

Job Name

Purchaser

Submitted to

Unit Designation

Location

Engineer

Reference

Schedule #

Approval

Construction

Specifications			
Model	Indoor Unit Model Number (US Code)		AC042BNHDCH/AA (CNH42HDB)
	Outdoor Unit Model Number (US Code)		AC042BXADCH/AA (CXH42ADB)
Performance <sup>1</sup>	Nominal Capacity	Cooling / Heating (Btu/h)	42,000 / 47,000
	Capacity Range	Cooling (Btu/h)	12,000 - 46,000
		Heating (Btu/h)	11,000 - 63,000
	SEER / EER		17.5 / 9.2
	COP (nominal heating)		3.2
	HSPF		8.8
AHRI Certification Number		207465466	
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)	5.0 / 20.3 / 24.4
		Heating (A)	3.9 / 19.1/ 32.0
	Max. Breaker	Amps	40
Min. Circuit Ampacity (A)		32.2	
Dimensions	W X H X D (in.)	Indoor Unit	51 3/16 X 11 13/16 X 27 9/16
	Duct Connections (W X H)	Outdoor Unit	37 X 47 11/16 X 13
		Supply (in.)	49 5/16 X 10 5/8
		Return (ID, in.)	49 5/16 X 10 5/8
	Weight (lbs.)	Indoor Unit	97.0
Outdoor Unit		190.7	
Sound Pressure Level	Indoor Unit dB(A)	L / M / H	38 / 41 / 44
	Outdoor Unit dB(A)	Cooling / Heating (high)	53 / 55
Operating Temperatures	Outdoor	Cooling	23 ~ 122°F (-5 ~ 50°C)
		Heating	0 ~ 122°F (-18 ~ 50°C) w/ baffle
	Indoor	Cooling	-4 ~ 75°F (-20 ~ 24°C)
		Heating	61 ~ 90°F (16 ~ 32°C)
Pipe Connections	Indoor & Outdoor	High side (flare)	3/8"
		Low side (flare)	5/8"
	Maximum (ft.)		246
	Maximum Vertical Separation (ft.)		98.4
	Condensate Connection (with included adapter)		1 1/16" ID for 3/4" PVC
Refrigerant	Type		R410A
	Control Method		Electronic Expansion Valve
	Factory Charge	lbs.	7.5
	Charged for		24.6 ft
	Additional Refrigerant		0.11 oz/ft over 24.6 ft
Compressor	Manufacturer		Samsung
	Type		Inverter Driven, Twin BLDC Rotary
	RLA	Amps	20.9
Evaporator Fan	Type		BLDC (1) With Sirocco Fan (3)
	Air Volume	CFM (L/M/H)	918 / 1095 / 1236 (at standard ESP)
	Output (W) / FLA (A)		244 W / 3.50 A
	Static Pressure	Standard ("WC)	0.58
Min. / Max. ("WC)		0.12 - 0.80	
Condenser Fan	Motor		BLDC With Axial Type Fan (2)
	FLA / Watts / CFM (max.)		1.25 A / 125 W / 3,532 CFM
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		



- General Information
- 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
  - Integral condensate pump with maximum 29" lift from bottom of the unit with check valve and float switch that disables indoor should condensate overflow be detected.
  - Auto-restart after power loss
  - Soft-start compressor minimizing current inrush
  - 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 3,000 hours.

- 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 set up 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 controller

- Indoor Fan
- Indoor fan is sirocco type
  - Three fan speed settings and auto setting
  - 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 with a wired remote controller (MWR-WG00UN) to increase or decrease airflow.
  - The indoor unit shall have automatic air volume scanning for simple setup and optimized comfort settings for the occupant.

- Construction
- Outdoor unit shall be galvanized steel with a baked-on powder coated finish for durability
  - Indoor Unit: Insulated, galvanized steel.

- Controls
- Control wiring shall be 2 X 16 AWG
  - 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 MWR-WG00UN Advanced Wired Controller or central control options.
  - Wired or wireless controllers must be purchased separately

- 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

- Air Filtration
- Air filtration shall be field provided
  - Pressure drop across field-supplied filter must be factored into the total ESP.

