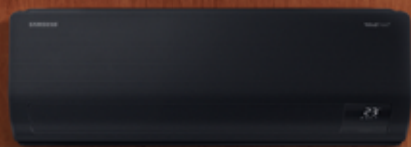


# SAMSUNG



## WindFree<sup>TM</sup> Avant S2 & Avant Black

Intelligent cooling. No cold drafts.



Scan to visit the website

# Stylish solution

Alongside the improved WindFree™ Avant S2, the new WindFree™ Avant Black is introduced - this model addresses the growing demand for stylish home appliances that complement modern living spaces. With smart climate control and enhanced indoor air quality, it seamlessly combines functionality with elegance to elevate comfort in the home.

## WindFree™ Avant S2 & Avant Black

The new white display design is maximized for easy readability of the dashboard and blends seamlessly into any space. The design also ensures easy maintenance, as the front panel can be easily removed for cleaning.



WindFree™ Cooling



Wi-Fi Control



AI Auto Comfort



Tri-Care Filter



R32 Refrigerant



Freeze Wash

A+++ / A++



23.000  
Micro air holes

### WindFree™ Cooling mode

WindFree™ Cooling mode keeps the room comfortably cool. It cools gently and quietly, dispersing air through 23,000 micro-holes so that people never have to deal with the unpleasant feeling of a cold draft on their skin. This results in a "Still Air" environment<sup>1</sup> with a very low air speed and limited noise<sup>2</sup>. The advanced airflow structure of this mode also means that it cools a wider and larger area more evenly.

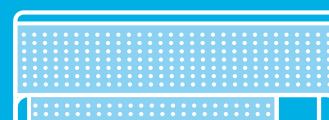
<sup>1</sup> ASHRAE (the American Society of Heating, Refrigerating, and Air-Conditioning Engineers) defines "Still Air" as air currents moving at speeds below 0.15 m/s, with no cold drafts.

<sup>2</sup> Tested on the AR12TXCAWKNEU model in an anechoic environment. WindFree™ mode generates 23 dB(A) of noise, compared to 26 dB(A) produced by the conventional Samsung model. Sound pressure level is a relative value, depending on the distance and acoustic environment. Sound pressure level may differ according to operating conditions.

