SAMSUNG

Submittal Data

AC048DN4DCG/AA (CNG484DD) / AC048DXADCG/AA (CXG48ADD)

WindFree™* 4-Way Cassette, Single Zone, Heat Pump, Split System (Standard)

Job Name: _____ Location: _____

Purchaser: _____ Engineer: _____

Submitted to: _____ Reference ☐ Approval ☐ Construction ☐

Unit designation: _____ Schedule #: _____

General Information

- 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.
- Indoor unit: Knock-out for outside air capability (booster fan connection).
- 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.

Indoor Fan

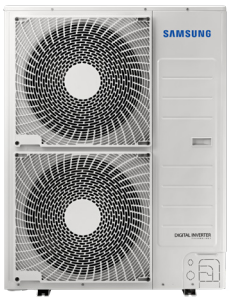
- Three fan speed settings and auto settings
- Washable filter as standard
- Fascia panel shall have LED display, infrared receiver, and motorized louvers
- The WindFree™* function will close the supply air outlet louvers while in cooling mode to gently disperse cool air into the space without blowing 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.

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).



Note: Unit appearance may vary slightly

- 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

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

ENERGY STAR COLD CLIMATE

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.

*The WindFree™ unit delivers an air current that is under 0.15 m/s while in WindFreeTM 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.

