SAMSUNG

Submittal Data

AC018DNHDCG/AA (CNG18HDD) / AC018DXADCG/AA (CXG18ADD)

Duct S, 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 have an integral condensate pump with maximum 29" lift from bottom of the unit with check valve and float switch that disables indoor in the event of condensate overflow.
- 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 system 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 current inrush
- 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, galvanized steel.
- All heat exchangers shall be mechanically bonded aluminum fin to copper tube.
- The outdoor unit shall supply power to indoor unit via 14 AWG X 3 power wire.

Refrigerant System

- The system shall utilize low-GWP R-32 refrigerant
- Refrigerant flow shall be controlled by electronic an 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 optional refrigerant leak detector is installed and configured (leak detector and MIM-B14U accessories are required).

Indoor Fan

- Smart pressure control feature that adjusts fan speed based on ESP delivering consistent heating and cooling power
- The indoor unit shall have a smart-tuning function that can provide optimized comfort by allowing the occupant to offset the fan CFM curve to increase or decrease airflow.
- The indoor unit shall have automatic air volume scanning for simple setup and optimized comfort settings for the occupant

Controls

- Control wiring shall be 2 X 16 AWG wire.
- 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 supported controllers.
- 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).

Note: Unit appearance may vary slightly

- 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).
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Convenience

- 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).
- 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 control.

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.

