SAMSUNG

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 # _____

System Specifications

Performance	US Ton (nominal)		4.42
	Capacity (Btu/h)	Nominal Cooling[1]	53,000
		Nominal Heating[1]	61,000
	System Modulation down to (Btu/h)		7,500
	SEER	Ducted / Non-Ducted	17.5 / 20.0
	EER	Ducted / Non-Ducted	9.45 / 11.5
	HSPF	Ducted / Non-Ducted	10.0 / 11.0
Power	Voltage	(ø/V/Hz)	1 / 208-230 / 60
	Maximum Circuit Breaker (MCCB/ELB/ELCB)		50
	Minimum Circuit Ampacity (MCA)		34
Indoor Units	Total Capacity (%)		50 - 130% Of Outdoor Capacity
	Maximum Indoor Unit Quantity		10
Compressor	Type		Twin BLDC Rotary X1
	RLA	A	26.0
Refrigerant	Type		R410A
	Factory Charge	lbs.	7.3
Pipe Connections	Liquid X Suction		3/8 X 3/4
Installation Limitation[2]	Max. Distance - ODU to IDU (feet)		492 (574 equivalent)
	Vertical Separation (feet)	ODU to IDU [3]	164 / 131
		Highest/Lowest IDU	49
	Total Refrigerant Pipe (feet)		984
Condenser Fan	Fan	Type	Propeller X 2
		Output (CFM)	3,885
	Motor	Type	BLDC
		Output (W) / FLA (A)	125 X 2 / 0.6
Dimensions	W X H X D	Inches	37 X 47 5/8 X 13
	Weight	lbs.	227
Sound Level	Max. dB (A)	Cooling / Heating	53 / 55
Operating Temperature Range	Cooling [4]	°F	0°F ~ 118°F (-18°C ~ 48°C)
	Heating	°F	-13°F ~ 75°F (-25°C ~ 24°C)
Accessories	Wind Baffles	Front	☐ WBF-1M2
		Back	☐ WBB-2M-B
	Wi-Fi Adapter		☐ MIM-H04UN
	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 Certifications			ETL (UL 1995)
Protection Devices	Intelligent logic to ensure proper operation within unit design limitations and operational parameters		
	High pressure sensor, low pressure sensor, over-voltage protection, compressor over-current protection, current transformer, fan motor voltage protection, fan motor thermal protection, high voltage fuses		

[1] 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.

[2] Other pipe restrictions and requirements exist. Please consult installation manuals or technical data book for full details.

[3] Vertical separation: 131' when outdoor unit is lower than the indoor units, 164' when the outdoor unit is higher than the indoor units.

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

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

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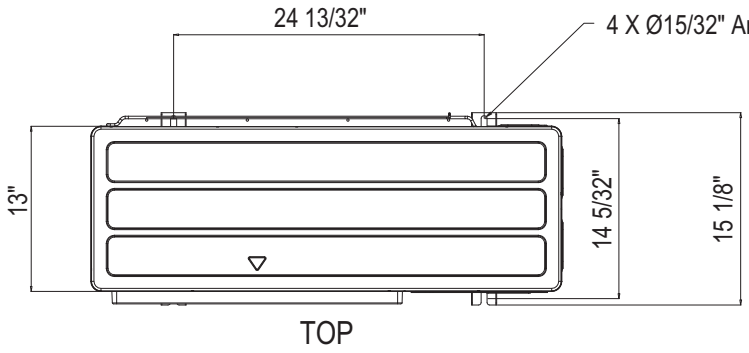
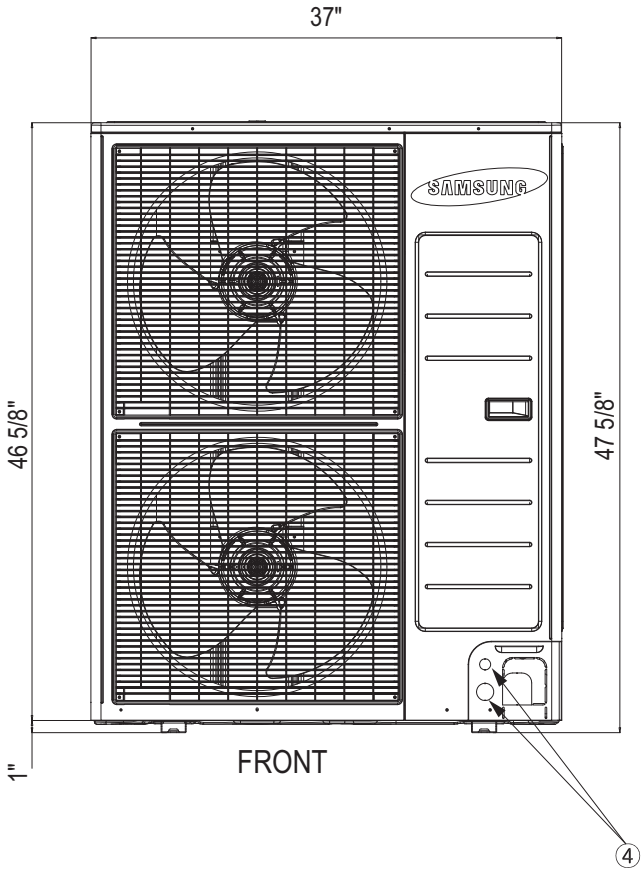
Samsung DVM S Eco Series, Heat Pump Condensing Unit

