

Samsung DVM S Series, Mode Control Unit (MCU)

Job Name _____
Purchaser _____
Submitted to _____
Unit Designation _____

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

Specifications

Power	Voltage	(øV/Hz)	1 / 208-230 / 60
	Max Current	A	1.6
	Rated Controller Current	A	0.2
	Minimum Circuit Ampacity	A	2
	Max. Breaker	MOP (A)	15
Capacity	Maximum Btu/h	MCU total ¹	108,000
		Each Port ¹	≤ 54,000 ¹
	Number of Ports		2
	Quantity of Connectable Indoor Units ²		1 - 16
Piping Connections (inches)	Inlet Pipes From ODU / Outlet Pipes To Other MCU's	Liquid (braze)	5/8
		Suction (braze)	1 1/8
		HP Gas (braze)	1 1/8
	To Indoor Units	Liquid (braze)	3/8 X 2
		Suction (braze)	5/8 X 2
Sound Level	Standard Operation	High dB (A)	34
	Mode Switching	High dB (A)	50
Unit Dimensions	W X H X D	Inches	28 11/16 X 7 13/16 X 18 7/16
	Weight	lbs.	46.29
Safety Certifications		ETL (UL 1995)	

¹ If connecting an indoor unit > 54,000 Btu/h and ≤ 108,000 Btu/h, 2 consecutive ports must be twinned using Y-Joint part numbers DB96-23143A (liquid line) and DB96-23144A (suction line). Y-Joints are purchased separately.

² Maximum of 8 indoor units allowed on a single port. Twinned ports cannot connect to multiple indoor units. Please use DVM Pro design software for system design.

- Compatible with Samsung DVM S Heat Recovery (AM****X***R/AA, AM****X***R2AA) systems only.
- Allows for simultaneous heating and cooling on a single system.
- Serial connection capability to supply refrigerant to other MCU's thus reducing Y-joint installation quantity (see example below).
- The MCU shall have pressure equalization valves (480 steps) to reduce refrigerant sounds during mode changing of connected indoor units.
- Using solenoid valves, the MCU shall control the path of refrigerant to the indoor unit(s) based on the mode of operation required.
- The unit shall contain internal subcoolers with an electronic expansion valve to maximize performance of connected units and reduce refrigerant sounds
- If connecting an indoor unit > 54,000 Btu/h and ≤ 108,000 Btu/h, 2 consecutive ports must be twinned.
- The MCU must be mounted indoors, level, with the pipes running horizontally in and out of unit.
- No drain connection required

Construction

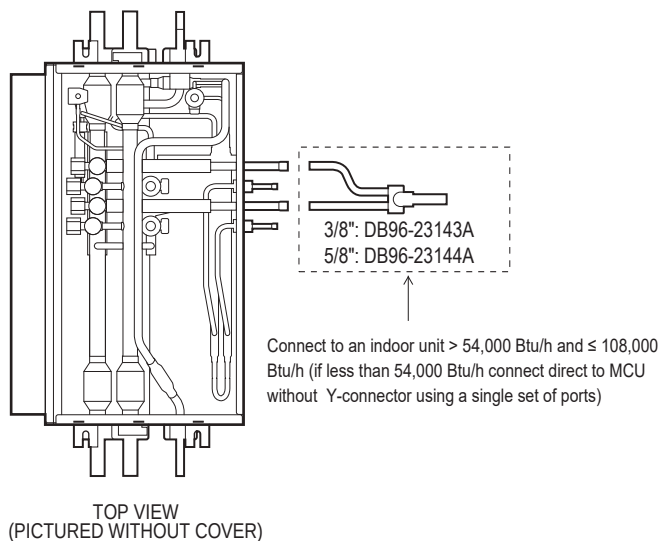
- Galvanized steel cabinet

- Most internal devices can be serviced via bottom panel. The PCB and wiring is accessible from the back.

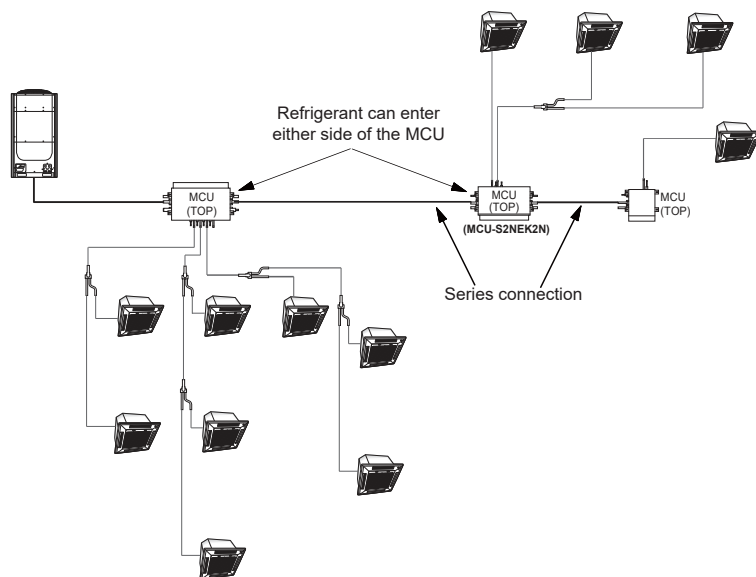
Controls

- The unit shall be operated via a DDC type signal
- Control wiring shall be 16 AWG X 2 shielded wire
- Supports auto-addressing