### Comparison of discharge areas



Conventional

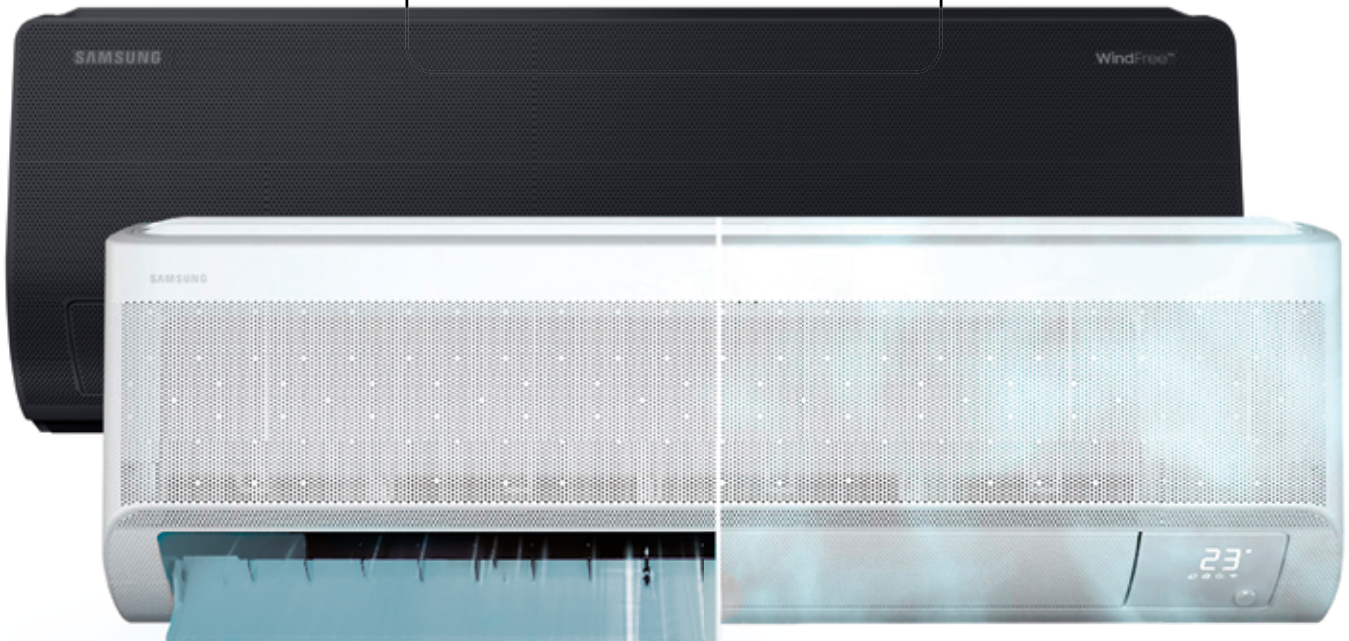


WindFree™





## AI Auto Comfort



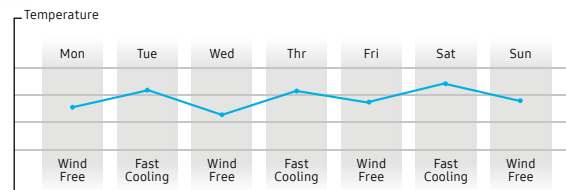
### Fast Cooling

### WindFree™ Cooling

#### AI Auto Comfort

AI Auto Comfort introduces residents to the experience of intelligent climate control<sup>1</sup>. To make life simpler and more efficient it automatically optimises the various modes by analysing room conditions and usage patterns<sup>2</sup>.

- ✓ Indoor Temperature
- ✓ Setting Temperature
- ✓ Outdoor Temperature
- ✓ Operating Time
- ✓ Usage Pattern



Based on the users' preferred indoor temperature and the actual outside temperature, the unit automatically switches to the most appropriate cooling and heating mode to maintain optimal and comfortable room conditions. This includes WindFree™, Fast and Normal Cooling and heating.

The product is compatible with Bixby 2.0<sup>3</sup>, allowing users to give voice commands, and it will adjust accordingly. The AI option is able to analyse the area, the preferred mode, and temperature then suggests the optimal settings for maximum comfort inside the home.

#### Learning Factors

Indoor temperature  
Outdoor temperature  
Setting temperature  
Operating time



Determine cooling mode to reach the preferred temperature



Send usage pattern data



SmartThings Cloud



Send usage pattern data

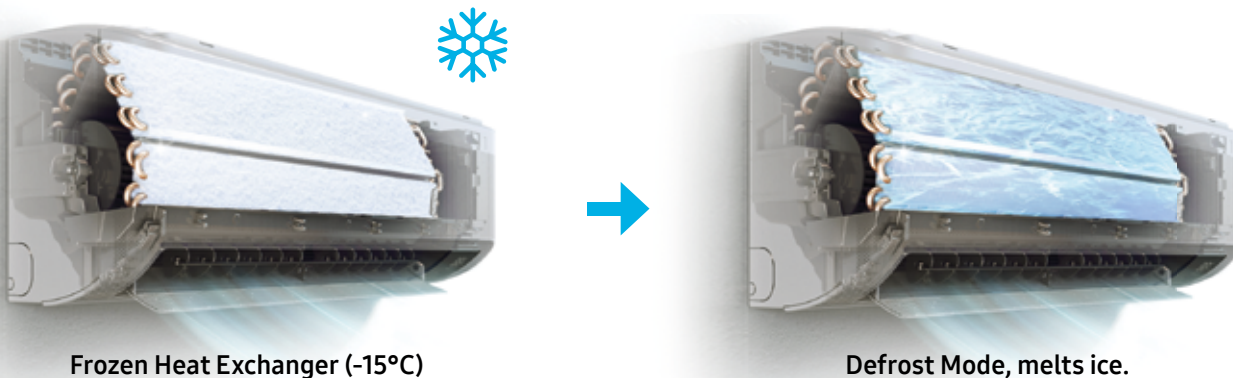
<sup>1</sup> AI = Artificial Intelligence. A Wi-Fi connection and Samsung SmartThings application account are required.