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

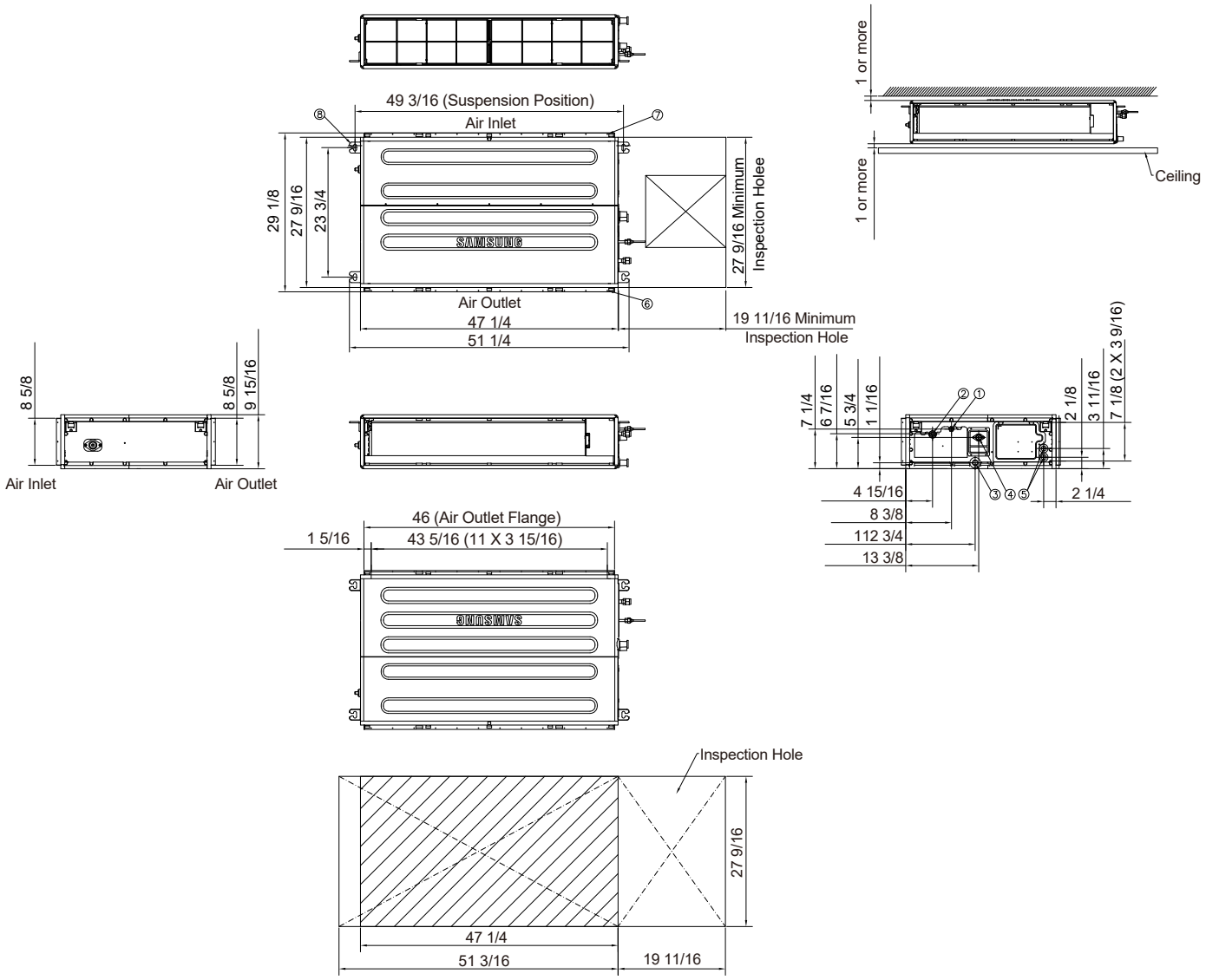
Model	Indoor Unit Model Number (US Code)		AC018DNHDCG/AA (CNG18HDD)
	Outdoor Unit Model Number (US Code)		AC018DXADCG/AA (CXG18ADD)
Performance	Nominal Capacity	Cooling / Heating (Btu/h)	18,000 / 20,000
	Capacity Range	Cooling (Btu/h)	4,200 - 21,000
		Heating (Btu/h)	4,500 - 29,000
	AHRI 210-240 2023	SEER2	18.00
		EER2	10.50
		HSPF2 (region IV)	8.50
		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)	2.1 / 7.6 / 8.0
		Heating (A)	1.7 / 7.9 / 21.6
	Max. Breaker	Amps	25.0
	Min. Circuit Ampacity	Amps	22.3
Dimensions	W X H X D (in.)	Indoor Unit	47 3/16 X 9 13/16 X 27 5/8
		Outdoor Unit	34 5/8 X 25 1/8 X 12 3/16
	Weight (lbs.)	Indoor Unit	73.90
		Outdoor Unit	93.70
	Duct Connections (W X H)	Supply (in.)	45 15/16 X 8 11/16
		Return (ID, in.)	46 15/16 X 8 11/16
Sound Pressure Level	Indoor Unit dB(A)	L / M / H	32 / 36 / 40
	Outdoor Unit dB(A)	Cooling / Heating (high)	48 / 48
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.)	1/4
		Low side (In.)	1/2
	Maximum (ft.)		164
	Maximum Vertical Separation (ft.)		98
	Condensate Connection		1 1/4 in. OD, 1 in. ID
Refrigerant	Type		R-32
	A2L Leak Detection		Optional Accessory
	Factory Charge/Max Charge	oz.	45.9 / 82.4
	Charged for		24.6 ft.
	Trim Charge	oz./ft	0.161
Compressor	Type		Inverter Driven, Twin BLDC Rotary
	RLA	Amps	14.4
Evaporator Fan	Type		BLDC (1) With Sirocco Fan (3)
	Output	Watts	153
	External Static Pressure	Standard (“WC)	0.58
		Min. / Max. (“WC)	0.1 / 0.79
Airflow	Air Volume (L/M/H)	Cooling (CFM)	593 / 735 / 841
		Heating (CFM)	593 / 735 / 841
Condenser Fan	Type		BLDC With Axial Type Fan (1)
	MOC / Watts / CFM (max.)		1.25A X 1 / 125W X 1 / 1,766
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

R32 Refrigerant leak detector (RDS)		☐	MRS-H32U
Wired controller	Advanced	☐	MWR-WG01UN
	Touchscreen	☐	MWR-SH12UN
Thermostat adapter (for connection to standard 24VAC thermostats)		☐	MIM-A60UN
Wireless control	Wireless signal receiver	☐	MRK-A10UN
	Wireless controller	☐	AR-CH01U
External temperature sensor		☐	MRW-TAU
External contact control interface module		☐	MIM-B14U
Filter box		☐	FB-DS2
Wall bracket (for outdoor unit)		☐	CKN-250
Wind baffles	Front	☐	WBF-5M
	Back	☐	WBB-6M-B
Hail guard kit (includes back and side guards)		☐	HGK-6
Line set - insulated and flared, interconnect cables included	25'	☐	ILS2507
	50'	☐	ILS5007

Dimensional Drawing
AC018DNHDCG/AA (CNG18HDD)

