

Samsung WindFree™ 1-Way Cassette, Single Zone, Split System

Job Name _____
 Purchaser _____
 Submitted to _____
 Unit Designation _____

Location _____
 Engineer _____
 Reference _____ Approval _____ Construction _____
 Schedule # _____

Specifications

Model	Indoor Unit Model Number (US Code)		AC009BN1DCH/AA (CNH091DB)
	Outdoor Unit Model Number (US Code)		AC009BXADCH/AA (CXH09ADB)
Performance	Nominal Capacity ¹	Cooling / Heating (Btu/h)	9,000 / 12,000
	Capacity Range	Cooling (Btu/h)	2,700 - 12,500
		Heating (Btu/h)	2,400 - 18,000
	SEER / EER		21.8 / 13.4
	COP (nominal heating)		3.0
	HSPF		13.5
AHRI Certification Number		207465437	
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)	1.1 / 3.3 / 5.8
		Heating (A)	1.1 / 5.5 / 9.5
	Max. Breaker	Amps	15
Min. Circuit Ampacity (A)	10.9		
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 9/16 X 11 1/4
	Weight (lbs.)	Indoor Unit	20.5
		Outdoor Unit	74.3
Sound Pressure Level	Indoor Unit dB(A)	L / M / H	26 / 29 / 32
	Outdoor Unit dB(A)	Cooling / Heating (high)	46 / 47
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	61 ~ 90°F (16 ~ 32°C)
		Heating	T ≤ 80°F (27°C)
Pipe Connections	Indoor & Outdoor	High side (flare)	1/4"
		Low side (flare)	3/8"
	Maximum (ft.)		65.6
	Maximum Vertical Separation (ft.)		49.2
Condensate Connection		1 1/4" OD, 1" ID	
Refrigerant	Type		R410A
	Factory Charge	lbs.	2.6
	Charged for		25 ft
	Additional Refrigerant		0.11 oz./ft. over 24.6 ft
Compressor	Manufacturer		Samsung
	Type		Inverter Driven, BLDC Rotary
	RLA	Amps	6.0
Evaporator Fan	Type		BLDC (1) With Crossflow Fan (1)
	Air Volume	CFM (L/M/H)	205 / 230 / 258
	Output	Watts	27 X 1
Condenser Fan	Motor		BLDC With Axial Type Fan (1)
	FLA / Watts / CFM (max.)		0.42A / 40W / 1,059 CFM
Fascia Panel	PC1NWFMMUN	L X W X H (in.)	47 3/16 X 19 11/16 X 1 3/8
		Weight (lbs.)	9.48
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	

¹Certified 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 WindFree™ unit delivers an air current that is under 0.15 m/s while in WindFree™ 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.



General Information

- The indoor unit shall feature WindFree™* mode. In cooling mode, as room temperature nears set temperature, 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 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
- Base pan heater equipped as standard
- 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 500 hours
- 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.

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 (*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).
- 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

Indoor Fan

- Indoor fan is a single crossflow type
- Three fan speed settings and auto setting
- Washable filter as standard
- Fascia panel shall have LED display, infrared receiver, and motorized louver(s)
- 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.
- The WindFree™* indoor unit has an integral humidity sensor that will open the louver for standard cool mode when space conditions could potentially cause condensation formation on the chassis surface.

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

Controls

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

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 (conditions apply)