<sup>2</sup> Stores user data, preferences and usage patterns, enabling it to suggest the most comfortable room temperature set point within a range of 22 °C to 26 °C.

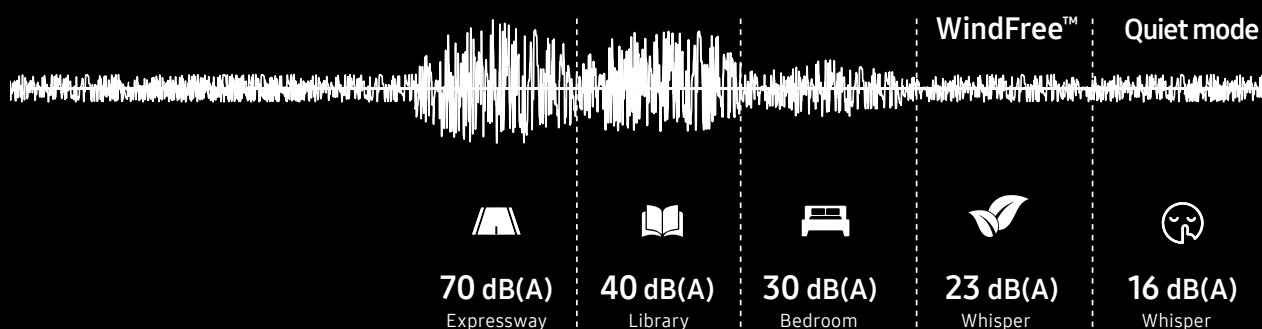
<sup>3</sup> Bixby is Samsung's voice interface assistant. A Wi-Fi connection and a Samsung account is required. Currently Voice control is supported in English (US, UK, Indian), Chinese, Korean, French, German, Italian, Spanish and Portuguese. Voice control is supported Samsung Bixby 2.0 and Google Assistant (Google Home). Google Assistant is not available in certain languages and countries. Google is a trademark of Google LLC.

## Freeze Wash

The Fresh Wash functionality freezes the heat exchanger of the indoor unit to  $-15^{\circ}\text{C}$  to cover it into frost. After the indoor unit goes into defrost mode the ice will melt and this will remove certain pollutants within the heat-exchanger<sup>1</sup>. It's easy to maintain without the need for any professional service engineer.



<sup>1</sup> Intertek Report No.: RT20E-S0047 Date: DEC 02, 2020 Based on the data collected the Hypothesis is accepted: The "Wash Clean (Domestic)/Freeze Wash (Overseas)" course of Samsung Air conditioner can remove more than 90% of the bacteria (Escherichia coli ATCC 8739, Staphylococcus aureus ATCC 6538) on the surface of heat exchanger.



## WindFree™ Low Noise

The WindFree™ Avant S2 and Avant Black models operate at an ultra-low noise<sup>1</sup> level of just 16 dB(A)<sup>2,3</sup> in their lowest setting, while WindFree™ mode runs at only 23 dB(A)<sup>2,3</sup> – still quieter than a typical library of 40 dB(A). This ensures a calm and undisturbed environment, making the WindFree™ range perfect for bedrooms and quiet places.

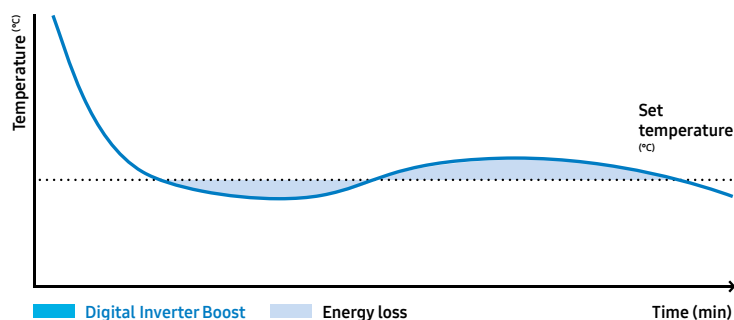
<sup>1</sup> Compared to decibel levels of equivalent products within the market.

