Air Conditioner

HITACHI
Inspire the Next

eco CHOICE

ALL DC INVERTER × SCENE CAMERA Air Sleep

Eco-technologies ensure energy-saving and eliminate harmful materials while new high-performance features enhance everyday life!

ALL DC INVERTER
SCENE CAMERA
Air Sleep

Advanced Technology Specialized for Sleep Support

Advanced Scene Camera technology
smartly creates the best sleeping and
daytime environment ever provided by an
air conditioner.

ALL DC INVERTER
SCENE CAMERA
Air Sleep

Using Thermo and Image Cameras, Scene Camera Twin intelligently "sees" room temperature distribution, absolute location and level of activity of individuals to realize fully automatic operation providing comfort for everyone in various scenes of life. Of course, it saves energy too.

SCENE CAM

📷 **Thermo Camera**

HITACHI
STAINLESS CLEAN

Wall
temperature

Temperature
around a person

Bed area ambient
temperature

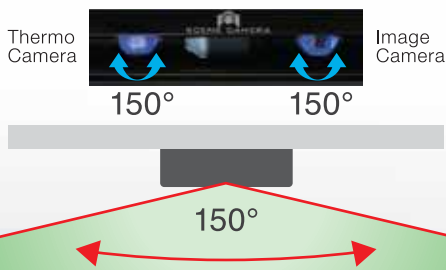Floor
temperature

Around
27℃

Around
30℃

Ec
&
Com

Thermal Distribution Monitoring

SCENE CAMERA TWIN

Wide Detection

Thermo Camera and an Image Camera swing widely left and right to detect human and room situations.

Thermo
Camera

Image
Camera

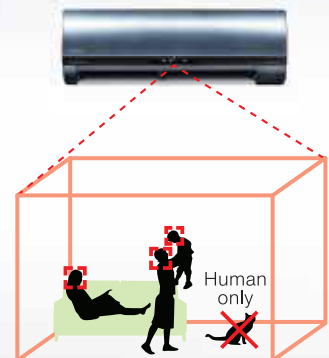150°   150°

150°

Detect Absolute Location

Picture Process Engine

Thermopile   CMOS Image Sensor

Since the Scene Camera Twin can actually "see", it can detect ABSOLUTE LOCATION of people in the room.

Human
only

Room size

Sunlight intensity

MERA TWIN

co & nfort

Image Camera

Far from air conditioner

Near to air conditioner

High activity

Low activity

Around 6m

Around 2.5m

Asleep/Awake

Air Conditioner will not send cool air to two directions at the same time.

<Image>

Human Activity and Absolute Position Monitoring

Detectable Contents		One-Touch Full Automatic Operation
Thermo Camera	Floor, wall temperature Temperature around a person Bed area temperature Heat source	Just press the SCENE CAMERA Air Sleep button to activate Scene Camera Twin and enjoy fully automatic operation for scene-by-scene comfort and efficiency.
Image Camera	Number of people Location of individuals Activity amount of individuals Absence/presence of people Sunlight intensity Distance from air conditioner Room size	
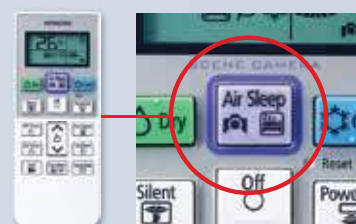
Advanced Sleep Support
for Everyone in Every Scene of Sleep

Hitachi Original

Scene Camera Twin and the Air Sleep
Sensor watch your sleep condition throughout
the night and automatically adjust cooling to
the optimum level for various stages of
sleep to assure good sleep.

Pre-Sleep Stage –Assists Smooth Dive into Sleep–

Cools the bed first

Scene Camera Twin detects the temperature by your bed and automatically pre-cools the area so that it is just right when you go to bed and sleep.

Cools the bed first
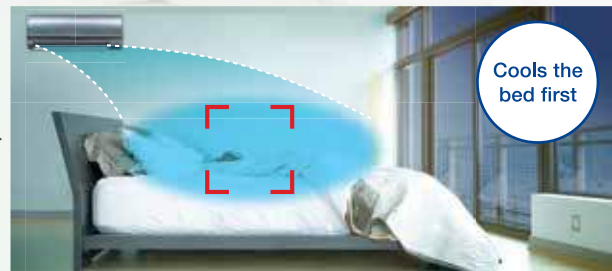
Cools your body when it gets hot

Scene Camera Twin checks each person's condition and automatically adjusts room temperature and airflow direction for optimum comfort.

Cools your body when it gets hot
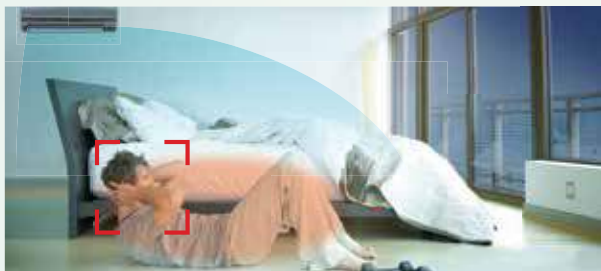
Awakening Stage –Assists a Refreshing Awakening–
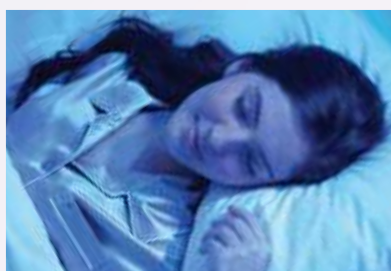
Waking up with a comfortable breeze

When you wake up, Scene Camera Twin will detect it and automatically send comfortable air to you to assist your refreshing awakening.

Smart Energy Saving Comfort
for Every Person in Every Scene

Hitachi Original

When set to the Eco Mode, Scene Camera Twin quickly detects energy wasting, and smartly cools with minimum energy for just the right level of comfort in every scene of daily life.

Location and Activity Level of Individuals

Scene Camera Twin detects and considers the location (far from or near to the air conditioner) and the activity level of each person in the room, and automatically makes adjustments to provide the most comfortable, energy saving cooling possible.

Soft cooling

Near to the air conditioner

Energy saving

Low activity level

Automatically adjusts to a comfortable set temperature and suitable fan speed taking into consideration the activity level and location of each person.

Air is blown for a longer time

Low activity level

High activity level

Comfort

When two or more people are in the room, the temperature is set to match the average amount of activity. Cool air is sent for a longer period of time towards people with a higher activity level.

Sunny Areas

Scene Camera Twin intelligently considers sunny areas, the locations of people and their level of activity, and automatically makes adjustments to provide the most comfortable, energy saving cooling possible.

Soft cooling

Away from a sunny area

Energy saving
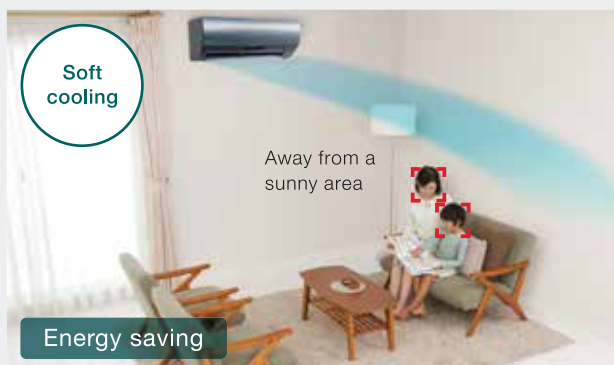
Softly cools people away from sunny areas.

Air is blown for a longer time

Close to a sunny area
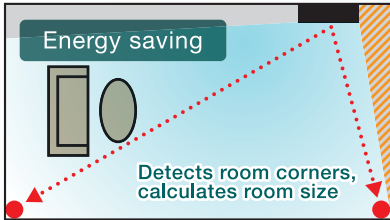
Away from a sunny area

Comfort

When the activity level of individuals is the same, cool air is sent for a longer time to people close to the sunny area.

