SAMSUNG

SUBMITTAL AC024KN4DCH/AA
Samsung 360 Cassette, 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)		AC024KN4DCH/AA (CNH244DK)
	Outdoor Unit Model Number (US Code)		AC024JXADCH/AA (CXH24ADJ)
Performance	Nominal Capacity	Cooling / Heating (Btu/h)	24,000 / 27,000
	Capacity Range	Cooling (Btu/h)	7,000 - 27,000
		Heating (Btu/h)	5,200 - 31,000
	SEER / EER		20.50 / 11.10
	COP (nominal heating)		3.2
	HSPF		10.0
	AHRI Certification Number		8856687
	Condensate (pints/h)		6.8
Power	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)	2.80 / 9.80 / 12.00
		Heating (A)	2.50 / 11.60 / 14.50
	Max. Breaker	Amps	20
	Min. Circuit Ampacity (A)		12.06
Dimensions	W X H X D (in.)	Indoor Unit	37 1/4 X 11 X 37 1/4
		Outdoor Unit	37 X 39 11/16 X 13
	Weight (lbs.)	Indoor Unit	46.3
		Outdoor Unit	142.2
Sound Pressure Level	Indoor Unit dB(A)	L / M / H	29 / 33 / 36
	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		1 1/4" OD, 1" ID
Refrigerant	Type		R410A
	Factory Charge	oz.	74.08
	Charged for		25 ft
	Additional Refrigerant		0.11 oz./ft. over 25 ft
Compressor	Manufacturer		Samsung
	Type		Inverter Driven, Twin BLDC Rotary
	RLA	Amps	9.0
Evaporator Fan	Type		BLDC (1) With Turbo Type Fan (1)
	Air Volume	CFM (L/M/H)	480 / 547 / 646
	Output	Watts	65 X 1
	FLA	Amps	0.33
Condenser Fan	Motor		BLDC With Axial Type Fan (1)
	FLA / Watts / CFM (max.)		0.48 A / 125 W / 2,190 CFM
Fascia Panel	Ceiling Type (Square)	L X W X H	39 3/8 X 39 3/8 X 2 5/8
		Weight	7.94
	Open Type (Round)	Diameter X H	41 15/16 X 3 3/8
		Weight	5.95
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	

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.

Samsung HVAC maintains a policy of ongoing development, specifications are subject to change without notice. Refer to www.AHRIdirectory.org for current reference numbers.



Shown with PC4NUNMUN (open type panel)



Shown with PC4NUDMUN (ceiling type panel)



General Information

- The indoor unit shall be a round ceiling cassette with 360°, even air distribution
- The outdoor unit shall supply power to indoor unit via 14 AWG X 3 power wire
- Auto-restart after power loss
- The outdoor unit shall have a snow accumulation prevention option setting to prevent snow drifting against an idle outdoor unit.
- The indoor unit shall have a removable EEPROM that stores system programming information, unit name, and other data
- Electro-static, washable, pleated filter as standard (included with fascia panel).
- Built in condensate pump with maximum 29" lift from the bottom of the unit, check valve, and float switch that disables indoor unit during overflow detection
- Knock-out for outside air capability (with booster fan connection)
- Pipe connections at the outdoor unit shall be made inside the unit chassis. Refrigerant pipes can exit through the front, side, rear, or bottom sides of the outdoor unit.
- Fascia panel shall have LED indicator lights and an infrared receiver
- The indoor unit shall not have air louvers or blades allowing full airflow without restriction. Air direction control shall be achieved by creating a low pressure area near air outlet causing discharge air to change direction angle.
- Fixed or auto-swing air direction shall be possible with wireless, touch, or premium wired controller (10° ~ 60° angle)
- Independent air distribution control shall be possible with wireless or premium wired controller (three directions, 10° ~ 60° angle)
- 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).

Construction

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

The indoor unit shall be have a galvanized steel frame with HIPS chassis and fascia panel certified to UL94 V0.

