

# SAMSUNG

## Submittal Data

### AC012DN1DCG/AA (CNG121DD) / AC012DXSCCG/AA (CXG12SCD)

### WindFree™\* 1-Way Cassette, Single Zone, Heat Pump, Split System (Premium)

Job Name: \_\_\_\_\_

Purchaser: \_\_\_\_\_

Submitted to: \_\_\_\_\_

Unit designation: \_\_\_\_\_

Location: \_\_\_\_\_

Engineer: \_\_\_\_\_

Reference \_\_\_\_\_ Approval \_\_\_\_\_ Construction \_\_\_\_\_

Schedule #: \_\_\_\_\_

#### General Information

- The system shall provide high heating capacity at -4°F (-20°C) with heating operation down to -13°F (-25°C).
- The outdoor unit shall have a base pan heater as standard for optimal defrost cycle water drainage.
- The indoor unit shall feature WindFree™\* mode. When activated in cooling mode, 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 system shall feature comfort humidity control. Utilizing an integral humidity sensor, the system optimizes the indoor unit coil temperature according to the dew point, maximizing energy savings while still providing space dehumidification and occupant comfort.
- The indoor unit shall have an 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.
- The indoor unit fascia panel shall have a built-in Wi-Fi adapter as standard to allow control and monitoring using the Samsung SmartThings app.
- Auto-restart after power loss
- Soft-start compressor minimizing inrush current
- The outdoor unit shall provide 208/230V power to the indoor unit via 14 AWG X 3 interconnect power cable.

#### 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.
- All heat exchangers shall be mechanically boded aluminum fin to copper tube.

#### Refrigerant System

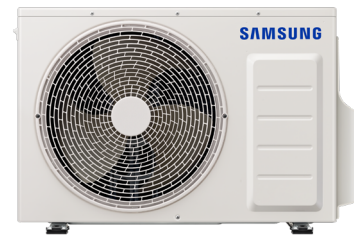
- The system shall utilize low-GWP R-32 refrigerant
- Refrigerant flow shall be controlled by an electronic expansion valve at the outdoor unit.
- The system shall include an R32 alarm output plug on the indoor unit and outdoor unit for notification of R32 leak detection when the indoor unit refrigerant leak detector detects a refrigerant leak (MIM-B14U accessory is required).

#### Indoor Fan

- Three fan speed settings and auto settings
- Washable filter as standard
- Fascia panel shall have LED display, infrared receiver, and a motorized louver
- 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.

#### Controls

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



Note: Unit appearance may vary slightly

#### External Heat Control

- External heat control functionality allows for configuration of fan operation during auxiliary heat operation, defrost, and emergency heat (MIM-B14U accessory required).
- External heat control configuration settings include outside ambient external heat lockout, outside ambient compressor lockout, and time delay options (MIM-B14U accessory required).
- Emergency heat functionality allows the system to continue controlling the external heat source even when system errors prevent the heat pump from operating (MIM-B14U accessory required).
- External heat control functionality allows for configuration of fan operation during auxiliary heat operation, defrost, and emergency heat
- Emergency heat functionality allows the system to continue controlling the external heat source even when system errors prevent the heat pump from operating

#### Convenience

- The outdoor unit shall have a 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 a configurable temperature level, the system outputs a signal to an external source (e.g., backup system, building management system, alert device like status light, warning lamp, or buzzer).
- The 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.



Intertek



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 or visit [www.energystar.gov](http://www.energystar.gov).

Samsung HVAC maintains a policy of ongoing development. Specifications are subject to change without notice. Refer to [www.AHRIdirectory.org](http://www.AHRIdirectory.org) for current reference numbers.

