

**SVZ-KP24NA & SUZ-KA24NAHZ**  
**24,000 BTU/H MULTI-POSITION AIR HANDLER**  
**24,000 BTU/H HYPER-HEATING UNIVERSAL OUTDOOR UNIT**



Job Name:

System Reference:

Date:

Indoor Unit.....SVZ-KP24NA

Outdoor Unit.....SUZ-KA24NAHZ



**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 2.0% at 1.0 In.WG (Tested per ASHRAE Standard 193)
- Unique blow through design allows simple coil cleaning when the blower is removed
- Multi-position installation: horizontal (left or right), vertical (up or down)
- Optional electric heat kit for additional heat capacity
- Optional humidifier control and ERV control
- Built-in humidifier control, ERV control and auxiliary heat control
- Optional downflow kit
- Multiple control options available:
  - kumo cloud® smart device app for remote access
  - Third-party interface options
  - Wired or wireless controllers

**OUTDOOR UNIT FEATURES**

- The outdoor unit powers the indoor unit, and should a power outage occur, the system is automatically restarted when power returns
- INVERTER-driven compressor and LEV provide high efficiency and comfort while using only the energy needed to maintain maximum performance
- H2i® hyper heat performance offers 100% heating capacity at 5° F
- Hot-Start Technology: no cold air rush at equipment startup or when restarting after Defrost Cycle
- Quiet operation
- Built-in base pan heater
- Innovative Joint Lap DC Motor leads to high efficiency and reliability
- Pulse Amplitude Modulation technology

# SPECIFICATIONS: SVZ-KP24NA & SUZ-KA24NAHZ

Cooling at 95°F <sup>1</sup>	Maximum Capacity	BTU/H	24,000
	Rated Capacity	BTU/H	24,000
	Minimum Capacity	BTU/H	8,800
	Maximum Power Input	W	2,420
	Rated Power Input	W	2,420
	Moisture Removal	Pints/h	4.7
	Sensible Heat Factor		0.78
Heating at 47°F <sup>2</sup>	Maximum Capacity	BTU/H	28,800
	Rated Capacity	BTU/H	23,000
	Minimum Capacity	BTU/H	9,400
	Maximum Power Input	W	2,790
	Rated Power Input	W	2,140
	Power Factor	%	97.0/97.0
Heating at 17°F <sup>3</sup>	Maximum Capacity	BTU/H	23,000
	Rated Capacity	BTU/H	19,200
	Maximum Power Input	W	3,700
	Rated Power Input	W	2,566
Heating at 5°F <sup>4</sup>	Maximum Capacity	BTU/H	23,000
Maximum Power Input	W	4,146	
Heating at -13°F <sup>7</sup>	Maximum Capacity	BTU/H	18,400
Efficiency	SEER		16.0
	EER <sup>1</sup>		9.9
	HSPF [IV]		9.2
	COP at 47°F <sup>2</sup>		3.1
	COP at 17°F at Maximum Capacity <sup>3</sup>		1.8
	COP at 5°F at Maximum Capacity <sup>4</sup>		1.6
	COP at -13°F at Maximum Capacity <sup>7</sup>		1.2
ENERGY STAR <sup>®</sup> Certified		No	
Electrical	Voltage, Phase, Frequency		208/230, 1, 60
	Guaranteed Voltage Range	V AC	187 - 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	3.0
	Fan Motor Full Load Amperage	A	2.4
	Fan Motor Output	W	121
	Fan Motor Type		DC Motor
	Airflow Rate at Cooling, Dry	CFM	515-625-735
	Airflow Rate at Heating, Dry	CFM	515-625-735
	Sound Pressure Level [Cooling]	dB[A]	33-36-41
	Sound Pressure Level [Heating]	dB[A]	33-36-41
	External Static Pressure	in.WG	0.30-0.5-0.8
	Drain Pipe Size	In. [mm]	3/4 [19.05]
	Coating on Heat Exchanger		—
	External Finish Color		Hot-dip coated steel (ZAM)
	Unit Dimensions	W x D x H: In. [mm]	17 x 21-5/8 x 39-13/16 [432 x 549 x 1011]
	Package Dimensions	W x D x H: In. [mm]	21 x 28-3/4 x 44-3/8 [460 x 730 x 1127]
Unit Weight	Lbs. [kg]	93 [42]	
Package Weight	Lbs. [kg]	106 [48]	
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)