<sup>2</sup> Tested in an acoustic space, measured at a 1-meter distance.

<sup>3</sup> Only applicable to WindFree™ indoor units 2/2.5/3.5 kW.

## AI Energy Mode of High-Efficiency Twin Rotary Compressor

The compressor uses AI<sup>1</sup> to analyse consumer usage patterns along with the indoor/outdoor temperature and humidity to operate in a more precise manner. AI Energy mode will endeavor to reduce energy usage by sacrificing indoor comfort with a maximum temperature difference of  $2^{\circ}\text{C}$  from set point. AI energy mode<sup>1</sup> learns patterns and adjusts temperatures in advance to reduce unnecessary usage.



<sup>1</sup> AI Energy mode can only operate if AI comfort is on. A Wi-Fi connection and Samsung SmartThings application account are required. Requires iOS 10.0 or later & Android 5.0 or later.



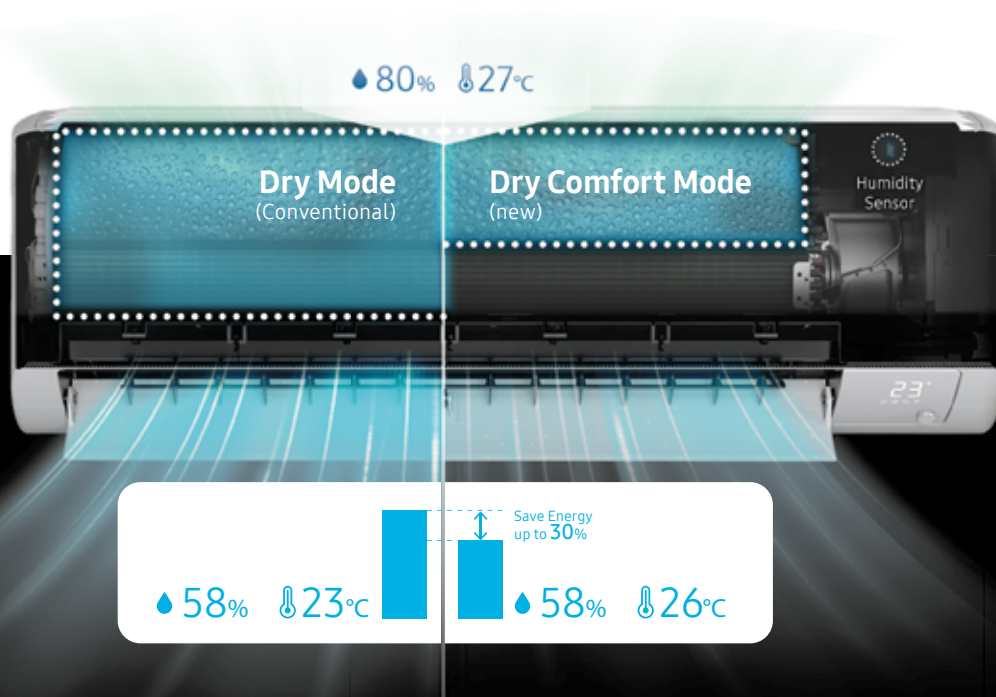
## Tri-Care Filter

The Tri-Care Filter<sup>1</sup> keeps the air cleaner and sustains the performance of the Heat Exchanger. Its three layers include a high-density filter that extracts large household dust particles, fibres and animal hair. It also has a filter with Zeolite coating that captures fine dust, and helps to reduce certain types of viruses, bacteria and allergens in the air<sup>2,3</sup>.

<sup>1</sup> Only applicable for WindFree™ Elite S2, WindFree™ Avant S2, and WindFree™ Avant Black.

<sup>2</sup> Verified by Intertek testing samples of Samsung AR9500T in a continuous airflow condition (to KS K 0693:2016 protocol using bacteriophage MS2 virus ATCC 15597-B1 and Escherichiacoli strain C3000 ATCC 15597) and antiviral Tri-Care Filter (to Samsung-defined test criteria using Staphylococcus aureus ATCC 6538 and Klebsiella pneumoniae ATCC 4352).

