SAMSUNG

SUBMITTAL AC030NN4DCH/AA (Low Ambient Heating)

Samsung Low Ambient Heating "Max Heat" Wind-Free™ 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		AC030NN4DCH/AA
	Outdoor Unit Model Number		AC030JXSCCH/AA
Performance	Nominal Capacity	Cooling / Heating (Btu/h)	30,000 / 32,000
	Capacity Range	Cooling (Btu/h)	13,000 - 36,000
		Heating (Btu/h)	11,000 - 39,000
	SEER / EER		21.00 / 13.10
	COP (nominal heating)		3.80
	HSPF		10.10
	AHRI Certification Number		202087971
Power	Voltage	ø / V / Hz	1 / 208-230 / 60
	Working Voltage Range (VAC)		176 - 254 (max. 3% deviation from each)
	Operating Current (min. / std. / max.)	Cooling (A)	4.8 / 11.0 / 14.0
		Heating (A)	3.7 / 11.6 / 22.5
	Max. Breaker	Amps	45
	Min. Circuit Ampacity (A)		26.31
Dimensions	W X H X D (in.)	Indoor Unit	33 1/16 X 11 3/8 X 33 1/16
		Outdoor Unit	37 X 55 7/8 X 13
	Weight (lbs.)	Indoor Unit	40.79
		Outdoor Unit	211.64
Heat Exchanger	Indoor Unit	Type	Aluminum Fin / Copper Tube
		FPI	18
		Pipe Diameter (in.)	1/4
	Outdoor Unit	Type	Aluminum, flat fin, micro channel
Sound Pressure Level	Indoor Unit dB(A)	L / M / H	32 / 35 / 38
	Outdoor Unit dB(A)	Cooling / Heating (high)	49 / 50
Operating Temperatures °F(°C)	Outdoor	Cooling	23 ~ 115°F(-5 ~ 46°C)
			-4 ~ 115°F(-20 ~ 46°C) w/ baffle
		Heating	-13 ~ 75°F(-25 ~ 24°C)
	Indoor	Cooling	61 ~ 90°F(16 ~ 32°C)
		Heating	T ≤ 80°F(27°C)
Pipe Connections	Indoor & Outdoor	High side (flare)	3/8"
		Low side (flare)	5/8"
	Maximum (ft.)		246
	Maximum Vertical Separation (ft.)		98
	Condensate Connection		1 1/4" OD, 1" ID
Refrigerant	Type		R410A
	Control Method		Electronic Expansion Valve
	Factory Charge	oz.	102.24
	Charged for		25 ft
	Additional Refrigerant		0.269 oz/ft over 25 ft
Compressor	Manufacturer		Samsung
	Type		Inverter Driven, Twin BLDC, Rotary
	RLA	A	20
Evaporator Fan	Type		BLDC With Turbo Type Fan (1)
	Air Volume	CFM (L/M/H)	590 / 715 / 840
	Output	Watts	93
	Operating Current	Amps	0.35
Condenser Fan	Motor		BLDC With Axial Type Fan (2)
	FLA / Watts / CFM (max.)		0.48 A X 2 / 125 W X 2 / 4,415 CFM
Fascia Panels	Model Number	PC4NUFMUN (Wind-Free™)	PC4NUSKUN (standard)
	L X W X H (in.)	37 3/8 X 37 3/8 X 2 1/2	37 3/8 X 37 3/8 X 1 3/4
	Weight (lbs.)	13.89	12.79
Safety	Certifications	ETL (UL 1995)	
	Devices	PCB fuses, indoor unit terminal block thermal fuse, current transformer, over-voltage protection, crankcase heating, temperature limit protection logic, compressor overload sensing	

Certified in accordance with the AHRI Unitary Small Air-Source Heat Pumps (USHP) Certification Program which is based on the latest edition of AHRI Standard 210/240.

*The Wind-Free™ unit delivers an air current that is under 0.15 m/s while in Wind-Free™ 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).

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

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.