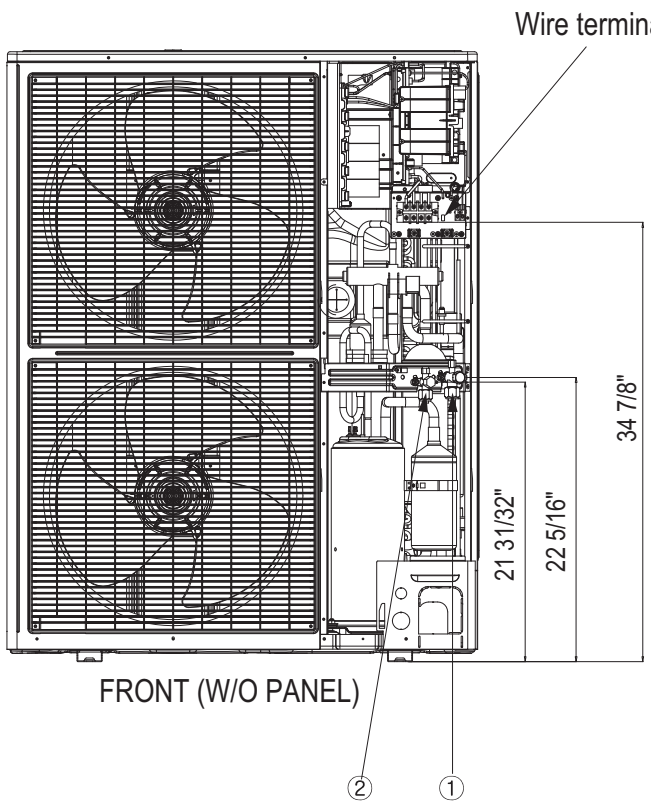
AM053TXMDCH/AA Dimensional Drawing



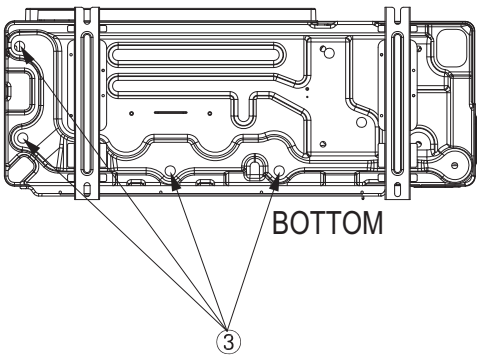
TOP



FRONT



FRONT (W/O PANEL)



BOTTOM

① Gas refrigerant pipe opening

② Liquid refrigerant pipe opening

③ Condensate drain holes

④ Communication conduit opening (2 X Ø1 3/8")