

SVZ-KP24NA & SUZ-KA24NAHZ-R1
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-R1



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
- Hyper-heating 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-R1

Cooling at 95°F ¹	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 ²	Power Factor [208V / 230V]	%	97.0 / 97.0
	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
Heating at 17°F ³	Power Factor [208V / 230V]	%	97.0 / 97.0
	Maximum Capacity	BTU/H	23,000
	Rated Capacity	BTU/H	19,200
	Maximum Power Input	W	3,700
Heating at 5°F ⁴	Rated Power Input	W	2,566
	Maximum Capacity	BTU/H	23,000
Heating at -13°F ⁷	Maximum Power Input	W	4,146
	Maximum Capacity	BTU/H	18,400
Efficiency	SEER2		16.0
	EER2 ¹		9.9
	HSPF2 [IV]		8.4
	COP at 47°F ²		3.1
	COP at 17°F at Maximum Capacity ³		1.8
	COP at 5°F at Maximum Capacity ⁴		1.6
	ENERGY STAR® Certified		No
Electrical	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	3.0
	Fan Motor Full Load Amperage	A	2.4
	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 1,011]
	Package Dimensions	W x D x H: In. [mm]	21 x 28-3/4 x 44-3/8 [460 x 730 x 1,127]
	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)

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)

⁷Heating at -13°F (Indoor // Outdoor)

°F 70 DB, 60 WB // 5 DB, 4 WB

°F 70 DB, 60 WB // -13 DB, -14 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.

**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.

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Outdoor Unit	MCA	A	17.0
	MOCP	A	27
	Fan Motor Output	W	74
	Airflow Rate [Cooling / Heating]	CFM	1940 / 1940
	Refrigerant Control		Linear expansive valve
	Defrost Method		Reverse Cycle
	Sound Pressure Level, Cooling ¹	dB(A)	52
	Sound Pressure Level, Heating ²	dB(A)	53
	Compressor Type		scroll
	Compressor Model		DNB28FBAMT
	Compressor Rated Load Amps	A	9
	Compressor Locked Rotor Amps	A	18.0
	Compressor Oil [Type // Charge]	oz.	FVC68D // 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 13 (+1-3/16) 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	115 DB / 23 DB
	Heating Air Temp [Maximum / Minimum]	°F	70 DB, 59 WB / -13 DB, -13 WB
	Heating Thermal Lock-out / Re-start Temperatures**	°F	-22 / -13
Refrigerant	Type		R410A
	Pre-Charged Refrigerant Amount	Lbs, oz	7.0, 11.0
	Maximum Pre-Charged Piping Length	Ft. [m]	70.0 [21.0]
	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]	165 [50]
	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)

¹Cooling (Indoor // Outdoor)

°F 80 DB, 67 WB // 95 DB, 75 WB

²Heating at 47°F (Indoor // Outdoor)

°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

⁷Heating at -13°F (Indoor // Outdoor)

°F 70 DB, 60 WB // -13 DB, -14 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.

**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.

INDOOR UNIT ACCESSORIES: SVZ-KP24NA

Control Interface	Airzone Wired Blueface Controller (White)	AZZBSBLUEZEROCB
	Airzone Wired Lite Controller (White)	AZZBSLITECB
	Airzone Wireless Lite Controller (White)	AZZBSLITERB
	Airzone Wireless Think Controller (White)	AZZBSTHINKRB
	Backup Heat Relay Kit Adapter for CN24 or CN152 on ducted models	CN24RELAY-KIT-CM3
	IT Extender for kumo station™	PAC-WHS01IE-E
	kumo station™ for kumo cloud®	PAC-WHS01HC-E
	On/Off and Error Status Output Adapter for CN51 or CN52	PAC-SA88HA-EP
	Operation and Error Status Output Adapter	PAC-SF40RM-E
	Procon BACnet® and Modbus® Interface	PAC-UKPRC001-CN-1
	Thermostat Interface for 3rd Party Thermostats	PAC-US445CN-1
	USNAP Adapter for Demand Response	PAC-WHS01UP-E
	Wireless Interface for kumo cloud®	PAC-USWHS002-WF-2
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 kumo cloud®	PAC-USWHS003-TH-1
Wired Remote Controller	Simple Ductless Wired Remote Controller	PAC-SDW01RC-1
	Simple MA Remote Controller	PAC-YT53CRAU-J
	Touch MA Wired Remote Controller	PAR-CT01MAU-SB
Wireless Remote Controller	kumo touch™ RedLINK™ Wireless Controller & Receiver kit	MHK2
	Portable Central Controller	MCCH1
	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 (208/230V) [recommended]	X87-721
	Blue Diamond (MaxiBlue Advanced) Mini Condensate Pump w/ Reservoir & Sensor (110V) up to 48,000 BTU/H [recommended]	X87-711
	Blue Diamond (MegaBlue Advanced) Condensate Pump w/ Reservoir & Sensor	X87-835
	Blue Diamond Sensor Extension Cable — 15 Ft.	C13-103
	Refco Condensate Pump (100-240 VAC) up to 120,000 BTU/H	COMBI
Control Wire	20/2PR, 1PR shielded + 1PR plenum wire for Airzone, 100 ft reel	CW2042S2-100
	20/2PR, shielded + 1PR plenum wire for Airzone, 500 ft reel	CW2042S2-500
Disconnect Switch	(30A/600V/UL) [fits 2" X 4" utility box] - Black	TAZ-MS303
	(30A/600V/UL) [fits 2" X 4" utility box] - White	TAZ-MS303W
Downflow Kit	Downflow Kit	DFK-S
Electric Heat Lockout	Electric Heat Lockout	ETC-211020-MIT
Electric Kit Heats	3kW Electric Heater	EH03-SVZ-S
	5kW Electric Heater	EH05-SVZ-S
	8kW Electric Heater	EH08-SVZ-S
Lineset		Lineset 3/8x5/8
	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)

