### DVM S

# Optimize comfort with solutions designed for superior efficiency and manageability

Variable refrigerant flow (VRF) systems are a smart solution for commercial and large residential buildings that demand higher efficiency, individualized control and installation flexibility. Advanced heat recovery combines heating, cooling and ventilation processes for increased energy efficiency and lower operating costs. In addition, VRF technology supports zone control, enabling users to adjust individual climate settings to suit their personal comfort preferences. And with copper piping that's typically longer than traditional direct expansion (DX) systems, VRF units increase design flexibility for more creative installations.

Samsung's VRF system air conditioners offer instant temperature control, user-friendly installation and advanced functionality, along with smart power usage. Our flagship VRF-based Samsung DVM S is a highly innovative system that adopts the new third-generation Samsung Scroll Compressor (SSC) technology. With its Dual Digital Inverter, DVM S provides world-class energy efficiency and the most powerful cooling and heating performance available on the market. This ideal air conditioning system accommodates all variable environments, including large commercial or residential buildings. The Samsung DVM S system air conditioner delivers optimal comfort, efficiency and performance with features such as:

- Large heating and cooling capacity. Experience the ultimate heating and cooling capacity while optimizing space with an efficiently sized design.
- Improved heating performance. Enhance airflow with smarter, more efficient heating technology to cold weather environments.
- High energy efficiency. Decrease energy consumption and costs with a dual inverter system featuring simultaneous compressor operation for higher performance.
- Flexible installation. Ease installation and reduce labor costs with a lightweight design and extended piping length and elevation support.
- Year-round climate control. Enjoy a comfortable environment even in extreme climates with advanced temperature control and rapid cooling and heating performance.
- Smart management. Monitor system performance effectively with convenient web-based data access and management from anywhere.
- Reliable performance and durability. Ensure dependable cooling and heating for all conditions with weather-proofing and corrosion resistance.



## DVM S 30HP Samsung's largest capacity

#### **Gigantic capacity**

While being the largest and most compact DVM, it's also powerful and highly energy efficient. So you can save costs and space, while providing more reliable coverage across larger areas.



# Maximize heating and cooling capacity with a conveniently sized design

To maximize profitability and value, an efficient use of space is critical for any business. Samsung DVM S provides the maximum heating and cooling capacity—without increasing its size— enabling businesses to use their space more efficiently.



#### More choice of capacity, even less cost

As a single unit, it offers a wide range of capacities from 8HP to 30HP. It's the world's first system to offer a single 30HP unit, so you can reduce the installation and management costs and save valuable space.



#### More usable space-no compromise

Its compact size leaves you plenty of extra space that can be used for other purposes without compromising on performance thanks to its highly efficient Inverter Scroll Compressor and Hybrid heat exchanger.



### DVM S 30HP Innovative technology

#### Advanced performance & energy efficiency

Its advanced technology radically improves performance and reduces wasted energy. It includes a highly efficient Inverter Scroll Compressor, an innovative Hybrid heat exchanger and a large capacity diffuser.

#### Asymmetric Algebraic Scroll

DVM S applies a fluid, asymetric algeraic scroll design that minimizes compression loss and maximizes performance during refirgerant compression. Compared with the involute, the scroll design is thickened toward the center, thus efficiency is higher.



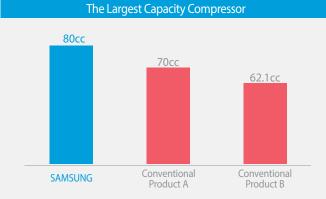
#### Improved winding wire

Featuring the world's largest 80cc/rev compressor, Samsung has developed the outdoor unit with.



#### Instant shut off and gas leak protection

There's no need to worry about gas leaks or the accidental loss of refrigerant. A Gas Leak Operation System quickly detects and automatically takes the pump down a step and cuts off the refrigerant supply.





## DVM S Improved heating performance

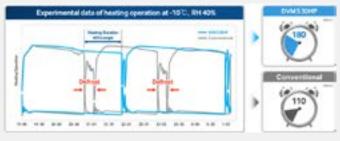
# Enhance temperature control with more intelligent and efficient heating operation

With three improved key features, DVM S ensures fresh airflow for increased comfort. Enhanced flash injection delivers reliable heating at lower temperatures, while more intelligent defrost and snow detection offer more precise operation, saving valuable energy and expenses.



