SAMSUNG

SUBMITTAL AC042BNZDCH/AA / AC042BXADCH/AA (CNH42ZDB / CXH42ADB)

Samsung Multi-Position Air Handler, Single Zone Duct, Split System

Job Name _____ Location _____

Purchaser _____ Engineer _____

Submitted to _____ Reference ☐ Approval ☐ Construction ☐

Unit Designation _____ Schedule # _____

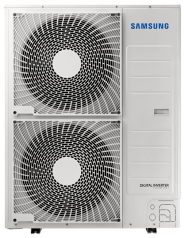
Specifications

Model	Indoor Unit Model Number (US Code)		AC042BNZDCH/AA (CNH42ZDB)
	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)	12,000 - 46,000
		Heating (Btu/h)	10,500 - 60,000
	AHRI 210-240 2017[1]	SEER	19.3
		EER	10.2
		HSPF	9.60
	AHRI 210-240 2023[2]	SEER2	17.5
		EER2	9.5
		HSPF2	8.4
Power	Voltage	ø / V / Hz	1 / 208-230 / 60
	Working Voltage Range (VAC)		187 - 253
	Operating Current (min. / std. / max.)	Cooling (A)	5.1 / 19.8 / 24.8
		Heating (A)	4.4 / 22.1 / 32.8
	Max. Breaker	Amps	40
	Min. Circuit Ampacity (A)		32.2
Dimensions	W X H X D (in.)	Indoor Unit	24.5 X 58.75 X 21.75
		Outdoor Unit	37 X 47 11/16 X 13
	Weight (lbs.)	Indoor Unit	166.4
		Outdoor Unit	195.1
	Duct Connections (W X H)	Supply (in.)	14 1/4 X 21 3/4
		Return (in.)	24.5 X 21.75
Sound Pressure Level	Indoor Unit dB(A)	L / M / H	40 / 43 / 46
	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	64 ~ 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		3/4 in. FNPT
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		Double-inlet, forward curve, centrifugal (with ECM motor)
	Air Volume	CFM (L/M/H)	1,095 / 1,201 / 1,310
	Output	Watts	410
	External Static Pressure	Standard ("WC)	0.58 in. WC
		Min. / Max. ("WC)	0 / 1.0 in. WC
Condenser Fan	Motor		BLDC With Axial Type Fan (2)
	FLA / Watts / CFM (max.)		1.25A X 2 / 125W X 2 / 3,532 CFM
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.

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



General Information

- 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.

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).*
- System can be set up 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 controller

Indoor Fan

- Indoor fan is a double Inlet, forward curve, centrifugal type
- Three fan speed settings and auto setting
- Field configurable for downflow operation with optional conversion kit

Construction

- Outdoor unit shall be galvanized steel with a baked-on powder coated finish for durability
- Indoor Unit: Insulated, galvanized steel.

Controls

- Control wiring shall be 2 X 16 AWG
- 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
- Dual set temperature support when connected to MWR-WG00UN Advanced Wired Controller or central control options.
- Wired or wireless controllers must be purchased separately

