SAMSUNG

SUBMITTAL AC024KNZDCH/AA
Samsung Multi-position Air Handler, Single Zone, Split System

Job Name _____ Location _____

Purchaser _____ Engineer _____

Submitted to _____ Reference ☐ Approval ☐ Construction ☐

Unit Designation _____ Schedule # _____

Specifications

Model	Indoor Unit Model Number (US Code)		AC024KNZDCH/AA (CNH24ZDK)
	Outdoor Unit Model Number (US Code)		AC024JXADCH/AA (CXH24ADJ)
Performance	Nominal Capacity [1]	Cooling / Heating (Btu/h)	24,000 / 27,000
	Capacity Range	Cooling (Btu/h)	7,000 - 27,000
		Heating (Btu/h)	6,700 - 29,000
	SEER / EER		19.5 / 11.00
	COP (nominal heating)		3.0
	HSPF		11.5
	AHRI Certification Number		8950560
	Condensate (pints/h)		6.13
Power (without optional heat kits)	Voltage	ø / V / Hz	1 / 208-230 / 60
	Working Voltage Range (VAC)		176 - 254 (max. 3% deviation from each)
	Operating Current (min. / std. / max.)	Cooling (A)	3.8 / 9.8 / 12.0
		Heating (A)	3.6 / 11.6 / 12.8
	Max. Breaker	Amps	20
	Min. Circuit Ampacity (A)		13.58
Dimensions	W X H X D (in.)	Indoor Unit	17 1/2 X 43 X 21
		Outdoor Unit	37 X 39 11/16 X 13
	Weight (lbs.)	Indoor Unit	98.1
		Outdoor Unit	142.2
Sound Pressure Level	Indoor Unit dB(A)	L / M / H	35 / 38 / 41
	Outdoor Unit dB(A)	Cooling / Heating (high)	50 / 50
Operating Temperatures °F(°C)	Outdoor	Cooling	23 ~ 115°F(-5 ~ 46°C)
			0 ~ 115°F(-18 ~ 46°C) W/Baffle
		Heating	-4 ~ 76°F(-20 ~ 24°C)
	Indoor	Cooling	61 ~ 90°F(16 ~ 32°C)
		Heating	T ≤ 80°F(27°C)
Pipe Connections	Indoor & Outdoor	High side (flare)	1/4"
		Low side (flare)	5/8"
	Maximum (ft.)		164
	Maximum Vertical Separation (ft.)		98
	Condensate Connection		3/4" FNPT
Refrigerant	Factory Charge	oz.	74.08
	Charged for		25 ft
	Additional Refrigerant		0.11 oz./ft. over 25 ft
Compressor	Type		Inverter Driven, Twin BLDC Rotary
	RLA	A	9.0
Evaporator Fan	Type		Double-inlet, forward curve, centrifugal (with ECM motor)
	Air Volume	CFM (L/M/H)	547 / 636 / 760 (at standard ESP)
		Total CFM Range [2]	262 - 888
	HP		1/3
	Motor Amps	A	0.72
	External Static Pressure ("WC)	Standard	0.2
		Min. / Max.	0 / 0.8
Condenser Fan	Motor		BLDC With Axial Type Fan (1)
	FLA / Watts / CFM (max.)		0.48 A / 125 W / 2,190 CFM
Safety	Certifications		ETL (UL 1995)
	Devices: PCB fuses, indoor unit terminal block thermal fuse, current transformer, over-voltage protection, crankcase heating, temperature limit protection logic, compressor overload sensing		

[1] Certified in accordance with the AHRI Unitary Small Air-Source Heat Pumps (USHP) Certification Program which is based on the latest edition of AHRI Standard 210/240.