Room Size Search

Scene Camera Twin precisely checks the room size and smartly adjusts cooling power to a suitable level for the room to save energy.

Energy saving

Detects room corners, calculates room size

Heat Source Search

When the Thermo Camera finds a heat source, cool air is automatically sent to the surrounding area for comfort.

Comfort cooling

Comfort

Number of People in the Room

Scene Camera Twin detects the number of people in the room at all times, and adjusts the airflow and temperature to match slight temperature increases and decreases in room temperature due to human heat generation.

When five people are together

Comfort cooling

Comfort

Comfortable cooling with a wide swing to cover everyone in the room.

When only two people remain in the room

Soft cooling

Energy saving

Automatically switches to soft cooling after pre-estimating room temperature changes when the number of people present decreases. Airflow swing is also limited to the area where the people are.

When no one is in the room

Auto Save

Comfort ▶ **Energy saving**

Soft cooling

Automatically switches to soft cooling after 10 min of absence to save energy.

Auto Off

Energy saving

Stop

When Auto Off is set, the air conditioner automatically switches off after 1 hour of absence.

Auto On

Comfort
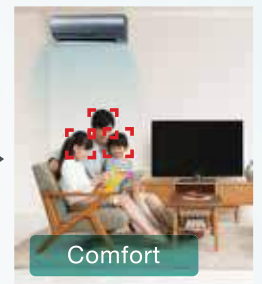
When Auto On is set, the air conditioner automatically switches on when people are detected.

*If you leave the air conditioner operating when you are not at home, please cancel the Auto Off setting. Do not use the Auto Off setting in rooms occupied by people who cannot operate the air conditioner themselves such as infants, children, the elderly and individuals who are ill or physically impaired.

ALL DC INVERTER

Hitachi's All DC Inverter newly applies the original Smart Vector System.
Going beyond energy saving, the Smart Vector System achieves top class
cooling capacity and reliable operation even under unstable power conditions.

Energy Saving

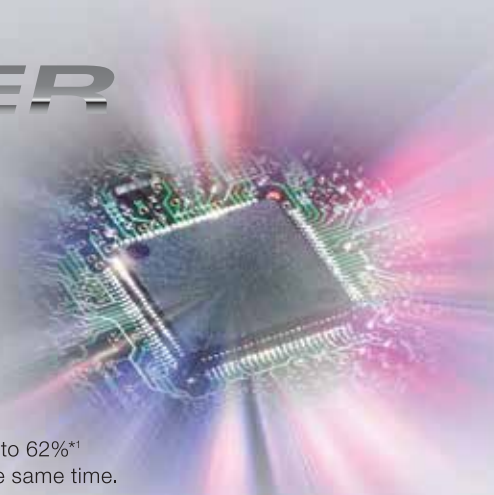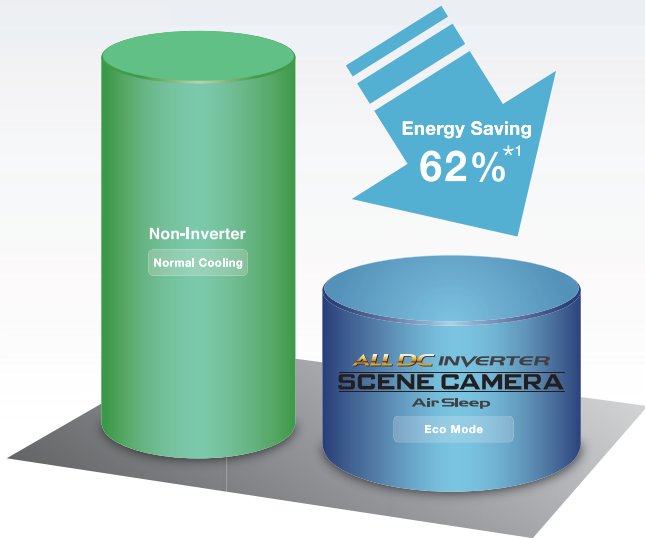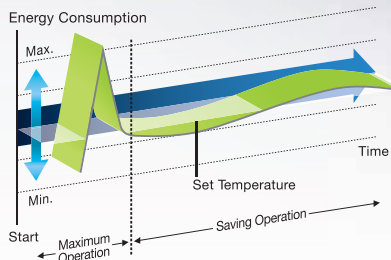A combination of the All DC Inverter and Sence Camera Twin can cut energy consumption by up to 62%[1]
compared to non-inverter models! So you can stay comfortable overnight, and save energy at the same time.

Energy Saving
62%[1]

Non-Inverter
Normal Cooling

ALL DC INVERTER
SCENE CAMERA
Air Sleep
Eco Mode

Inverter

Energy Consumption

Max.

Min.

Start
Maximum Operation
Set Temperature
Saving Operation
Time

With intelligent inverter
technology, an air
conditioner cools with
maximum capacity at
start-up, then automatically
slows down and operates
at minimum suitable
capacity to maintain room
temperature at a
comfortable level.

Non-Inverter

Energy Consumption

Max.

Min.

Start
Loss
Set Temperature
Time
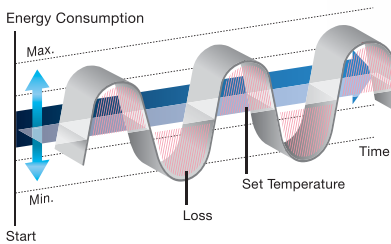
Non-inverter models can
only operate with simple
on-off controls. Trying to
maintain temperature by
repeatedly switching power
on and off consumes much
more electricity and results
in bigger temperature
fluctuations.

*1 RAS-VX13CF (Eco Mode) compared with a Hitachi 1.5HP non-inverter model (Cooling Mode).
Power consumption based on cumulative power consumption after 8 hours of operation.
Room temperature at start: 35℃, Set temperature: 25℃, Fan Speed: Auto.

Testing condition:
Three people in the room. Level of activity at 2.5m from the indoor unit estimated to be
1.0 metabolic equivalents (reading, etc.). Three people in separate locations in the room
during the daytime with the curtains drawn closed to cut the amount of sunlight to a low level.
Ambient temperature lower than the set temperature.

Powerful Cooling

The wide air inlet and the large diameter indoor fan enable top class
cooling capacity and big air volume to make you feel more comfortable.

31%[2] **Bigger**

Large Air Inlet
More Air Intake

Large Indoor Fan
Bigger Air Volume
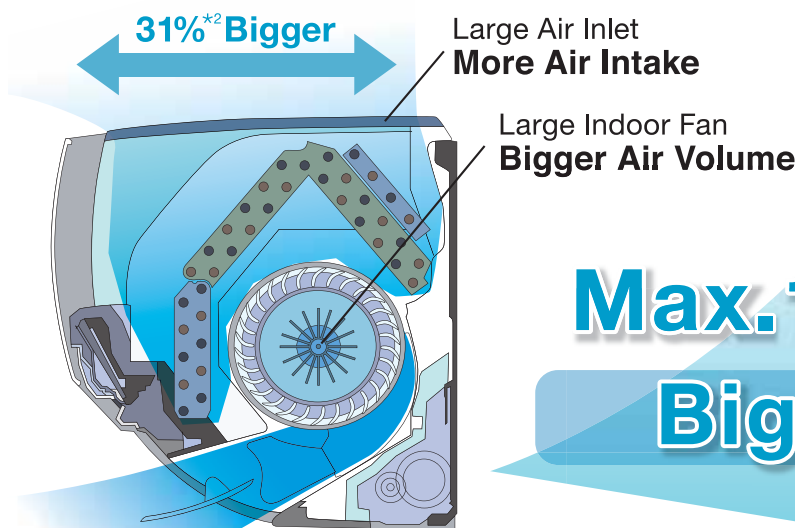
Max.12,000BTU/h![3]
Big Air Volume

*2 RAS-VX10CF/VX13CF compared to RAS-SX10CD/SX13CD/SD10CD/SD13CD.
*3 Max. cooling capacity of RAS-VX10CF.

