SAMSUNG

SUBMITTAL AC042BN4DCH/AA / AC042BXADCH/AA (CNH424DB / CXH42ADB)

Samsung WindFree™ 4-Way 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)		AC042BN4DCH/AA (CNH424DB)
	Outdoor Unit Model Number (US Code)		AC042BXADCH/AA (CXH42ADB)
Performance	Nominal Capacity	Cooling / Heating (Btu/h)	42,000 / 47,000
	Capacity Range	Cooling (Btu/h)	11,500 - 47,000
		Heating (Btu/h)	12,500 - 58,000
	AHRI 210-240 2017[1]	SEER	18.5
		EER	10.0
		HSPF	10.20
	AHRI 210-240 2023[2]	SEER2	19.1
		EER2	10.0
		HSPF2	8.7
Power	Voltage	ø / V / Hz	1 / 208-230 / 60
	Working Voltage Range (VAC)		187 - 253
	Operating Current (min. / std. / max.)	Cooling (A)	4.8 / 18.6 / 25.2
		Heating (A)	3.6 / 17.0 / 31.1
	Max. Breaker	Amps	40
	Min. Circuit Ampacity (A)		32.2
Dimensions	W X H X D (in.)	Indoor Unit	33 1/16 X 11 5/16 X 33 1/16
		Outdoor Unit	37 X 47 11/16 X 13
	Weight (lbs.)	Indoor Unit	46.7
		Outdoor Unit	195.1
Sound Pressure Level	Indoor Unit dB(A)	L / M / H	34 / 40 / 44
	Outdoor Unit dB(A)	Cooling / Heating (high)	53 / 55
Operating Temperatures	Outdoor	Cooling	23 ~ 122°F (-5 ~ 50°C)
			0 ~ 122°F (-18 ~ 50°C) W/Baffle
		Heating	-4 - 75°F (-20 - 24°C)
	Indoor	Cooling	61 ~ 90°F (16 ~ 32°C)
		Heating	T ≤ 86°F (30°C)
Pipe Connections	Indoor & Outdoor	High side	3/8"
		Low side	5/8"
	Maximum (ft.)		246
	Maximum Vertical Separation (ft.)		98.4
	Condensate Connection		1 1/4" OD, 1" ID
Refrigerant	Type		R410A
	Factory Charge	lbs.	7.5
	Charged for		24.6 ft.
Compressor	Manufacturer		Samsung
	Type		Inverter Driven, Twin BLDC Rotary
	RLA	Amps	20.9
Evaporator Fan	Type		BLDC (1) With Turbo Type Fan (1)
	Air Volume	CFM (L/M/H)	710 / 954 / 1,247
	Output	Watts	97
Condenser Fan	Motor		BLDC With Axial Type Fan (2)
	FLA / Watts / CFM (max.)		1.25A X 2 / 125W X 2 / 3,532 CFM
Fascia Panel	WindFree™* Type	L X W X H (in.)	37 3/8 X 37 3/8 X 2 1/2 in.
		Weight (lbs.)	13.88
Safety	Certifications		UL 60335-2-40
	Devices		PCB fuses, indoor unit terminal block thermal fuse, current transformer, over-voltage protection, crankcase heating, temperature limit protection logic, compressor overload sensing

This publication reflects both the 1987 Appendix M metric (SEER) and the 2023 Appendix M1 metric (SEER2). Efficiency requirements are published at 10 C.F.R. 430.32(c). Please refer to www.AHRInet.org for more information about updated energy metrics.

[1]Performance data certified by AHRI to AHRI 210-240 (2017) with Addendum 1.
[2]Performance data certified by AHRI to AHRI 210-240 (2023). Effective January 1st, 2023.

The WindFree™ unit delivers an air current that is under 0.15 m/s while in WindFree™ mode. Air velocity that is below 0.15 m/s is considered "still air" as defined by ASHRAE (American Society of Heating, Refrigerating, and Air-Conditioning Engineers)

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

Select models are ENERGY STAR labeled. Proper sizing and installation of equipment is critical to achieve optimal performance. Split system air conditioners and heat pumps (excluding ductless systems) must be matched with appropriate coil components to meet ENERGY STAR criteria. Ask your contractor for details or visit www.energystar.gov.