<sup>3</sup> Verified by Intertek and Fiti testing samples of Samsung AR9500T in a continuous airflow condition. Testing standard is KS K 0693:2016, using bacterias staphylococcus aureus ATCC 6538 and klebsiella pneumoniae ATCC 4352.



## Dry Comfort<sup>1</sup>

This feature helps to reduce the humidity indoors without creating very cold air that causes discomfort. It can finely adjust the compressor frequency and refrigerant amount, saving energy

and achieving comfort<sup>2</sup>. Mainly effective when there is high indoor humidity and you want to avoid the cold draft but still dehumidify the indoor air, often found in Southern Europe close to the ocean.

<sup>1</sup> Dry comfort is available in all countries where the WindFree™ units are installed. However, the benefit of this feature adds more value in humid and tropical climates.

<sup>2</sup> Based on Samsung's internal test, a saving of 30% at 25°C with 60% humidity is achieved. Dehumidification time may increase. Results may vary depending on the actual usage conditions.

## SolarCell Remote Controller

The new SolarCell remote controller<sup>1</sup> focuses on innovative charging, slim design and easy usability features. The SolarCell remote controller does not need batteries; instead a solar panel is integrated on the back of the remote controller that allows charging by exposing it under direct light. A single, fully charged battery can last up to two years, making it an economical alternative to disposable batteries. In addition, there is also a USB-C port on the bottom of the remote control for fast charging. It has better grip, easier button controls, large OLED display and it is lightweight<sup>2</sup>.

<sup>1</sup> The SolarCell Remote Controller is included with the WindFree™ Elite and WindFree™ S2 models and Cebu S2.

<sup>2</sup> Compared to the conventional infrared remote controller for example, the AR-EH03.





