# SAMSUNG

SUBMITTAL AM060NXMDCR/AA

Samsung DVM S Eco Series, Heat Recovery Condensing Unit

Job Name	Location			
Purchaser	Engineer			
Submitted to	Reference	Approval	Construction	
Unit Designation	Schedule #			

		System Specifications	
	US Ton (nominal)	T	5
	Capacity (Btu/h)	Nominal Cooling	60,000
		Nominal Heating	66,000
Performance <sup>1</sup>	System Modulation	` ′	7,000
	SEER2	Ducted / Non-Ducted	16.5 / 19.0
	EER2	Ducted / Non-Ducted	9.9 / 11.2
	HSPF2	Ducted / Non-Ducted	9.5 / 9.8
Power	Voltage (ø/V/Hz)		1 / 208-230 / 60
	Maximum Circuit Breaker (MCCB/ELB/ELCB)		50
	Minimum Circuit Ampacity (MCA)		32
la da a a l la ita	Total Capacity (%)		50 - 130% Of Outdoor Capacity
Indoor Units	Maximum Indoor Unit Quantity		10
Compressor	Туре		Flash Injected Scroll X 1
Compressor	RLA	A	24.5
Defelerent	Туре		R410A
Refrigerant	Factory Charge	lbs.	8.2
Pipe Connections	Liquid X Suction X HP Gas (braze)		3/8 X 3/4 X 5/8
	Max. Distance - ODU to IDU (feet)		492 (574 equivalent)
Installation	Vertical Separation ODU to IDU <sup>3</sup>		164 / 131
Limitation <sup>2</sup>	(feet) Highest/Lowest IDU		49
	Total Refrigerant Pipe (feet)		984
	_	Туре	Propeller X 2
0 1 5	Fan	Output (CFM)	4,767
Condenser Fan	Motor	Туре	BLDC
		Output (W) / FLA (A)	139 X 2 / 0.6
	WXHXD	Inches	37 X 55 15/16 X 13
Dimensions	Weight	lbs.	275.6
Sound Level	dB (A)	Max. (cooling / heating)	58 / 59
Operating	Cooling <sup>4</sup>	°F(°C)	0 ~ 118°F (-18 ~ 48°C)
Temperature Range	Heating	°F(°C)	-13 ~ 75°F (-25 ~ 24°C)
- 5	Wind Baffles	Front	WBF-6M
		Back	WBB-8M
	Hail Guard Kit (includes back and side guards)		HGK-8
	Hail Guard Kit (inclu	des back and side guards)	
Accessories	Hail Guard Kit (inclue Base Pan Heater I	,	MHC-015EE
Accessories	Base Pan Heater H	,	MHC-015EE

Protection
Devices

Operational parameters

High pressure sensor, low pressure sensor, over-voltage protection, compressor over-current protection, current transformer, fan motor

<sup>2</sup> Other pipe restrictions and requirements exist. Please consult installation manuals or technical data book for full details.

<sup>3</sup> Vertical separation: 131' when outdoor unit is lower than the indoor units, 164' when the outdoor <sup>unit</sup> is higher than the indoor units.
 <sup>4</sup> When cooling in outside temperatures between 0°F ~ 23°F, wind baffles are required. When outside

4 When cooling in outside temperatures between 0°F ~ 23°F, wind baffles are required. When outside temperature is between 0°F ~ 23°F, minimum 50% operating capacity should be maintained to ensure reliability while in cooling mode.

Samsung HVAC maintains a policy of ongoing development, specifications are subject to change without notice.

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.



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### Compatibility

Only compatible with Samsung DVM S indoor units (AM\*\*\*\*N\*\*\*\*) that are equal to or less than 48,000 Btu/h and MCM-D211UN Universal Communication Kit.

#### Construction

The unit shall be galvanized steel with a baked on powder coated finish.

#### Heat Exchanger

The heat exchanger shall be mechanically bonded fin to copper tube.

The aluminum fins of the heat exchanger shall have a protective coating.

Salt spray test method: ASTM-B117-18 - the heat exchanger showed no unusual rust or corrosion development to 2,280 hours.