# System Specifications

Model	Indoor Unit Model Number (US Code)		AC012DN1DCG/AA (CNG121DD)	
	Outdoor Unit Model Number (US Code)		AC012DXSCCG/AA (CXG12SCD)	
Performance	Nominal Capacity	Cooling / Heating (Btu/h)	12,000 / 14,000	
	Capacity Range	Cooling (Btu/h)	2,900 - 13,500	
		Heating (Btu/h)	2,900 - 20,000	
	AHRI 210-240 2023	SEER2		21.00
		EER2		12.00
HSPF2 (region IV)			9.50	
5°F COP			1.80	
Power	Voltage	ø / V / Hz	1 / 208-230 / 60	
	Working Voltage Range (VAC)		187 - 253	
	Operating Current (min. / standard / max.)	Cooling (A)		1.1 / 4.6 / 6.1
		Heating (A)		1.1 / 6.3 / 10.0
	Max. Breaker	Amps		15.0
Min. Circuit Ampacity	Amps		13.9	
Dimensions	W X H X D (in.)	Indoor Unit	38 3/16 X 5 5/16 X 16 1/8	
		Outdoor Unit	31 1/8 X 21 5/8 X 11 3/16	
	Weight (lbs.)	Indoor Unit		19.80
		Outdoor Unit		67.20
Sound Pressure Level	Indoor Unit dB(A)	L / M / H / Turbo	28 / 29 / 32 / 35	
	Outdoor Unit dB(A)	Cooling / Heating (high)	54 / 54	
Operating Temperatures	Outdoor	Cooling	23 - 122°F (-5 - 50°C) 0 - 122°F (-18 - 50°C) W/Baffle	
		Heating	-13 - 75°F (-25 - 24°C)	
	Indoor	Cooling	64 ~ 90°F (16 ~ 32°C)	
		Heating	T ≤ 86°F (30°C)	
Pipe Connections	Indoor & Outdoor	High side (In.)	1/4	
		Low side (In.)	3/8	
	Maximum (ft.)		66	
	Maximum Vertical Separation (ft.)		49	
	Condensate Connection		1 1/4 in. OD, 1 in. ID	
Refrigerant	Type		R-32	
	A2L Leak Detection		Integral	
	Factory Charge	oz.	31.7	
	Charged for		24.6 ft.	
Compressor	Type		Inverter Driven, Twin BLDC Rotary	
	RLA	Amps	8.4	
Evaporator Fan	Type		BLDC motor with cross-flow fan	
	Output	Watts	27	
Airflow	Air Volume (L/M/H)	Cooling (CFM)	254 / 290 / 318	
		Heating (CFM)	254 / 290 / 318	
Condenser Fan	Type		BLDC With Axial Type Fan (1)	
	MOC / Watts / CFM (max.)		0.42A X 1 / 40W X 1 / 1,060	
Fascia Panel	L X W X H	In.	47 3/16 X 19 11/16 X 1 3/8	
	Weight	lbs.	9.5	
Corrosion Prevention	ISO-9227 - The condenser heat exchanger showed no unusual rust or corrosion development to 2,280 hours.			
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		