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

The indoor unit shall have a 12VDC output that is interlocked with fan to activate external devices (fan ON = 12VDC ON, fan OFF = 12VDC OFF, pigtail adapter plug required)

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

Wired or wireless controllers must be purchased separately

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

Refrigerant System

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

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

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Intertek

AHRI CERTIFIED www.ahridirectory.org Unitary Small AC AHRI Standard 210/240 Certification applies only when the complete system is listed with AHRI

Required Accessories

Fascia Panel	Ceiling Type (square, white)	☐ PC4NUDMUN
	Ceiling Type (square, black)	☐ PC4NBDMUN
	Open Type (round, white)	☐ PC4NUNMUN
	Open Type (round, black)	☐ PC4NBNMUN

**A fascia panel is required for cassette unit operation and is sold separately.*

Optional Accessories

Wired Controller	Simplified Touch Controller	☐ MWR-SH11UN
	Advanced Wired Controller	☐ MWR-WG00UN
Wi-Fi Adapter		☐ MIM-H04UN
External Temperature Sensor		☐ MRW-TA
Wireless Controller		☐ AR-KH03U
External Contact Control		☐ MIM-B14
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' - ILS-2509
		☐ 50' - ILS-5009
Thermostat Adaptor (for connection to a standard 24VAC thermostat)		☐ MIM-A60UN
Motion Detection Sensor		☐ MCR-SME

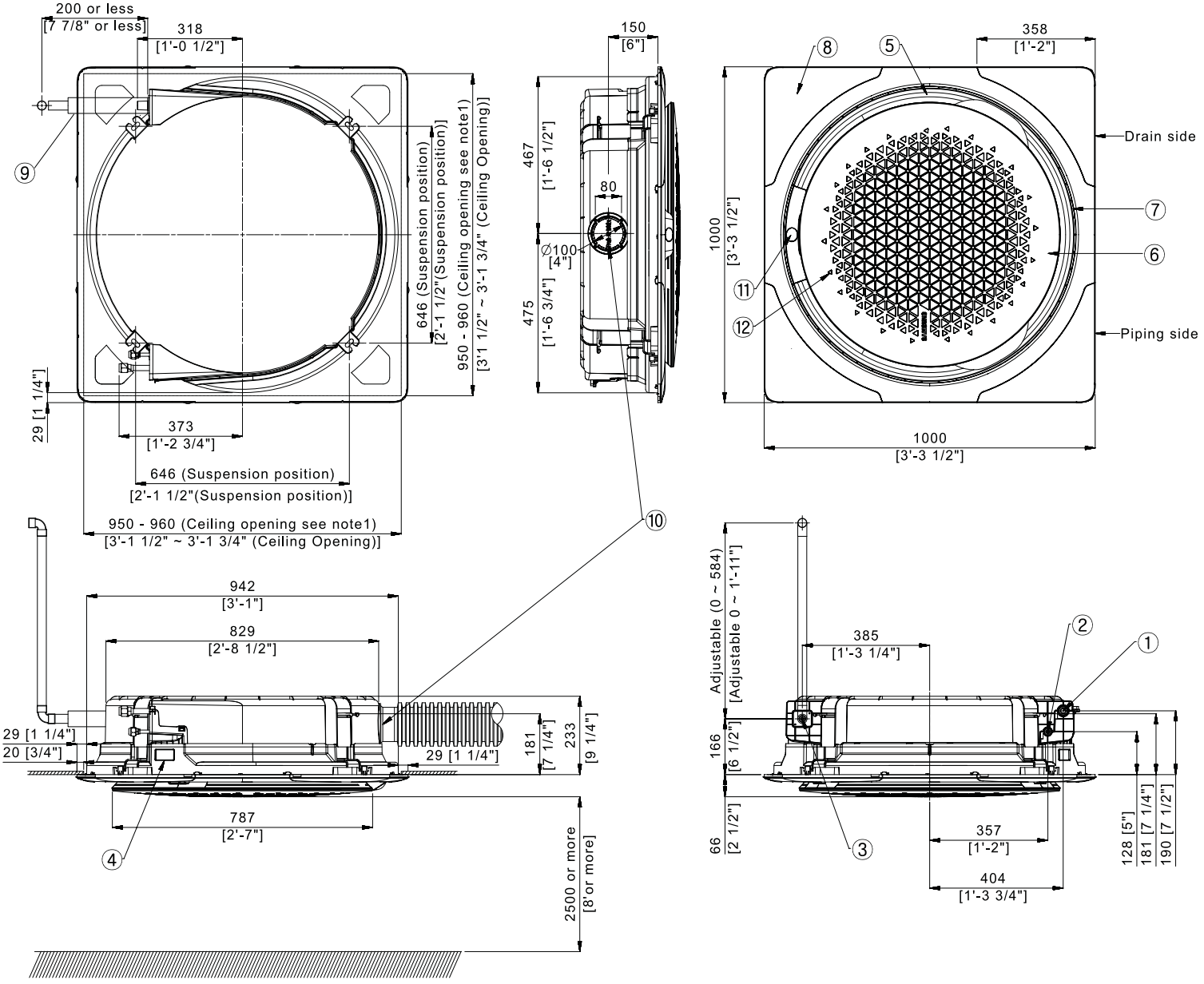
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AC024KN4DCH/AA Dimensional Drawing With Ceiling Type Fascia Panel

