

SAMSUNG

DVM Chiller

Compromise no more.

By combining the benefits of chiller and VRF technology, the DVM Chiller provides performance, efficiency and incredible space savings.



Product Registration Required
Conditions Apply

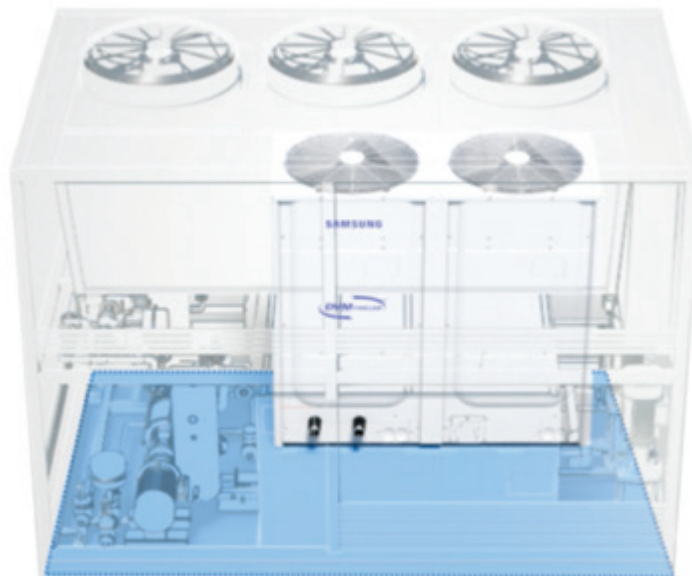
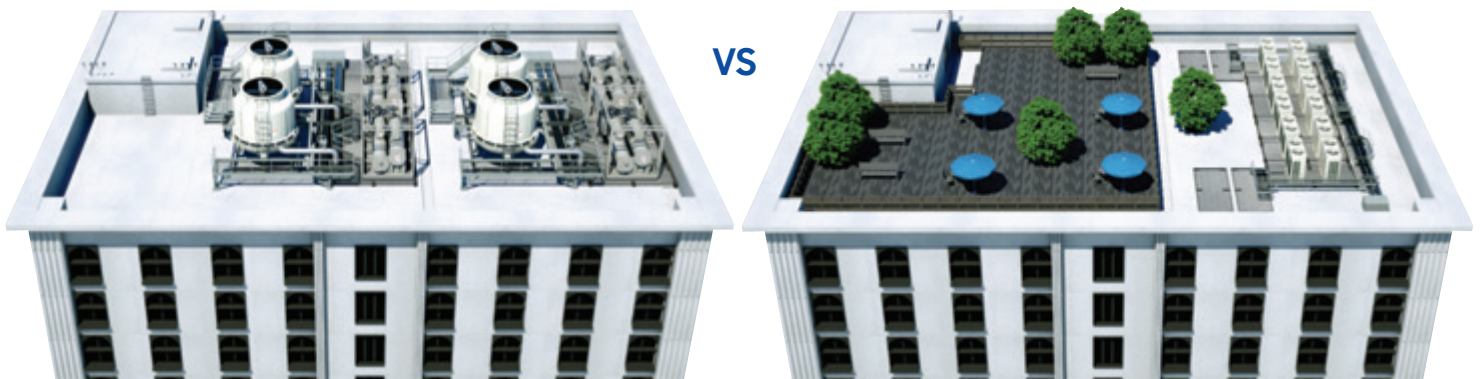


The ultimate combination of VRF and Chiller technologies.

So what exactly is a VRF system? Glad you asked.

Variable Refrigerant Flow (VRF) systems consist of outdoor units connected to multiple indoor units via refrigerant piping to provide cooling and heating to individual zones. The outdoor units can modulate capacity based on the requirements of the individual zones, thus saving energy by not always running at 100% capacity and improving occupant comfort by maintaining temperature as needed in each individual zone.