Warranty

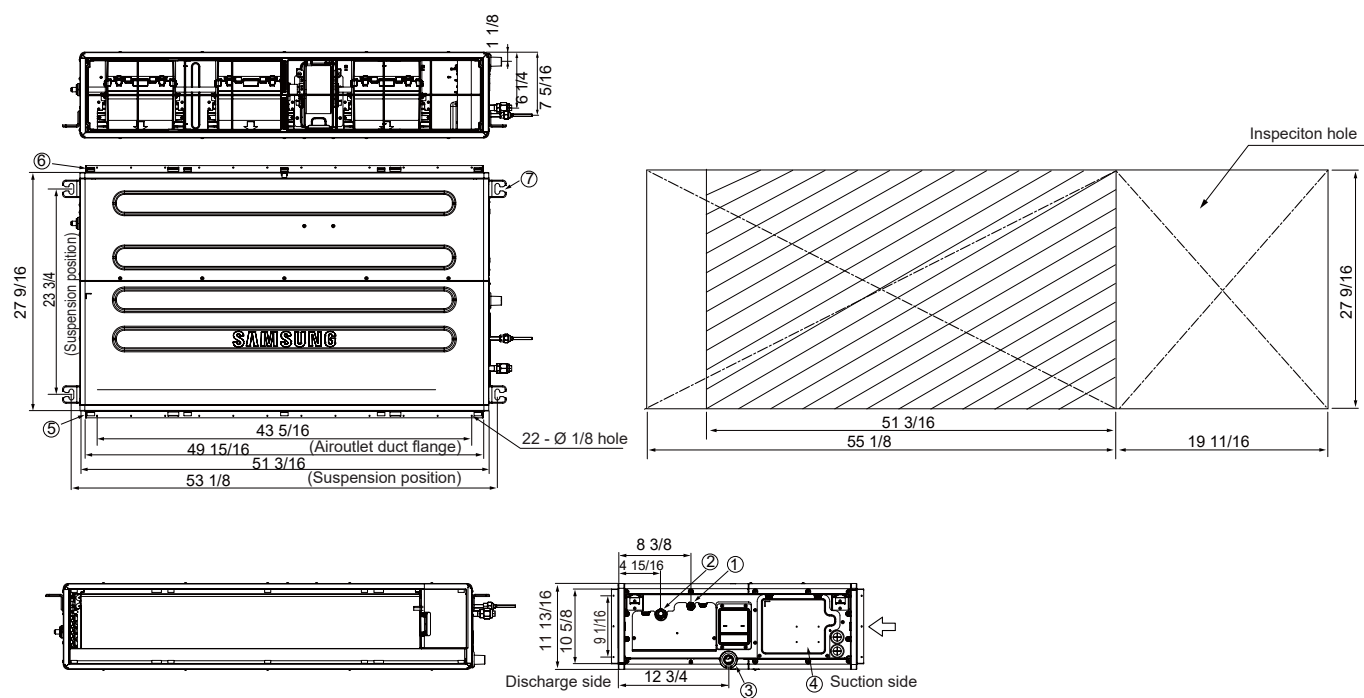
10 Years compressor, 10 years parts, 1 year limited labor when registered

<sup>1</sup> 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.

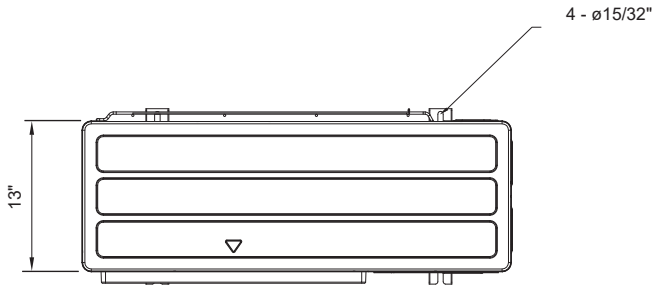
Samsung HVAC maintains a policy of ongoing development, specifications are subject to change without notice. Refer to [www.AHRIdirectory.org](http://www.AHRIdirectory.org) for current reference numbers.