Low Standby Energy

Electricity is continuously consumed even when the air conditioner is switched off but Hitachi's new standby energy saving system can reduce power consumption by 82%*4 when not in use.

Simulation

7:00   12:00   18:00   0:00   6:00

Air Conditioner OFF Stand By time | Air Conditioner ON

0.9W Standby Energy

82%*4 Reduced

*4 RAS-VX10CF/VX13CF standby energy compared to RAS-SX10CD/SX13CD/SD10CD/SD13CD.

Smart Vector System

Smart Vector

Hitachi Original

Reliable Operation

Case 1

**Instantaneous Power Failure :
Non Stop Operation**

If there's an instantaneous power failure (sudden voltage fluctuation), the Smart Vector System detects the voltage fluctuation to prevent the air conditioner from stopping due to a current surge.

Instant

Huge drop of voltage

Stable Operation
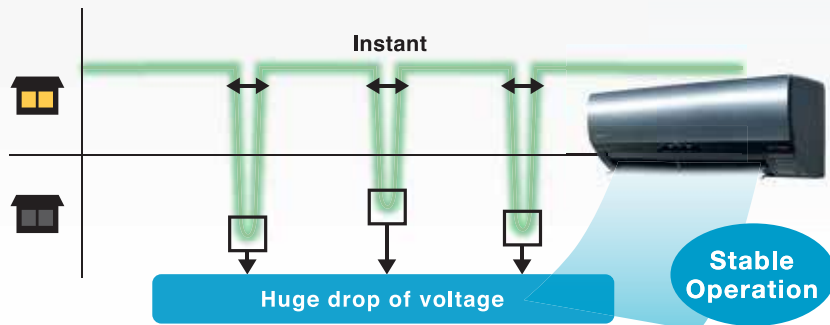
Case 2

**Power Failure :
Auto Restart at Previous Setting**

If there's a power blackout, a microcomputer in the Smart Vector System memorizes the setting at the time of the blackout, and automatically restarts operation at the same setting after power recovery.

Power Failure

0 V

Memorizes operation setting before power failure.

Auto Restart
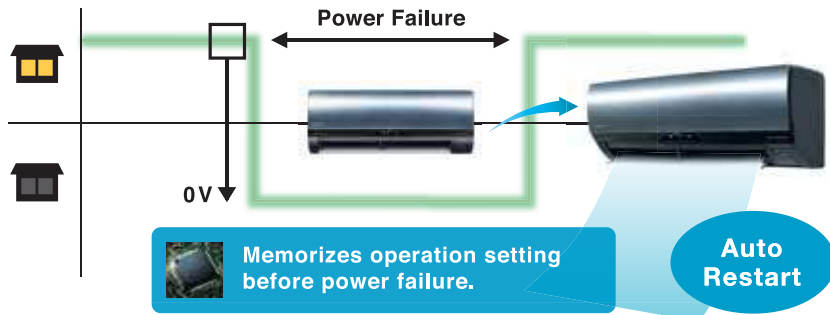
What is so Special about the Smart Vector System?

The Smart Vector System features a special microcomputer pre-installed with compressor characteristics data. Thanks to this, the system not only monitors compressor behavior and current flow conditions, but also adjusts compressor rotation speed at all times. This enables smooth compressor operation without loss, resulting in stable operation and high cooling capacity.

Smart Vector
Microcomputer

Precise motor rotation control

Motor current data

Adjusts to the right rotation speed
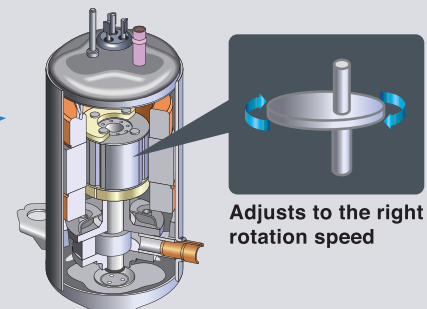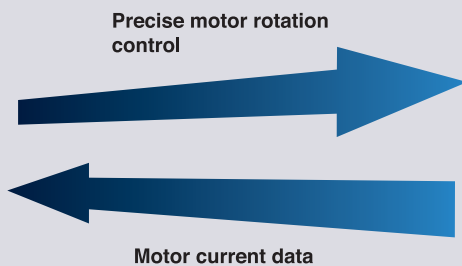
Sound Sleep Stage –Upgrades the Quality of Sleep–

Air Sleep Mode

Once the air conditioner recognizes that you have fallen asleep, it automatically adjusts the room temperature to best assure a good sleep, as well as switching to the 19dB* Silent Mode.

| Time | 19:00 | 22:00 | 24:00 | 7:00 |

Temperature
+2°C
+1°C
Set Temp.

Mode Start

Speed Cooling

Sensor Detects Sleep

Sensor Detects Awakening

Speed Cooling

Comfort Operation

Sleep Inducing Temperature Control

Deep Sleep Support Super Silent Mode

$19dB^*$
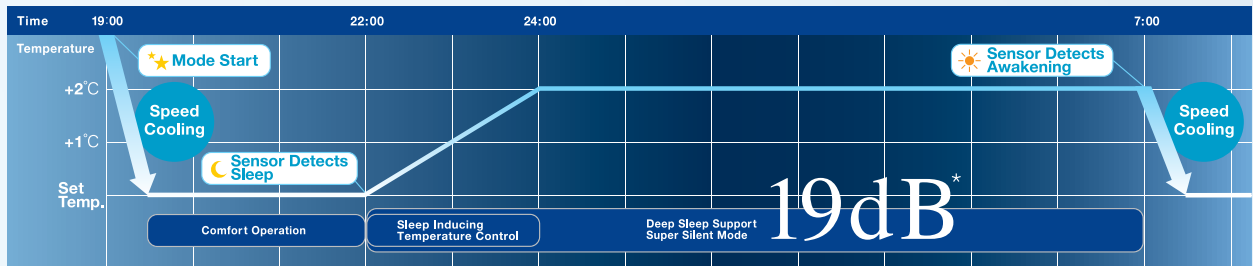
*Minimum operating noise of 1.0HP and 1.5HP Air Sleep Inverter models.

Smart Swing for Sleep

On top of controlling room temperature for a good sleep with the Air Sleep Mode, Scene Camera continuously checks your activity level, such as rollovers, and the temperature of the area where you sleep. By doing so, it can smartly adjust air direction to suite each person's sleeping condition.

Controls room temperature with the Air Sleep Mode for a good sleep.

Cools your body when it gets hot

Thermo Camera

<Image>

When a person is uncomfortably rolling over and the temperature is high, cool air is automatically delivered for a certain time to provide comfortable cooling.

Super Silent Wave Blade Indoor Fan

Silent operation during sleep hours is assured by Hitachi's innovative Wave Blade Indoor Fan technology. Each of the fan blades is wave-shaped, which varies the timing of each blade cutting through the air. As a result, annoying wind noise is dramatically reduced for exceptionally quiet operation.

Silent Operation
$19dB^*$

70dB
50dB
40dB
30dB

Phone Bell   Office   Library   Whisper   Air Sleep Inverter Models

*Minimum operating noise of 1.0HP and 1.5HP Air Sleep Inverter models.

Wave Blade

STAINLESS CLEAN System

Hitachi Original

Antibacterial stainless steel and silver ions are applied inside to keep the air pathways extra hygienic for fresh, healthy, clean air.