Units: mm [inches]



No.	Description
1	Refrigerant Gas Pipe
2	Refrigerant Liquid Pipe
3	Condensate drain
4	Power and wiring entry
5	Air discharge opening
6	Air suction grille

No.	Description
7	Suction rim for air direction booster fan
8	Decoration fascia panel
9	Drain hose
10	Fresh air knockout hole
11	Status display
12	Infrared receiver

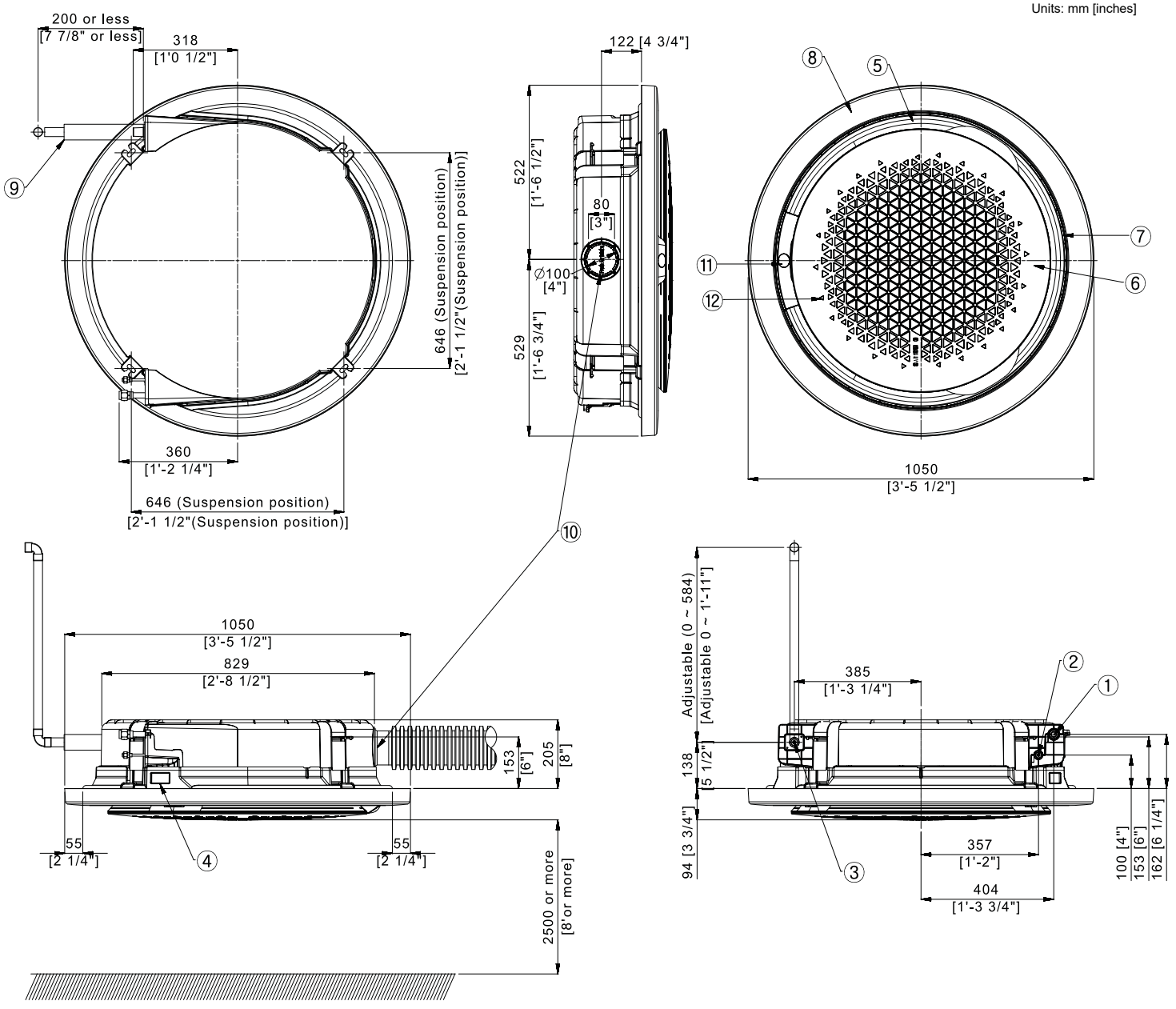
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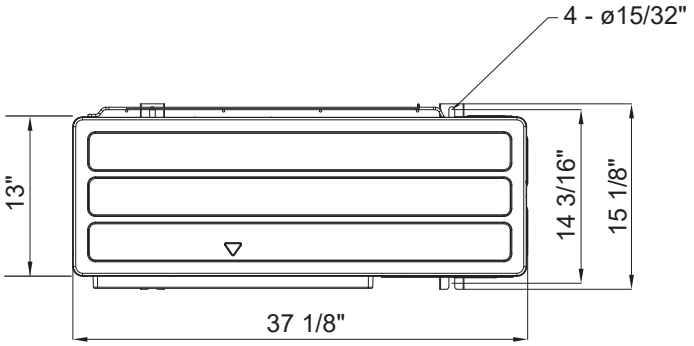
AC024KN4DCH/AA Dimensional Drawing With Open Type Fascia Panel