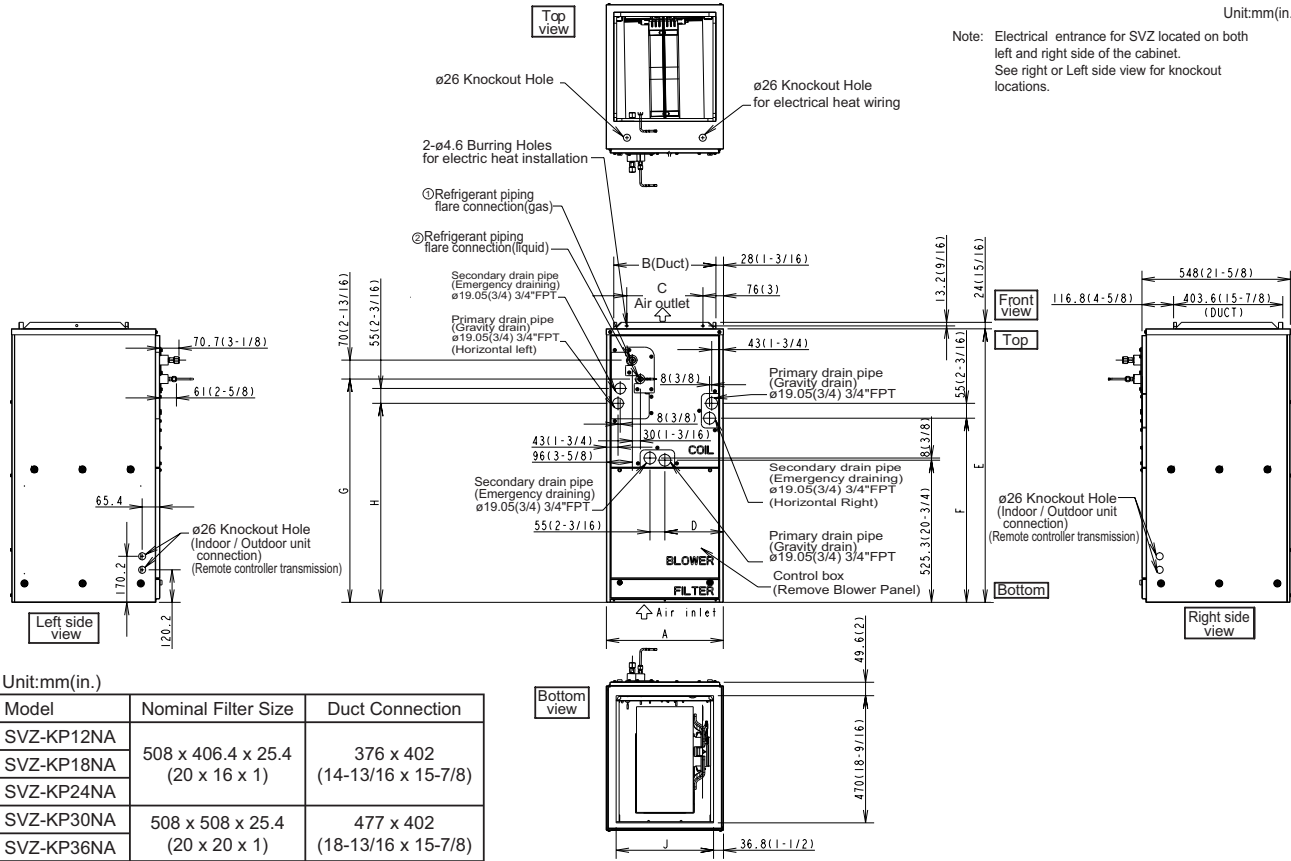
OUTDOOR UNIT ACCESSORIES: SUZ-KA24NAHZ-R1

Air Outlet Guide	Air Outlet Guide (1 Piece)	PAC-SG59SG-E
Centralized Drain Pan	Drain Pan	PAC-SG64DP-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
Mini-Split Wire	14 Gauge, 4 wire MiniSplit Cable—250 ft. roll	S144-250
	14 Gauge, 4 wire MiniSplit Cable—50 ft. roll	S144-50
	16 Gauge, 4 wire MiniSplit Cable—250 ft. roll	S164-250
	16 Gauge, 4 wire MiniSplit Cable—50 ft. roll	S164-50
Mounting Pad	Condensing Unit Mounting Pad: 24" x 42" x 3"	ULTRILITE2
Snow/Rain Diverter	Snow/Rain Diverter	SRD-4
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 3-1/4 inch Mounting Base (Pair) - Plastic	DSD-400P
	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.