Stainless Air Duct

[Antibacterial*¹] [Dust Cut]

Stainless Louvre

[Antibacterial*¹] [Dust Cut] [Easy to Clean]

<Image>

Silver Ion Fan

[Antibacterial*¹]

Nano Titanium Stainless Pre-Filter

[Antibacterial*¹] [Easy to Clean]

*1 Tested by Boken Quality Evaluation Institute. Test No. 20214009288-1, 10218327, 022580-1. Test Method Based on JIS Z 2801 Quantitative Test.

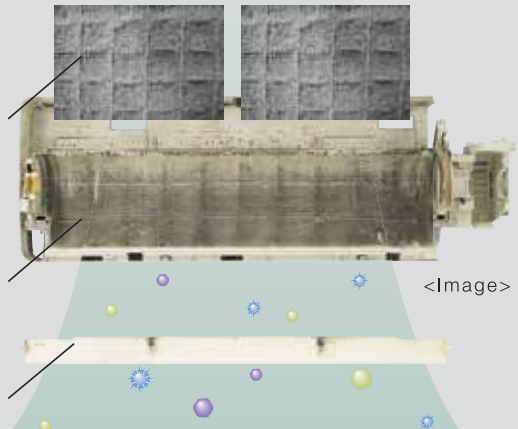## Did You Know?

Air conditioners can get very dirty on the inside, and can become home to bacteria and allergens. Hitachi's Stainless Clean applies antibacterial stainless steel inside for a long-lasting, fresher air supply.

Conventional Air Conditioner After 10 Years of Usage

Conventional Filter

Plastic Air Duct

<Image>

Plastic Louvre

Hitachi air conditioner released in 1997 (RAS-409GX2).

Antibacterial Sanitizing

When bacteria come into contact with the stainless steel, the metal ions adhere to them and suppress their activity and growth. In this way, bacteria are thoroughly reduced by a maximum of 99%[1].

Bacteria reduced by a max. of 99%[1]

Bacteria   Stainless Steel

Antibacterial Test

	Non Stainless	Stainless
After 24 hours		

310,000 bacteria

650,000 (Increased)   10 Left (Decreased)

Tested by Boken Quality Evaluation Institute. Test No. 20214009288-1, 10218327, 022580-1. Test Method Based on JIS Z 2801 Quantitative Test.
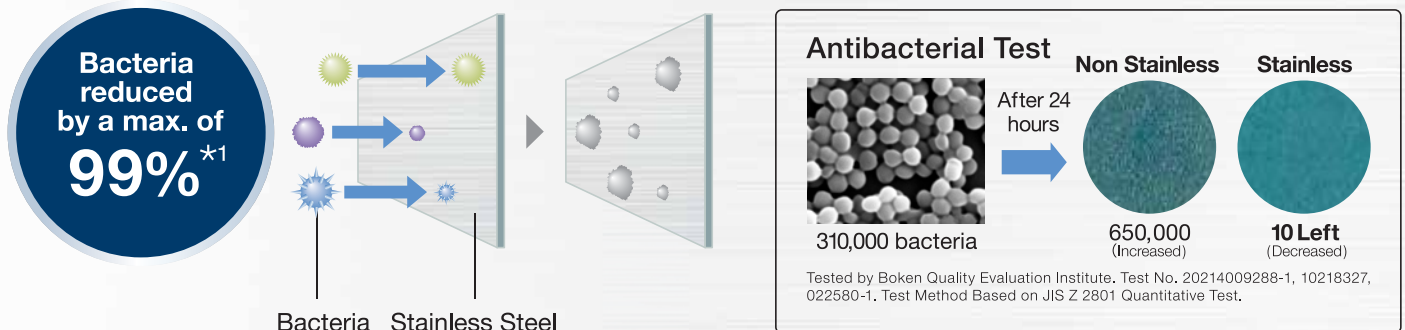
Dust Cut

Thanks to its sleek surface and non-static properties, more than 50%[2] less dust sticks to stainless steel than to plastic. Which means twice the cleanliness and half the cleaning time.

More than 50%[2] Less Dust Attached

Surface Closeup

Plastic   Stainless Steel

*2 Tested by the Hitachi Environmental Test Laboratory.

Dust Accumulation Comparison

(%)

Plastic 100

Stainless Steel 49

Easy to Clean

A single wipe without water is all that's required to remove dust from the filter. Even dust that contains grease can be easily removed from the sleek surface.

High Quality Stainless Steel

Stainless steel is iron mixed with chromium to provide anti-corrosion properties. The higher the chromium content, the higher the resistance to corrosion. Anti-corrosion effect can be further enhanced by adding nickel to the content. Stainless Clean uses austenitic stainless steel that contains 18% chromium and 8% nickel. Thanks to its reliable quality, austenitic stainless steel is widely used for everything from high class cooking ware to chemical plants where high resistance to corrosion and durability are required.

Stainless Steel
+Chrome Only → Martensitic (Fe-Cr) / Ferritic (Fe-Cr)
+Chrome & Nickel → Austenitic (Fe-Cr-Ni) / Duplex (Fe-Cr-Ni)
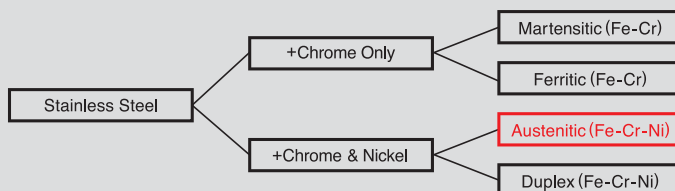
* Applicable to Stainless louvre and air duct.

Nano Titanium Wasabi
Air Purifying Filter

Nano Titanium WASABI

The filter is packed with a hybrid coating of Nano Titanium and wasabi solution which provides a powerful antibacterial, anti-mold, anti-allergen and deodorizing effect.

Nano Titanium
Stainless Pre-Filter

<Image>
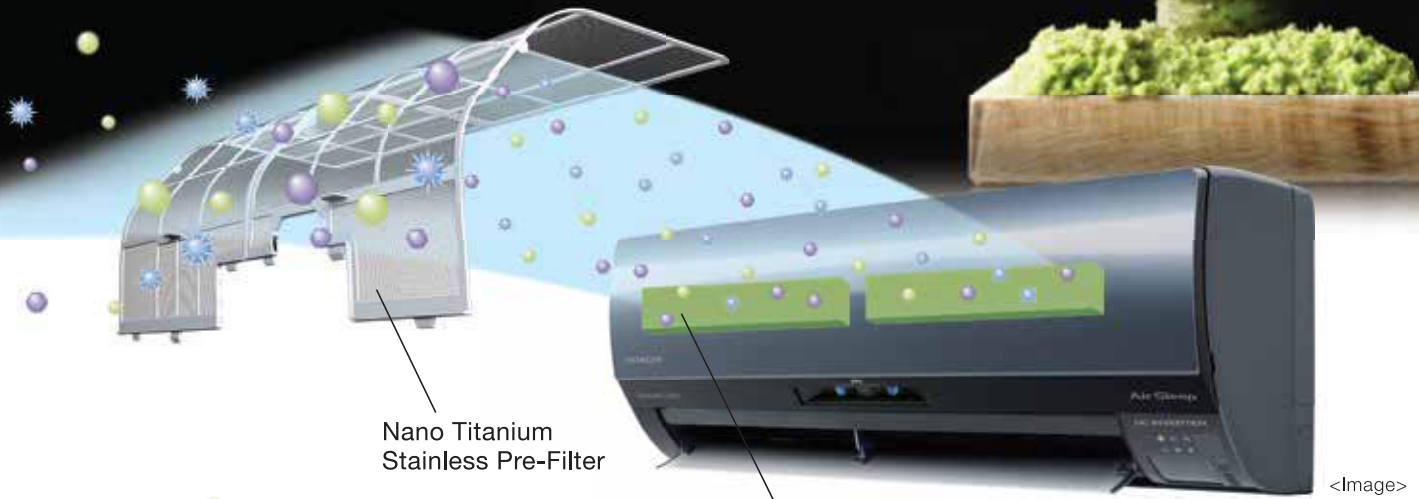
Nano Titanium Wasabi Air Purifying Filter

Powerful Wasabi Sanitizing

It may seem surprising but the wasabi often seen with sushi has a powerful sanitizing effect! Hitachi's unique Nano Titanium Wasabi Air Purifying Filter is coated with wasabi-modified Nano Titanium particles to firmly catch and deactivate bacteria, allergens, mold and odors!

