

THE INVENTION THAT CHANGED THE WORLD

Built on Willis Carrier's invention of modern air conditioning in 1902, Carrier is a world leader in heating, air conditioning and refrigeration solutions. We constantly build upon our history of proven innovation with new products and services that improve global comfort and efficiency.

The range of advanced Carrier products and solutions is engineered to deliver efficiency to our customers while having the least impact on our environment. This is a reflection of our commitment to be a better corporate, environmental and social citizen.



Willis Carrier designed the first modern airconditioning system.



Willis Carrier unveiled his single-most influential innovation, the centrifugal refrigeration machine (also known as chiller).

1922



San Antonio, Texas, touted the world's first air-conditioned city bus.

1946

1902

1926

0

Carrier introduced the first home air conditioner.



1949

Carrier announced that the four biggest and most modern post-war skyscrapers in New York city would be airconditioned from top to bottom by Carrier's Conduit Weather Master System.



1913

Willis Carrier developed the Carrier Air Humidifier.





The University of Riyadh received two centrifugal chillers – marking the start of the largest comfort-cooling installation in the Middle East.

1977



Carrier Transicold, our land transportation, introduced the R134a refrigerant, coinciding with the production of the 100,000th container unit.

1993



Carrier introduced Infinity®, an air source heat pump with the greatest heating efficiency.

2011



The world celebrates the 120^{th} anniversary of modern air conditioning – an invention that fundamentally improved the way we live, work and play.

2022

1993

Carrier was instrumental in launching the U.S. Green Building Council® and was the first company in the world to join the organization.



2008

Beijing National Stadium used Carrier air-handling units.



2020

TIME named Carrier's OptiClean™ air scrubber a Best Invention of 2020.







ENERGY-EFFICIENT SUSTAINABILITY



ENVIRONMENT-FRIENDLY, LOW GWP REFRIGERANT

A refrigerant is a chemical key to the operation of air conditioners that transitions from liquid to gas and back again based on your cooling and heating needs. It either transfers heat and humidity away from your space to deliver cooling, or draws heat from the outside to bring warmth in your interiors.

Air conditioning solutions emit a certain amount of greenhouse gases (GHGs) into the atmosphere that ultimately leads to global warming. As a means to identify and compare the global warming impact of different gases, the Global Warming Potential (GWP) was devised.

Carrier doesn't just manufacture HVAC solutions that deliver exceptional cooling, we are a company that also prioritizes the environment to ensure a greener Earth for future generations. In our commitment to reduce our customers' carbon footprints, we use a low Global Warming Potential (GWP) R32 refrigerant. This reduces the total ${\rm CO_2}$ consumption by 78% in wall-mounted units and enables more optimal energy consumption.

Compared to our previous R410a refrigerant, here is the difference R32 makes.

R410a (Fixed Speed) 1HP GWP (A) 2,088 Unit Refrigerant Charge, kg (%) (B) 0.61 (100%) CO₂ Equivalent, kg (%) (AxB) 1,274 (100%) R32 (Fixed Speed) 1HP GWP (A) 675 Unit Refrigerant Charge, kg (%) (B) 0.42 (69%) CO₂ Equivalent, kg (%) (AxB) 284 (22%)

R410a (Inverter Speed) 1HP

GWP (A) 2,088

Unit Refrigerant Charge, kg (%) (B) 0.48 (100%)

CO₂ Equivalent, kg (%) (AxB) 1,002 (100%)

R32 (Inverter Speed) 1HP

GWP (A) 675

Unit Refrigerant charge, kg (%) (B) 0.38 (79%)

CO₂ Equivalent, kg (%) (AxB) 257 (26%)

CARRIER RESIDENTIAL

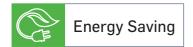


PRODUCT OVERVIEW

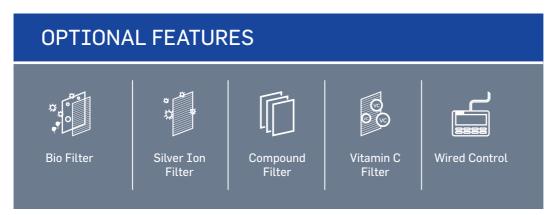


The **Carrier Inverter R32** and **Non-Inverter R32** Split Unit HVAC solutions are built to prioritize your cooling comfort. Manufactured to work uninterruptedly even at high ambient temperatures, open your homes to efficient, high-performance air conditioning.