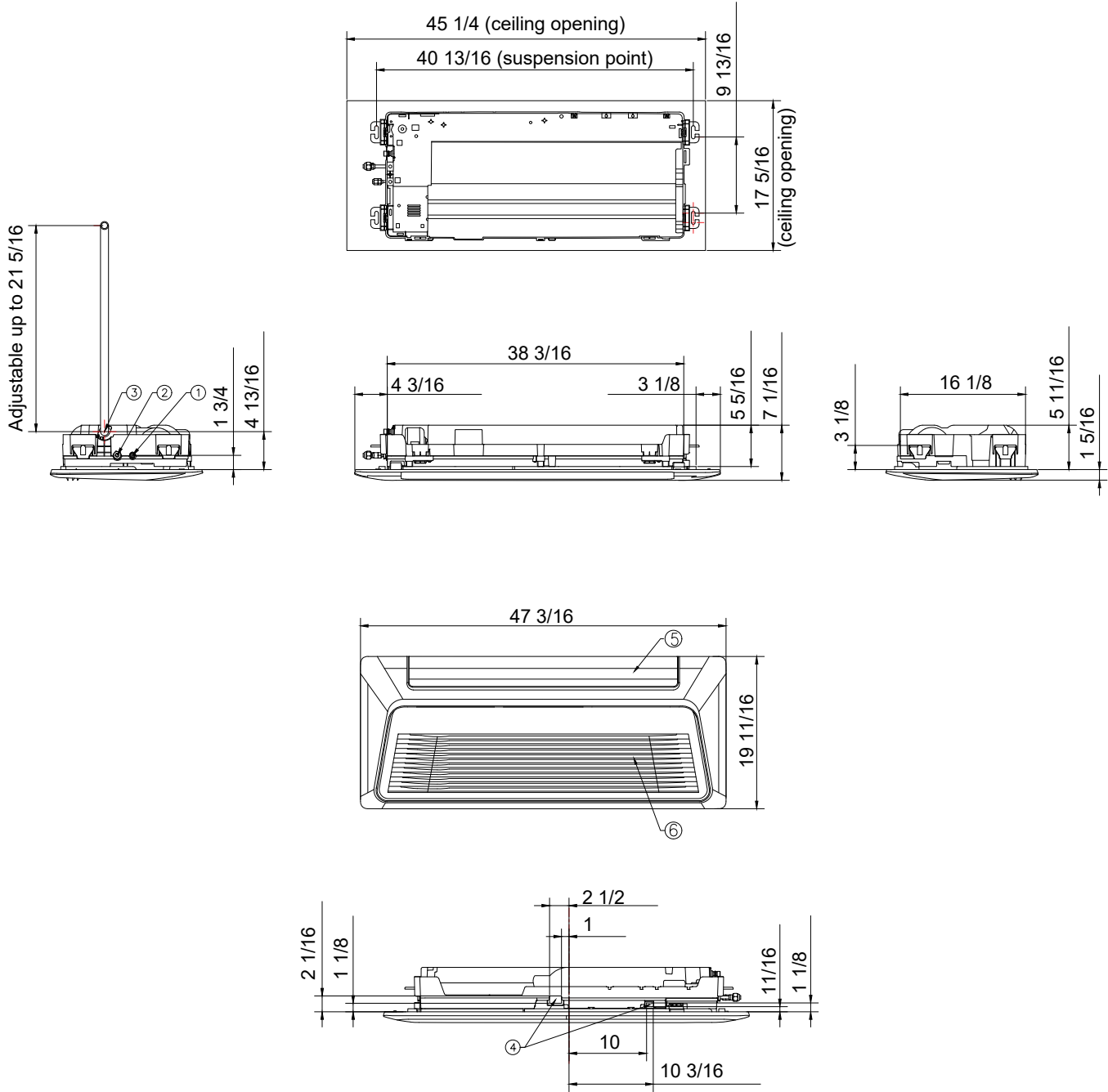
# Accessories

Fascia Panel		PC1NWFMUNW
Wired controller	Advanced	MWR-WG01UN
	Touchscreen	MWR-SH12UN
Thermostat adapter (for connection to standard 24VAC thermostats)		MIM-A60UN
Wireless controller		AR-CH01U
External temperature sensor		MRW-TAU
External contact control interface module		MIM-B14U
Wall bracket (for outdoor unit)		CKN-250
Wind baffles	Front	WBF-3M
	Back	WBB-5M
Hail guard kit (includes back and side guards)		HGK-1
Line set - insulated and flared, interconnect cables included	25'	ILS2506
	50'	ILS5006

