Heating at 5°F ⁴	Rated Power Input	W	1,700
	Maximum Capacity	BTU/H	14,900
Efficiency	Maximum Power Input	W	1,900
	SEER		21.2
	EER ¹		12.2
	HSPF [IV]		10.8
	COP at 47°F ²		4.23
	COP at 17°F at Maximum Capacity ³		2.97
Electrical	COP at 5°F at Maximum Capacity ⁴		2.3
	ENERGY STAR® Certified		No
	Voltage, Phase, Frequency		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	24
	Short-circuit Current Rating [SCCR]	kA	5
	Recommended Fuse/Breaker Size (Outdoor)	A	25
	Recommended Wire Size [Indoor - Outdoor]	AWG	14
	Power Supply		Indoor unit is powered by the outdoor unit
Indoor Unit	MCA	A	1.0
	Fan Motor Full Load Amperage	A	0.54
	Fan Motor Type		DC Motor
	Airflow Rate at Cooling, Dry	CFM	530–565–600–670
	Airflow Rate at Cooling, Wet	CFM	495–530–565–635
	Airflow Rate at Heating, Dry	CFM	530–565–600–670
	Sound Pressure Level [Cooling]	dB[A]	33–35–37–40
	Sound Pressure Level [Heating]	dB[A]	33–35–37–40
	Drain Pipe Size	In. [mm]	1-1/32 [26]
	Coating on Heat Exchanger		—
	External Finish Color		White Munsell 6.4Y 8.9/0.4
	Unit Dimensions	W x D x H: In. [mm]	50-3/8 x 26-3/4 x 9-1/16 [1,280 x 680 x 230]
	Package Dimensions	W x D x H: In. [mm]	53-1/8 x 29-15/16 x 12-5/8 [1,350 x 760 x 320]
	Unit Weight	Lbs. [kg]	71 [32]
	Package Weight	Lbs. [kg]	82 [37]
Indoor Unit Operating Temperature Range	Cooling Intake Air Temp [Maximum / Minimum]*	°F	90 DB, 72 WB / 68 DB, 61 WB
	Heating Intake Air Temp [Maximum / Minimum]	°F	77 DB / 59 DB

NOTES:

AHRI Rated Conditions

(Rated data is determined at a fixed compressor speed)

¹Cooling (Indoor // Outdoor)

²Heating at 47°F (Indoor // Outdoor)

³Heating at 17°F (Indoor // Outdoor)

°F 80 DB, 67 WB // 95 DB, 75 WB

°F 70 DB, 60 WB // 47 DB, 43 WB

°F 70 DB, 60 WB // 17 DB, 15 WB

Conditions

⁴Heating 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]):

• Applications should be restricted to comfort cooling only; equipment cooling applications are not recommended for low ambient temperature conditions.

» 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 to avoid thermistor error and automatically restarts at these temperatures.

SPECIFICATIONS: PCA-A24KA7 & PUZ-A24NHA7-BS

Outdoor Unit	MCA	A	19.0
	MOCP	A	26
	Fan Motor Full Load Amperage	A	0.4
	Fan Motor Output	W	86
	Airflow Rate [Cooling / Heating]	CFM	1940 / 1940
	Refrigerant Control		LEV
	Defrost Method		Reverse Cycle
	Coating on Heat Exchanger		Blue Fin Coating (BS Model only)
	Sound Pressure Level, Cooling ¹	dB(A)	47
	Sound Pressure Level, Heating ²	dB(A)	48
	Compressor Type		INVERTER-driven twin rotary
	Compressor Model		SNB172FWHM1
	Compressor Rated Load Amps	A	7
	Compressor Locked Rotor Amps	A	11.0
	Compressor Oil [Type // Charge]	oz.	FV50S // 23
	External Finish Color		Ivory Munsell 3Y 7.8/1.1
	Base Pan Heater		N/A
	Unit Dimensions	W x D x H: In. [mm]	37-13/32 x 13 (+1-3/16) x 37-1/8 [950 x 330 (+30) x 943]
	Package Dimensions	W x D x H: In. [mm]	40-15/16 x 17-11/16 x 40-11/16 [1040 x 450 x 1033]
	Unit Weight	Lbs. [kg]	153 [69]
Outdoor Unit Operating Temperature Range	Cooling Air Temp [Maximum / Minimum]*	°F	115 DB / 0 DB
	Heating Air Temp [Maximum / Minimum]	°F	70 DB, 59 WB / -4 DB, -4 WB
	Heating Thermal Lock-out / Re-start Temperatures**	°F	-8 / -4
Refrigerant	Maximum Charge Quantity	Lbs, oz	7.0, 11.0
	Initial Charge Quantity	Ft. [m]	70.0 [20.0]
	Additional Refrigerant Charge Per Additional Piping Length	oz./Ft. [g/m]	0.7 [50]
Piping	Gas Pipe Size O.D. [Flared]	In.[mm]	5/8 [15.88]
	Liquid Pipe Size O.D. [Flared]	In.[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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°F 70 DB, 60 WB // 47 DB, 43 WB