STANDARD FEATURES Energy-Efficient **Special** Self-Diagonsis Water- & Dual Built-In Fire-Proof **Gold Fin Coating** Purification **Smart Control** Climate-Friendly Cooling (for WF Series Only) **Auto-Protection** Electric Box Refrigerant Self-Clean **Auto Restart Louver Position** Turbo Timer Follow Me Sleep Mode for KHA **Function** Memory



Engineered with a low Global Warming Potential (GWP) refrigerant, the **Carrier Inverter R32** and **Non-Inverter R32** solutions deliver reliable performance with an optimal energy consumption and a reduced carbon footprint.



All features and specifications are subject to change without prior notice for product improvement purposes.





PERFORMANCE & **RELIABILITY**

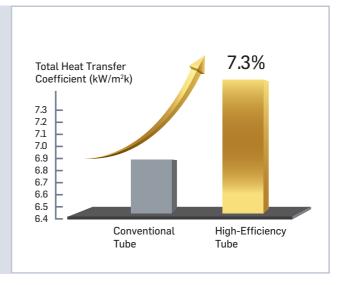


These Carrier residential air conditioning solutions have performance and reliability at the forefront so as to deliver enhanced customer satisfaction. This is made possible through a variety of cutting-edge features.

EFFICIENT TUBE SYSTEM

The tube in the aircon comes with a larger surface area for the transfer of heat which is enabled by an increased number of inner groove teeth from 45 to 55. This intelligent combination ensures that the heat transfer efficiency increases by 7.3% and the Carrier air conditioner offers better efficiency.





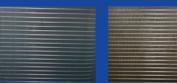




GOLD FIN SPECIAL COATING

Built for use in outdoor and indoor units, the special Gold Fin coating delivers a reliable anti-corrosive performance that leads to higher efficiency. This is a capability that the commonly- used coated fin doesn't deliver as explained below.

LONGER COATING LIFETIME



Common Fin

Gold Fin



Common Fin



Gold Fin

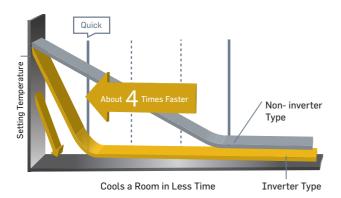
Test 1: Neutral Salt Spray Test for 1,000 hours (this is equivalent to over 10 years of service life under normal conditions). Protection level > 9.5 without

perforation

Test 2: Acid Resistance Test for 30 minutes (this is equivalent to an acid rain test whose magnitude has been increased by 10,000 times that of a normal one). Corrosion area < 0.5%

CONSISTENT POWER

Keeping powerful, reliable performance at the forefront, the compressor of the Carrier inverter air conditioner operates faster, allowing users to achieve the desired set temperature sooner than a conventional air conditioner would.



RELIABLE PERFORMANCE

With a wide operation range of between 168V to 264V, the Carrier inverter air conditioner works uninterruptedly even at a high ambient temperature of up to 50°C and a low ambient temperature of down to 0°C.

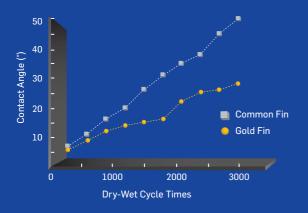
Note: QHG can operate at temperatures as low as -15°C.



UNIQUE ANTI-CORROSION PROPERTIES

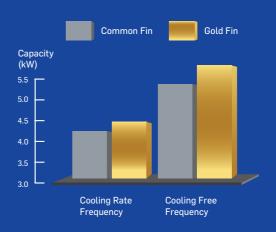
Test 3: Dry-Wet Cycle Test done 3,000 times (equivalent to an air conditioner operating for 10 years)

Hydrophilic angle < 30°, showing good hydrophilicity.



BETTER EFFICIENCY

The Gold Fin component of our product comes with a number of benefits. Testing shows that when compared to a common coated fin, after one year of operation, the Gold Fin outperforms the former by displaying a longer functioning life and efficiency in performance.



SMART CONTROL



Adding convenience, comfort and efficiency in cooling is what we at Carrier deliver with our Inverter and Non-Inverter R8 series. Our HVAC solutions come with Smart Control to enable our customers to control and monitor their unit anytime and from anywhere using a smartphone*.