- High performance heating at -13°F
- The outdoor unit shall supply power to indoor unit via 14 AWG X 3 power wire
- Auto-restart after power loss
- The outdoor unit shall have a snow accumulation prevention option setting to prevent snow drifting against an idle outdoor unit.
- The indoor unit shall have a removable EEPROM that stores system programming information, unit name, and other data
- Electro-static, washable, pleated filter as standard (included with fascia panel).
- Knock-out for outside air capability (with booster fan connection)
- Fascia panel shall have LED indicator lights, IR receiver, and 4 motorized louvers (independent louver control is possible with wireless or premium wired controller).
- The outdoor unit shall have a night time quiet mode option to reduce operating sound during the night.
- Built in condensate pump with maximum 29" lift from the bottom of the unit, check valve, and float switch that disables indoor unit during overflow detection
- Wind-Free™ 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 Wind-Free™ feature is optional and can be enabled using central or local control options (MWR-SH11UN, MWR-WE13UN, MWR-WG00UN, AR-EH03U only).
- The Wind-Free™ panel (PC4NUFMUN) has an integral humidity sensor that will open the louvers for standard cool mode when space conditions could potentially cause condensation formation on the panel surface.
- The Wind-Free™ 4-way cassette can be configured for 2-stage operation, cooling the space with the louver open (fixed or swing) until the room temperature nears set temperature. Once room temperature is near set temperature, Wind-Free™ operation will start automatically, closing the louver and using the face of the fascia panel to gently cool the space with still air*.
- Pipe connections at the outdoor unit shall be made inside the unit chassis. Refrigerant pipes can exit through the front, side, rear, or bottom sides of the outdoor unit.
- The outdoor unit shall have a base pan heater as standard (150W)

Construction
The outdoor unit shall be galvanized steel with a baked on powder coated finish for durability
The indoor unit shall be have a galvanized steel frame with HIPS chassis and fascia panel certified to UL94 V0.

Heat Exchanger
The indoor unit heat exchanger shall be mechanically bonded fin to copper tube
The outdoor unit heat exchanger shall be aluminum, flat fin, micro channel

Controls
Control signal shall be a DDC type signal
Interconnect control wire between outdoor indoor unit shall be 16 AWG X 2 shielded Wired or wireless controls must be purchased separately
The system shall integrate with the Samsung NASA Controls Solution

Refrigerant System
The refrigerant shall be R410A
The compressor shall be hermetically sealed, inverter controlled, twin BLDC Rotary
Refrigerant flow shall be controlled by an electronic expansion valve at outdoor unit
Soft-start to reduce current demand during compressor start

SHA-CAC-01132020

Low Ambient Heating "Max Heat" Wind-Free™ 4-Way Cassette, Single Zone, Split System