The DVM Chiller works in a similar way, except it's connected to multiple third-party Fan Coil Units (indoor units) via water piping to provide cooling and heating to individual zones. Like VRF outdoor units, the DVM Chiller can modulate its capacity depending on the requirements of the various zones, which saves energy and improves occupant comfort.



49% space saving*

*Comparison with conventional water-cooled chiller system (Cooling tower + Chiller + Boiler) and SAMSUNG DVM Chiller based on 160 tons.
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DVM Chiller



10 and 15 ton

- Heat Pump models
- 208-230V / 60Hz / 3 Ø or 460V / 60Hz / 3 Ø
- 10 and 15 ton modules
- Connect up to 16 units for system capacities up to 240 tons
- Outdoor unit static pressure up to 0.32" WC
- Water temperature ranges
 - Cooling: 41°F - 77°F (5°C - 25°C) as standard, 14°F - 77°F (-10°C - 25°C)*
 - Heating: 77°F - 131°F (25°C - 55°C)**

Modular Design and Compact Size

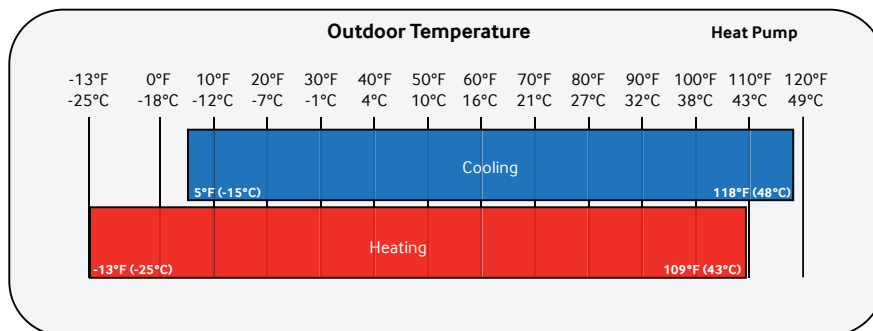
Easy to combine and fit multiple units even when space is limited. It's compact size reduces the time, cost and effort to transport, move and install a system.

- Dimensions: 71"L x 30"W x 67"H per module
- Weight: 959 lbs. per module



Wide Temperature Range

- Cooling operation outdoor temperature range from 5°F (-15°C) to 118°F (48°C)
- Heating operation outdoor temperature range from -13°F (-25°C) to 109°F (43°C)



Please refer to the Technical Data Book and installation manual for full details of operating ranges. Optional settings to automatically adjust leaving water temperature based on outdoor ambient temperature or indoor ambient temperature.

Operation Patterns

The DVM Chiller features three operational patterns. Patterns include standard, rotation and efficiency.

Flash Injection Technology

The DVM Chiller features flash injection compressor technology that increases heating performance with a two-phase refrigerant that is activated during heating mode in low ambient conditions.

*When using brine solutions. Please see technical data book or installation manual.

**Optional settings to automatically adjust leaving water temperature based on outdoor ambient temperature or indoor ambient temperature. DVM-Pro software is required to properly design DVM S systems. DVM-Pro design software is available for download on SamsungHVAC.com.

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Controls and Accessories

(sold separately)

Optional Fan Coil Unit (FCU) Control Kits and Fan Coil Interface Modules are available to control and integrate third-party fan coil units to Samsung central and local controls.



MCM-A00UN

Module Controller

- Required to operate the DVM Chiller
- DVM Chiller ON/OFF control (module/group)
- Operation mode, water outlet temperature setting
- Optional operation setting, module/group setting
- Weekly operation schedule setting