<sup>1</sup> Cooling (Indoor // Outdoor)	°F	80 DB, 67 WB // 95 DB, 75 WB
<sup>2</sup> Heating at 47°F (Indoor // Outdoor)	°F	70 DB, 60 WB // 47 DB, 43 WB
<sup>3</sup> Heating at 17°F (Indoor // Outdoor)	°F	70 DB, 60 WB // 17 DB, 15 WB

Conditions

<sup>4</sup> Heating at 5°F (Indoor // Outdoor)	°F	70 DB, 60 WB // 5 DB, 4 WB
<sup>5</sup> Heating at -4°F (Indoor // Outdoor)	°F	70 DB, 60 WB // -4 DB, -5 WB
<sup>6</sup> Heating at -5°F (Indoor // Outdoor)	°F	70 DB, 60 WB // -5 DB, -6 WB
<sup>7</sup> Heating at -13°F (Indoor // Outdoor)	°F	70 DB, 60 WB // -13 DB, -14 WB

\*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.

\*\*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: SVZ-KP24NA & SUZ-KA24NAHZ

Outdoor Unit	MCA	A	17.0
	MOCP	A	27
	Fan Motor Output	W	74
	Airflow Rate	CFM	800/800
	Refrigerant Control		LEV
	Defrost Method		Reverse Cycle
	Sound Pressure Level, Cooling <sup>1</sup>	dB(A)	52
	Sound Pressure Level, Heating <sup>2</sup>	dB(A)	53
	Compressor Type		Scroll
	Compressor Model		DNB28FBAMT
	Compressor Rated Load Amps	A	9.0
	Compressor Locked Rotor Amps	A	18.0
	Compressor Oil Type // Charge	oz.	FVC68D // 1,34
	External Finish Color		Ivory Munsell 3Y 7.8/1.1
	Base Pan Heater		Built-in
	Unit Dimensions	W x D x H: In. [mm]	37-13/32 x 14-3/16 x 37-1/8 [950 x 360 x 943]
	Package Dimensions	W x D x H: In. [mm]	41 x 18 x 41 [1040 x 450 x 1033]
	Unit Weight	Lbs. [kg]	190 [86]
	Package Weight	Lbs. [kg]	210 [95]
	Outdoor Unit Operating Temperature Range	Cooling Air Temp [Maximum / Minimum]*	°F
Heating Air Temp [Maximum / Minimum]		°F	75 DB, 65 WB / -13 DB, -14 WB
Heating Thermal Lock-out / Re-start Temperatures**		°F	-22 / -13
Refrigerant	Type		R410A
	Charge	Lbs, oz	7, 11.0
	Chargeless Piping Length	Ft. [m]	100.0 [30.0]
	Additional Refrigerant Charge Per Additional Piping Length	oz./Ft. [g/m]	0.7 [65]
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]	100 [30]
	Maximum Height Difference	Ft. [m]	100 [30]
	Maximum Number of Bends		15

**NOTES:**

AHRI Rated Conditions

(Rated data is determined at a fixed compressor speed)

<sup>1</sup>Cooling (Indoor // Outdoor) °F 80 DB, 67 WB // 95 DB, 75 WB

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

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

Conditions

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

<sup>5</sup>Heating at -4°F (Indoor // Outdoor) °F 70 DB, 60 WB // -4 DB, -5 WB

<sup>6</sup>Heating at -5°F (Indoor // Outdoor) °F 70 DB, 60 WB // -5 DB, -6 WB

<sup>7</sup>Heating at -13°F (Indoor // Outdoor) °F 70 DB, 60 WB // -13 DB, -14 WB

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## INDOOR UNIT ACCESSORIES: SVZ-KP24NA