Smart Control Features				
Timer On / Off	0			
Weekly Timer	O			
Sleep Mode	C			
DIY Mode	<u>F</u>			
Self-Check	\otimes			
QR Code Sharing	\Rightarrow			
Language Option	(FA)			
Indoor / Outdoor Temperature				

Smart Control Adapter Specifications				
Power Input	DC 5V / 300 mA			
Standard	IEEE 802.11 b/g/n			
Frequency Range	2.4 – 2.48 GHz			
Encryption	WPA-PSK/WPA2-PSK			

EXPERIENCE CONVENIENCE AT YOUR FINGERTIPS

- Control and manage your system from anywhere, at anytime*
- Equipped with a weekly timer to deliver hassle-free cooling amidst busy lifestyles
- Personalize your cooling with hourly temperature control
- Self-diagnose your system for a quick understanding of the unit's status – working or in need of service

SET-UP

Step 1: Download the Carrier Air Conditioner app





Step 2: Pair the air conditioner to the smartphone**

Step 3: The process is complete! Control the air conditioner from your smartphone*

The app allows users to connect multiple phones using a QR code.

Note

^{*}The air conditioner and smartphone should be connected to the Internet to enable the Smart Control Function

^{**}Refer to the manual for set-up instructions





CONVENIENT OPERABILITY

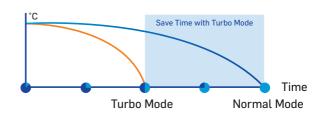


The Carrier Inverter and Non-Inverter R8 series is built with several modes to ensure convenience in operation, functionality and usage.



TURBO MODE

Our Turbo Mode gives the air conditioner an increased capacity to quickly cool down quickly, reaching the set temperature in the shortest possible time.





MY MODE

This Mode allows users to save their preferred temperature settings on the remote controller and enjoy personalized cooling with the press of a button.









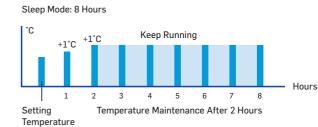






SLEEP MODE

The Sleep Mode in our air conditioner enables the system to automatically increase the set temperature by 1°C / hour for the first two hours. For the following six hours, the aircon maintains a set temperature and then moves on to the final settings. Welcome energy savings and comfortable sleeping with one solution.







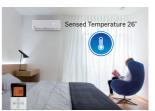




FOLLOW ME

This function works to detect the temperature of the room using a sensor built into the remote controller.





Without 'Follow Me'

With 'Follow Me'

EASY TO MAINTAIN



A significant aspect of a good-quality, well-functioning air conditioner is not just how well it cools. It's also how easy it is to use the unit and maintain it. The Carrier Inverter and Non-Inverter R8 series of residential air conditioning solutions are engineered with a host of features to ensure this.



ACTIVE CLEAN (QHG)

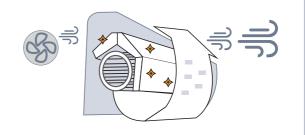
The Active Clean function of the Carrier Inverter and Non-Inverter N8 series enables the unit to wash out dust, mold and grease thus reducing the occurrence of odor. When this function is activated, the unit automatically freezes and thaws with the display window showing 'CL'. After 20 to 45 minutes, the unit automatically turns off and cancels the function. Active Clean (QHG) is only applicable to our 29K unit.





SELF-CLEAN (KHA)

This function helps to reduce the growth of mold in the unit. This is achieved as the aircon operates in a low fan mode to dry the coils. To turn on this setting, users would need to press and hold the 'High Power' button for more than two seconds after which the controller will automatically take care of the process.





The Carrier Inverter R32 and Non-Inverter R32 Split Unit HVAC solutions come with an easy installation procedure to meet your cooling needs in a hassle-free manner.

RELIABLE SAFETY AND PROTECTION





2-WAY CONNECTION

The units offer excellent installation flexibility with their refrigerant piping and drainage hose that have the option of being connected to either the left or right side of the indoor unit.





REFRIGERANT LEAKAGE DETECT

In the event of a leakage, the unit shows an error code 'EC' and stops automatically. This offers absolute protection to the compressor against high-temperature damage due to the leakages.





WATER- & FIRE-PROOF SEALED E-BOX

In order to offer more durability, longer life and easier maintenance, the unit's electric box is sealed with a metal plate and double-slot-tight buckles. This protects it from rain and humidity.