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SHA-CAC-4A042-2211A





General Information

- The indoor unit shall feature WindFree™* mode. In cooling mode, as room temperature nears set temperature, the unit will close its louver and will disperse air into the space through thousands of micro-holes on the front of the indoor unit preventing cold air drafts on occupants
- The outdoor unit shall supply power to indoor unit via 14 AWG X 3 power wire
- High-voltage terminal block temperature sensor to disable unit in the event of power connection overheating
- Auto-restart after power loss
- Soft-start compressor minimizing current inrush
- All heat exchangers shall be mechanically bonded aluminum fin to copper tube
- The condensing unit heat exchanger salt spray test method: ISO-9227- The heat exchanger showed no unusual rust or corrosion development to 3,000 hours
- Integral condensate pump with maximum 29" lift from bottom of the unit with check valve and float switch to disable unit in the event of condensate overflow.
- Knock-out for outside air capability (with booster fan connection)

Option settings

- The outdoor unit shall have snow accumulation prevention option setting to prevent snow drifting against an idle outdoor unit.
- Night-time Quiet Mode: reduction of operational sound during evening hours *(automatic or manual activation)*
- Emergency Temperature Output (ETO) function: when indoor unit is in error status or when room temperature exceeds configurable temperature level, the system outputs a signal to an external source, e.g., backup system, building management system, alert device (ex: status light, warning lamp, buzzer).
- System can be configured as heating/cooling, cooling only, or heating only via outdoor unit option setting
- Maximum Current Control configurable from 50% - 100% via outdoor unit, wired controller or central controls

Indoor Fan

- Indoor fan is a single turbo type
- Three fan speed settings and auto setting
- Washable filter as standard
- Fascia panel shall have LED display, infrared receiver, and motorized louver(s)
- The WindFree™* function will close the supply air outlet louver while in cooling mode to gently disperse cool air into the space without blowing directly onto occupants. The WindFree™ feature is optional and can be enabled using central or local control options.
- The WindFree™ indoor unit has an integral humidity sensor that will open the louver for standard cool mode when space conditions could potentially cause condensation formation on the chassis surface.

Construction

- Outdoor unit: Galvanized steel with a baked-on powder coated finish for durability
- Indoor unit: Insulated, HIPS chassis and fascia panel certified to UL94 V0

Controls

- Control wiring shall be 2 X 16 AWG
- Wired controllers must be purchased separately
- Dual set temperature support when connected to MWR-WG00UN Advanced Wired Controller or central control options.
- No additional interface modules/adapters are required when connecting to Samsung central control options.
- The unit shall be operated via a wireless or wired remote control with DDC type signal

Refrigerant System

- The compressor shall be hermetically sealed, inverter-controlled BLDC rotary type
- Refrigerant flow shall be controlled by an electronic expansion valve at outdoor unit

Warranty

10 years compressor, 10 years parts, 1-year limited labor (conditions apply)