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

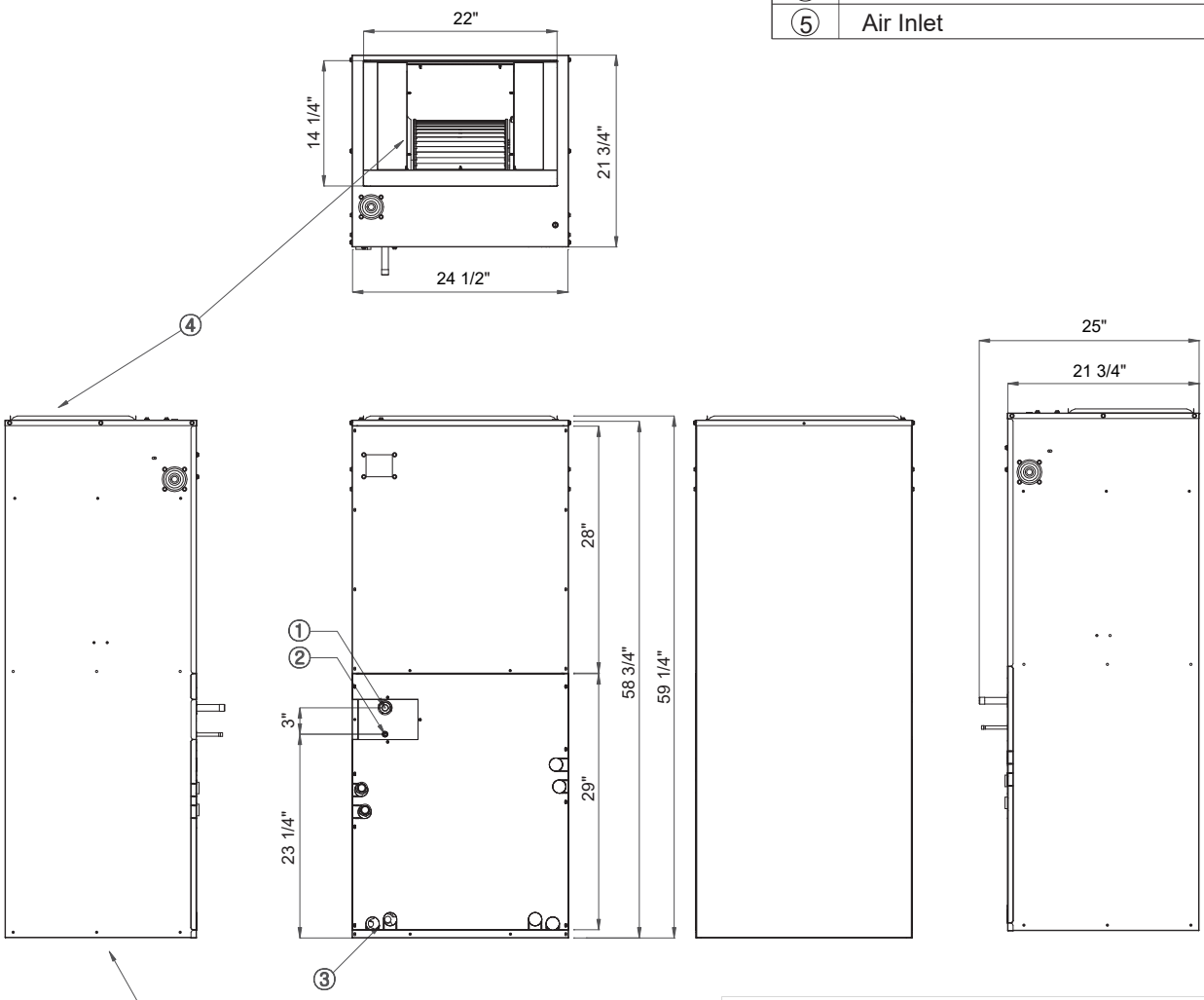
10 Years compressor, 10 years parts, 1 year limited labor when registered