# Dimensional Drawing

## AC012DN1DCG/AA (CNG121DD)

Unit: Inches

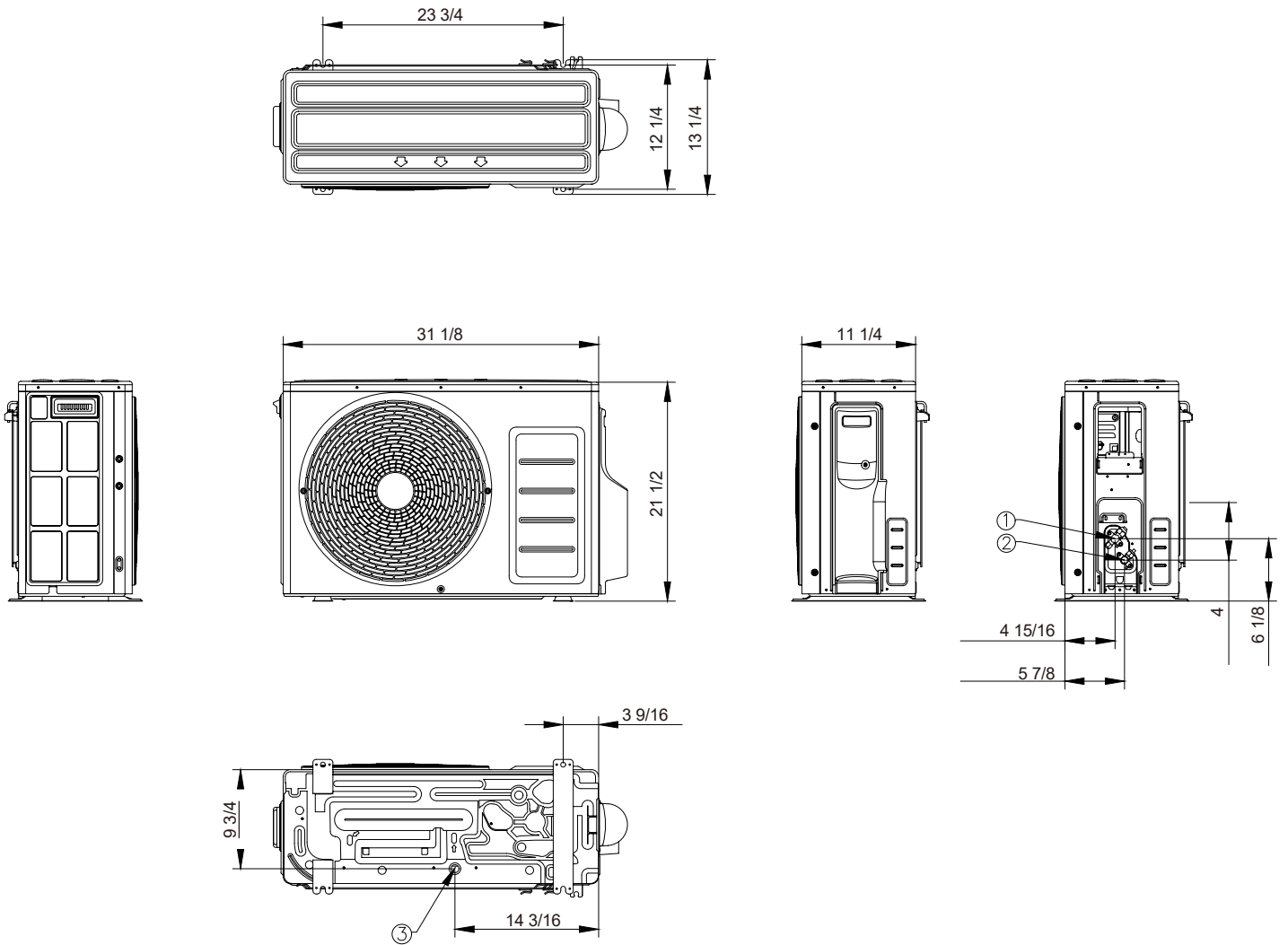


No.	Description
1	Liquid pipe connection
2	Gas pipe connection
3	Drain hose connection
4	Opening for power and communication wire conduit
5	Air outlet louver
6	Air inlet grille

# Dimensional Drawing

## AC012DXSCCG/AA (CXG12SCD)

Unit: Inches



No.	Description
1	Gas pipe connection
2	Liquid pipe connection
3	Drain pipe connection