ENERGY STAR COLD CLIMATE

AHRI CERTIFIED www.ahridirectory.org Unitary Small AC AHRI Standard 210/240

ETL LISTED c US Intertek

Required Accessories

Fascia panel	WindFree™ Type	☑ PC4NUFMUN

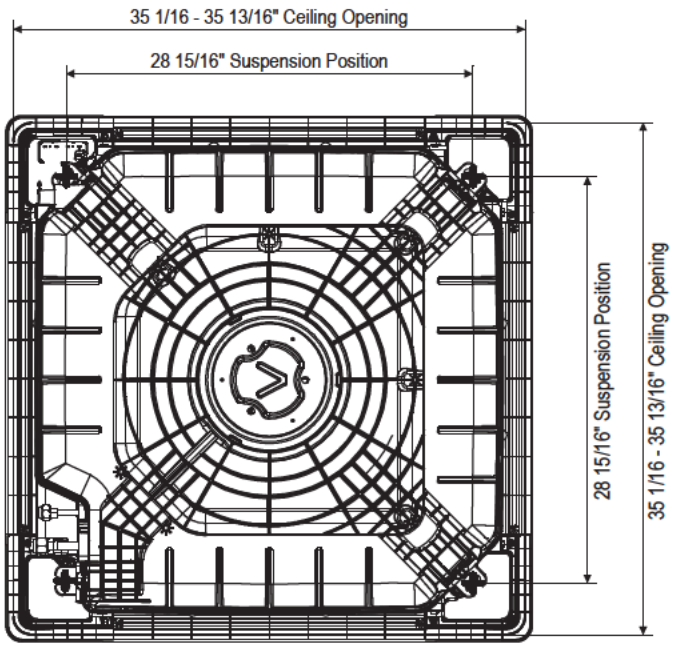
Optional Accessories

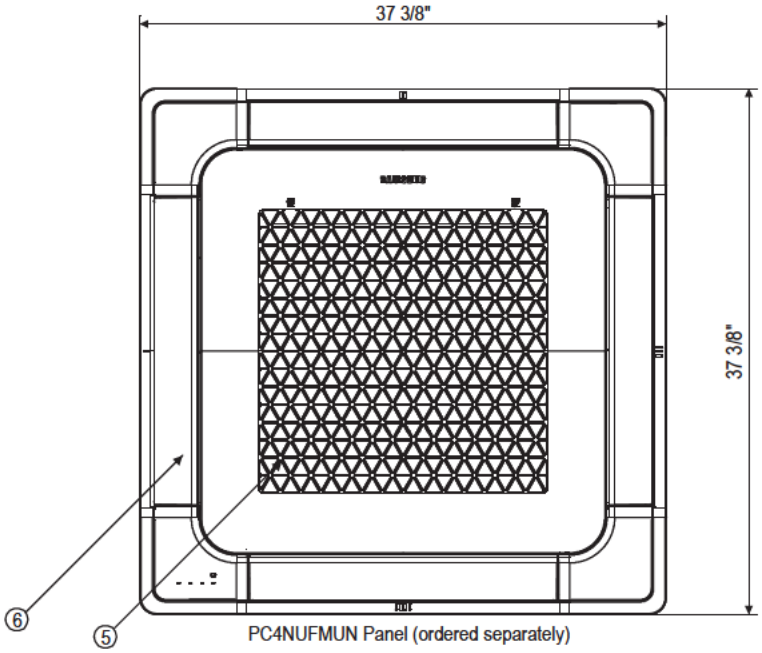
Wired controller	Advanced	☐ MWR-WG00UN
	Touchscreen	☐ MWR-SH11UN
Thermostat adapter (24vac)		☐ MIM-A60UN
Wireless controller		☐ AR-EH04U
Wi-Fi adapter	Single indoor unit	☐ MIM-H14UN
	1-16 indoor units	☐ MIM-H05UN
Motion Detection Sensor		☐ MCR-SMC
External temperature sensor		☐ MRW-TA
External contact control		☐ MIM-B14
Wall bracket (for outdoor unit)		☐ CKN-250
Wind baffle	Front	☐ WBF-1M2
	Back	☐ WBB-2M-B
Hail guard kit (includes back and side guards)		☐ HGK-4
Line sets - insulated and flared, interconnect cables included		☐ 25' - ILS2510
		☐ 50' - ILS5010

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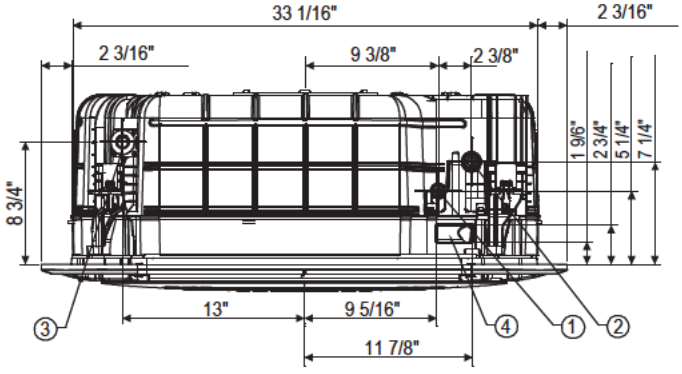
Samsung WindFree™ 4-Way Cassette, Split System