[2] Refer to installation manual for full fan curve details

General Information

- Auto-restart after power loss
- The indoor unit shall be capable of being field convertible to downflow configuration with optional downflow conversion kit.
- The outdoor unit shall have a snow accumulation prevention option setting to prevent snow drifting against an idle outdoor unit.
- The indoor and outdoor units shall have a removable EEPROM that stores system programming information, unit name, and other data
- The outdoor unit shall have a night time quiet mode option to reduce operating sound during the night (automatic or manual activation with dry contact signal).
- The pipe connections at the outdoor unit shall be internal allowing pipes to inter the chassis through the front, right side, bottom, or back.
- Air handler has an air leakage of no more than 2 percent of the design air flow rate when tested in accordance with ASHRAE 193.
- The outdoor unit shall supply power to indoor unit via 14 AWG X 3 power wire when optional heat kits are not installed. If VHK-***A supplemental heat kits are installed, power to the heat kits must be provided from a dedicated circuit with proper overcurrent protection per NEC (refer to VHK-***A supporting documents for heat kit electrical data).

Construction

The outdoor unit shall be galvanized steel with a baked on powder coated finish for durability

The indoor unit shall be constructed of insulated, powder coated, galvanized steel

Indoor Fan

The indoor fan is a double-inlet, forward curve, centrifugal type with a single constant-torque (ECM) fan motor

The indoor unit shall have low, medium, high, and auto fan speed setting options.

The evaporator fan motor shall have five speed taps

Heat Exchanger

The indoor unit heat exchanger shall be mechanically bonded aluminum fin to copper tube

The outdoor unit heat exchanger shall be aluminum, flat fin, micro channel

Controls

Control signal shall be a DDC type signal

Interconnect control wire between outdoor and indoor unit shall be 16AWG X 2 shielded

Controllers must be purchased separately

Controls shall integrate with a BMS system

No additional interface modules/adapters are required when connecting to Samsung NASA DVM S central controllers.

Refrigerant System

The refrigerant type shall be R410A

The compressor shall be hermetically sealed, inverter controlled, twin BLDC Rotary made by Samsung

Refrigerant flow shall be controlled by an electronic expansion valve at outdoor unit

Soft-start to reduce current demand during compressor start

Warranty

10 Years compressor, 10 years parts, 1 year limited labor when registered (conditions apply)

Optional Accessories

Wired Controller	Advanced Wired Controller	☐	MWR-WG00UN
	Simplified Touch Controller	☐	MWR-SH11UN
Wi-Fi Adapter		☐	MIM-H04UN
Wireless Signal Control	Wireless Signal Receiver	☐	MRK-A10N
	Wireless Controller	☐	AR-EH03U
External Temperature Sensor		☐	MRW-TA
External Contact Control		☐	MIM-B14
Filter Box (includes 1" MERV 8 filter)		☐	VFB-1
Supplemental Electric Heat Kits	3kW	☐	VHK-103A
	5kW	☐	VHK-105A
Wall Bracket (for outdoor unit)		☐	CKN-250
Wind Baffles	Front	☐	WBF-2M-B
	Back	☐	WBB-3M
Line Sets - insulated and flared, interconnect cables included		☐	25' - ILS2509
		☐	50' - ILS5009
Downflow Conversion Kit		☐	VDK-1
Thermostat Adaptor (for connection to a standard 24VAC thermostat)		☐	MIM-A60UN