System Specifications

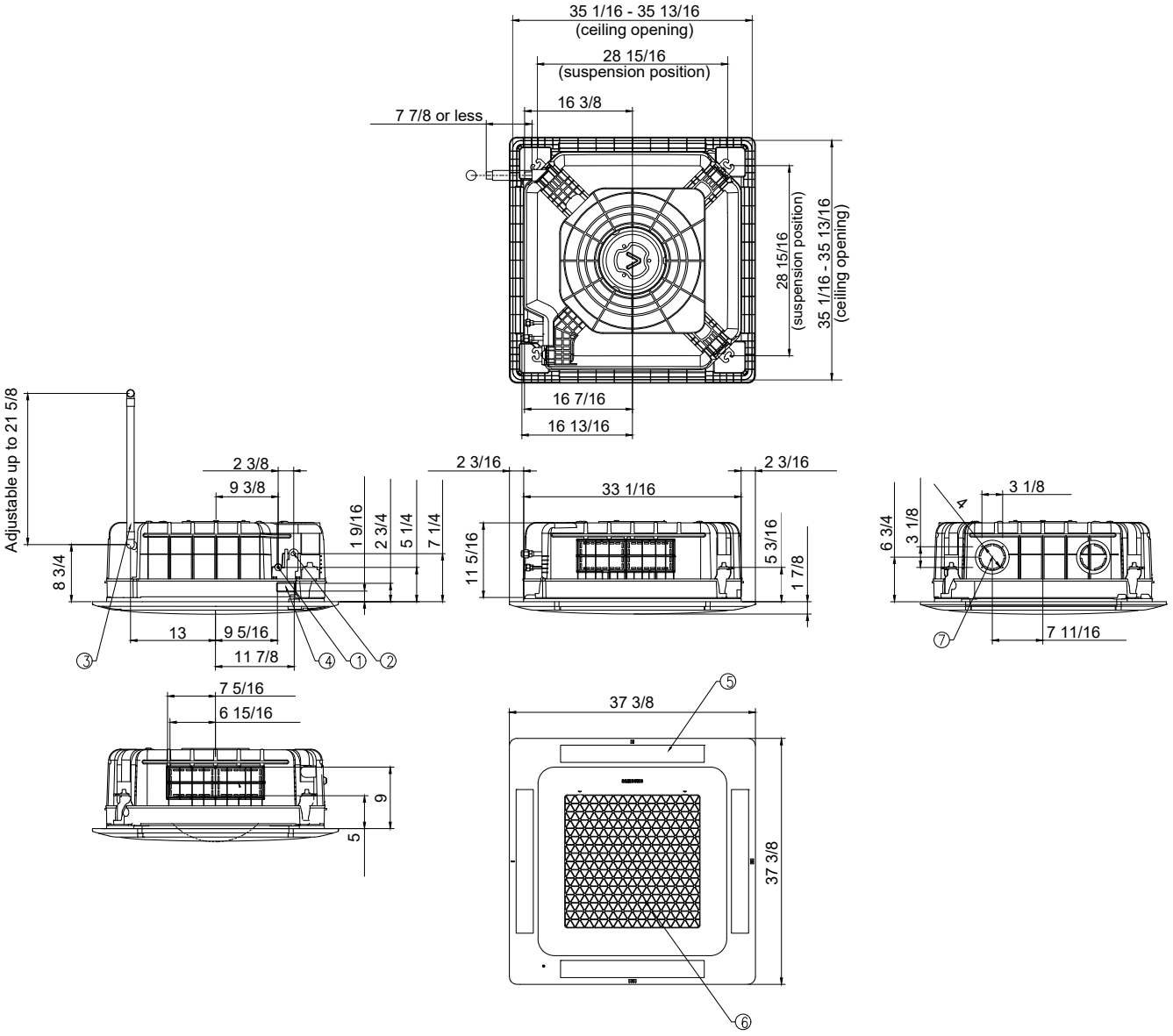
Model	Indoor Unit Model Number (US Code)		AC048DN4DCG/AA (CNG484DD)
	Outdoor Unit Model Number (US Code)		AC048DXADCG/AA (CXG48ADD)
Performance	Nominal Capacity	Cooling / Heating (Btu/h)	48,000 / 54,000
	Capacity Range	Cooling (Btu/h)	13,500 - 54,000
		Heating (Btu/h)	15,000 - 65,000
	AHRI 210-240 2023	SEER2	18.50
		EER2	9.00
		HSPF2 (region IV)	9.00
		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)	4.9 / 23.8 / 26.4
		Heating (A)	3.6 / 22.1 / 31.9
	Max. Breaker	Amps	40.0
	Min. Circuit Ampacity	Amps	36.1
Dimensions	W X H X D (in.)	Indoor Unit	33 1/8 X 11 5/16 X 33 1/8
		Outdoor Unit	37 X 47 5/8 X 13
	Weight (lbs.)	Indoor Unit	48.50
		Outdoor Unit	190.70
Sound Pressure Level	Indoor Unit dB(A)	L / M / H	35 / 40 / 45
	Outdoor Unit dB(A)	Cooling / Heating (high)	56 / 58
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 (In.)	3/8
		Low side (In.)	5/8
	Maximum (ft.)		246
	Maximum Vertical Separation (ft.)		98
	Condensate Connection		1 1/4 in. OD, 1 in. ID
Refrigerant	Type		R-32
	A2L Leak Detection		Not Included
	Factory Charge/Max Charge	oz.	102.3 / 173.76
	Charged for		24.6 ft.
	Trim Charge	oz./ft	0.323
Compressor	Type		Inverter Driven, Twin BLDC Rotary
	RLA	Amps	23.0
Evaporator Fan	Type		BLDC (1) With Turbo Type Fan (1)
	Output	Watts	97
Airflow	Air Volume (L/M/H)	Cooling (CFM)	749 / 996 / 1,289
		Heating (CFM)	749 / 996 / 1,289
Condenser Fan	Type		BLDC With Axial Type Fan (2)
	MOC / Watts / CFM (max.)		1.2A X 2 / 125W X 2 / 3,532
Fascia Panel	L X W X H	In.	37 3/8 X 37 3/8 X 7/8
	Weight	lbs.	13.9
Corrosion Prevention	IS0-9227 - The condenser heat exchanger showed no unusual rust or corrosion development to 2,280 hours.		
Safety	Certifications	UL 60335-2-40	

Accessories

Fascia Panel	White	☐	PC4NUFMUNW
	Black	☐	PC4NBFMUNW
Wired controller	Advanced	☐	MWR-WG01UN
	Touchscreen	☐	MWR-SH12UN
Thermostat adapter (for connection to standard 24VAC thermostats)		☐	MIM-A60UN
Wireless controller		☐	AR-CH01U
Motion detect sensor		☐	MCR-SMCU
External temperature sensor		☐	MRW-TAU
External contact control interface module		☐	MIM-B14U
Wall bracket (for outdoor unit)		☐	CKN-250
Wind baffles	Front	☐	WBF-1M2
	Back	☐	WBB-2M-B
Hail guard kit (includes back and side guards)		☐	HGK-4
Line set - insulated and flared, interconnect cables included	25’	☐	ILS2510
	50’	☐	ILS5010

Dimensional Drawing
AC048DN4DCG/AA (CNG484DD)