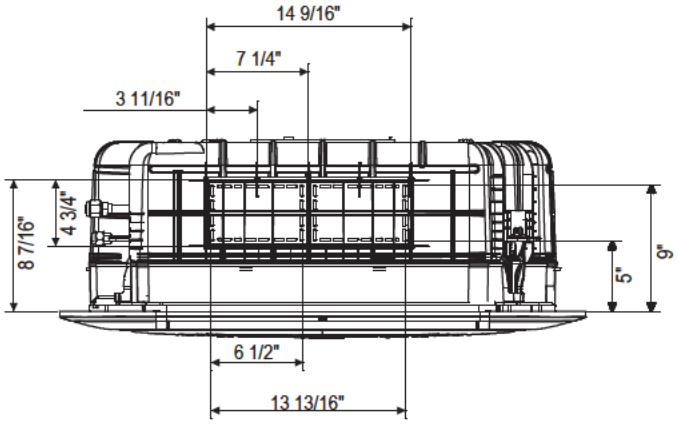
AC042BN4DCH/AA Dimensional Drawing

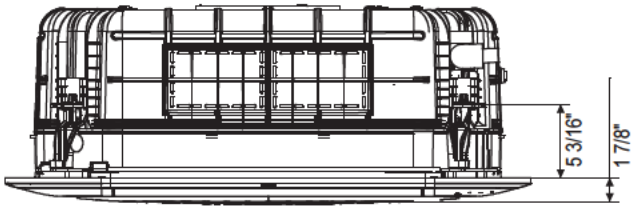


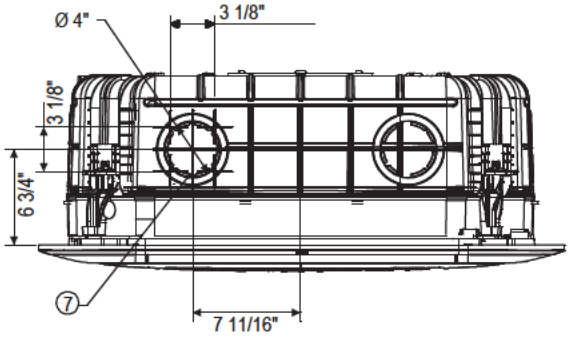


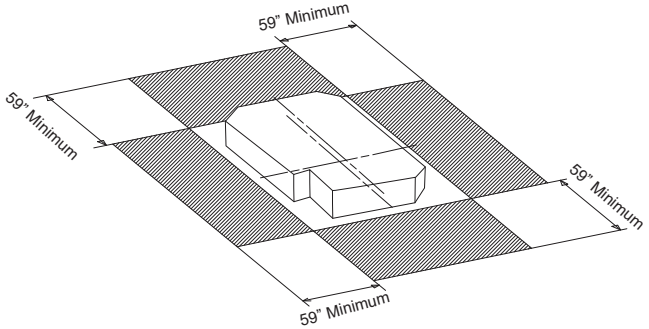
PC4NUFMUN Panel (ordered separately)









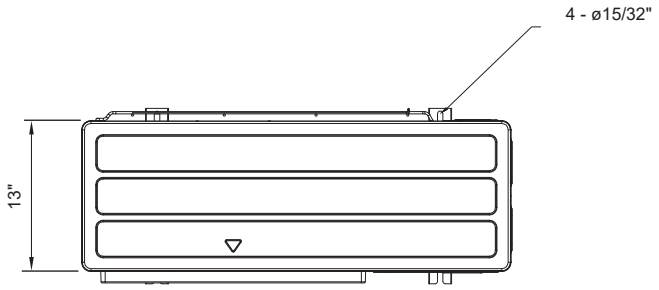


Proper clearance must be maintained around unit for proper operation.