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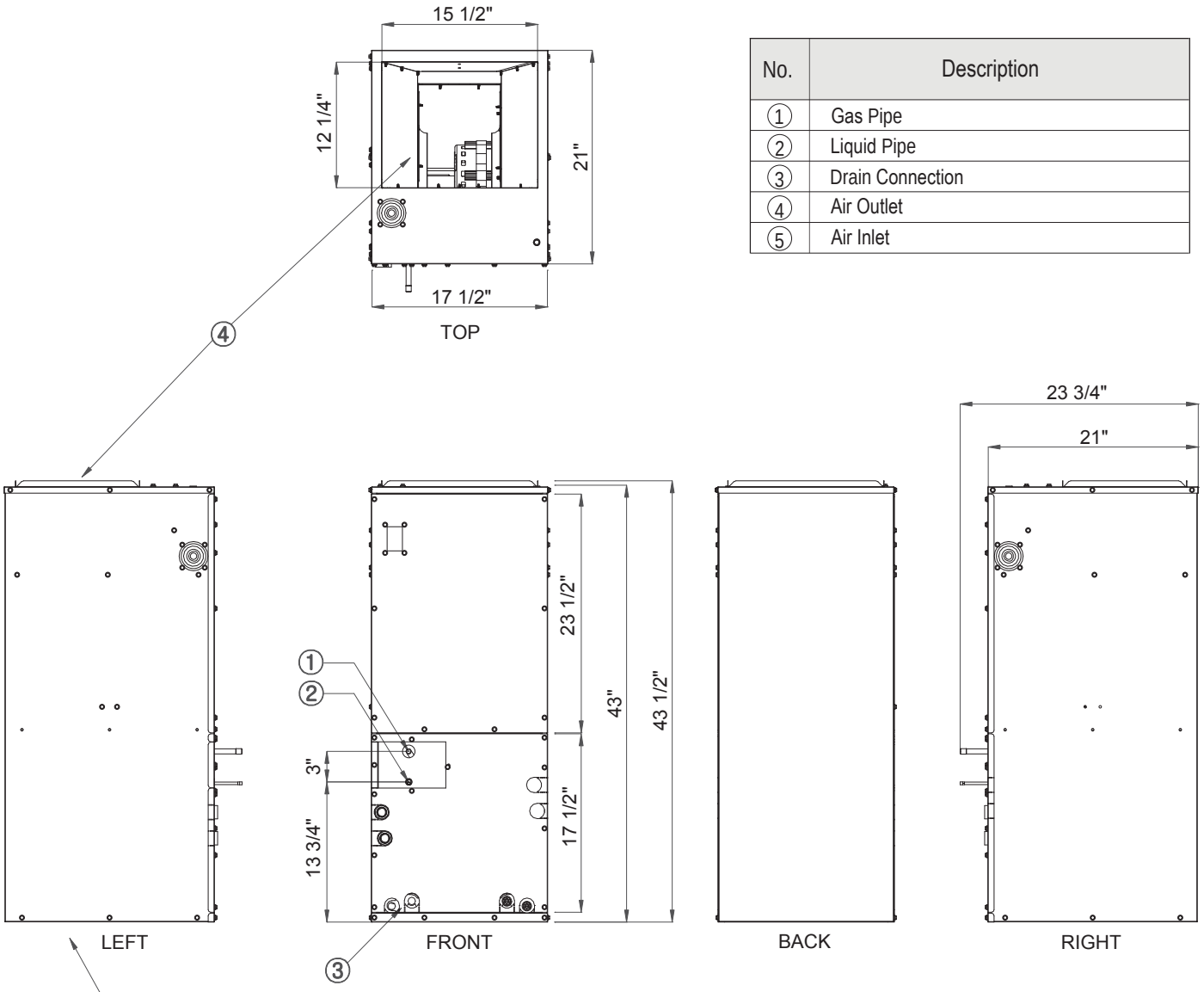
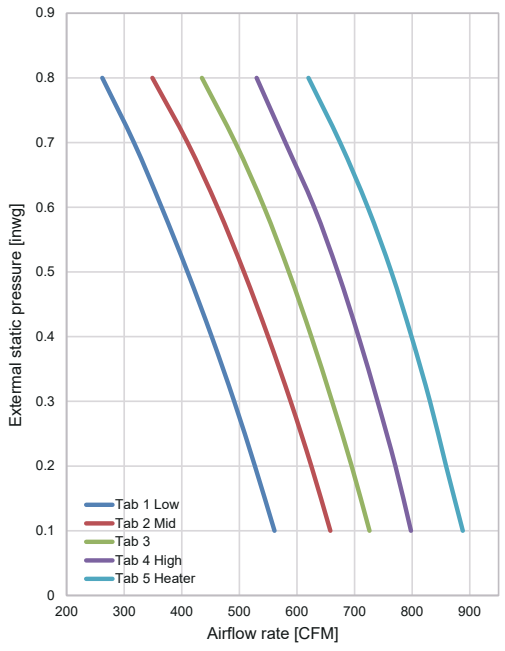
AC024KNZDCH/AA Dimensional Drawing



No.	Description
①	Gas Pipe
②	Liquid Pipe
③	Drain Connection
④	Air Outlet
⑤	Air Inlet



