

Samsung DVM S Series, "Max Heat", Heat Pump Condensing Unit

Job Name _____
 Purchaser _____
 Submitted to _____
 Unit Designation _____

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

System Specifications

Performance	US Ton (nominal)		6
	Capacity (Btu/h)	Nominal / Rated Cooling ¹	72,000 / 69,000
		Nominal / Rated Heating ¹	81,000 / 77,000
	Compressor Modulation Down to (Btu/h)		7,513
	EER	Ducted / Non-Ducted	11.70 / 14.10
	IEER	Ducted / Non-Ducted	25.30 / 32.60
High Heat COP	Ducted / Non-Ducted	3.64 / 4.35	

Power	Voltage	(ø/V/Hz)	3, 208-230, 60
	Maximum Circuit Breaker (MCCB/ELB/ELCB)		60
	Minimum Circuit Ampacity (MCA)		50
	SCCR	kA	5

Indoor Units	Total Capacity (%)	50 - 184% Of Outdoor Unit Capacity*
	Maximum Indoor Unit Quantity	12

Compressor	Type	SSC Scroll x 2
	RLA (A)	19.5

Refrigerant	R410A Factory Charge (lbs.)	18.52
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Pipe Connections	Liquid X Suction (inches)	3/8 X 3/4
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Installation Limitation ²	Max. Distance - ODU to IDU (feet)	656 (722 equivalent)	
	Vertical Separation (feet)	ODU to IDU ³	361
		Highest/Lowest IDU	164
	Total Refrigerant Pipe (feet)	3,280	

Condenser Fan	Fan	Type	Propeller
		Output (CFM)	8,476
	Motor	Type	DC
		Output (W)	620 X 2
		FLA (A)	3
	Max. External Static Pressure ("WC)		0.31

Dimensions	W X H X D	Inches	51 X 66 3/4 X 30 1/8
	Weight	lbs.	648.20
	Shipping Weight	lbs.	690.00

Sound Level	dB (A)	Max.	60
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Operating Temperatures	Cooling	°F (°C)	23 - 120 (-5 - 49)
	Heating	°F (°C)	-13.0 - 75.0 (-25 - 24)

Safety Certifications	ETL (UL 1995)		
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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, overheat protection, phase detection protection, high voltage fuses		
	Inverter PCB cooling done with liquid refrigerant to maintain optimal and safe operating temperatures.		

Accessories

Qty.	Model Number	Description
	MXJ-TA3819M	Outdoor unit tee (liquid and suction fittings, ≤ 461,000 Btu/h)
	WHG-T2	Top wind/hail guard (8 - 18 ton outdoor units)
	WHG-SL	Left side wind/hail guard (6 - 16 ton outdoor units)
	WHG-SR	Right side wind/hail guard (6 - 16 ton outdoor units)
	WHG-R2	Rear wind/hail guard (8 - 16 ton outdoor units)
	LACH-2-KIT	Low ambient cooling hood (large chassis, 1 required)
	MCM-C200U	Heat pump mode selector switch
	MIM-B14	External contact control interface module (operation and error output, night silent mode manual activation)



100% Heating capacity at -13°F outside temperature (refer to capacity tables in outdoor unit technical data book for full capacity details).

Compatibility

DVM S indoor units (AM****N**CH**), AHU kits (MXD-K***AN), and UCK (MCM-D211UN).

Modular systems can only consist of module models: AM072KXVT*H/AA and AM096KXVT*H/AA.

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

Flash injected compressors provide advanced low ambient heating performance.

Subcooling devices in system maintain capacity at extreme system refrigerant pipe lengths and minimize refrigerant noise.

Other Features

Asymmetrical scroll design with rotating compressor operation/priority (where applicable).

Advanced oil recovery cycle logic (maximum duration in cool mode: 3 minutes, maximum duration in heat mode: 6 minutes, defrost cycles lasting over 3 minutes are considered oil recovery cycles). 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)

Advanced intelligent defrost logic to significantly reduce defrost cycle frequency by monitoring air resistance across the condenser coil during heating operation to determine defrost operation initiation to prevent unnecessary defrost cycles.

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 2.5 (MIM-D01AUN), BACnet Gateway (MIM-B17BUN), LON Gateway (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 HVAC maintains a policy of ongoing development, specifications are subject to change without notice.