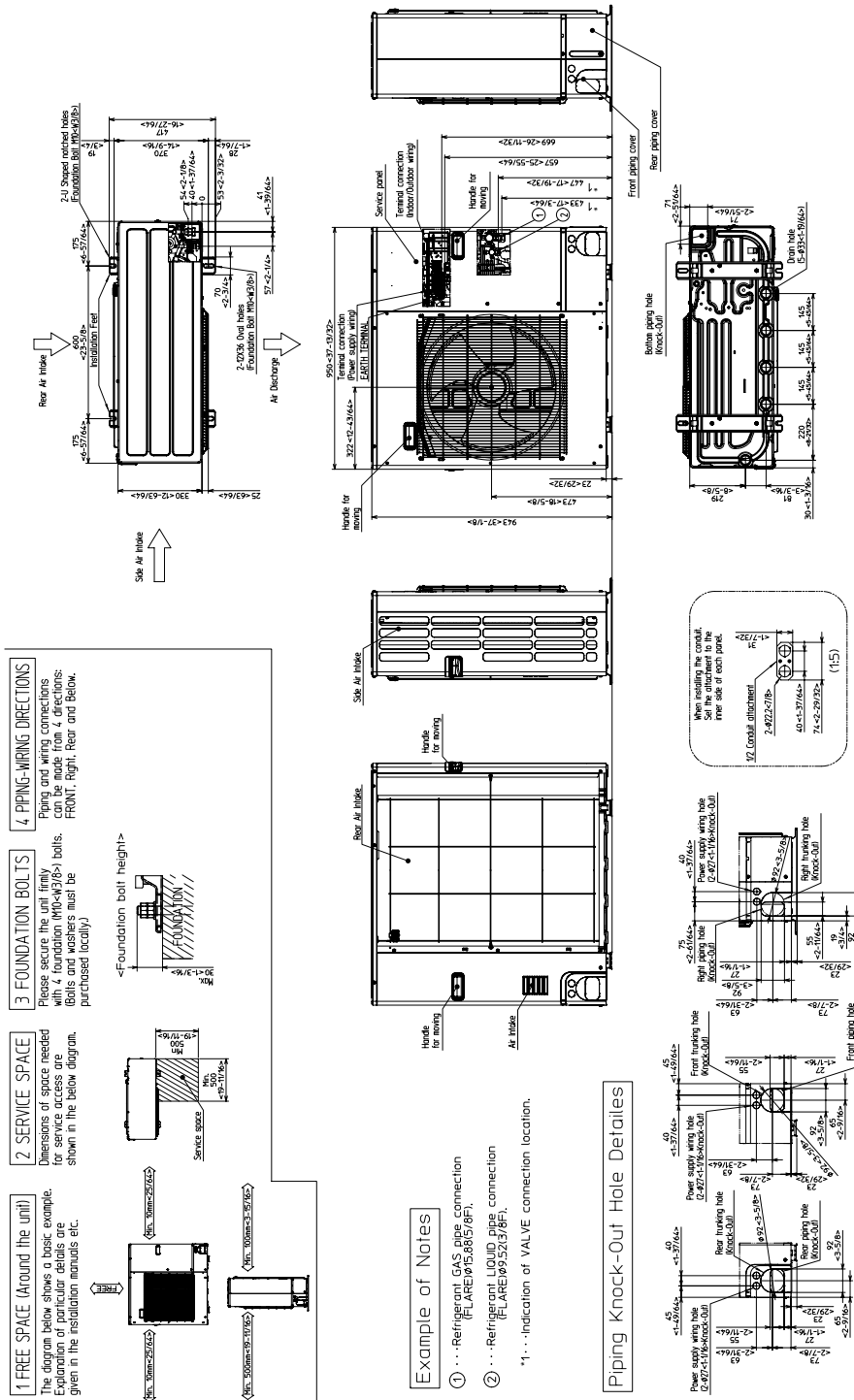
Unit:mm(in.)

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	376	281	224	1,010.8	680	823	735.5	360	$\phi 9.52$ (3/8)	$\phi 6.35$
SVZ-KP18NA	(17)	(14-13/16)	(11-1/8)	(8-7/8)	(39-13/16)	(26-13/16)	(32-7/16)	(29)	(14-3/16)	$\phi 12.7$ (1/2)	(1/4)
SVZ-KP24NA											
SVZ-KP30NA	534	477	382.6	266.5	1,113.8	737	953.5	792	461	$\phi 15.88$ (5/8)	$\phi 9.52$ (3/8)
SVZ-KP36NA	(21)	(18-13/16)	(15-1/8)	(10-1/2)	(43-7/8)	(29-1/16)	(37-9/16)	(31-3/16)	(18-3/16)		

OUTDOOR UNIT DIMENSIONS: SUZ-KA24NAHZ-R1

Unit: mm<in>



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