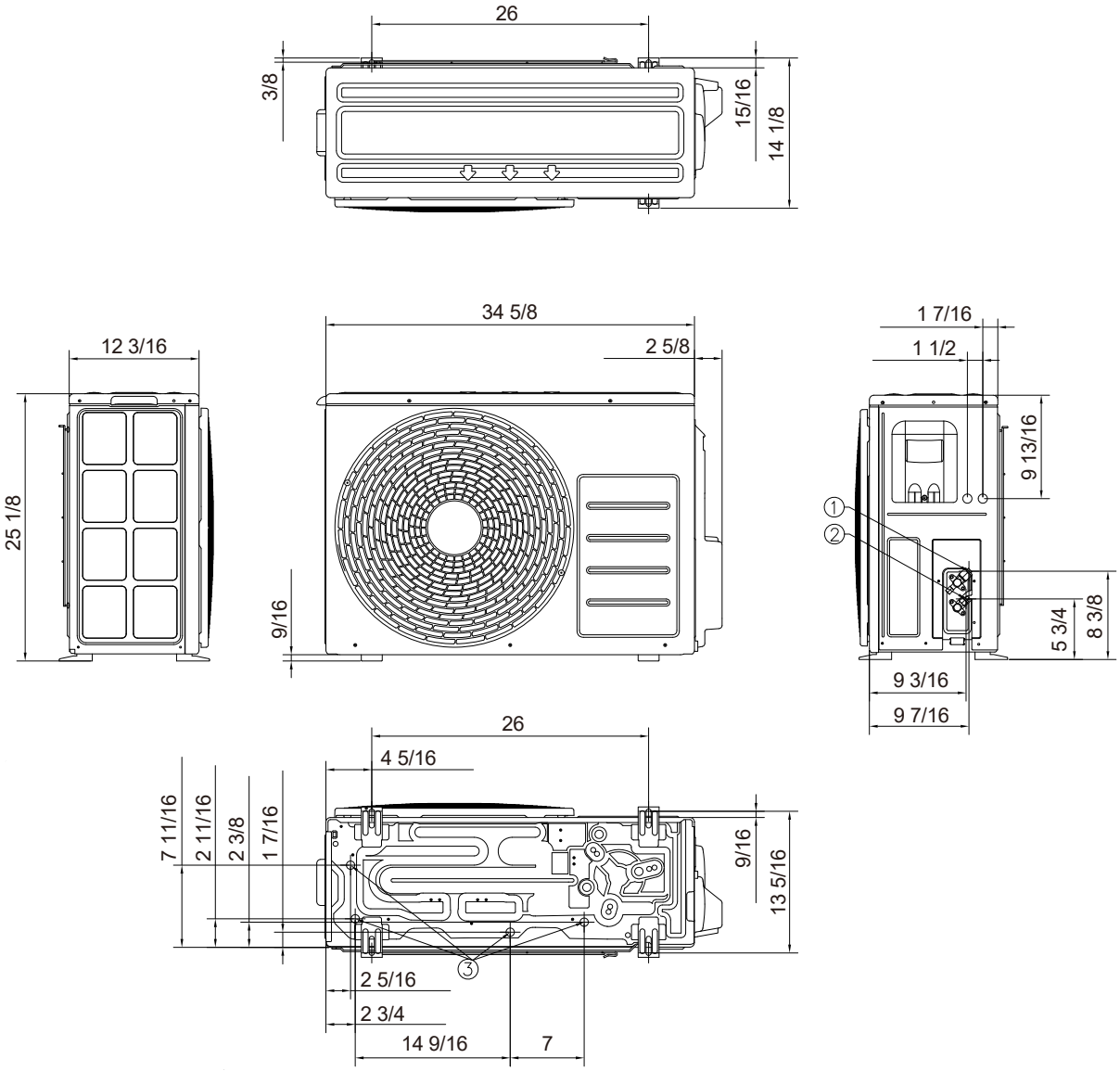
Unit: Inches



No.	Description
1	Liquid pipe connection
2	Gas pipe connection
3	Gravity drain connection
4	Drain connection
5	Opening for power and communication wire conduit
6	Supply air outlet flange
7	Return air (air inlet)
8	Suspension bolt anchor point

Dimensional Drawing
AC018DXADCG/AA (CXG18ADD)

Unit: Inches



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