MIM-F00N

FCU Control Kit

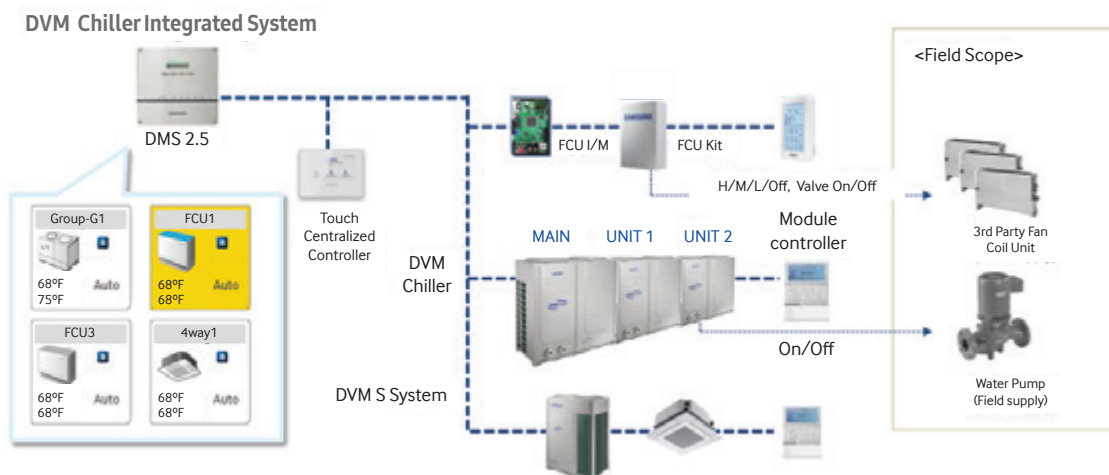
- Communication and control interfacing kit between 3rd party fan coil unit and Samsung control system
- Requires MIM-F10N Interface Module
- Compatible with MWR-SH11UN, MWR-WE13UN and MWR-WG00UN wired controllers
- Provides external contact input
- Output control signal for fan coil unit fan/water valve



MIM-F10N

FCU Interface Module

- Communication interface module between FCU Control Kit and upper-level controller
- Used with MIM-F00N FCU Control Kits
- Supports FCU Kit only
- Maximum connection of 16 FCU Control Kits



Central Controls

Samsung's Data Management Server (DMS) lets you monitor and control your on-site air conditioning needs remotely. It's the easiest and most convenient way to manage a large number of air conditioning units at once.

DMS 2.5:

- 24-hour standalone web-server
- No special software required
- All management functions integrated
- Heat pump auto changeover logic
- DMS 2.5 + BACnet and LonWorks available
- BACnet and LonWorks gateways will wire and setup the same as DMS 2.5

Additional control options available. Please refer to SamsungHVAC.com for all control options, features and specifications.