#### Intelligent defrost

DVM S features new frost detection that provides continuous heating time and improved efficiency. The system considers not only conventional factors but also air resistance to intelligently judge the defrost operation. More precise defrost judgment avoids unnecessary defrosting thanks to the partial load and lower ambient temperature operation. Ultimately, users can enjoy less energy waste and more continuous heating time.



#### Improved flash injection

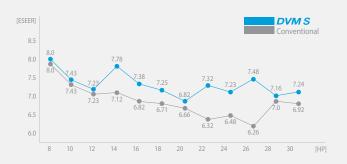
Featuring advanced refrigerant control technology, Samsung's flash injection extend heating operation range at -25 by increasing ref. flow by 32%. And at even lower temperatures, it continues to perform, delivering reliavle comfort in frigid conditions.



## DVM S High energy efficiency

#### Maintain optimal comfort and control with energyand cost-efficient technologies

Samsung DVM S features several smart technologies that combined deliver world-class energy efficiency and economy with these technologies, DVM S boasts a superior 6 percent higher European Seasonal Energy Efficiency Ratio (ESEER) than conventional model. Samsung's innovation has not gone unnoticed. Samsung DVM S was recognized by Eurovent, an independent testing organization, for its world-first cooling and heating performance and efficiency.

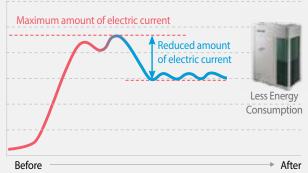


#### Reduce maintenance and energy costs with intercoolers

DVM S features a PHE type intercooler, which improves cooling and heating efficiency by 30 percent compared to Shell & Tube and Double Tube type intercoolers. The higher heat exchange rate means optimal distribution, lowering maintenance and energy costs.



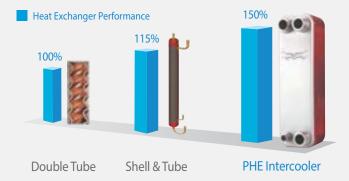
To help businesses better manage power consumption and related costs, DVM S offers power-demand control for peak hours and seasons. This is especially useful when the electrical supply is insufficient or when businesses want to block excessive and wasteful energy usage.



### Before & after peak power-demand control

#### Prevent energy waste with quick cooling and heating

The third-generation innovative system, DDI, adopts a dual inverter compressor system. Both inverter compressors operate simultaneously, providing balanced oil distribution for quick cooling and heating and improved energy efficiency. Plus, the upgraded vapor injection system increases refrigerant flow by 20 percent compared to conventional products.



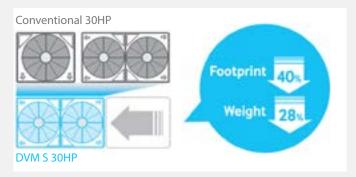
## DVM S Flexible installation

# Reduce expenses with installation designed to be easy and flexible

The simplified yet powerful design of the DVM S unit eases the installation process. Non-polar communication between indoor and outdoor units promotes easier, safer wiring work, because the outdoor unit protects itself if the communication cable is mistakenly connected to a power terminal.

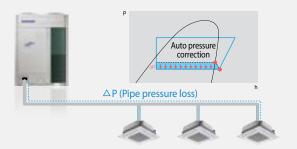
#### Lower setup costs with a smaller footprint and lighter weight

At 30 horsepower (HP), the large-unit capacity of DVM S facilitates economical installation with a smaller footprint and lighter weight an ideal solution for larger buildings.



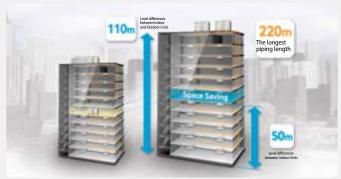
#### Optimized refrigerant distribution control

DVM S compensates for the long piping distance between outdoor units and indoor units by providing balanced refrigerant distribution. The individual indoor units perform capacity connection control and automatic refrigerant balancing to ensure balanced performance between the units.



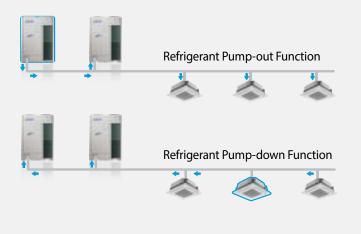
#### Install flexibly with extended pipe length and elevation

DVM S provides extended piping length of up to 220 m (721.79 ft) and installation height of up to 110 m (360.89 ft), offering businesses more installation options. The piping distance is far between outdoor and indoor units, so individual indoor units perform capacity connection control and automatic refrigerant equalization for more balanced performance between units.