³Heating at 17°F (Indoor // Outdoor)

°F 70 DB, 60 WB // 17 DB, 15 WB

Conditions

⁴Heating at 5°F (Indoor // Outdoor)

°F 70 DB, 60 WB // 5 DB, 4 WB

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» Heat pump system with wind baffle: 0°F - 115°F.

» Refer to wind baffle documentation for further information.

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INDOOR UNIT ACCESSORIES: PCA-A24KA7

Control Interface	BACnet® and Modbus® Interface	PAC-UKPRC001-CN-1
	CN24 Relay Kit	CN24RELAY-KIT-CM3
	IT Extender	PAC-WHS01IE-E
	kumo station® for kumo cloud®	PAC-WHS01HC-E
	Lockdown bracket for remote controller	RCMKP1CB
	Remote Operation Adapter†	PAC-SF40RM-E
	Thermostat Interface	PAC-US444CN-1
	Thermostat Interface	PAC-US445CN-1
Remote Sensor	USNAP Adapter	PAC-WHS01UP-E
	Flush Mount Remote Temperature Sensor	PAC-USSEN002-FM-1
	Flush Mount Temperature Sensor	PAC-USSEN001-FM-1
	Remote Temperature Sensor	PAC-SE41TS-E
Wired Remote Controller	Wireless temperature and humidity sensor for kumo cloud®	PAC-USWHS003-TH-1
	Deluxe Wired MA Remote Controller†	PAR-40MAAU
	Simple MA Remote Controller†	PAC-YT53CRAU-J
Wireless Remote Controller	Touch MA Controller†	PAR-CT01MAU-SB
	kumo touch™ RedLINK™ Wireless Controller	MHK2
	Wireless MA Receiver	PAR-FA32MA-W
	Wireless MA Remote Controller	PAR-FL32MA-E
	Wireless Receiver Kit	PAR-SL93B-E
Condensate	Wireless Receiver Kit with i-See sensor™	PAR-SA92MW-E
	Blue Diamond (Advanced) Mini Condensate Pump w/ Reservoir & Sensor (208/230V) [recommended]	X87-721
	Blue Diamond (MegaBlue Advanced) Condensate Pump w/ Reservoir & Sensor	X87-835
	Blue Diamond Sensor Extension Cable — 15 Ft.	C13-103
Disconnect Switch	Refco Condensate Pump (100-240 VAC) up to 120,000 BTU/H	COMBI
	(30A/600V/UL) [fits 2" X 4" utility box] - Black	TAZ-MS303
Filter	(30A/600V/UL) [fits 2" X 4" utility box] - White	TAZ-MS303W
	65% Medium Efficiency Filter (MERV 8)	PAC-SH89KF-E
Lineset	10' x 3/8" x 10' x 5/8" Lineset (Twin-Tube Insulation)††	MPLS385812T-10
	100' x 3/8" x 100' x 5/8" Lineset (Twin-Tube Insulation)††	MPLS385812T-100
	15' x 3/8" x 15' x 5/8" Lineset (Twin-Tube Insulation)††	MPLS385812T-15
	30' x 3/8" x 30' x 5/8" Lineset (Twin-Tube Insulation)††	MPLS385812T-30
	50' x 3/8" x 50' x 5/8" Lineset (Twin-Tube Insulation)††	MPLS385812T-50
	65' x 3/8" x 65' x 5/8" Lineset (Twin-Tube Insulation)††	MPLS385812T-65

NOTES:

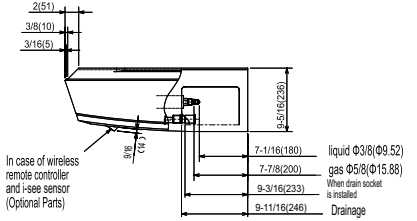
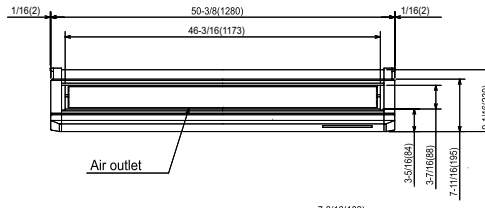
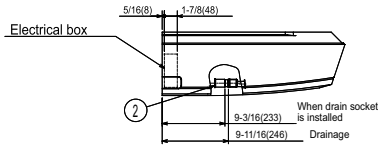
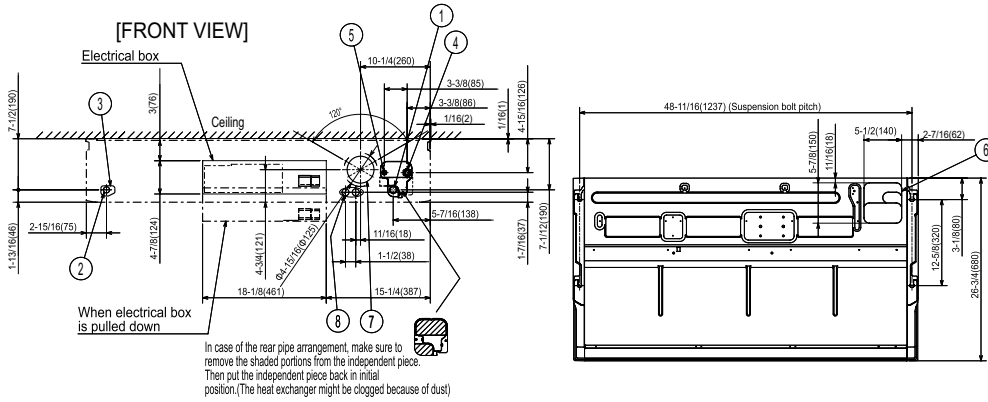
†PAC-SF40RM-E (Unable to use with wireless remote controller)

OUTDOOR UNIT ACCESSORIES: PUZ-A24NHA7-BS

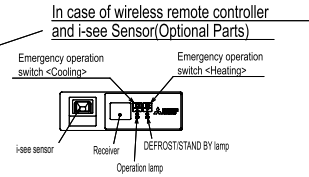
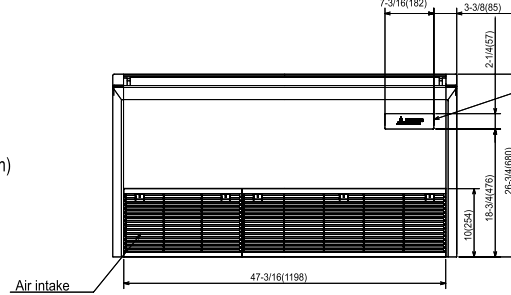
Air Outlet Guide	Air Outlet Guide (1 Piece)	PAC-SG59SG-E
Centralized Drain Pan	Centralized Drain Pan	PAC-SG63DP-E
	Drain Pan	PAC-SG64DP-E
Control/Service Tool	Control/Service Tool	PAC-SK52ST
	M- & P-Series Maintenance Tool Cable Set	M21EC0397
	USB/UART Conversion Cable (Required for all laptop connection)	M21EC1397
Distribution pipe	Twinning Distribution Pipe (50:50) ^{††}	MSDD-50TR-E
Hail Guards	Hail Guard	HG-A6
Lineset	10' x 3/8" x 10' x 5/8" Lineset (Twin-Tube Insulation) ^{††}	MPLS385812T-10
	100' x 3/8" x 100' x 5/8" Lineset (Twin-Tube Insulation) ^{††}	MPLS385812T-100
	15' x 3/8" x 15' x 5/8" Lineset (Twin-Tube Insulation) ^{††}	MPLS385812T-15
	30' x 3/8" x 30' x 5/8" Lineset (Twin-Tube Insulation) ^{††}	MPLS385812T-30
	50' x 3/8" x 50' x 5/8" Lineset (Twin-Tube Insulation) ^{††}	MPLS385812T-50
	65' x 3/8" x 65' x 5/8" Lineset (Twin-Tube Insulation) ^{††}	MPLS385812T-65
M-NET Converter	M-NET Converter	PAC-SJ85MA-E
	M-NET Converter	PAC-SJ95MA-E
Mounting Pad	Condensing Unit Mounting Pad: 24" x 42" x 3"	ULTRILITE2
Stand	18" Single Fan Stand	QSMS1801M
	24" Single Fan Stand	QSMS2401M
	Condenser Wall Bracket	QSWB2000M-1
	Condenser Wall Bracket - Stainless Steel Finish	QSWBSS
	Outdoor Unit Stand — 12" High	QSMS1201M
Wind Baffle	Front Wind Baffle	WB-PA5
	Rear Wind Baffle	WB-RE5
	Side Advanced Wind Baffle	WB-SD5