Indoor Unit Black			AR70F07C1ABNEU	AR70F09C1ABNEU	AR70F12C1ABNEU			
Indoor Unit Avant S2			AR70F07C1AWNEU	AR70F09C1AWNEU	AR70F12C1AWNEU	AR70F15C1AWNEU	AR70F18C1AWNEU	AR70F24C1AWNEU
Outdoor Unit			AR70F07C1AWXEU	AR70F09C1AWXEU	AR70F12C1AWXEU	AR70F15C1AWXEU	AR70F18C1AWXEU	AR70F24C1AWXEU
Capacity								
Capacity	Cooling (Nominal)	kW	2	2.5	3,5	4.3	5	6.5
	Cooling (Min–Max)	kW	0.96 - 3.2	0.96 -3.7	1- 4.6	1- 5	1.6 -6.7	1.4 - 7.6
	Heating @ +7 °C	kW	2.2	3.2	4.0	4.7	6	7.4
	Heating (Min–Max)	kW	0.7 - 6.7	0.7 - 7	0.7 - 7.2	0.7 - 7.6	1.3 - 8	1.2 - 9.7
	Heating @ -5 °C	kW	4.2	4.39	4.96	5.08	5.29	6.58
	Heating @ -10 °C	kW	4.17	4.35	4.74	4.71	4.88	5.97
	Heating @ -15 °C	kW	3.57	3.72	4.1	4.16	4.13	5.12
Performance								
Energy Efficiency Cooling	SEER¹	W/W	9/ <b>A++</b>	8.8/ <b>A++</b>	8.6/ <b>A++</b>	8/ <b>A++</b>	7.2/ <b>A++</b>	7/ <b>A++</b>
	Power Consumption	kWh/a	77.78	99.43	142.44	188.13	243.06	325.00
	Pdesignc	kW	2	2,5	3,5	4,3	5	6,5
	EER	W/W	4,65	4,39	3,85	3,64	3,6	3,33
Energy Efficiency Heating	SCOP¹	W/W	4.8/ <b>A++</b>	4.8/ <b>A++</b>	4.8/ <b>A++</b>	4.6/ <b>A++</b>	4.1/ <b>A+</b>	4.3/ <b>A+</b>
	Power Consumption	kWh/a	641.67	670.83	700.00	821.74	1297.56	1334.88
	Pdesignh (average)	kW	2.2	2.3	2.4	2.7	3.8	4.1
	COP¹	W/W	4,78	4,21	3,74	3,73	3,73	3,36
Moisture Removal		L/h	1.0	1.0	1.5	1.5	2	2.5
Maximum Airflow (Cooling)	Indoor Unit	m³/min	9	9.5	10.5	14.2	15.7	17.6
	Outdoor Unit	m³/min	45	45	45	45	50	50
Sound Power	Indoor Unit (Cooling)	dB(A)	56	56	58	58	58	62
	Outdoor Unit (Cooling)	dB(A)	59	59	62	65	65	68
Sound Pressure	Indoor Unit High/Silent Mode	dB(A)	38 / 16	38 / 16	40 / 16	41 / 25	41 / 25	45 / 27
	Outdoor Unit High	dB(A)	45	45	46	48	51	54
Operating Temperature Range	Cooling	°C	-10–46	-10–46	-10–46	-10–46	-10–46	-10–46
	Heating	°C	-15–24	-15–24	-15–24	-15–24	-15–24	-15–24
Electrical Data								
Power Source		Φ, V, Hz	1Φ, 220–240 V, 50 Hz	1Φ, 220–240 V, 50 Hz	1Φ, 220–240 V, 50 Hz	1Φ, 220–240 V, 50 Hz	1Φ, 220–240 V, 50 Hz	1Φ, 220–240 V, 50 Hz
Compressor Type	Outdoor Unit	Type	Twin Rotary	Twin Rotary	Twin Rotary	Twin Rotary	Twin Rotary	Twin Rotary
Power Consumption	Cooling	W	430	570	910	1180	1390	1950
	Heating	W	460	760	1070	1260	1610	2200
Operating Current	Cooling	A	2.3	3	4.1	5.2	6.4	8.8
	Heating	A	2.3	3.4	4.7	5.6	7.8	9.8
Dimensions								
Net Dimensions (W x H x D)	Indoor Unit	mm	889 x 299 x 215	889 x 299 x 215	889 x 299 x 215	889 x 299 x 215	1,055 x 299 x 215	1,055 x 299 x 215
	Outdoor Unit	mm	790 x 548 x 285	790 x 548 x 285	790 x 548 x 285	790 x 548 x 285	880 x 638 x 310	880 x 638 x 310
Net Weight	Indoor Unit	kg	9,9	9,9	9,9	9,9	12,3	12,3
	Outdoor Unit	kg	30,7	30,7	30,7	30,7	30,7	30,7
Refrigerant								
Refrigerant	Type		R32 (contains fluorinated greenhouse gases. GWP = 675)					
	Charging (for 7.5 m)	kg	0,95	0,95	0,95	0,95	1,3	1,3
	Charging Ton Equivalent CO₂	tCO₂e	0.64	0.64	0.64	0.64	0.88	0.88
	Additional Refrigerant Charging	g/m	15	15	15	15	15	15
Piping Connections	Liquid Pipe	ø, mm (inch)	6.35 (1/4)	6.35 (1/4)	6.35 (1/4)	6.35 (1/4)	6.35 (1/4)	6.35 (1/4)
	Gas Pipe	ø, mm (inch)	9.52 (3/8)	9.52 (3/8)	9.52 (3/8)	9.52 (3/8)	12.7 (1/2)	15.88 (5/8)
Piping Length	Min/Max (ODU to IDU)	m	3/20	3/20	3/20	3/20	3/30	3/30
Piping Height	Max	m	10	10	10	10	15	15
Piping Connections	Drain Pipe	ø, mm	ø16.3, 550 mm	ø16.3, 550 mm	ø16.3, 550 mm	ø16.3, 550 mm	ø16.3, 550 mm	ø16.3, 550 mm

# Controls and Accessories



Wireless Remote Controller SolarCell (included)	Advanced Wired Controller³	Simple Type Controller³	Touch Controller³
	MWR-WG01JN MWR-WG01KN	MWR-SH00N	MWR-SH11N

³ MIM-A00N Interface is required for the connection to wired remote controllers.