Control Interface	BACnet® and Modbus Interface	PAC-UKPRC001-CN-1
	CN24 Relay Kit	CN24RELAY-KIT-CM3
	Connector cable for remote display	PAC-SA88HA-EP
	IT Extender	PAC-WHS01IE-E
	kumo station® for kumo cloud®	PAC-WHS01HC-E
	Remote Operation Adapter†	PAC-SF40RM-E
	Thermostat Interface	PAC-US444CN-1
	USNAP Adapter	PAC-WHS01UP-E
Remote Sensor	Wireless Interface for kumo cloud®	PAC-USWHS002-WF-2
	Flush Mount Temperature Sensor	PAC-USSEEN001-FM-1
	Remote Temperature Sensor	PAC-SE41TS-E
Wired Remote Controller	Wireless temperature and humidity sensor for kumo cloud®	PAC-USWHS003-TH-1
	Airzone ZBS Wired Blueface Principal Controller White	AZZBSBLUEFACECB
	Airzone ZBS Wired Lite Controller White	AZZBSLITECB
	Airzone ZBS Wired Think Controller White	AZZBSTHINKCB
	Airzone ZBS Wireless Lite Controller White	AZZBSLITERB
	Airzone ZBS Wireless Think Controller White	AZZBSTHINKRB
	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
Condensate	Wireless MA Remote Controller	PAR-FL32MA-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
Control Wire	Blue Diamond Sensor Extension Cable — 15 Ft.	C13-103
	20/2PR, 1PR shielded + 1PR plenum wire for Airzone, 100 ft reel	CW2042S2-100
Disconnect Switch	20/2PR, shielded + 1PR plenum wire for Airzone, 500 ft reel	CW2042S2-500
	(30A/600V/UL) [fits 2" X 4" utility box] - Black	TAZ-MS303
Downflow Kit	(30A/600V/UL) [fits 2" X 4" utility box] - White	TAZ-MS303W
	Downflow Kit	DFK-S
Electric Heat Lockout	Electric Heat Lockout	ETC-211000-MIT
Electric Kit Heats	3kW Electric Heater	EH03-SVZ-S
	5kW Electric Heater	EH05-SVZ-S
	8kW Electric Heater	EH08-SVZ-S
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
Terminal Block	Separate Terminal Power Block	SPTB1