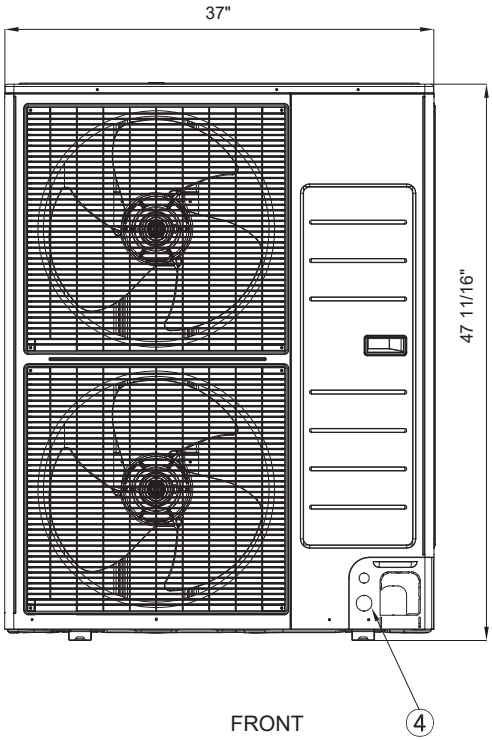
No.	Name	Description
①	Liquid Pipe Connection	Ø 3/8" Flare
②	Gas Pipe Connection	Ø 5/8" Flare
③	Drain Pipe Connection	OD 1 1/4", ID 1"
④	Conduit for Power & Communication Wiring	-
⑤	Air Inlet Grille	-
⑥	Air Outlet Louver	-
⑦	Fresh Air Inlet	Ø 4"

Samsung WindFree™ 4-Way Cassette, Split System

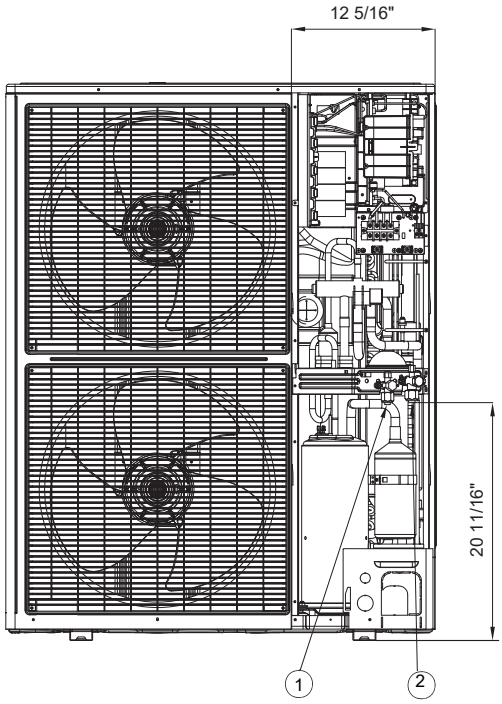
AC042BXADCH/AA Dimensional Drawing



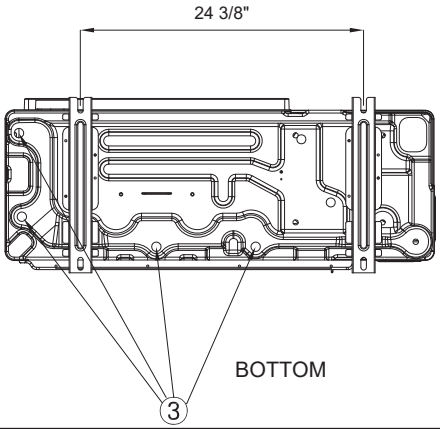
TOP



FRONT



FRONT WITHOUT SERVICE COVER



BOTTOM

No.	Name	Description
1	Refrigerant liquid pipe	Φ 3/8
2	Refrigerant gas pipe	Φ 5/8
3	Drain hole	Connect with provided drain plug
4	Power and communication conduit openings	--