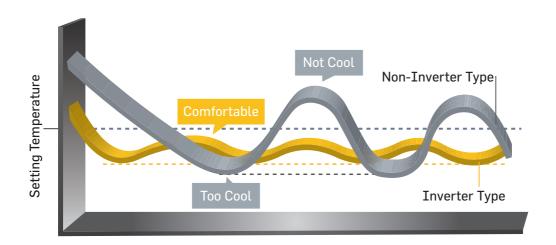
ENERGY SAVING AND COMFORT COOLING



PRECISE CONTROL, CONSTANT TEMPERATURE

An HVAC system is only as good as the comfort it can offer you. These residential aircons are designed to ensure a fine adjustment of output power. When the inverter unit reaches the set temperature, it will maintain the room temperature. This creates a pleasant atmosphere in the space and negates the conventional aircon limitation of temperature swings.









IMPROVED AIR QUALITY

The Carrier Inverter and Non-Inverter R32 N8 series of residential aircons are built with features that ensure healthy air quality in the room.

DUAL PURIFICATION SYSTEM

This system gives the air conditioner two layers of purification, resulting in an output of cleaner air.

First Guard

Since the Guard is designed with an enhanced capacity, this enables the filter to work better than an ordinary one and remove small contaminants with greater efficiency.



Second Guard

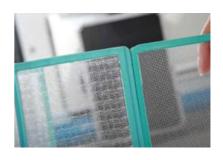
The Second Guard further filters any dust particles that may have gotten through which allows for the creation of a truly cleaner and safer indoor environment.



WASHABLE HIGH DENSITY FILTER

Our range of residential air conditioners are engineered with an advanced filter capacity which works to remove micro dust from the air.

Filter Type	Ordinary	HD		
Quantity of Holes per m ²	156	255		
Hole Size (mm)	1.2 x 1.2	0.54 x 0.54		

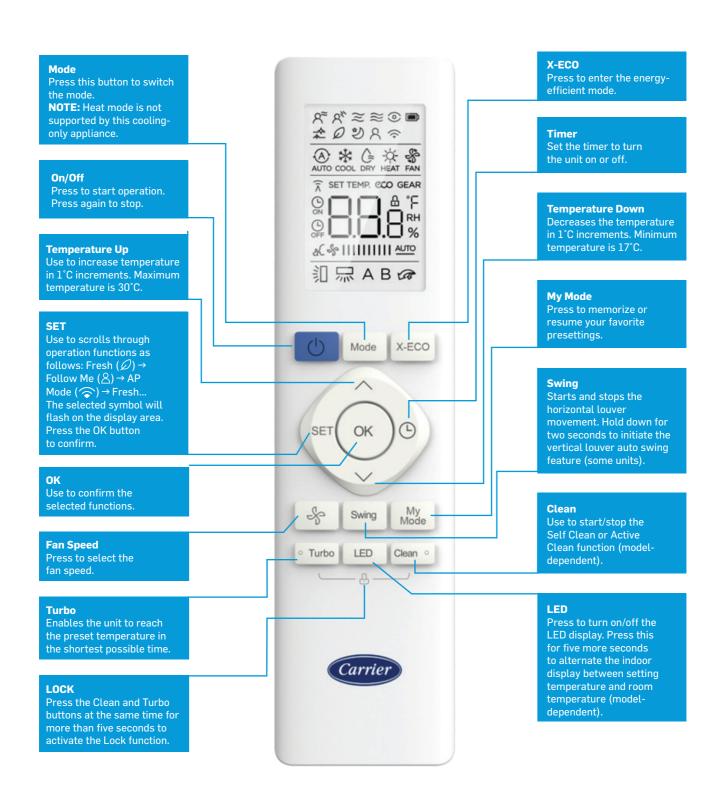




NEGATIVE ION FILTER

The filter produces negative ions to neutralize the positive ions present. It also ensures that the unit stays dust-free, thus making the air fresh. The number of negative ions released by the filter is more than 2,000 pcs/cm3/s.

CONTROLLERS



Note:

- 1. Above illustration shows all the features. For actual model, only the relevant parts are shown.
- 2. Buttons design might be slightly different from the actual one

Deluxe Controller

From its sleek, modern design to its intuitive interface, every aspect of the 120N has been carefully crafted to deliver the ultimate in comfort, convenience and efficiency.

- · Infrared signal receiver
- · Restricts the available
- temperature setting range

details and error codes.

- Operation mode locking Checks temperature
- · Weekly timer
- · Child lock
- · Follow Me
- · Auto restart



Simple Wired Controller

The Carrier 120K offers simple and intuitive controls, combined with a user-friendly interface, to allow you to easily program and adjust your HVAC system to your desired settings.

