

SAMSUNG

DVM S

The most efficient team in the game.

Discover the entire line of Samsung's innovative VRF systems.
Samsung DVM S - smart products for smarter businesses.



What is VRF?

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.

With design flexibility, premium comfort, and superior performance, Samsung DVM S VRF air conditioning systems offer just the right solution for any application.

Design Flexibility.

Compact Equipment

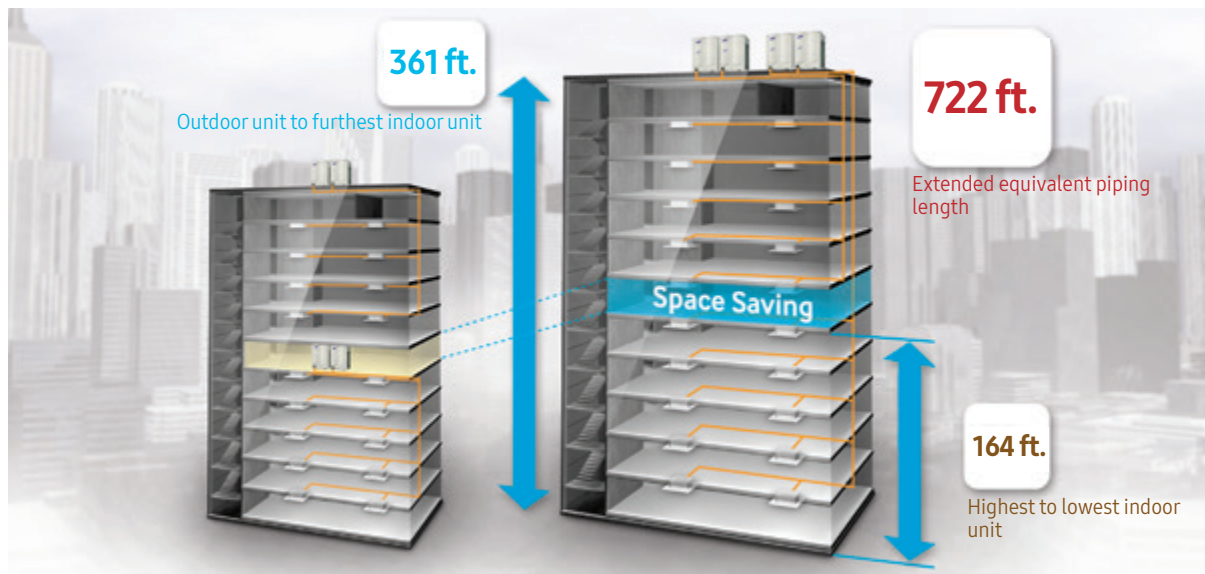
Small outdoor unit footprints allow for installation in applications where space is limited, such as on crowded rooftops, or in tight mechanical closets. DVM S systems feature a design diversity ratio of 50 - 200%**_. Diversity ratios above 100% means connecting more indoor unit capacity than outdoor capacity taking advantage of shifting building loads^.

Wide Variety of Indoor Unit Options

Our indoor units offer superior performance, flexible installation, and ease of operation. These units employ innovative technologies, like our Wind-Free™* cooling technology, to optimize comfort in any environment. With over 10 types of indoor units, ranging from 5,000 to 96,000 Btu/h, there are solutions for almost any application.

Extended Piping Length

DVM S systems offer installation options with extended piping length up to 722 ft, vertical separation up to 361 ft between the outdoor unit and furthest indoor unit, and 164 ft between the highest and lowest indoor units.



Control Integration Options

A number of control options are available to fit a variety of project needs, from simple local controllers to full central control options. This grants the capability to integrate into any Building Management System (BMS) through BACnet, LonWorks, or ModBus.

Removable EEPROM Chip

DVM S systems are equipped with a removable EEPROM chip at the main PCB to store data. This allows for replacement of the control PCB without losing startup information, system settings, and other field programmed data. In addition, this allows for ease of startup, commissioning, and product registration.

*The Wind-Free™ unit delivers an air current that is under 0.15 m/s while in Wind-Free™ mode. Air velocity that is below 0.15 m/s is considered "still air" as defined by ASHRAE 55-2013 (American Society of Heating, Refrigerating, and Air-Conditioning Engineers).

**Restrictions apply.

^Designs above 130% requires an engineering review for approval.