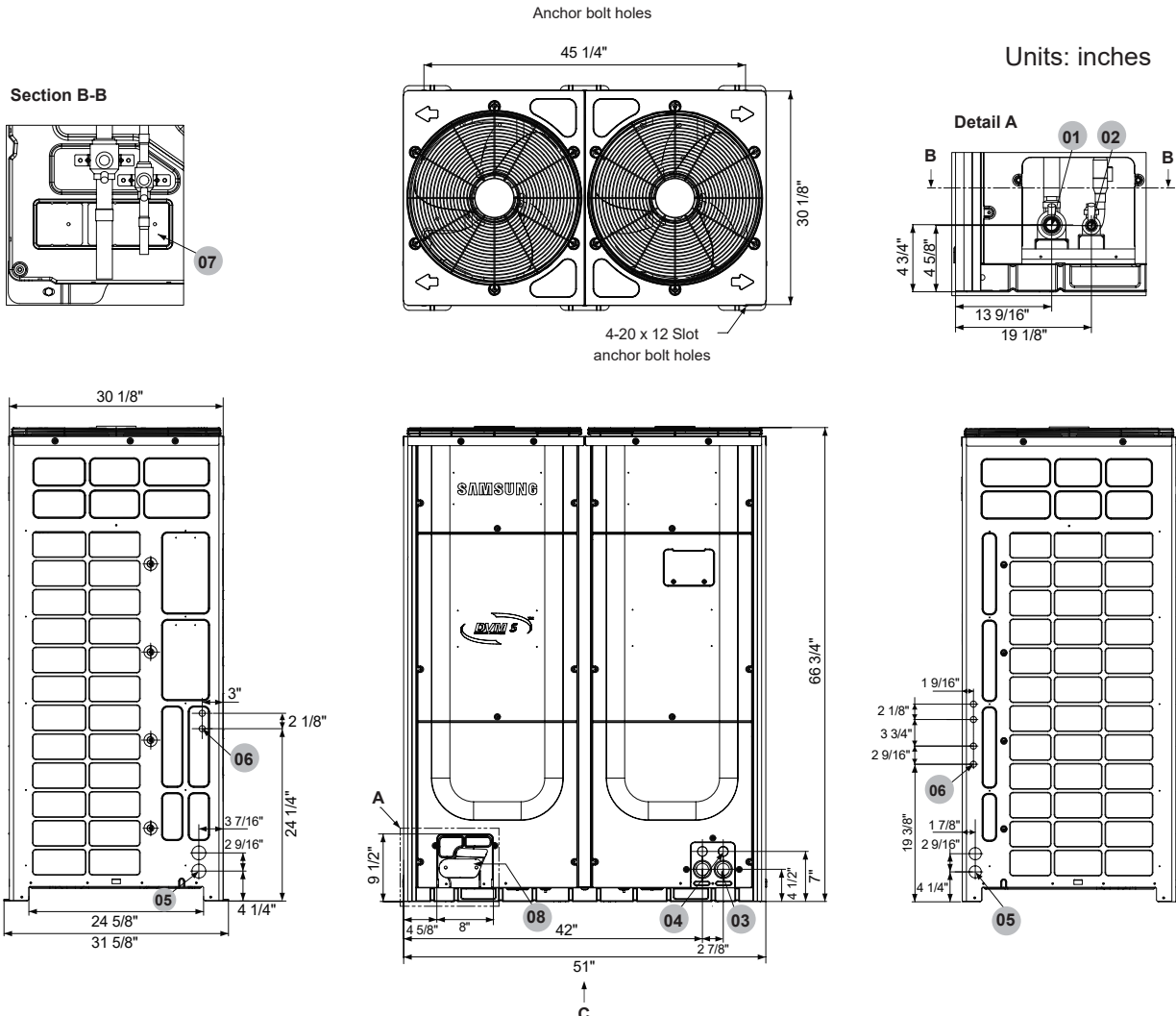
* Restrictions apply. Design above 130% requires an engineering review for approval. Refer to the Technical Data Book for more information.

¹ Certified in accordance with the AHRI Variable Refrigerant Flow Multi-Split Air-Conditioners and Heat Pump (VRF) Certification Program which is based on the latest edition of AHRI Standard 1230.

² Other pipe restrictions and requirements exist. Please consult technical data book or installation manuals for full details regarding limitations and other requirements for vertical separation over 163 feet (outdoor to lowest indoor).

³ When outdoor unit is lower than indoor units, and vertical separation is greater than 131 feet, additional conditions apply. Please refer to supporting documents at www.SamsungHVAC.com





Notes

1. Detail A and Section B-B indicate the location of refrigerant pipe connections
2. Items 3 through 8 knockout holes
3. View C indicates the dimension of knock-out hole (bottom)

No.	Description	Remark	No.	Description	Remark
1	Gas refrigerant pipe	See page 1	5	Power wire conduit knockout	Ø 1 23/32"
2	Liquid refrigerant pipe	See page 1	6	Communication wire conduit knockout	Ø 7/8"
3	Power wire conduit knockout	Ø 1 23/32"	7	Knockout hole for refrigerant pipes (bottom)	
4	Communication wire conduit knockout	Ø 1 5/16"	8	Knockout hole for refrigerant pipes (front)	