Indoor Unit Black	AR70F07C1ABNEU	AR70F09C1ABNEU	AR70F12C1ABNEU			
Indoor Unit Avant S2	AR70F07C1AWNEU	AR70F09C1AWNEU	AR70F12C1AWNEU	AR70F15C1AWNEU	AR70F18C1AWNEU	AR70F24C1AWNEU
Outdoor Unit	AR70F07C1AWXEU	AR70F09C1AWXEU	AR70F12C1AWXEU	AR70F15C1AWXEU	AR70F18C1AWXEU	AR70F24C1AWXEU

Functions							
Airflow	WindFree™ Cooling	●	●	●	●	●	●
	Air Direction Control (Up/Down)	Auto	Auto	Auto	Auto	Auto	Auto
	Air Direction Control (Left/Right)	Auto	Auto	Auto	Auto	Auto	Auto
	Auto Fan Speed	●	●	●	●	●	●
Air Purification	Tri-Care Filter	●	●	●	●	●	●
	Easy Filter Plus	●	●	●	●	●	●
	Auto Clean (Self-Cleaning)	●	●	●	●	●	●
Operating Mode	AI Auto Comfort with Wi-Fi & MDS (direct/indirect)	-	-	-	-	-	-
	AI Auto Comfort with Wi-Fi	●	●	●	●	●	●
	Auto Mode (without Wi-Fi)	-	-	-	-	-	-
	Fast Cooling	●	●	●	●	●	●
	Good Sleep	●	●	●	●	●	●
	Eco	●	●	●	●	●	●
	Dehumidification	●	●	●	●	●	●
	Fan	●	●	●	●	●	●
	Quiet	●	●	●	●	●	●
	Samsung SmartThings	●	●	●	●	●	●
	MDS (Motion Detect Sensor)	●	●	●	●	●	●
Other Functions	Indoor Temperature Display	●	●	●	●	●	●
	Display On/Off 88 Display	●	●	●	●	●	●
	Beep On/Off	●	●	●	●	●	●
	Auto Changeover	●	●	●	●	●	●
	Auto Restart	●	●	●	●	●	●

<sup>1</sup> Energy labels as shown are according to EU No 626/2011 (LOT 10) label classification 2019, on a scale from D to A+++.

<sup>2</sup> A MIM-R10N Interface is required to connect the Outdoor Unit (ODU) to the centralized controller.

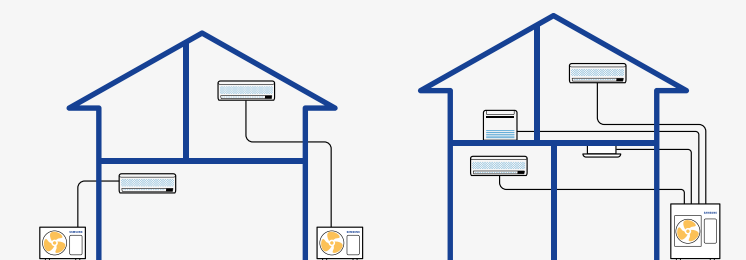


Indoor Unit Avant S2 - AR70F**C1AWNEU						
Indoor Unit Avant Black - AR70F**C1ABNEU						
Capacity (kW)	2	2.5	3.5	4.3*	5*	6.5*
Single Split (RAC) - AR70F**CAAWX/EU						
AR70F**C1AWXEU	●	●	●	●	●	●
Multi Split (FJM) - AJ***TXJ*KG/EU						
AJ040TXJ2KG/EU	●	●	●	-	-	-
AJ050TXJ2KG/EU	●	●	●	-	●	-
AJ052TXJ3KG/EU	●	●	●	-	●	-
AJ068TXJ3KG/EU	●	●	●	-	●	-
AJ080TXJ4KG/EU	●	●	●	-	●	●
AJ100TXJ5KG/EU	●	●	●	-	●	●

\* not available in WindFree Avant Black

## Schematic of Single Split + Multi Split

Any air conditioning system needs both an indoor and an outdoor unit. Depending on the system you choose, multiple indoor units can be connected to the same outdoor unit. The system which is right for you depends on your needs, your home and the way your home is built.



# SAMSUNG

# Find your flow.

Create your perfect environment

Learn more about Samsung Climate Solutions at:  
**[samsung-climatesolutions.com](https://samsung-climatesolutions.com)**

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