Samsung WindFree™ 1-Way Cassette, Single Zone, Split System

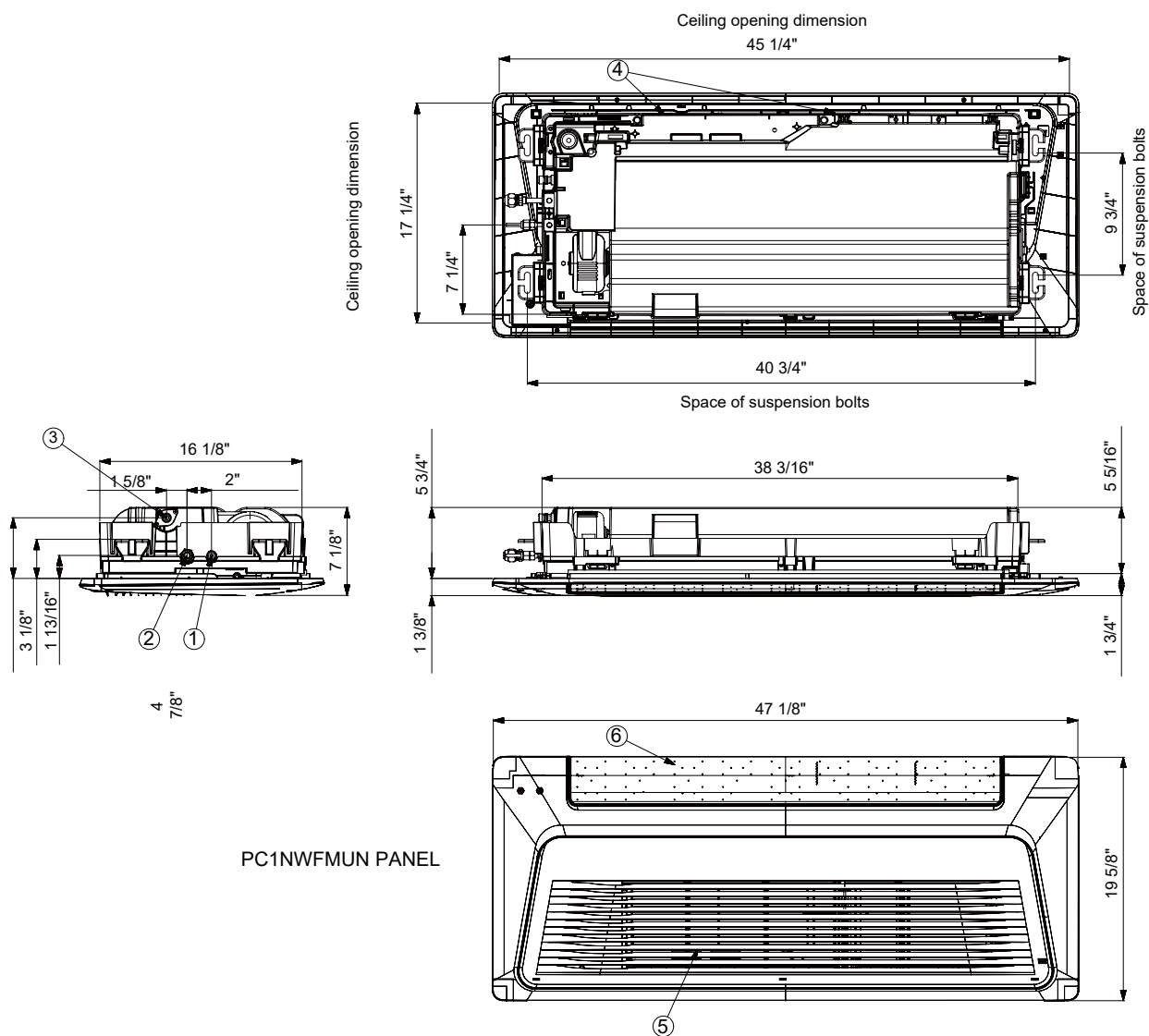
Required Accessories

Fascia panel	WindFree™ Type	<input checked="" type="checkbox"/> PC1NWFMUN
--------------	----------------	---

Optional Accessories

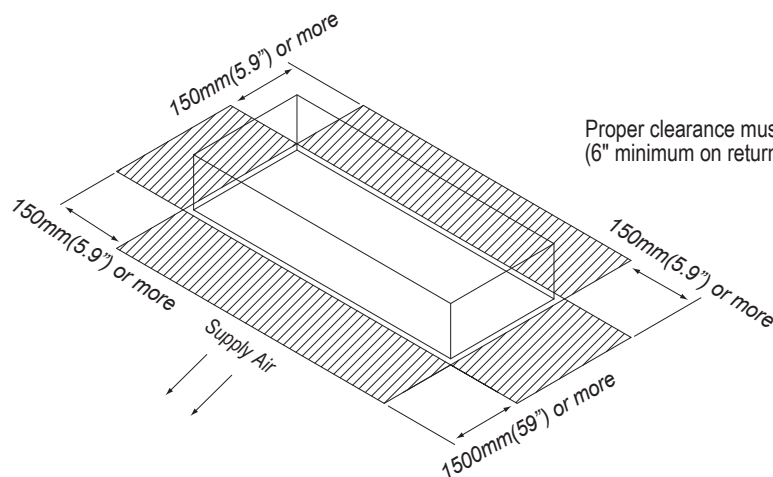
Wired controller	Advanced	MWR-WG00UN
	Touchscreen	MWR-SH11UN
Thermostat adapter (24vac)		MIM-A60UN
Wireless controller		AR-EH04U
Wi-Fi adapter	Single indoor unit	MIM-H14UN
	1-16 indoor units	MIM-H05UN
External temperature sensor		MRW-TA
External contact control		MIM-B14
Wall bracket (for outdoor unit)		CKN-250
Wind baffle	Front	WBF-3M
	Back	WBB-5M
Hail guard kit (includes back and side guards)		HGK-1
Line sets - insulated and flared, interconnect cables included	25' - ILS2506	
	50' - ILS5006	

Samsung WindFree™ 1-Way Cassette, Single Zone, Split System AC009BN1DCH/AA Dimensional Drawing