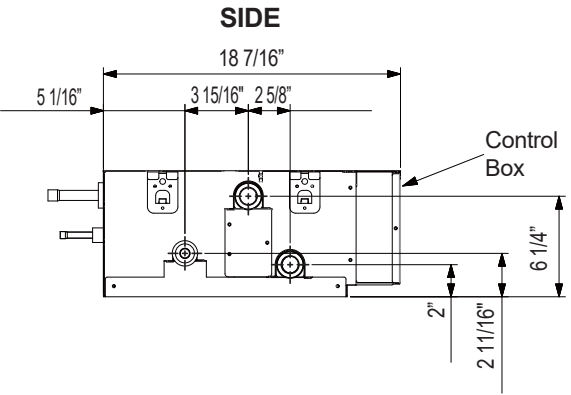
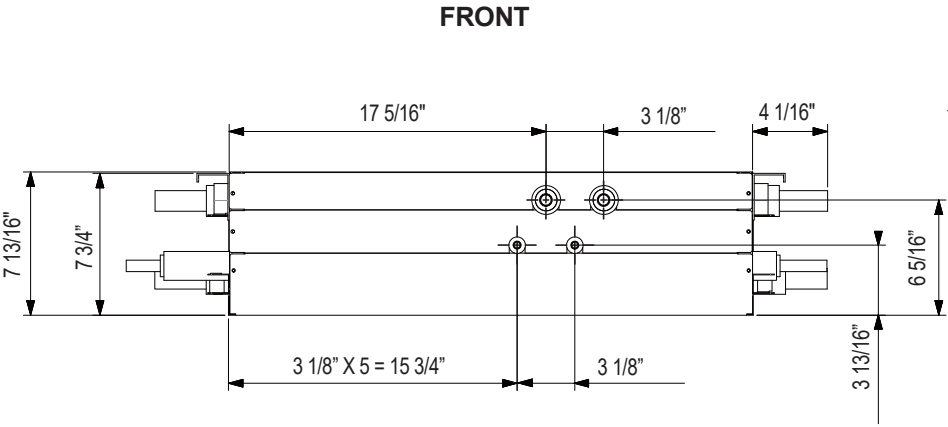
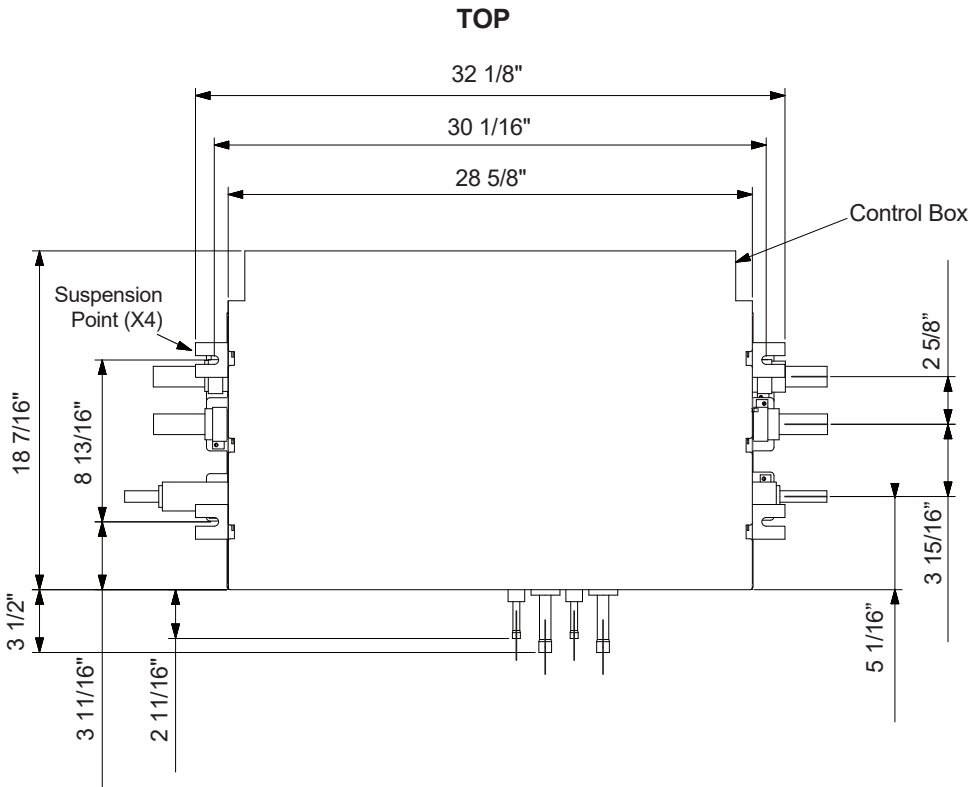
Accessory Y-Joint - Combining Two Ports



Connection Example



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



Recommended Installation Clearances