INDOOR UNIT DIMENSIONS: PCA-A24KA7

Unit: inch (mm)



- ① Drainage pipe connection(1(26mm)I.D.)
 - ② Drainage pipe connection(for the left arrangement)
 - ③ Knockout hole for left drain-piping arrangement
 - ④ Refrigerant-pipe connection(gas pipe side/flared connection)
 - ⑤ Refrigerant-pipe connection(liquid pipe side/flared connection)
 - ⑥ Knockout hole for upper drain pipe arrangement
 - ⑦ Knockout hole for fresh air intake Φ3-15/16(Φ100)
 - ⑧ Knockout hole for wiring arrangement Φ7/8(Φ22)
- Accessory...Drain socket (1(26mm) I.D.)



NOTES.

1. Use M10 or W3/8 screw for anchor bolt.
2. Please be sure when installing the drain pump (option parts), refrigerant pipe will be only upward.

OUTDOOR UNIT DIMENSIONS: PUZ-A24NHA7-BS

Unit: mm<in>

1 FREE SPACE (Around the unit)

The diagram below shows a basic example.
Explanation of particular details are given in the installation manuals etc.



2 SERVICE SPACE

Dimensions of space needed for service access are shown in the below diagram.



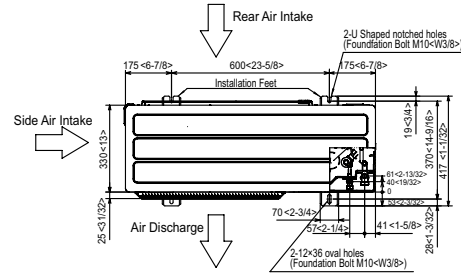
3 FOUNDATION BOLTS

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



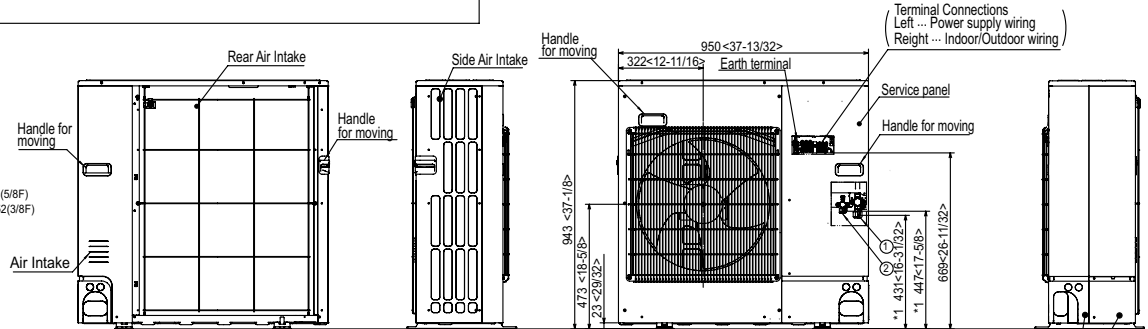
4 PIPING-WIRING DIRECTIONS

Piping and wiring connections can be made from 4 directions: FRONT, Right, Rear and Below.



Example of Notes

- ① --- Refrigerant GAS pipe connection (FLARE) ø15.88(5/8F)
- ② --- Refrigerant LIQUID pipe connection (FLARE) ø9.52(3/8F)
- *1 --- Indication of STOP VALVE connection location.



Piping knockout Hole Details



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FORM# PCA-A24KA7 & PUZ-A24NHA7-BS - 202211