#### Refrigerant pump-down and pump-out

DVM S provides refrigerant pump-down and pump-out functionality to simplify unit replacement, and ease additional installations and maintenance. When the outdoor unit requires maintenance, the refrigerant can recover into outdoor units and pipes. The refrigerant can also recover into outdoor units when moving indoor units or maintaining pipes.



## DVM S Year-round climate control

# Make residents feel at home with an advanced operating system and flexible temperature control

Samsung DVM S is the best solution for residential buildings requiring a flexible, efficient and reliable air conditioning system. Smart Discharge Temperature Control enables operators to control the temperature without changing the outdoor unit's setting. Instead, each duct has an indoor discharge temperature control function to provide year-round comfort, whether in cooling or heating operation mode.

#### Lessen disruptions with 12-hour quiet operation

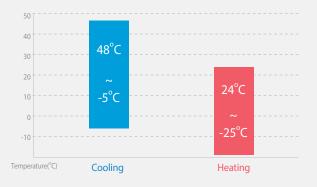
DVM S outdoor fans include an operation control system that drastically reduces noise levels. Quiet operation continues for 12 hours, so residents can relax and rest peacefully with less distraction during the night.

#### Minimize nighttime noise

A new Night Silent Control feature includes a timer and external contact interface module, which allow users to set the time they want to minimize noise. With the upgraded Night Silent Control feature, users can manage the noise control function when they want using the external controller.

#### Weather a wide range of outdoor temperatures comfortably

No matter how extreme the temperature, the high-performing DVM S can handle the condition—without the need for an additional unit. Featuring a wide temperature allowance, it can cool in heat of up to 48°C and provide warmth in the freezing cold of -25°C to ensure a constant and comfortable home environment.





## DVM S Smart management

# Monitor and resolve system issues remotely with a smart management system

DVM S features a smart, web-based management system for the ultimate in convenient management. The advanced system facilitates self-diagnosis, auto trial operations and mobile data transmissions, which users can easily access and monitor via the web-based tool.

#### System oversight from anywhere

With Wi-Fi S-Checker, users can access the system via their smartphones or tablet PCs to monitor operation status or data whenever and wherever. With self-diagnosis mode, DVM S automatically monitors its operation status and displays an error code in response to signs of abnormal operation. Users can then identify and address the issue promptly.

### Automatic data backup

If a malfunction occurs, DVM S automatically backs up the last 30 minutes of operation data to ease the repair and recovery process.



#### Control your cooling anywhere

An optional Wi-Fi Kit lets you remotely control up to 16 indoor units using an App\*. Anytime and anywhere you can turn them on and off, select the operating mode and temperature, and utilize their other functions.



\* Available on iPhones and Android devices. A Wi-Fi connection is required.



#### Easy access

Thanks to the small opening on the outdoor unit, checking the outdoor status and setting option is easy, because users don't need to remove the entire front cover.





## DVM S Reliable performance and durability

# Stabilize operations with improved reliability and durability

Samsung is dedicated to supporting comfortable living and working environments based on the strength of its technologies. With its robust design, DVM S delivers the reliability and durability that users need to ensure consistent performance at all times.

#### Extend compressor longevity with balanced operation

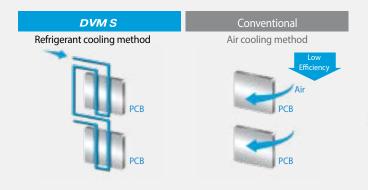
With conventional systems, one compressor operates longer than the other, which results in one compressor wearing down faster than the other. However, the DVM S DDI system offers balanced compressor operation for improved durability and longevity and lower replacement costs.



the same performance after long-running

#### **Refrigerant Cooling System**

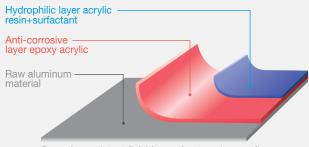
Refrigerant cooling system is not affected by the ambient temperature. Using refrigerant cooling system, DVM S ensures better stability than conventional air cooling system.



#### Protect your investment with corrosion and frost resistance

DVM S includes a hydrophilic coating that facilitates efficient heat exchange and delays the onset of frost formation to provide consistent heating performance. An anti-corrosive coating also helps units to resist corrosion from the elements, with:

- Epoxy acrylic coating
- Acrylic and surfactant coating



Corrosion resistant finishing on heat exchanger fin

#### Rely on resilient performance with high oil storage capacity

With its large oil storage capacity and low Oil Circulation Ratio (OCR), DVM S can ensure reliable performance even for installations with long piping and high elevation.