Optional Accessories

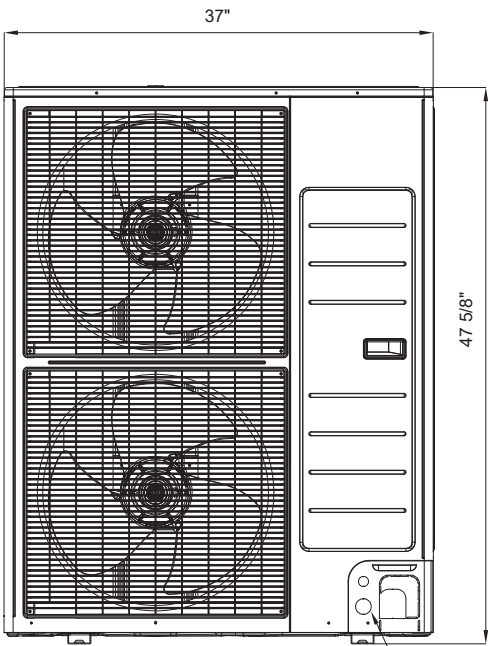
Wired Controller	Advanced	MWR-WG00UN
	Touchscreen	MWR-SH11UN
Thermostat Adaptor (for connection to a standard 24VAC thermostat)		MIM-A60UN
Wireless Signal	Wireless Signal Receiver	MRK-A10N
Control	Wireless Controller	AR-EH04U
Wi-Fi Adapter		MIM-H05UN
External Temperature Sensor		MRW-TA
Filter Box		FB-DS3
External Contact Control		MIM-B14
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 Sets - insulated and flared, interconnect cables included	25' - ILS-2510	
	50' - ILS-5010	



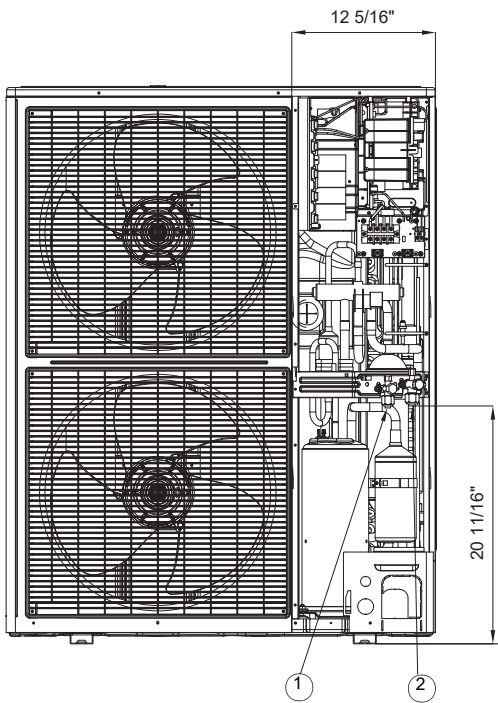
No.	Name	Description
①	Refrigerant Liquid Pipe	Ø 3/8"
②	Refrigerant Gas Pipe	Ø 5/8"
③	Condensate Drain	3/4" (OD 1.05")
④	Power & Comm. Wiring Conduits	-
⑤	Supply Air Flange	-
⑥	Return Air Flange	-
⑦	Hook	-



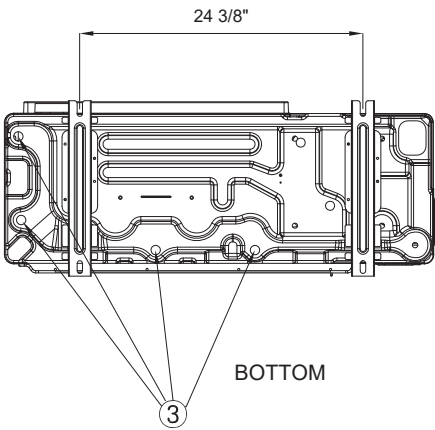
TOP



FRONT



FRONT WITHOUT SERVICE COVER



BOTTOM

No.	Name	Description
1	Refrigerant liquid pipe	Ø 3/8
2	Refrigerant gas pipe	Ø 5/8
3	Drain hole	Connect with provided drain plug