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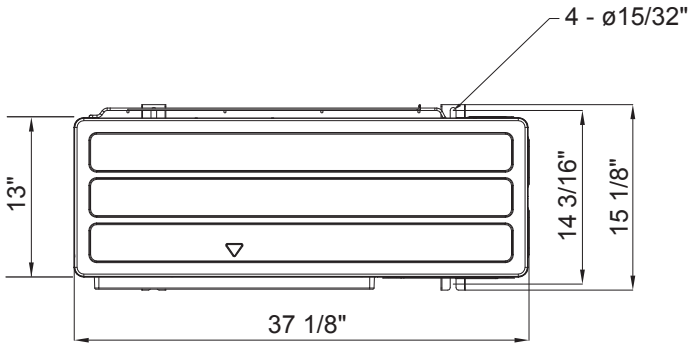
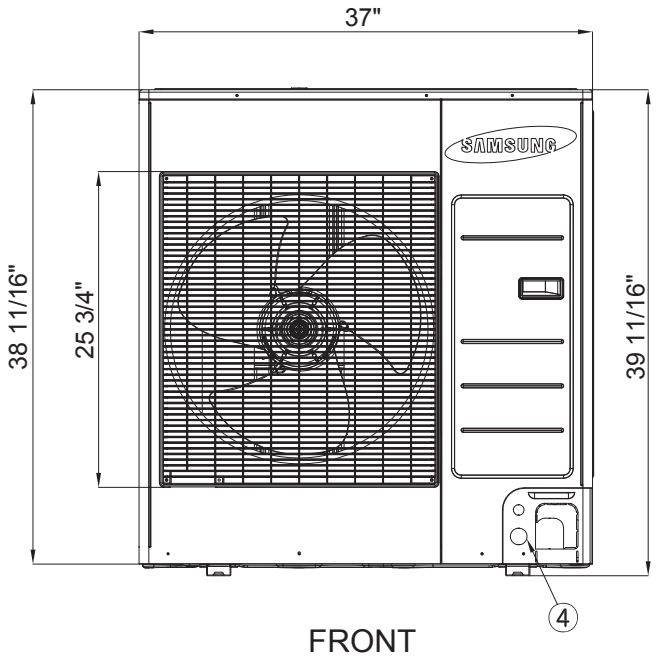
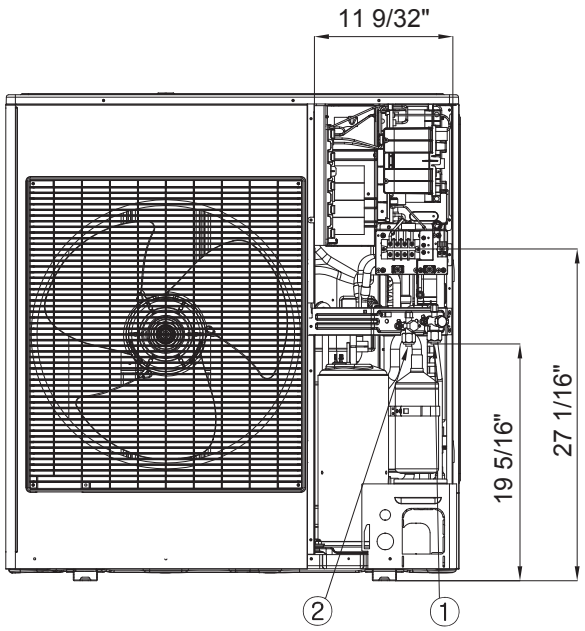
AC024JXADCH/AA Dimensional Drawing



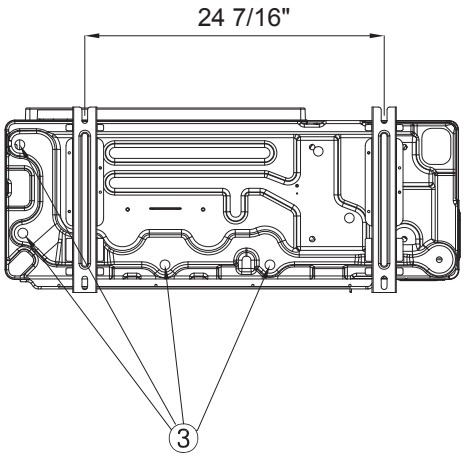
TOP



FRONT



FRONT WITHOUT SERVICE COVER



No.	Description
1	Suction service valve
2	Liquid service valve
3	Drainage hole
4	Power and communication conduit openings