Timer

- · Child Lock
- · Auto Restart
- · Built-In Infrared Receiver

· Follow Me

Turbo



TECHNICAL SPECIFICATIONS











Indoor Model*			42KHA009N8FSA / 42KHA012N8FSA / 42KHA012N8FSA -WF		42KHA018N8FSA / 42KHA018N8FSA-WF	42KHA024N8FSA / 42KHA024N8FSA-WF
Outdoor Model		38KHA009N8FSA	38KHA012N8FSA	38KHA018N8FSA	38KHA024N8FSA	
Cooling Capacity		9K	12K	18K	24K	
Power Supply		Ph-V-Hz	1Ph- 220~240V- 50Hz	1Ph- 220~240V- 50Hz	1Ph- 220~240V- 50Hz	1Ph- 220~240V- 50Hz
Source of Power	Supply		Indoor	Indoor	Indoor	Indoor
	Nominal Capacity	Btu/h	9,000	12,000	18,000	24,000
	Power Input	W	765	1,050	1,650	2,070
Cooling Performance	Current	Α	3.33	4.57	7.60	9.50
	EER	W/W	3.45	3.35	3.20	3.40
	CSPF	Wh/Wh	3.66	3.56	3.40	3.61
	Dimension (WxDxH)	mm	805 x 194 x 285	805 x 194 x 285	957 x 213 x 302	1,040 X 220 X 327
Indoor Unit	Packing (WxDxH)	mm	870 x 270 x 365	870 x 270 x 365	1,035 X 295 X 385	1,120 X 405 X 315
	Net/Gross Weight	kg	8.30 / 10.60	8.20 / 10.50	11.00 / 14.00	13.50 / 16.90
Outdoor Unit	Dimension (WxDxH)	mm	720 x 270 x 495	765 x 303 x 555	765 x 303 x 555	946 x 410 x 810
	Packing (WxDxH)	mm	835 x 300 x 540	887 x 337 x 610	887 x 337 x 610	1,090 x 500 x 885
	Net/Gross Weight	kg	23.10 / 24.90	27.30 / 29.70	33.60 / 36.00	60.20 / 66.20
Indoor Air Flow (Hi/Mi/Lo)		m³/h	593 / 439 / 348	639 / 462 / 391	790 / 640 / 520	1,070 / 967 / 805
		CFM	349 / 258 / 205	376 / 272 / 230	465 / 376 / 306	630 / 569 / 474
Indoor Sound Pressure Level (Hi/Mi/Lo) dE		dB(A)	41 / 34 / 29	43 / 35 / 30	42 / 37 / 32	46 / 44 / 41
Outdoor Sound Pressure Level		dB(A)	52	52	57	58
Refrigerant	Туре		R32	R32	R32	R32
Type/Quantity	Charged Volume	g	420	430	750	1500
Design Pressure		MPa	4.30 / 1.70	4.30 / 1.70	4.30 / 1.70	4.30 / 1.70
Refrigerant Piping	Liquid Side/Gas Side	mm (inch)	Ф6.35/9.52 (1/4"/3/8")	Ф6.35/9.52 (1/4"/3/8")	Ф6.35/12.7 (1/4"/1/2")	Ф9.52/15.9 (3/8"/5/8")
	Max. Pipe Length	m	20	20	25	25
	Max. Difference in Level	m	8	8	10	10
Controller			Remote	Remote	Remote	Remote
Operation Tempe	rature	°C	17~30	17~30	17~30	17~30
Ambient Temperature	Outdoor	°C	18~43	18~43	18~43	18~43
Application Area		m²	12~18	15~22	23~34	32~47

Disclaimer: All the specifications are tested under nominal conditions based on standard ISO 5151 (in cooling, indoor temperature is 27°C DB / 19°C WB and the outdoor temperature is temperature 35°C DB / 24°C WB). The sound level is measured in an anechoic chamber based on the above temperature condition, measured at a point 1m in front of the unit at a height of 1.5m.