AC030NN4DCH/AA Accessories and Dimensional Drawing

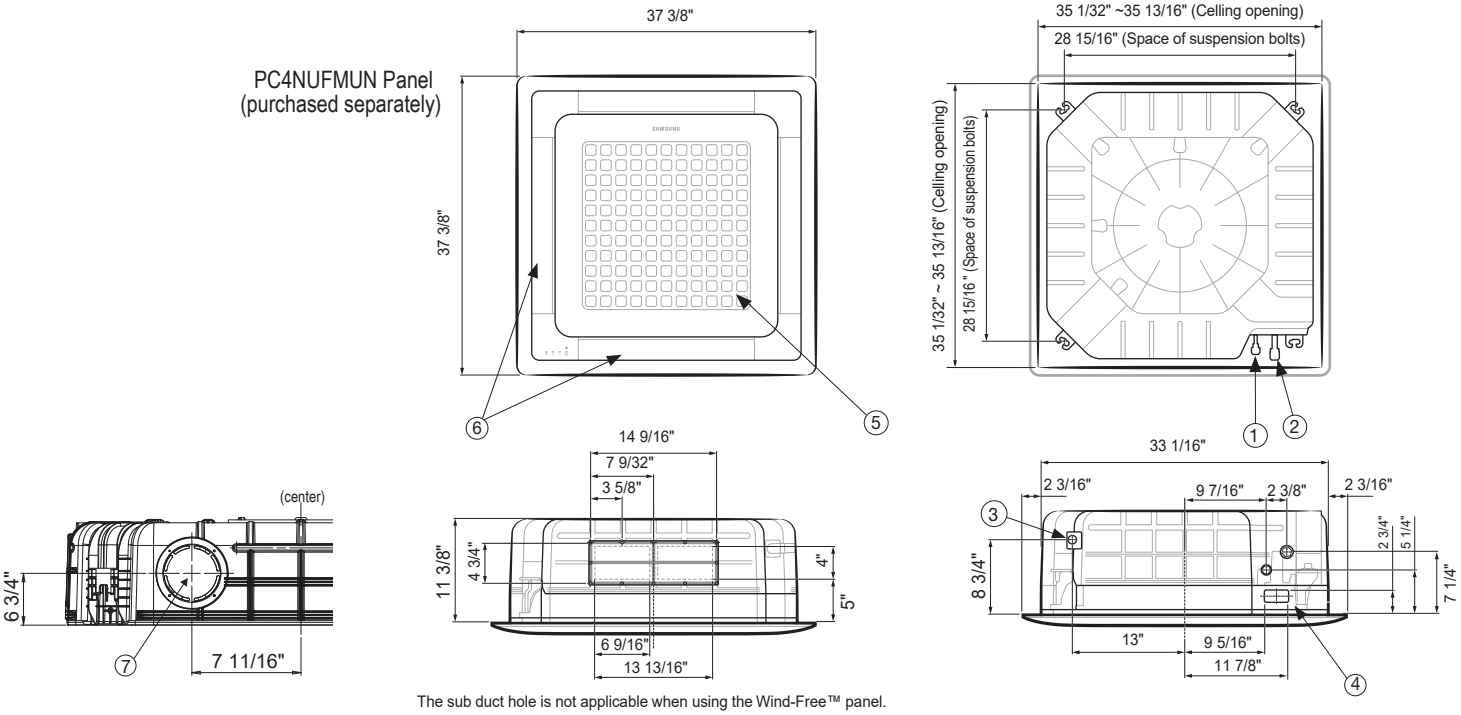
Required Accessories

Fascia Panel	Wind-Free™	☐ PC4NUFMUN
	Standard	☐ PC4NUSKUN

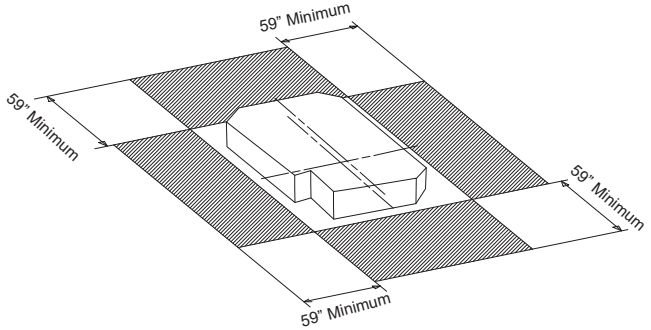
**A fascia panel is required for cassette unit operation and is sold separately. PC4NUFMUN is required to use the Wind-Free™ functions.*

Optional Accessories

Wired Controller	Simplified Touch Controller	☐ MWR-SH11UN
	Advanced Wired Controller	☐ MWR-WG00UN
Wi-Fi Adapter		☐ MIM-H04UN
External Temperature Sensor		☐ MRW-TA
Wireless Controller		☐ AR-EH03U
External Contact Control		☐ MIM-B14
Central Control Interface Module for Connection to DVM Plus Controls (non-NASA)		☐ MIM-N01
Wall Bracket (for outdoor unit)		☐ CKN-250
Wind Baffles	Front	☐ WBF-6M
	Back	☐ WBB-4M
Line Sets - insulated and flared, interconnect cables included		☐ 25' - ILS-2510
		☐ 50' - ILS-5010
Thermostat Adaptor		☐ TADPT2
Motion Detection Sensor		☐ MCR-SMC



The sub duct hole is not applicable when using the Wind-Free™ panel.