**NOTES:**

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

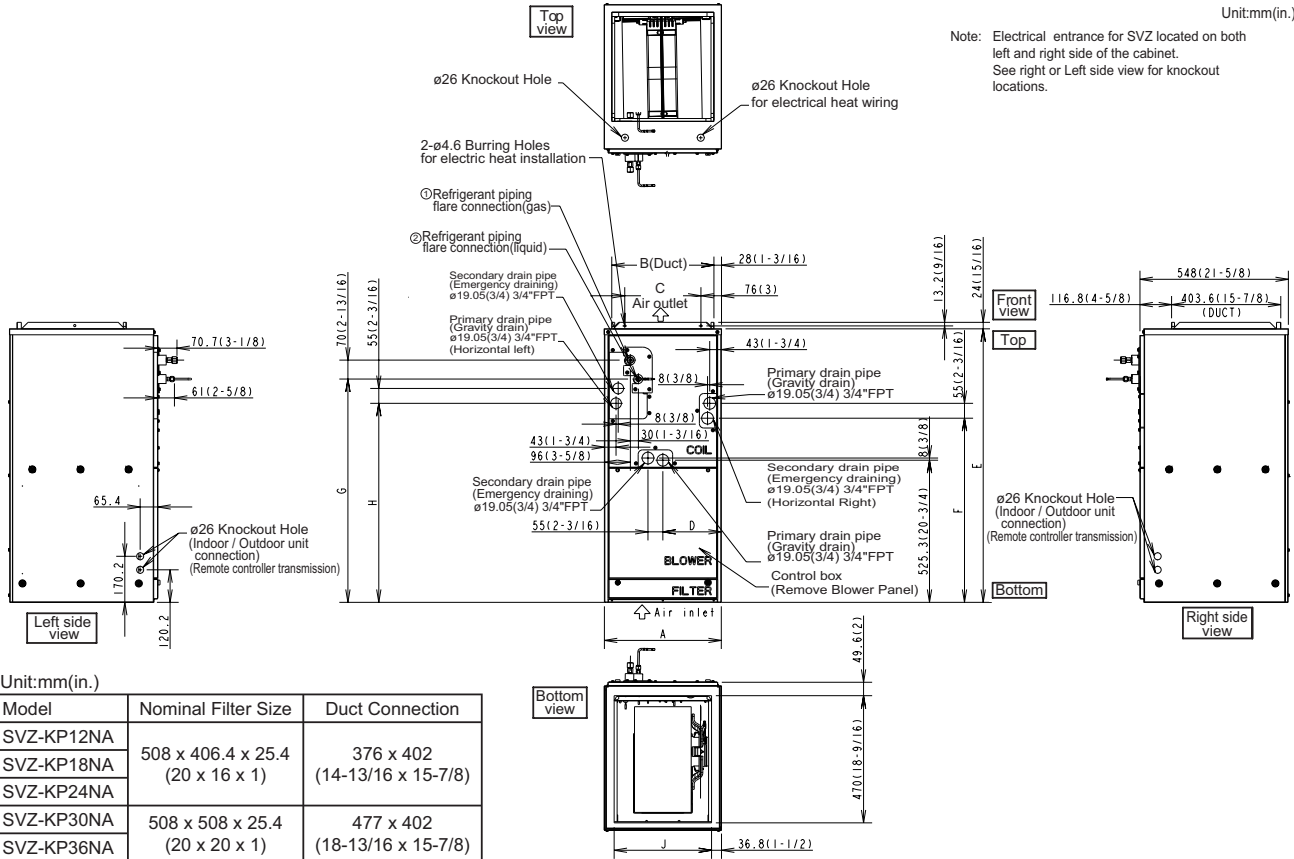
## OUTDOOR UNIT ACCESSORIES: SUZ-KA24NAHZ

Air Outlet Guide	Air Outlet Guide (1 Piece)	PAC-SG59SG-E
Centralized Drain Pan	Drain Pan	PAC-SG64DS-E
Control/Service Tool	M- & P-Series Maintenance Tool Cable Set	M21EC0397
Drain Socket	Drain Socket	PAC-SH71DS-E
Hail Guards	Hail Guard	HG-A6
Mounting Pad	Condensing Unit Mounting Pad: 24" x 42" x 3"	ULTRILITE2
Stand	18" Single Fan Stand	QSMS1801M
	24" Single Fan Stand	QSMS2401M
	Outdoor Unit Stand — 12" High	QSMS1201M

# INDOOR UNIT DIMENSIONS: SVZ-KP24NA

Unit:mm(in.)

Note: Electrical entrance for SVZ located on both left and right side of the cabinet. See right or Left side view for knockout locations.



Unit:mm(in.)

Model	Nominal Filter Size	Duct Connection
SVZ-KP12NA	508 x 406.4 x 25.4 (20 x 16 x 1)	376 x 402 (14-13/16 x 15-7/8)
SVZ-KP18NA		
SVZ-KP24NA		
SVZ-KP30NA	508 x 508 x 25.4 (20 x 20 x 1)	477 x 402 (18-13/16 x 15-7/8)
SVZ-KP36NA		

Model	A	B	C	D	E	F	G	H	J	Gas Pipe	Liquid pipe
SVZ-KP12NA	432 (17)	376 (14-13/16)	281 (11-1/8)	224 (8-7/8)	1,010.8 (39-13/16)	680 (26-13/16)	823 (32-7/16)	735.5 (29)	360 (14-3/16)	$\phi$ 9.52 (3/8)	$\phi$ 6.35 (1/4)
SVZ-KP18NA										$\phi$ 12.7 (1/2)	
SVZ-KP24NA											
SVZ-KP30NA	534 (21)	477 (18-13/16)	382.6 (15-1/8)	266.5 (10-1/2)	1,113.8 (43-7/8)	737 (29-1/16)	953.5 (37-9/16)	792 (31-3/16)	461 (18-3/16)	$\phi$ 15.88 (5/8)	$\phi$ 9.52 (3/8)
SVZ-KP36NA											

# OUTDOOR UNIT DIMENSIONS: SUZ-KA24NAHZ

Unit: mm<in>