*-WF are models with WiFi for Smart Control

TECHNICAL SPECIFICATIONS











Indoor Model* Outdoor Model		42KHA009N8VS / 42KHA009N8VS-WF	42KHA012N8VS / 42KHA012N8VS-WF	42KHA018N8VS / 42KHA018N8VS-WF	42KHA022N8VS / 42KHA022N8VS-WF	42QHG029N8VS / 42QHG029N8VS-WF	
		38KHA009N8VS	38KHA012N8VS	38KHA018N8VS	38KHA022N8VS	38QHG029N8VS	
Cooling Capacity		9K	12K	18K	22K	29K	
Power Supply		Ph-V- Hz	1Ph- 220~240V- 50Hz	1Ph- 220~240V- 50Hz	1Ph- 220~240V- 50Hz	1Ph- 220~240V- 50Hz	1Ph- 220~240V- 50Hz
Source of Pow	ver Supply		Indoor	Indoor	Indoor	Indoor	Outdoor
Capacity Rated (Min~Max)		Btu/h	9,000 (5,000–10,500)	12,000 (6,000–13,000)	18,000 (7,000–18,000)	22,000 (8,000–22,000)	29,000 (7,200–29,000)
Cooling Performance	Power Input, Rated (Min~Max)	W	745 (320–885)	1,120 (420–1,220)	1,748 (580–1,748)	2,000 (600–2,000)	2,400 (420–2,400)
	Current	Α	3.60	5.10	7.60	8.70	10.50
	EER	W/W	3.54	3.14	3.02	3.22	3.54
	CSPF	Wh/Wh	4.70	4.70	4.81	4.54	-
	Dimension (WxDxH)	mm	715 x 194 x 285	805 x 194 x 285	957 x 213 x 302	1,040 x 220 x 327	1,082 x 234 x 337
Indoor Unit	Packing (WxDxH)	mm	780 x 270 x 365	870 x 270 x 365	1,035 x 295 x 385	1,120 x 405 x 315	1,155 x 415 x 315
	Net/Gross Weight	kg	7.40 / 9.40	8.20 / 10.40	10.85 / 14.00	13.60 / 16.90	13.30 / 17.00
	Dimension (WxDxH)	mm	720 x 270 x 495	720 x 270 x 495	765 x 303 x 555	805 x 330 x 554	890 x 342 x 673
Outdoor Unit	Packing (WxDxH)	mm	835 x 300 x 540	835 x 300 x 540	887 x 337 x 610	915 x 370 x 615	995 x 398 x 740
	Net/Gross Weight	kg	21.70 / 23.60	21.70 / 23.70	27.20 / 29.40	29.60 / 32.30	43.30 / 46.40
n		m²/h	490 / 384 / 310	599 / 442 / 350	737 / 625 / 501	1,050 / 840 / 630	1,090 / 900 / 825
Indoor Air Flo	w (Hi/Mi/Lo)	CFM	288 / 226 / 182	352 / 260 / 206	434 / 368 /295	618 / 494 / 371	641 / 529 / 485
Indoor Sound (Hi/Mi/Lo)	Pressure Level	dB(A)	39 / 34 / 29	41 / 35 / 28	41 / 37 / 32	46 / 40 / 34	45 / 39 / 34
Outdoor Sound	d Pressure Level	dB(A)	52	54	56	57	61
Refrigerant	Туре		R32	R32	R32	R32	R32
Type/ Quantity	Charged Volume	g	380	440	650	830	1,400
Design Pressu	re	MPa	4.30 / 1.70	4.30 / 1.70	4.30 / 1.70	4.30 / 1.70	4.30 / 1.70
Refrigerant Piping	Liquid Side/ Gas Side	mm (inch)	Ф6.35/9.52 (1/4"/3/8")	Ф6.35/9.52 (1/4"/3/8")	Ф6.35/12.7 (1/4"/1/2")	Ф6.35/15.9 (1/4"/5/8")	Ф9.52/15.9 (3/8"/5/8")
	Max. Pipe Length	m	25	25	30	30	50
	Max. Difference in Level	m	10	10	20	20	25
Controller		Remote	Remote	Remote	Remote	Remote	
Operation Tem	perature	°C	17~30	17~30	17~30	17~30	16~30
Ambient Temperature	Outdoor	°C	0~50	0~50	0~50	0~50	0~50
Application Area		m²	12~18	16~23	23~33	28~41	36~53

Disclaimer: All the specifications are tested under nominal conditions based on standard ISO 5151 (in cooling, indoor temperature is 27°C DB / 19°C WB and the outdoor temperature is temperature 35°C DB / 24°C WB). The sound level is measured in an anechoic chamber based on the above temperature condition, measured at a point 1m in front of the unit at a height of 1.5m.

*-WF are models with WiFi for Smart Control