How Nano Titanium works

Incredibly small (about 5nm) and highly dense wasabi-modified Nano Titanium particles prevent microbes from going through and deactivate them effectively.
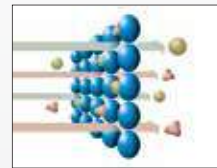
Conventional anti-bacterial agents
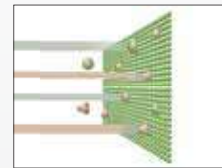
Nano Titanium agents

Bacteria
Odors

<Image>

Antibacterial

Hitachi's new Nano Titanium Wasabi Air Purifying Filter has been proven to effectively deactivate over 99%*1 of bacteria.

No. of surviving bacteria

About
159,000,000

Over
99%*1
Sanitization

Fewer than 10
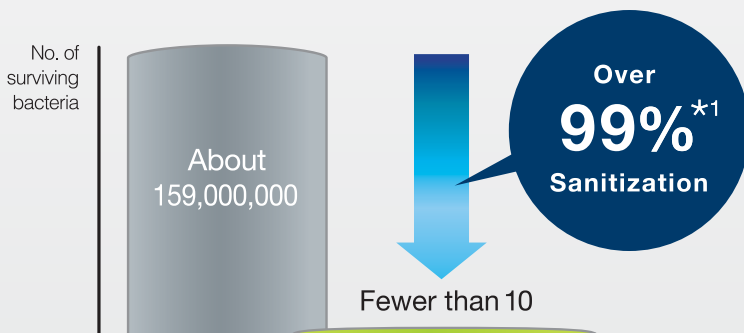
Before   After 24 hours

*1 Bacteria sample (Staphylococcus aureus) is 99% deactivated in 24 hours. Tested by University Putra Malaysia. Test Method: JIS Z 2801:2000

Anti-Allergen

The Nano Titanium Wasabi Air Purifying Filter effectively deactivates harmful allergens such as dust mites and formaldehyde, which may cause allergic diseases such as asthma.

Dust Mite Allergen Deactivation

Without Nano Titanium Wasabi Air Purifying Filter

With Nano Titanium Wasabi Air Purifying Filter

95%[*2] **Deactivated**
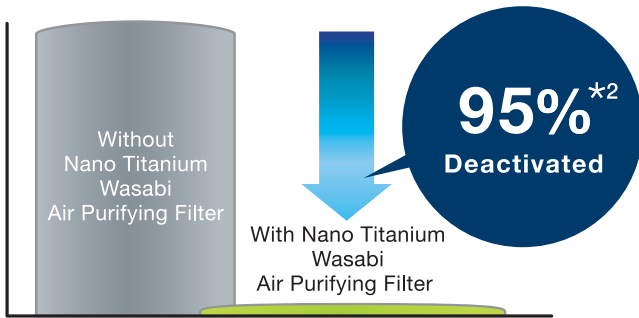
*2 Test method: 6-hour ELIZA assay using dust mite allergen.
Tested by the International Medical University Malaysia.

Formaldehyde Reduction Effect

Formaldehyde residual ratio (%)

Plain Filter

Nano Titanium Wasabi Air Purifying Filter

100 80 60 40 20 0

0　10　20　30　40　50　60　Time(Min)

98%[*3] **Reduction**
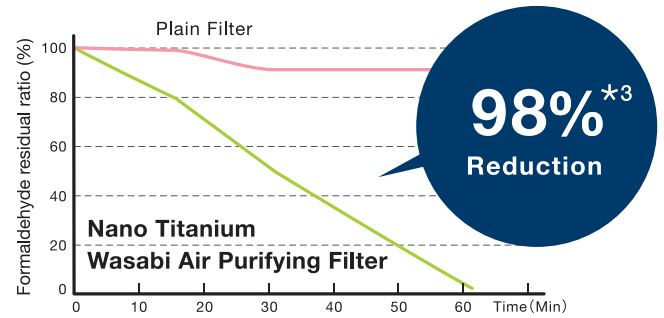
*3 Test material: Nano Titanium Wasabi Air Purifying Filter (30.8 x 27.6cm 5T),
Reactor volume: 1m^3
Analysis: Gas Detector Tube Method. Flow rate through kit: 1m/s
Tested by the Nanopac Testing Laboratory.

Mold and Fungi Suppression

The Nano Titanium Wasabi Air Purifying Filter dramatically suppresses fungal growth to keep your air fresh and free of mold at all times.

Odor Removal

The Nano Titanium Wasabi Air Purifying Filter thoroughly deodorizes air. Up to 82%[*4] removal in only an hour.

*4 Test material: Nano Titanium Wasabi Air Purifying Filter (30.8 x 27.6cm 5T),
Reactor volume: 1m^3
Analysis: Gas Detector Tube Method.
Flow rate through kit: 1m/s
Tested by the Nanopac Testing Laboratory.

Ammonia Deodorizing Effect

Removed ratio (%)

Plain Filter

Nano Titanium Wasabi Air Purifying Filter

100 80 60 40 20 0

0　10　20　30　40　50　60　Time(Min)

82%[*4] **Reduction**
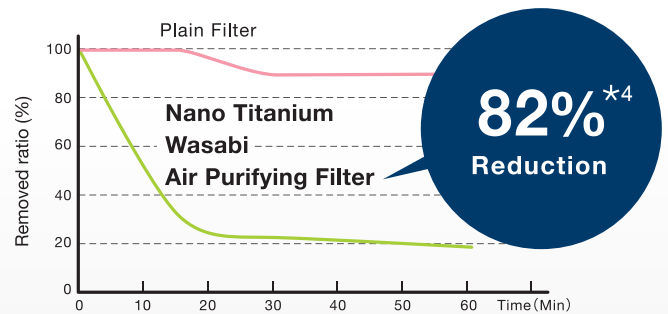
UVFresh

Even more fresher air supply is realized by combining UV Fresh! UV-LED light emits shortwave UV onto the filters and deactivates 99%[*5] of bacteria trapped.