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"

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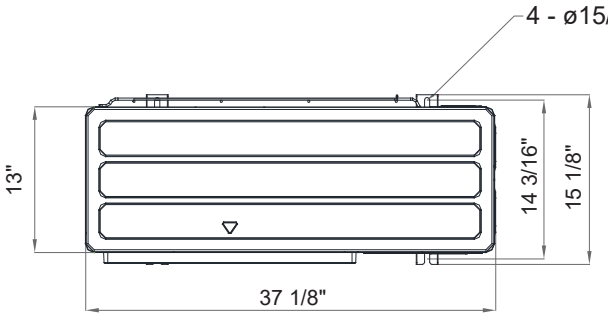
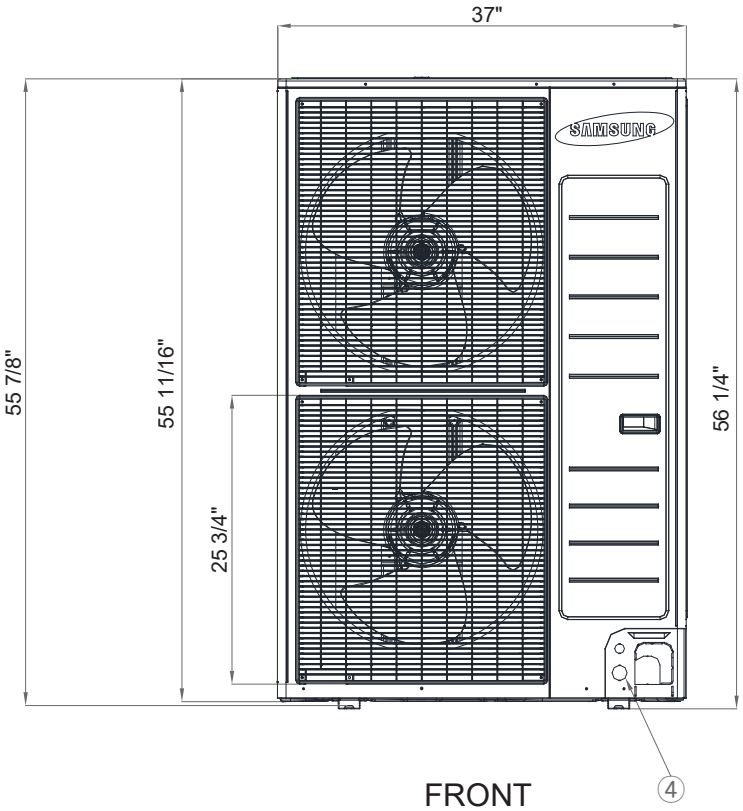
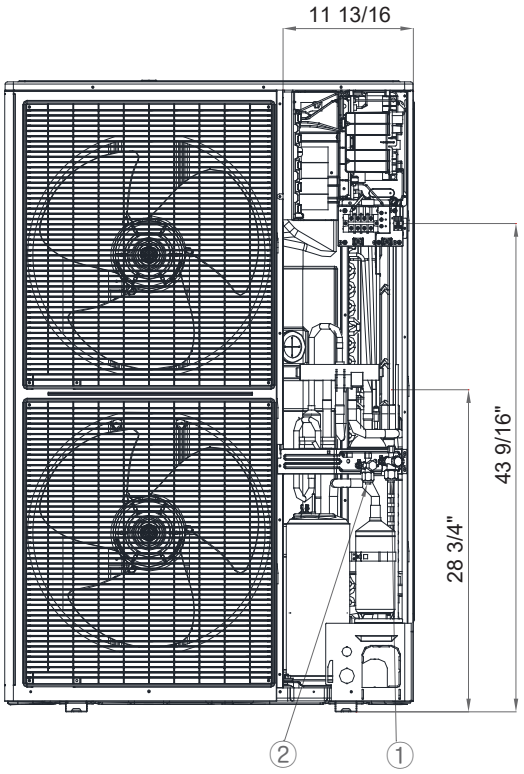
AC030JXSCCH/AA Dimensional Drawing



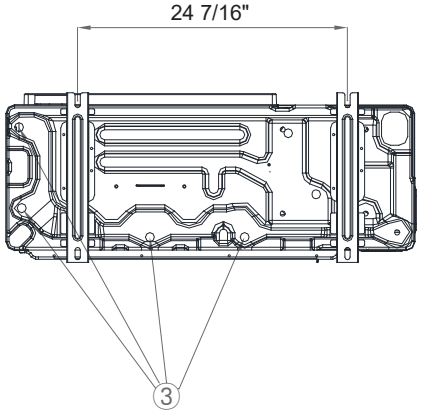
TOP



FRONT



FRONT WITHOUT SERVICE COVER



No.	Description
1	Suction service valve
2	Liquid service valve
3	Drain opening
4	Power and communication conduit openings