#### Controls

The unit shall be operated via NASA Protocol with controls provided by Samsung

The outdoor unit shall have a removable EEPROM that stores unit serial number, startup information, system settings, system tag/name, and other information.

Control wiring shall be 16 AWG X 2 shielded wire.

## Refrigerant System

The compressor shall be Samsung hermetically sealed, inverter driven, direct flash injected, DC scroll type with soft-start capability.

The condenser shall be able to provide simultaneous heating and cooling operation.

Refrigerant flow shall be controlled by EEV (electronic expansion valve) throughout the system.

A flat plate subcooler device will improve capacity at extreme system refrigerant pipe lengths and reduce refrigerant noise.

Installation of an HR Changer (MCU-R4NEK0N) is mandatory. If additional Mode Control Unit(s) are needed, the HR Changer must be installed between the outdoor unit and additional MCU's. Please refer to the installation manual for compatible MCU models.

Indoor units that will be used for cooling only year-round may be piped direct to the liquid and suction pipes after the HR Changer and bypassing MCU connection.

## Other Features

Advanced oil recovery cycle logic to ensure adequate oil level is maintained in the compressor. Oil recovery operation shall not interrupt heating or cooling operation.

Optional night quiet modes to reduce outdoor unit sound (4 levels) with automatic activation or manual activation (with MIM-B14).

Optional snow blowing logic to prevent snow accumulation on idle outdoor units

Maximum current control of outdoor unit(s) to limit current (50% - 100% of design current) adjustable at outdoor unit or central control devices: DMS 2 (MIM-D00AN), DMS 2.5 (MIM-D01AUN), BACnet Gateway (MIM-B17N, MIM-B17BUN), LON Gateway (MIM-B18N, MIM-B18BUN).

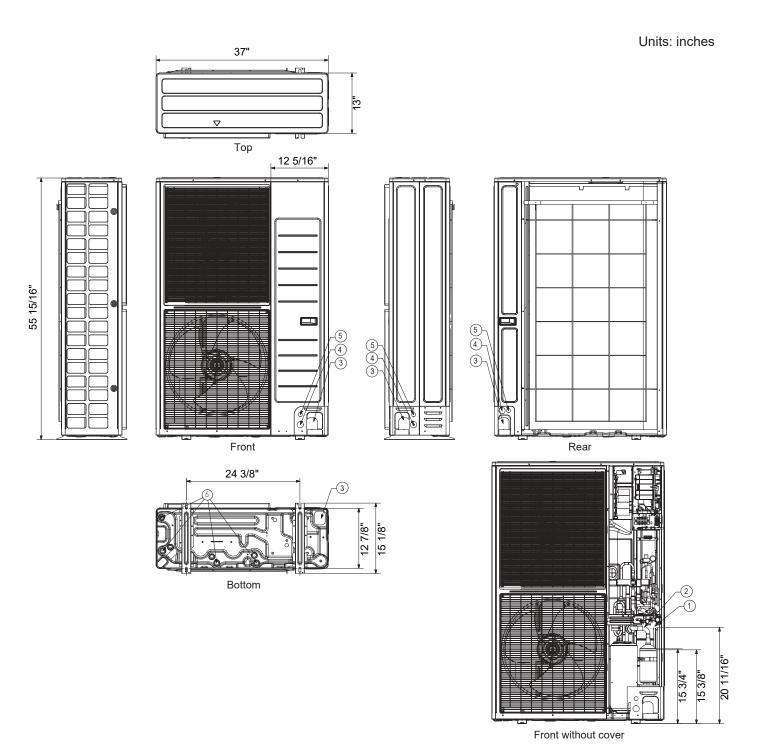
Energy savings options to reduce system energy consumption in heating mode when average indoor room temperatures are greater than average indoor set temperatures.







Samsung DVM S Eco Series, Heat Recovery Condensing Unit AM060NXMDCR/AA Dimensional Drawing



NO	Name	Description
1	Refrigerant gas pipe	3/4"
2	Refrigerant liquid pipe	3/8"
3	Knockout hole for pipe intake	Front / Side / Rear / Bottom
4	Power wiring conduits	Front / Side / Rear, 1 3/8"
5	Communication wiring conduits	Front / Side / Rear, 7/8"
6	Drain holes	Connect with the provided drain plug