Air intake

Bacteria

Nano Titanium Wasabi Air Purifying Filter

UV-LED

Clean Air

<Image>

UV-LED

*5 Tested by Japan Food Research Laboratories. Approval No.203061804-001

Features for Your Comfort

Easy-to-Use Remote Control

For extra convenience, the air conditioner start button and operation mode buttons are combined in an integrated layout for easy selection of a desired mode.
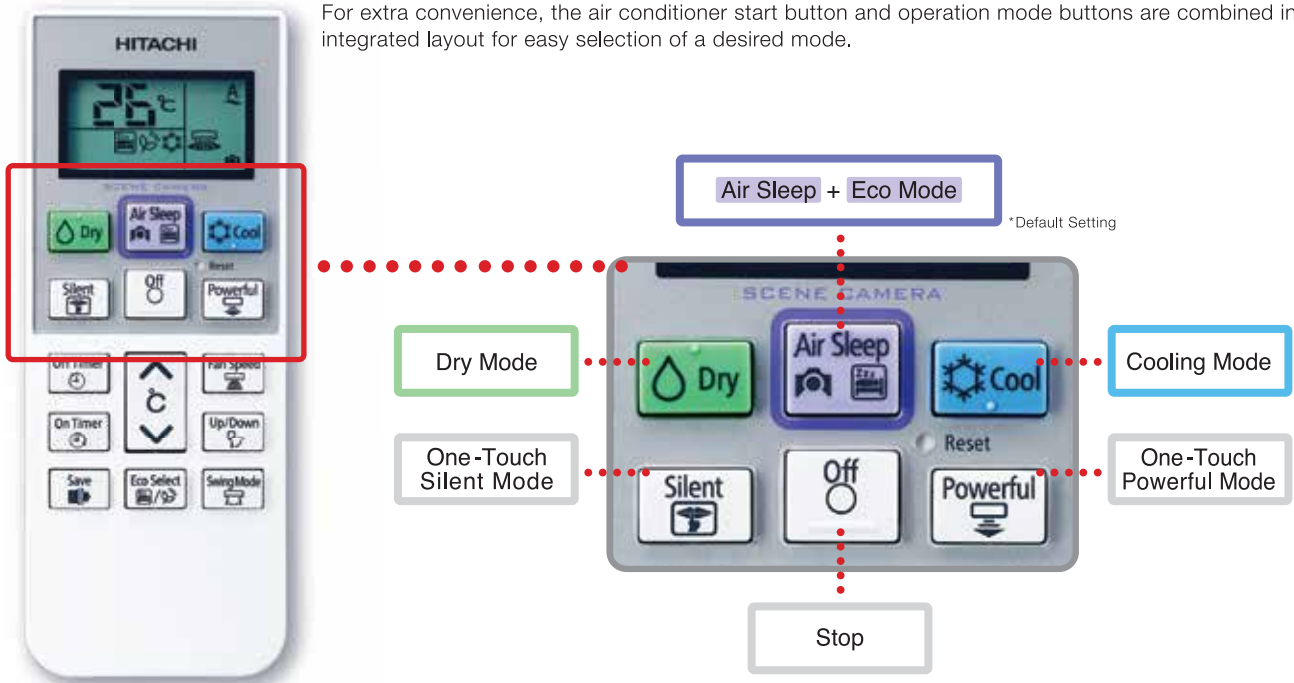
Air Sleep + Eco Mode

*Default Setting

Dry Mode

One-Touch Silent Mode

Cooling Mode

One-Touch Powerful Mode

Stop

Smart Swing

By detecting human presence, individual location, activity level, sunlight and temperature, Scene Camera Twin enables smart adjustment of wind direction (left/right, near/far), swing time depending on the scene.

Limited Area Swing

Wide Area Swing

Sends cool air for a longer period of time to people with a high activity level and for a shorter time for people with a low activity level.

Eco Mode

When the Eco Mode is selected, the air conditioner controls the room temperature depending on the detected situation, and wind direction using Smart Swing.

Direct Swing / Indirect Swing

You can choose whether to have cool air sent directly to you, or indirectly for soft cooling as desired.

Direct Swing

Scene Camera Twin detects your location, and always sends cool air directly to you to provide a comfortable breeze.
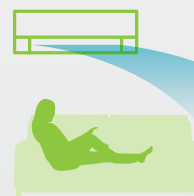
Indirect Swing

Scene Camera Twin detects your location, and automatically avoids sending cool air directly to you for soft cooling.

One-Touch Powerful Mode

A single press of the Powerful Mode button immediately starts Powerful Mode operation. In this mode, airflow reaches much further to quickly cool the room with maximum cooling power and the highest efficiency. When you arrive home on a hot day, just tap the button to feel cool and comfortable almost instantly.

Powerful Mode
(Extended Airflow)

Normal Operation

One-Touch Silent Mode

The One-Touch Silent Mode lets you enjoy operation that's among the quietest on the market. Switch to the Silent Mode, and you can sleep through the night without hearing more than a whisper.

70dB

50dB

40dB

30dB

Silent
Operation

19dB*

Phone Bell   Office   Library   Whisper   Air Sleep Inverter Models

*Minimum operating noise of 1.0HP and 1.5HP Air Sleep Inverter models.
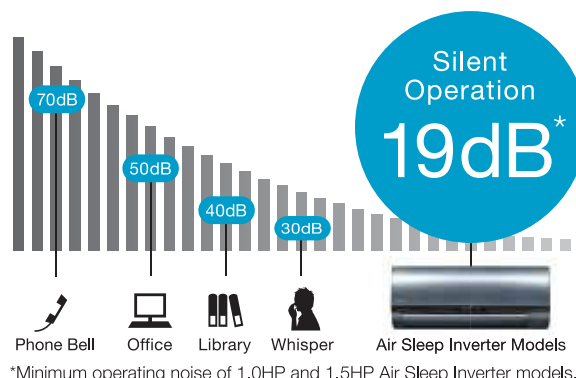
Save Mode

This function limits maximum current during operation to prevent the circuit breaker from tripping.

Air Sleep Sensor

The movement of people and their sleep/awake condition are precisely monitored by a sensor combined with an eyeball-like Fresnel lens. A Fresnel lens consists of 20 microlenses which enable accurate short, medium and long distance sensing.
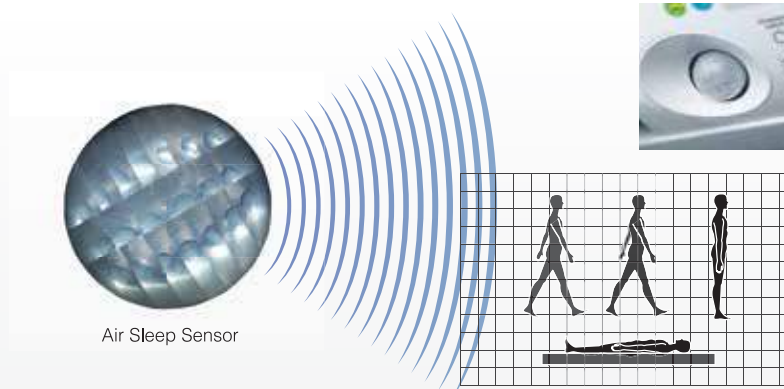
Air Sleep Sensor

Fuzzy Logic Control

The built-in microcomputer measures and records room size together with previous and current conditions and sets the advanced activation timer to provide the optimum temperature every time you enter the room.

Auto Restart

For even greater convenience, the Auto Restart feature prompts the air conditioner to restart at its previous setting right after a power failure.

Seamless Fan Speed Control

With the newly improved seamless fan control system, Hitachi's air conditioners assure extremely quiet and smooth fan speed changes for even more comfort. No more annoying sound and surprises from sudden fan speed changes!

16

ALL DC INVERTER

HFC R410A

Premium Models

SCENE CAMERA
Air Sleep

STAINLESS CLEAN

NEW

RAS-VX10CF/VX13CF

12,000 *1
BTU/h

*1 Max. cooling capacity of RAS-VX10CF.