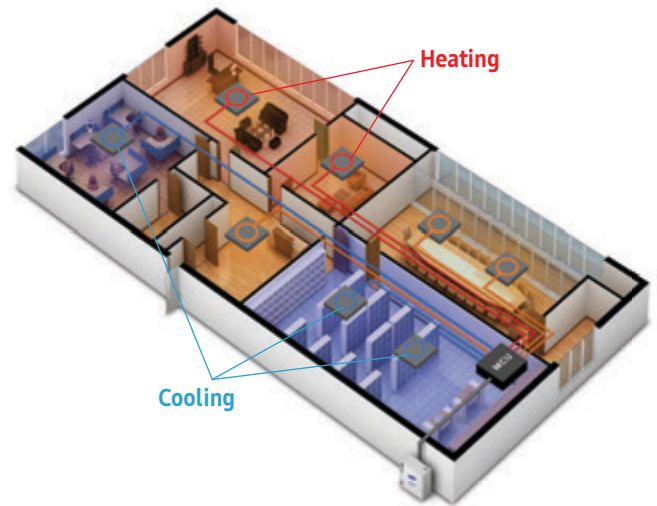
Comfort.

Ultimate Zoning Solution

Samsung DVM S systems allow for precise temperature control in multiple zones, providing comfort to a wide range of occupants. Heat Recovery systems add the capability to heat and cool separate zones simultaneously making it a superior choice.

Quiet Operation

Samsung systems are meticulously designed with the user in mind, and minimizing sound levels is a key design aspect our engineers focus on.



Performance.

Flash Injection Technology

DVM S systems[†] uniquely feature flash injection compressor technology that increases heating performance with a two-phase refrigerant that is activated during heating mode in low ambient conditions.

Efficient

Samsung DVM S systems feature several smart technologies that are designed to deliver comfort and efficiency. These systems provide the perfect solution for businesses looking to optimize power and energy costs.



Intelligent Defrost Technology

DVM S systems do not only consider time and temperature like most VRF systems, but temperature and outdoor heat exchanger air resistance to determine when to start defrost operation[‡].

Low Ambient Heating

With the ability to produce high heating capacity at -13°F (-25°C), our DVM S systems are a smart solution for commercial buildings in areas that experience low outdoor ambient temperature. Some models may produce up to 100% heating capacity at -13°F (-25°C) outdoor ambient temperature.

Low Ambient Cooling

Compatible with both DVM S Heat Pump and Heat Recovery models, our Low Ambient Cooling Hood provides 100% cooling capacity down to -13°F (-25°C). Advanced integrated logic allows for louver positioning based on outdoor unit high pressure, outdoor ambient temperature, compressor compression ratio, and operating mode.

[†]Excludes DVM S Eco 3, 4, and 4.5 ton, and DVM S Water systems.

[‡]Excludes DVM S Water systems.

Outdoor Units

DVM S

DVM S systems offer a wide array of sizes, system combinations and control options, providing flexible designs and applications.



6 ton

8, 10, 12, 14 and 16 ton

18 ton*

- Heat Pump and Heat Recovery
- 208-230V / 60Hz / 3 Ø or 460V / 60Hz / 3 Ø
- 6, 8, 10, 12, 14, 16, and 18* ton single modules
- Connect up to 3 units for system capacities up to 44 tons
- Connect up to 64 indoor units
- Outdoor unit static pressure up to 0.32" WC

*460V only



6 and 8 ton

DVM S Max Heat™

DVM S Max Heat™ can provide 100% heating performance at -13°F (-25°C), providing comfort and reliability for applications in extreme climate conditions.

- Heat Pump and Heat Recovery
- 208-230V / 60Hz / 3 Ø or 460V / 60Hz / 3 Ø
- 6 and 8 ton single modules
- Connect up to 3 units for system capacities up to 24 tons
- Connect up to 49 indoor units
- Outdoor unit static pressure up to 0.32" WC

MAX  **HEAT™**





DVMS Eco

This compact system is the perfect choice for high efficiency heating and cooling of residential and light commercial needs.

- Heat Pump and Heat Recovery
- 208-230V / 60Hz / 1 Ø
- 3, 4, 4.5, and 5 ton single modules
- Connect up to 10 indoor units



3.18, 3.98 and 4.55 ton

DVMS Water

These advanced water source systems are applicable for both commercial and residential applications. It's a great option for retrofit or new construction projects that are using closed-loop water systems or geothermal sources for their heating and cooling needs.