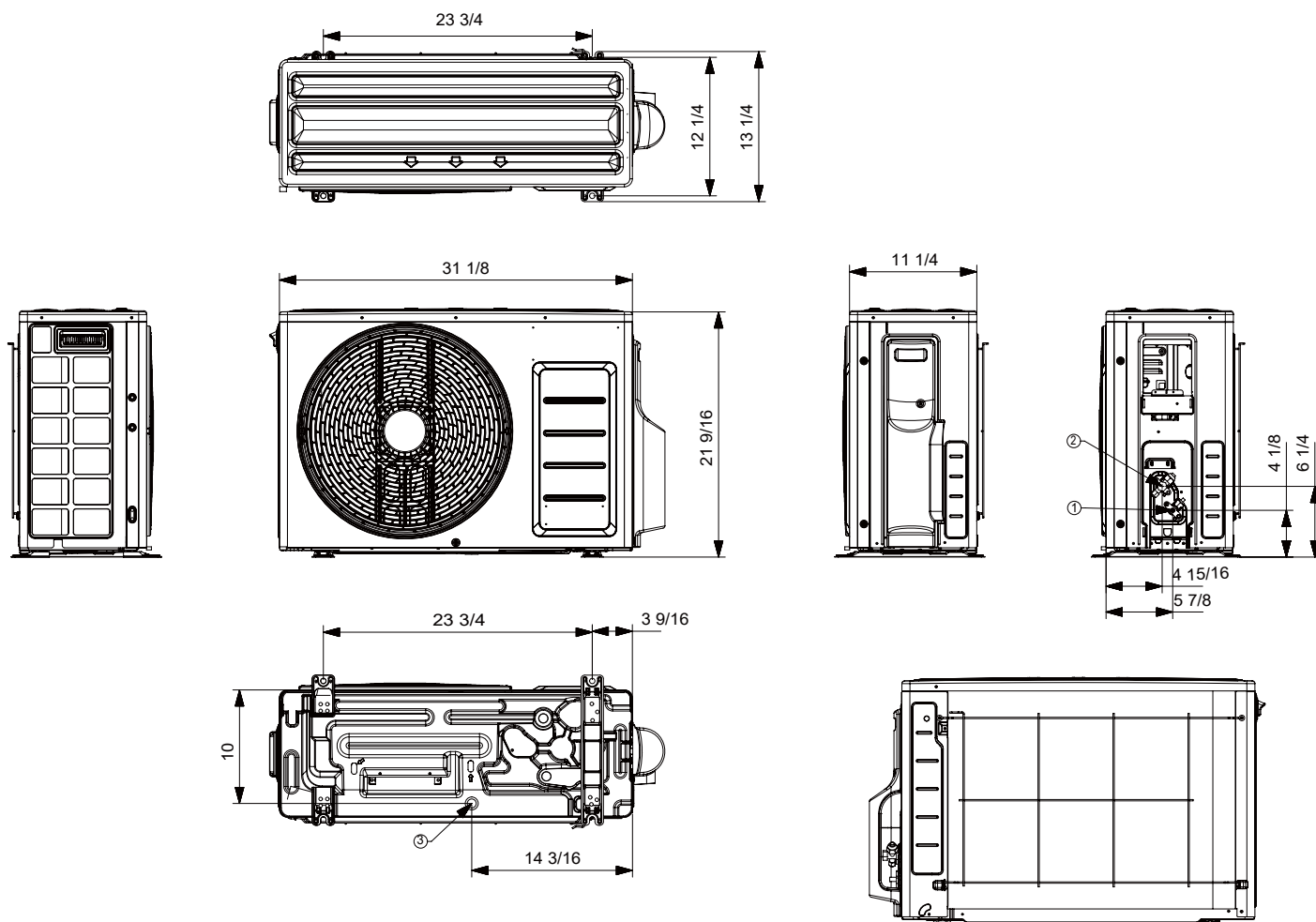
PC1NWFMMUN PANEL

No.	Name	Description
①	Liquid Pipe Connection	Ø 1/4" Flare
②	Gas Pipe Connection	Ø 3/8" Flare
③	Drain Pipe Connection	Quick Lock, OD 1 1/4", ID 1"
④	Conduit for Power & Communication	Wiring -
⑤	Air Inlet Grille	-
⑥	Air Outlet Louver	-



Proper clearance must be maintained around unit for proper operation.
(6" minimum on return side)

Samsung WindFree™ 1-Way Cassette, Single Zone, Split System
AC009BXADCH/AA Dimensional Drawing



No.	Name	Description
1	Refrigerant liquid pipe	Ø 1/4
2	Refrigerant gas pipe	Ø 3/8
3	Drain hole	Connect with provided drain plug