RAC-VX10CF
RAC-VX13CF

MODEL		RAS-VX10CF	RAS-VX13CF
Cooling Capacity	BTU/h	9,730 (3,070 - 12,000)	12,280 (3,070 - 14,330)
	kW	2.85 (0.9 - 3.5)	3.6 (0.9 - 4.2)
	EER	15.00	13.00

- Scene Camera Twin
- Air Sleep Mode
- Eco Mode
- Smart Swing
- Direct Airflow
- Indirect Airflow
- Smart Vector System
- DC Power System
- Nano Titanium Wasabi Air Purifying Filter
- UV Fresh
- Nano Titanium Stainless Pre-Filter
- One-touch Powerful Mode
- One-touch Silent Mode
- Wave Blade Indoor Fan
- High Energy Efficiency
- Reliable Fuzzy Logic Control
- Vertical Auto Swing
- Horizontal Auto Swing
- Auto Restart
- Green Fin Condenser
- Save Mode
- Fireproof Electrical Enclosure

Non-Inverter

Standard Models HFC R410A

NEW

RAS-F10CF

RAC-F10CF

MODEL		RAS-F10CF
Cooling Capacity	BTU/h	9,210
	kW	2.70
	EER	10.47 - 10.06

- DC Power System
- Vertical Auto Swing
- Sleep Mode
- Auto Restart
- High Energy Efficiency
- Green Fin Condenser
- Reliable Fuzzy Logic Control
- Fireproof Electrical Enclosure

NEW

RAS-F13CF

RAC-F13CF

MODEL		RAS-F13CF
Cooling Capacity	BTU/h	11,950 - 12,020
	kW	3.50 - 3.52
	EER	10.86 - 10.73

- DC Power System
- Vertical Auto Swing
- Sleep Mode
- Auto Restart
- High Energy Efficiency
- Green Fin Condenser
- Reliable Fuzzy Logic Control
- Fireproof Electrical Enclosure

Standard Wide Models HFC R410A

NEW

RAS-F18CF

RAC-F18CF

MODEL		RAS-F18CF
Cooling Capacity	BTU/h	17,420 - 17,760
	kW	5.10 - 5.20
	EER	9.73 - 9.92

- DC Power System
- Vertical Auto Swing
- Sleep Mode
- Auto Restart
- High Energy Efficiency
- Green Fin Condenser
- Reliable Fuzzy Logic Control
- Fireproof Electrical Enclosure

NEW

RAS-F24CF

RAC-F24CF

MODEL		RAS-F24CF
Cooling Capacity	BTU/h	22,215
	kW	6.51
	EER	9.79 - 9.26

- DC Power System
- Vertical Auto Swing
- Sleep Mode
- Auto Restart
- High Energy Efficiency
- Green Fin Condenser
- Reliable Fuzzy Logic Control
- Fireproof Electrical Enclosure

Standard Wide Model

RAS-30CE9G

RAC-30CE9G

MODEL		RAS-30CE9G
Cooling Capacity	BTU/h	29,180 - 29,520
	kW	8.55 - 8.65
	EER	9.73 - 9.43

DC POWER SYSTEM	DC Power System	Nano Titanium WASABI	Nano Titanium Wasabi Air Purifying Filter		One-touch Powerful Mode		One-touch Silent Mode
★	Sleep Mode		Vertical Auto Swing		Horizontal Auto Swing		High Energy Efficiency
FUZZY	Reliable Fuzzy Logic Control		Auto Restart	GREEN FIN	Green Fin Condenser		Fireproof Electrical Enclosure

Window Type HFC R410A

Nano Titanium WASABI Air Purifying Filter

Packed with a hybrid coating of Nano Titanium and WASABI solution, this filter realizes powerful antibacterial, anti-mold, anti-allergen, and deodorizing effect.

Nano Titanium Pre-Filter

Hitachi's unique "Nano Titanium Pre-Filter" features a coating of Nano Titanium that resolves adhering microbes and odors. Due to its sleek surface, even dust containing grease can be easily wiped off without using water.

Twin Turbo Fan

Hitachi's Twin Turbo Fan delivers air flow that conventional fans simply cannot match. The streamlined, drag-reducing design also helps to dampen noise efficiently.

Green Fin Condenser

With its special anti-corrosion "green" coating, the Green Fin Condenser lasts up to three times as long as standard types. This coating assures better performance, durability and savings, even in tough conditions such as those in coastal areas.

Horizontal Auto Swing

Vertical airflow from the left and right sides is delivered by the automatic horizontal movement of the air deflectors over a wide angle to cool the entire room uniformly.

High Efficiency

Thanks to the powerful rotary compressor, highly efficient heat exchanger and Twin Turbo fan, Hitachi Twin Flow models deliver unbeatable energy efficiency.

MODEL		RA-10LF
Cooling Capacity	BTU/h	9,040
	kW	2.65
	EER	9.32

Nano Titanium Wasabi Air Purifying Filter	Nano Titanium Pre-Filter	Green Fin Condenser
Twin Turbo Fan	Horizontal Auto Swing	

MODEL		RA-13LF
Cooling Capacity	BTU/h	12,890
	kW	3.78
	EER	9.28

Nano Titanium Wasabi Air Purifying Filter	Nano Titanium Pre-Filter	Green Fin Condenser
Twin Turbo Fan	Horizontal Auto Swing	

Features Comparison

		ALL DC INVERTER					NON-INVERTER			WINDOW
		Premium	Deluxe Plus	Deluxe	Deluxe Wide		Standard	Standard Wide		Standard
		RAS-VX10CF RAS-VX13CF	RAS-SX10CD RAS-SX13CD	RAS-SD10CD RAS-SD13CD	RAS-DX18CF	RAS-DX24CF	RAS-F10CF RAS-F13CF	RAS-F18CF RAS-F24CF	RAS-30CE9G	RA-10LF RA-13LF
Energy Saving	Scene Camera Twin NEW	●								
	Air Sleep Mode	●	●	●	●	●				
	Eco Mode NEW	●								
	Air Sleep + Eco Mode NEW	●								
	Auto Off Mode NEW	●								
	Auto On Mode NEW	●								
	Smart Swing NEW	●								
	Direct /Indirect Swing NEW	●								
	Save Mode NEW	●								
Clean	Stainless Clean	●	●							
	UV Fresh	●	●	●	●	●				
	Nano Titanium Stainless Pre-Filter	●	●	●	●	●				
	Nano Titanium Pre-Filter									●
	Anti-Mold Pre-Filter						●	●	●	
	Nano Titanium WASABI Air Purifying Filter	●	●	●	●	●			●	●
	Washable Detachable Front Panel	●	●	●	●	●	●	●	●	●
Comfort	One-Touch Powerful Mode	●	●	●	●	●			●	
	One-Touch Silent Mode (19dB)	●	●	●						
	One-Touch Silent Mode				●	●			●	
	Fuzzy Logic Control	●	●	●	●	●	●	●	●	
	Sleep Mode						●	●	●	
	Sensor Dry Operation	●	●	●	●	●	●	●	●	
	Vertical Auto Swing	●	●	●	●	●	●	●	●	
	Horizontal Auto Swing	●							●	●
	Fan Speed	4 Grades	4 Grades	4 Grades	4 Grades	4 Grades	3 Grades	3 Grades	3 Grades	2 Grades
	Seamless Fan Speed Control	●	●	●	●	●				
	Air Exhaust System									●
	Easy-to-Use Remote Control	●	●	●	●	●	●	●	●	
	12h Timer	●	●	●	●	●	●	●		
	24h Timer								●	
Reliability	Smart Vector System	●	●	●	●	●				
	DC Power System	●	●	●	●	●	●	●	●	
	Auto Restart	●	●	●	●	●	●	●	●	
	Fireproof Electrical Enclosure	●	●	●	●	●	●	●	●	●
	Green Fin Anti-Corrosion	●	●	●	●	●	●	●	●	●
	Antirust Outdoor Casing	●	●	●	●	●	●	●	●	
	3-Minute Delay Circuit (Fuse Blow Prevention)	●	●	●	●	●	●	●	●	
	Twin Rotary Compressor					●				
	Changeable Drain Hose	●	●	●	●	●	●	●	●	
	Drainless Splash System									●
	Twin Turbo Fan									●

Features Introduction

Scene Camera Twin

The Thermo Camera and Image Camera monitor individuals and room conditions to automatically adjust cooling operation in various situations for maximum comfort and minimum energy consumption.