- Heat Pump
- 208-230V / 60Hz / 1 Ø
- 3.18, 3.98, and 4.55 ton single modules
- Connect up to 9 indoor units



6, 8 and 10 ton



16 and 20 ton

- Heat Pump or Heat Recovery (setting configured during installation)
- 208-230V / 60Hz / 3 Ø or 460V / 60Hz / 3 Ø
- 6, 8, 10, 16, and 20 ton single modules
- Connect up to 3 units for system capacities up to 50 tons
- Connect up to 64 indoor units



DVM Chiller

The DVM Chiller connects 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.

- Heat Pump
- 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

DVM-Pro software is required to properly design Samsung DVM S systems. DVM-Pro design software is available for download at samsunghvac.com.

Indoor Units

Capacities shown in Btu/h



360 CASSETTE
9K-48K



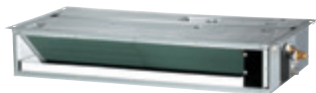
WIND-FREE™ 4-WAY CASSETTE
9K-48K



WIND-FREE™
MINI 4-WAY CASSETTE
5K-20K



WIND-FREE™ 1-WAY CASSETTE
7,500-12K



SLIM DUCT
7,500-48K



HSP DUCT
(High Static Pressure)
54K-96K



OAP DUCT
(Outside Air Processing)
72K-96K



DUCT S
7,500-48K



DVM WHISPER
5K-28K



MAX
32K



CEILING / WALL CONVERTIBLE
18K-24K



BIG CEILING
36K-48K



FLOOR STANDING
(concealed type)
6K-24K



FLOOR STANDING
(exposed type)
6K-24K



MULTI-POSITION AIR HANDLER
12K-72K

*The Wind-Free™ unit delivers an air current that is under 0.15 m/s while in Wind-Free™ mode. Air velocity that is below 0.15 m/s is considered "still air" as defined by ASHRAE 55-2013 (American Society of Heating, Refrigerating, and Air-Conditioning Engineers).

Controls

Wi-Fi Adapter

Samsung's Wi-Fi Adapter provides control and monitoring without a Data Management Server (DMS) control.



Features:

- Control up to 16 indoor units with a single MIM-H03UN Wi-Fi Adapter, or connect up to 4 for control of up to 64 indoor systems
- Monitor and control: mode, set temperature, fan speed, louver position, filter reminder (push notification), and error status
- F1/F2 (system) or R1/R2 (central control layer) connection
- 7 Day scheduling for a single unit or multiple indoor units
- Basic daily, weekly, or monthly energy consumption monitoring (for supported models only)
- Uses SmartThings App*
- Group configuration allows for simple control of multiple units connected to the same Wi-Fi Adapter.



Wi-Fi ADAPTER (MIM-H03UN)

Individual Control

There are many different ways to control a Samsung system. For applications where a wireless controller is not acceptable (i.e. public facilities), two wired controllers, Touchscreen and Premium, are available to purchase as an option. Based on desired level of control and user interface preference, Samsung offers a variety of wired controllers suitable for any application. Additionally, a Thermostat Adapter can be applied to control up to two indoor units on the same system simultaneously with a 24VAC thermostat. Visit samsunghvac.com to learn more.



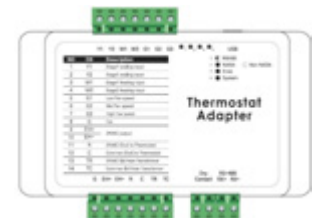
WIRELESS REMOTE CONTROLLER¹
AR-EH03E



TOUCHSCREEN CONTROLLER
MWR-SH10N



PREMIUM WIRED CONTROLLER²
MWR-WE13N



THERMOSTAT ADAPTER
TADPT2

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
- Customizable programmable logic for intelligent control
- DMS 2.5 + BACnet and LonWorks available
- BACnet and LonWorks gateways will wire and setup the same as DMS 2.5



DMS 2.5
MIM-D01AUN

Additional control options available. Please refer to www.samsunghvac.com for all control options, features, and specification.

*The SmartThings app is available for download on the App Store® and Google™ Play store.

² Wind-Free models require the MWR-WE13N Premium Wired Controller.

¹ 360 Cassette models require the AR-KH00U wireless controller.

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