Units: mm [inches]

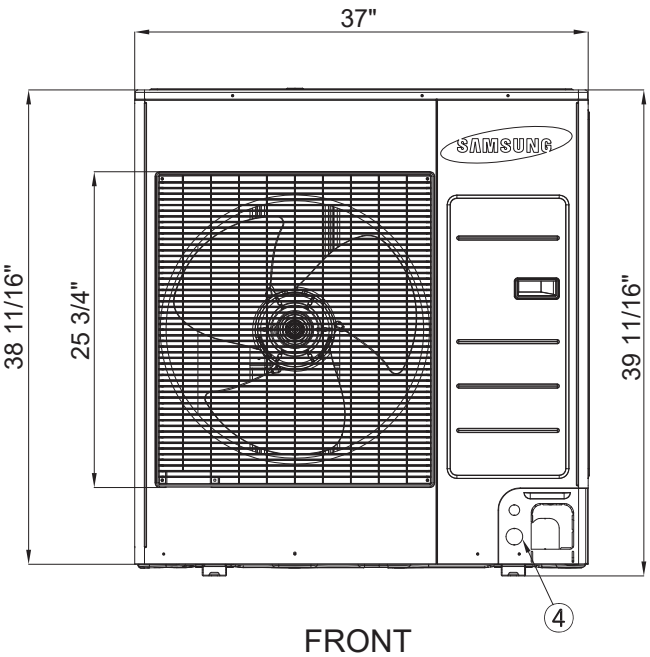


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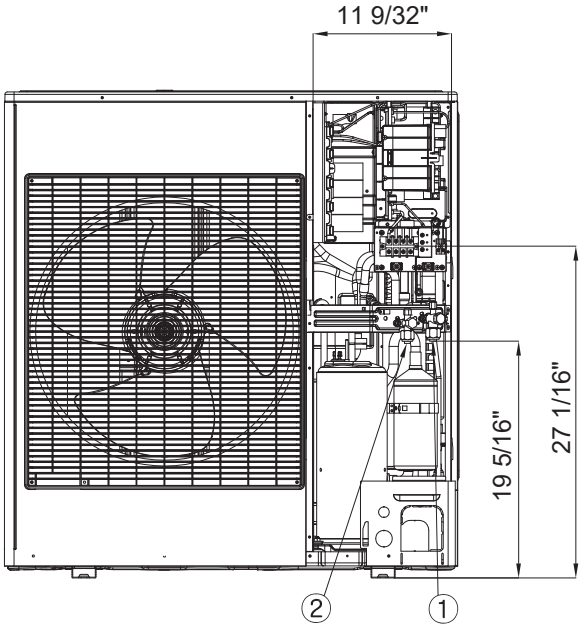
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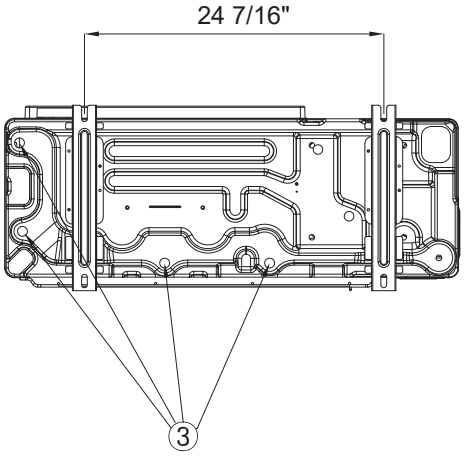
TOP



FRONT



FRONT WITHOUT SERVICE COVER



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