DMS 2.5
MIM-D01AUN



DVM Chiller

SPECIFICATIONS - 120,000 | 168,000 | 120,000

MODEL	OUTDOOR UNIT			AG010KSVAFH/AA	AG015KSVAFH/AA	AG010KSVAJH/AA
TONS	NOMINAL			10	15	10
PERFORMANCE	CAPACITY	COOLING	AMBIENT: 95.0°F (35.0°C) ENTERING TEMPERATURE: 54.0°F (12.2°C) LEAVING TEMPERATURE: 44.0°F (6.6°C)	120,000 Btu/h	168,000 Btu/h	120,000 Btu/h
		HEATING (DRY / WET BULB: 47.0/43.0°F, 8.3/6.1°C)	LEAVING TEMPERATURE: 105.0°F (40.5°C)	128,000 Btu/h	182,000 Btu/h	128,000 Btu/h
			LEAVING TEMPERATURE: 120.0°F (48.9°C)	120,000 Btu/h	171,000 Btu/h	120,000 Btu/h
		HEATING (DRY / WET BULB: 17.0/15.0°F, -8.3/-9.4°C)	LEAVING TEMPERATURE: 105.0°F (40.5°C)	84,000 Btu/h	90,000 Btu/h	84,000 Btu/h
			LEAVING TEMPERATURE: 120.0°F (48.9°C)	80,000 Btu/h	85,000 Btu/h	80,000 Btu/h
	EER			11.20	10.10	11.20
	COP	HEATING (DRY / WET BULB: 47.0/43.0°F, 8.3/6.1°C)	LEAVING TEMPERATURE: 105.0°F (40.5°C)	3.84	3.52	3.84
			LEAVING TEMPERATURE: 120.0°F (48.9°C)	3.05	2.87	3.05
		HEATING (DRY / WET BULB: 17.0/15.0°F, -8.3/-9.4°C)	LEAVING TEMPERATURE: 105.0°F (40.5°C)	2.20	2.20	2.20
			LEAVING TEMPERATURE: 120.0°F (48.9°C)	1.85	1.90	1.85
IPLV			20.50	18.80	20.50	
POWER	VOLTAGE		ø / V / Hz	3 / 208 - 230 / 60	3 / 208 - 230 / 60	3 / 460 / 60
	MAX. BREAKER			70.0 A	90.0 A	30.0 A
	MIN. CIRCUIT AMPACITY			52.0 A	70.0 A	24.0 A
DIMENSIONS	W X H X D			70 11/16 X 66 3/4 X 30 1/8 in.	70 11/16 X 66 3/4 X 30 1/8 in.	70 11/16 X 66 3/4 X 30 1/8 in.
	WEIGHT			959 lbs.	959 lbs.	959 lbs.
SOUND PRESSURE LEVEL	OUTDOOR			60 dB(A)	62 dB(A)	60 dB(A)
OPERATING WATER TEMPERATURE	COOLING	STANDARD		41.0 - 77.0°F (5.0 - 25.0°C)	41.0 - 77.0°F (5.0 - 25.0°C)	41.0 - 77.0°F (5.0 - 25.0°C)
		WHEN USING BRINE		14.0 - 77.0°F (-10.0 - 25.0°C)	14.0 - 77.0°F (-10.0 - 25.0°C)	14.0 - 77.0°F (-10.0 - 25.0°C)
	HEATING			77.0 - 131.0°F (25.0 - 55.0°C)	77.0 - 131.0°F (25.0 - 55.0°C)	77.0 - 131.0°F (25.0 - 55.0°C)
OPERATING AMBIENT TEMPERATURE	COOLING			5.0 - 118.0°F (-15.0 - 47.8°C)	5.0 - 118.0°F (-15.0 - 47.8°C)	5.0 - 118.0°F (-15.0 - 47.8°C)
	HEATING			-13.0 - 109.0°F (-25.0 - 42.8°C)	-13.0 - 109.0°F (-25.0 - 42.8°C)	-13.0 - 109.0°F (-25.0 - 42.8°C)
WATER SIDE HEAT EXCHANGER	CONNECTION TYPE			50A Cut Groove	50A Cut Groove	50A Cut Groove
	QUANTITY			2	2	2
	WATER FLOW (GPM) (COOLING / HEATING)	MIN.		15.8 / 15.8	16.8 / 16.8	15.8 / 15.8
		NOMINAL		24.0 / 24.0	33.6 / 33.6	24.0 / 24.0
		MAX.		48.0 / 48.0	67.2 / 67.2	48.0 / 48.0
MIN. WATER SYSTEM VALUE			72 gal.	100.8 gal.	72 gal.	
REFRIGERANT	TYPE			R410A	R410A	R410A
	FACTORY CHARGE			40 lbs.	40 lbs.	40 lbs.
COMPRESSOR	TYPE			Inverter Driven Scroll (2)	Inverter Driven Scroll (2)	Inverter Driven Scroll (2)
CONDENSER FAN	FAN	TYPE		Propeller (2)	Propeller (2)	Propeller (2)
		CFM (MAX.)		12,855	12,855	12,855
	MOTOR	TYPE		BLDC	BLDC	BLDC
		OUTPUT		630 W X 2	630 W X 2	630 W X 2
MAX. EXTERNAL STATIC PRESSURE				0.32 in. WC	0.32 in. WC	0.32 in. WC
ACCESSORIES	FAN COIL UNIT (FCU) CONTROL KIT			MIM-F00N	MIM-F00N	MIM-F00N
	FAN COIL UNIT (FCU) INTERFACE MODULE			MIM-F10N	MIM-F10N	MIM-F10N
	WIRED CONTROLLER			MCM-A00UN	MCM-A00UN	MCM-A00UN



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Intertek

DVM Chiller design software is available at www.samsunghvac.com.