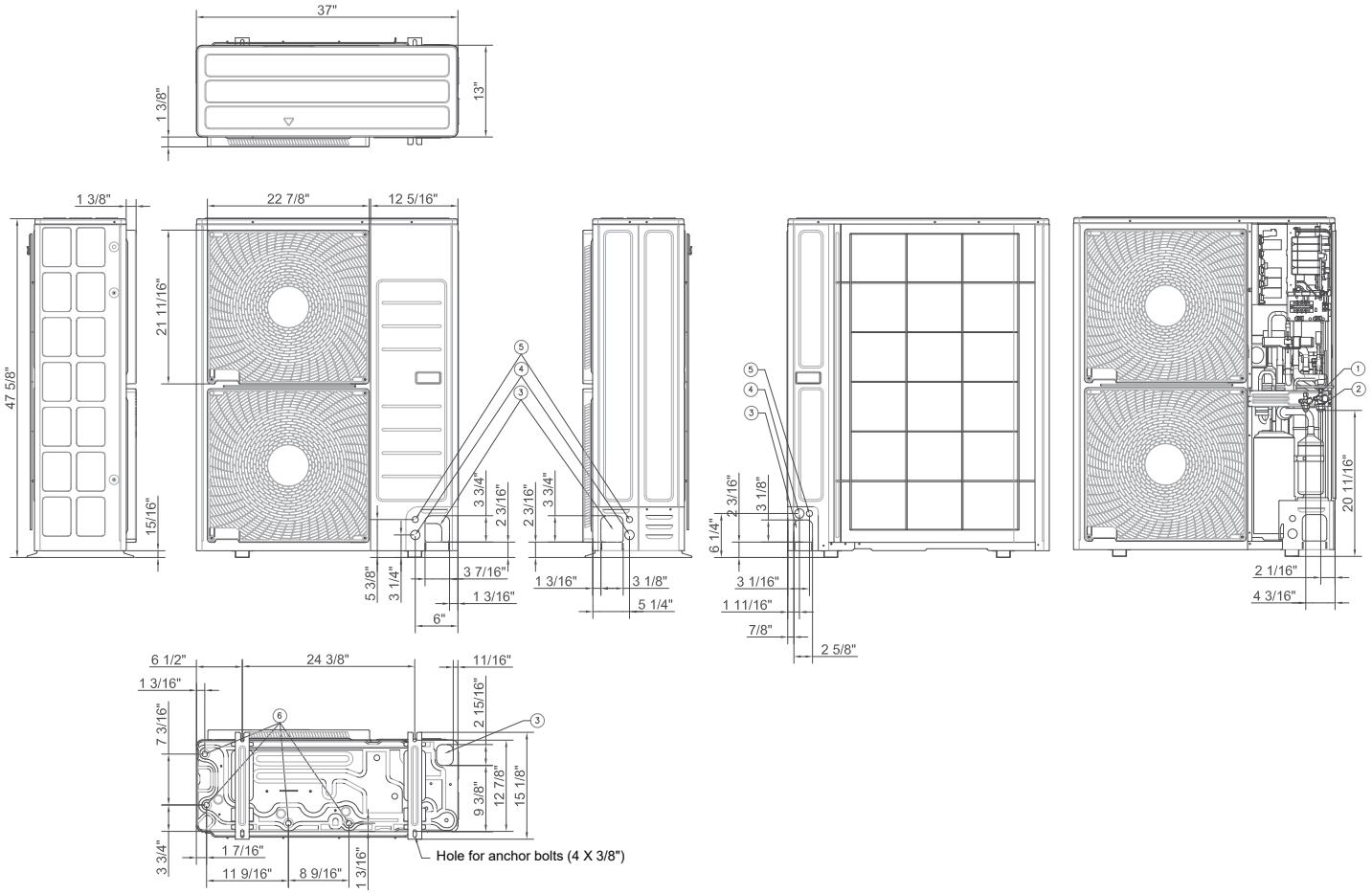
Unit: Inches



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

Dimensional Drawing
AC048DXADCG/AA (CXG48ADD)

Unit: Inches



No.	Description
1	Liquid pipe connection
2	Gas pipe connection
3	Pipe intake knockout hole
4	Opening for power wire conduit (1 3/8")
5	Opening for communication conduit (7/8")
6	Drain hole