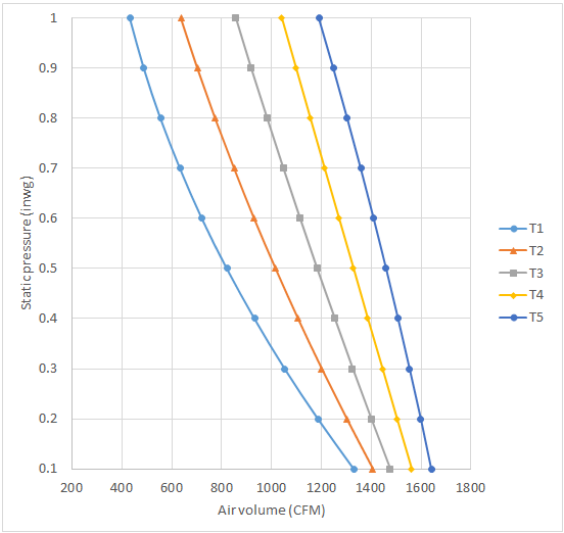
Optional Accessories

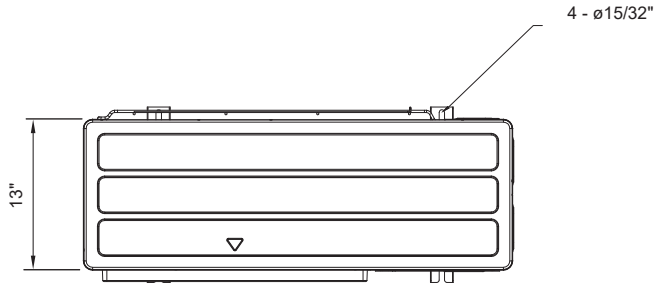
Wired Controller	Advanced	☐ MWR-WG00UN
	Touchscreen	☐ MWR-SH11UN
Thermostat Adaptor (for connection to a standard 24VAC thermostat)		☐ MIM-A60UN
Wireless Signal Control	Wireless Signal Receiver	☐ MRK-A10N
	Wireless Controller	☐ AR-EH04U
Wi-Fi Adapter		☐ MIM-H05UN
External Temperature Sensor		☐ MRW-TA
Filter Base (includes 1" MERV 8 filter)		☐ VFB-3
External Contact Control		☐ MIM-B14
Wall Bracket (for outdoor unit)		☐ CKN-250
Wind Baffles	Front	☐ WBF-1M2
	Back	☐ WBB-2M-B
Hail Guard		☐ HGK-4
Line Sets - insulated and flared, interconnect cables included		☐ 25' - ILS-2510
		☐ 50' - ILS-5010
Supplemental Electric Heat Kit		☐ VHK-305A (5 kW)
		☐ VHK-310A (10 kW)
Downflow Conversion Kit		☐ VDK-3

AC042BNZDCH/AA Dimensional Drawing

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







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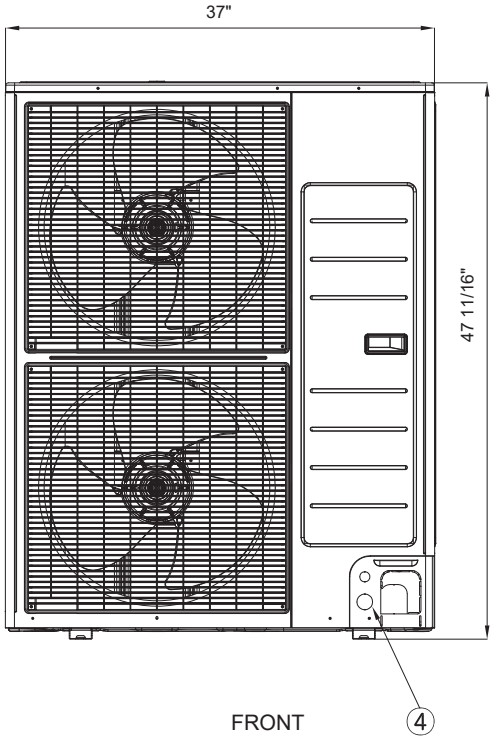
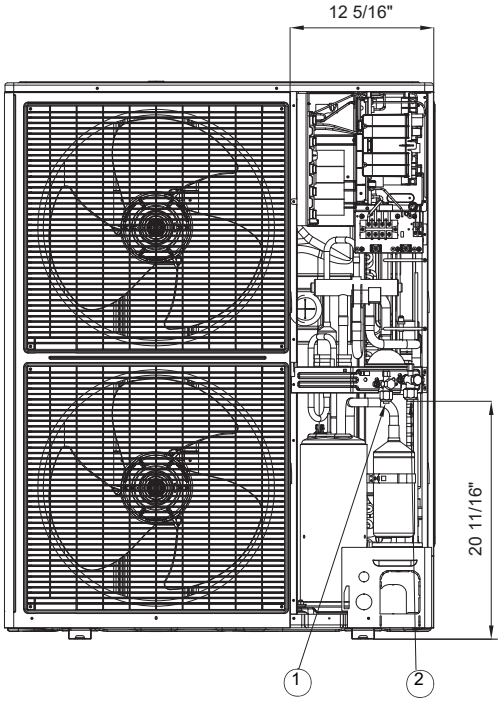
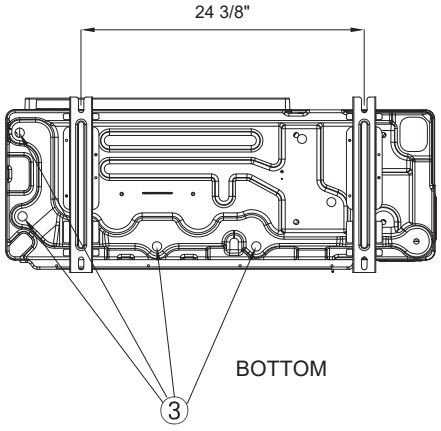


FRONT



FRONT WITHOUT SERVICE COVER



BOTTOM

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