# SUBMITTAL AM053TXMDCH/AA

Samsung DVM S Eco Series, Heat Pump Condensing Unit

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

Submitted to	0			
Unit Design	ation			
		System Specifications	_	
	US Ton (nominal	<u> </u>	4.42	
		Nominal Cooling	53,000	
	Capacity (Btu/h)	Nominal Heating	61,000	
Performance <sup>1</sup>	System Modulation down to (Btu/h)		7,500	
	SEER2	Ducted / Non-Ducted	17.2 / 20.0	
	EER2	Ducted / Non-Ducted	9.45 / 11.5	
	HSPF2	Ducted / Non-Ducted	8.8 / 10.0	
	Voltage	(ø/V/Hz)	1 / 208-230 / 60	
Power	Maximum Circuit Breaker (MCCB/ELB/ELCB)		50	
	Minimum Circuit Ampacity (MCA)		34	
Indeed 12.2	Total Capacity (%)		50 - 130% Of Outdoor Capacity	
Indoor Units	Maximum Indoor Unit Quantity		10	
	Туре		Twin BLDC Rotary X1	
Compressor	RLA	Α	26.0	
	Туре	<u> </u>	R410A	
Refrigerant	Factory Charge	lbs.	7.3	
Pipe Connections	Liquid X Suction	,	3/8 X 3/4	
	Max. Distance - ODU to IDU (feet)		492 (574 equivalent)	
Installation	Vertical Separation		164 / 131	
Limitation <sup>2</sup>	(feet) Highest/Lowest IDU		49	
	Total Refrigerant Pipe (feet)		984	
<u> </u>	L	Туре	Propeller X 2	
	Fan	Output (CFM)	3,885	
Condenser Fan	Motor	Туре	BLDC	
		Output (W) / FLA (A)	125 X 2 / 0.6	
	WXHXD	Inches	37 X 47 5/8 X 13	
Dimensions	Weight	lbs.	227	
Sound Level	Max. dB (A)	Cooling / Heating	53 / 55	
Operating	Cooling <sup>4</sup>	°F	0°F ~ 118°F (-18°C ~ 48°C)	
Temperature Range	Heating	°F	-13°F ~ 75°F (-25°C ~ 24°C)	
	M: D	Front	WBF-1M2	
	Wind Baffles Back		WBB-2M-B	
	Wi-Fi Adapter		MIM-H04UN	
Accessories	Mode Selector Switch For HP Systems		MCM-C200U	
	Base Pan Heater Kit		MHC-015EE	
	External contact control interface module (operation and error output, night silent mode manual activation)		MIM-B14	
Safety Certification	ons		ETL (UL 1995)	
Drete etic :-	Intelligent logic to operational parar		within unit design limitations and	
Protection	Little and a second			

protection, fan motor thermal protection, high voltage fuses
<sup>1</sup> Certified in accordance with AHRI 210/240 (2023). Effective January 1st, 2023.

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

High pressure sensor, low pressure sensor, over-voltage protection,

compressor over-current protection, current transformer, fan motor voltage

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\*\*\*H\*\*\*) and MCM-D211UN Universal Communication Kit.

#### Construction

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

Refrigerant pipe connections inside unit chassis with penetrations available on front, back, right, and bottom sides for versatile installation

#### **Heat Exchanger**

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

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

Control wiring shall be 16 AWG X 2 shielded wire.

## **Refrigerant System**

The compressors shall be Samsung hermetically sealed, inverter driven, twin BLDC Rotary type.

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.

## Other Features

Optional night quiet modes to reduce outdoor unit sound

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



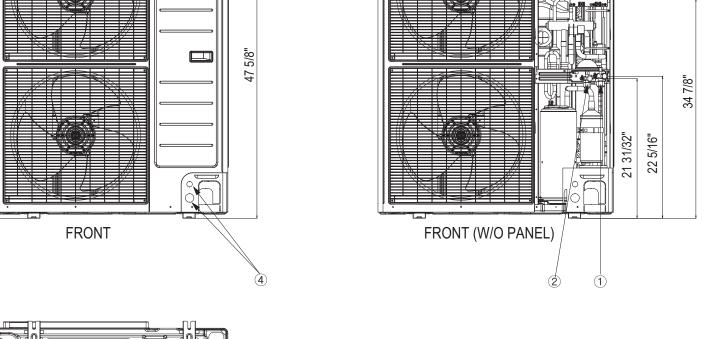




Devices

<sup>&</sup>lt;sup>3</sup> Vertical separation: 131' when outdoor unit is lower than the indoor units, 164' when the outdoor unit is higher than the indoor units.

 $<sup>^4</sup>$  When cooling in outside temperatures between 0°F  $\sim 23^\circ F,$  wind baffles are required. When outside temperature is between 0°F  $\sim 23^\circ F,$  minimum 50% operating capacity should be maintained to ensure reliability while in cooling mode.



- BOTTOM
  - (1) Gas refrigerant pipe opening
  - 2 Liquid refrigerant pipe opening
- (3) Condensate drain holes
- 4 Communication conduit opening (2 X Ø1 3/8")

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