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DVM Chiller

SPECIFICATIONS - 168,000

MODEL		OUTDOOR UNIT		AG015K5VAJH/AA	
TONS		NOMINAL		15	
PERFORMANCE	CAPACITY	COOLING	AMBIENT: 95.0°F (35.0°C) ENTERING TEMPERATURE: 54.0°F (12.2°C) LEAVING TEMPERATURE: 44.0°F (6.6°C)		168,000 Btu/h
		HEATING (DRY / WET BULB: 47.0/43.0°F, 8.3/6.1°C)	LEAVING TEMPERATURE: 105.0°F (40.5°C)		182,000 Btu/h
			LEAVING TEMPERATURE: 120.0°F (48.9°C)		171,000 Btu/h
		HEATING (DRY / WET BULB: 17.0/15.0°F, -8.3/-9.4°C)	LEAVING TEMPERATURE: 105.0°F (40.5°C)		90,000 Btu/h
	LEAVING TEMPERATURE: 120.0°F (48.9°C)		85,000 Btu/h		
	EER				10.10
	COP	HEATING (DRY / WET BULB: 47.0/43.0°F, 8.3/6.1°C)	LEAVING TEMPERATURE: 105.0°F (40.5°C)		3.52
			LEAVING TEMPERATURE: 120.0°F (48.9°C)		2.87
		HEATING (DRY / WET BULB: 17.0/15.0°F, -8.3/-9.4°C)	LEAVING TEMPERATURE: 105.0°F (40.5°C)		2.20
			LEAVING TEMPERATURE: 120.0°F (48.9°C)		1.90
IPLV				18.80	
POWER	VOLTAGE		ø / V / Hz		3 / 460 / 60
	MAX. BREAKER				50.0 A
	MIN. CIRCUIT AMPACITY				40.0 A
DIMENSIONS	W X H X D				70 11/16 X 66 3/4 X 30 1/8 in.
	WEIGHT				959 lbs.
SOUND PRESSURE LEVEL	OUTDOOR				62 dB(A)
OPERATING WATER TEMPERATURE	COOLING	STANDARD			41.0 - 77.0°F (5.0 - 25.0°C)
		WHEN USING BRINE			14.0 - 77.0°F (-10.0 - 25.0°C)
	HEATING		77.0 - 131.0°F (25.0 - 55.0°C)		
OPERATING AMBIENT TEMPERATURE	COOLING				5.0 - 118.0°F (-15.0 - 47.8°C)
	HEATING				-13.0 - 109.0°F (-25.0 - 42.8°C)
WATER SIDE HEAT EXCHANGER	CONNECTION TYPE				50A Cut Groove
	QUANTITY				2
	WATER FLOW (GPM) (COOLING / HEATING)	MIN.			16.8 / 16.8
		NOMINAL			33.6 / 33.6
		MAX.			67.2 / 67.2
MIN. WATER SYSTEM VALUE				100.8 gal.	
REFRIGERANT	TYPE				R410A
	FACTORY CHARGE				40 lbs.
COMPRESSOR	TYPE				Inverter Driven Scroll (2)
CONDENSER FAN	FAN	TYPE			Propeller (2)
		CFM (MAX.)			12,855
	MOTOR	TYPE			BLDC
		OUTPUT			630 W X 2
MAX. EXTERNAL STATIC PRESSURE				0.32 in. WC	
ACCESSORIES	FAN COIL UNIT (FCU) CONTROL KIT				MIM-F00N
	FAN COIL UNIT (FCU) INTERFACE MODULE				MIM-F10N
	WIRED CONTROLLER				MCM-A00UN



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