Air Sleep Mode

The Air Sleep Sensor detects your sleep conditions and the air conditioner automatically shifts to super silent operation and maintains the optimum room temperature for a good sleep. It returns to the normal cooling mode when the sensor detects that you are waking up.

Eco Mode

Scene Camera Twin smartly monitors human presence, location, activity level, sunlight and temperature to automatically adjust cooling operation for maximum comfort and minimum energy consumption.

Air Sleep + Eco Mode

A combination of the Air Sleep Mode and Eco Mode. Daytime: Cooling with Eco Mode operation. Nighttime: Cooling with Air Sleep Mode and Smart Swing operation. When frequent rollovers are detected, the Thermo Camera checks the temperature of the bed and cool air is automatically sent to hot areas.

Eco Select

By pressing the Eco Select button, you can select the Air Sleep + Eco Mode, Air Sleep Mode or Eco Mode to match the room conditions and scene.

Smart Swing

By detecting human presence, individual location, activity level, sunlight and temperature, Scene Camera Twin enables smart adjustment of wind direction (left/right, near/far), swing time depending on the scene.

Auto Off Mode

The air conditioner will automatically turn off after 1 hour of human absence detection.

Auto On Mode

The air conditioner will automatically turn on after detecting people in the room.

Direct/Indirect Swing

Direct Swing: Automatically sends cool air to the place where people are.
Indirect Swing: Automatically avoids sending cool air to the place where people are.

Save Mode

Limits maximum current during operation to prevent the circuit breaker from tripping.

Stainless Clean

Stainless steel is applied to air ducts, louvre and pre-filter to realize an antibacterial and dust prevention effect.

UV Fresh

Antibacterial UV LED light is emitted to sterilize bacteria on the air purifying filters.

Nano Titanium Stainless Pre-Filter

Pre-filter with Nano Titanium Stainless coating that sterilize bacteria, deodorizes and enables easy cleaning.

Nano Titanium Pre-Filter

Pre-filter with Nano Titanium coating, which uses a TiO_2 catalyst to provide an antibacterial and deodorizing effect.

Anti-Mold Pre-Filter

Pre-filter with anti-mold effect.

Nano Titanium Wasabi Air Purifying Filter

Air purifying filters are coated with Nano Titanium and wasabi contents to provide an antibacterial, anti-allergen, anti-mold and deodorizing effect.

Washable Detachable Front Panel

Easy-to-detach washable flat front panel for easy cleaning and maintenance.

One-Touch Powerful Mode

A single press of the Powerful Mode button starts powerful cooling operation with maximum cooling power and fan speed.

One-Touch Silent Mode

A single press of the Silent Mode button starts quiet operation.

Fuzzy Logic Control

The built-in microcomputer measures and records room size together with previous and current conditions and sets the advanced activation timer to provide optimum temperature.

Sleep Mode

Off timer useful when you would like the air conditioner to switch off after a certain amount of time during sleep.

Sensor Dry Operation

Decreases room humidity by softly cooling the room.

Vertical Auto Swing

Wind direction is automatically directed up and down to deliver cool air evenly.

Horizontal Auto Swing

Wind direction is automatically directed left to right to deliver cool air evenly.

Seamless Fan Speed Control

The four fan speed levels (Powerful, High, Medium, Low) switch extremely smoothly for seamless non-step fan speed control.

12h/24h Timer

Timer setting that automatically turns off operation after a selected number of hours.

Air Exhaust System

Allows ventilation of the room.

Smart Vector System

Uses a special microcomputer pre-installed with the compressor's mechanical properties data to monitor and adjust compressor rotation speed at all times for efficient, powerful, stable operation.

DC Power System

Uses DC indoor motors that are efficient, quiet and safe during maintenance.

Auto Restart

Restarts the air conditioner at the previous setting after a power failure.

Fireproof Electrical Enclosure

Electrical parts of indoor and outdoor units are tightly enclosed in a 100% metal box to ensure there is virtually no possibility of fire spreading.

Green Fin Anti-Corrosion

Anti-corrosion green coating on the outdoor unit heat exchanger.

Antirust Outdoor Unit

Constructed of galvanized sheet complete with baked synthetic resin type paint that can withstand rust and harsh weather conditions.

3-Minute Delay Circuit

Ensures there's no danger of the fuse blowing or damage to parts if operation is restarted accidentally.

Twin Rotary Compressor

Twin rotating cylinders assure better balanced rotation for less vibration and quieter operation.

Changeable Drain Hose

Drain hose connection is easily interchangeable to either the left or right of the indoor unit.

Drainless Splash System

Condensation from the evaporator is splashed back onto the condenser surface for better cooling efficiency without the need for a drain.

Twin Turbo Fan

Enables powerful airflow with low noise.

Deluxe Plus Models

Air Sleep
STAINLESS CLEAN

RAS-SX10CD/SX13CD

RAC-SX10CD
RAC-SX13CD

11,500*2
BTU/h

*2 Max. cooling capacity of RAS-SX10CD.

MODEL		RAS-SX10CD	RAS-SX13CD
Cooling Capacity	BTU/h	9,730 (3,070 - 11,500)	12,640 (3,070 - 14,330)
	kW	2.85 (0.9 - 3.4)	3.7 (0.9 - 4.2)
	EER	13.10	12.15

Zzz — Air Sleep Mode
Super Silent Wave Blade — Wave Blade Indoor Fan
Smart Vector — Smart Vector System
High Energy Efficiency
DC POWER SYSTEM — DC Power System
FUZZY — Reliable Fuzzy Logic Control
WASABI — Nano Titanium Wasabi Air Purifying Filter
Vertical Auto Swing
UV Fresh — UV Fresh
Auto Restart
SUS — Nano Titanium Stainless Pre-Filter
GREEN FIN — Green Fin Condenser
One-touch Powerful Mode
Fireproof Electrical Enclosure
One-touch Silent Mode

Deluxe Models

Air Sleep

RAS-SD10CD/SD13CD

RAC-SX10CD
RAC-SX13CD

11,500*3
BTU/h

*3 Max. cooling capacity of RAS-SD10CD.

MODEL		RAS-SD10CD	RAS-SD13CD
Cooling Capacity	BTU/h	9,730 (3,070 - 11,500)	12,640 (3,070 - 14,330)
	kW	2.85 (0.9 - 3.4)	3.7 (0.9 - 4.2)
	EER	13.10	12.15

Deluxe Wide Models

NEW

Air Sleep

RAS-DX18CF/DX24CF

RAC-DX18CF   RAC-DX24CF

MODEL		RAS-DX18CF	RAS-DX24CF
Cooling Capacity	BTU/h	17,740 (3,070 - 18,430)	22,180 (5,117 - 27,299)
	kW	5.2 (0.9 - 5.4)	6.5 (1.5 - 8.0)
	EER	11.20	11.32

Zzz — Air Sleep Mode
High Energy Efficiency
Smart Vector — Smart Vector System
FUZZY — Reliable Fuzzy Logic Control
DC POWER SYSTEM — DC Power System
Vertical Auto Swing
WASABI — Nano Titanium Wasabi Air Purifying Filter
Auto Restart
UV Fresh — UV Fresh
GREEN FIN — Green Fin Condenser
SUS — Nano Titanium Stainless Pre-Filter
Fireproof Electrical Enclosure
One-touch Powerful Mode
One-touch Silent Mode

Specifications

SPLIT TYPE : ALL DC INVERTER

Model			Premium Scene Camera Air Sleep		Deluxe Plus Air Sleep + Stainless Clean		Deluxe Air Sleep		Deluxe Wide Air Sleep	
Model	Indoor		RAS-VX10CF	RAS-VX13CF	RAS-SX10CD	RAS-SX13CD	RAS-SD10CD	RAS-SD13CD	RAS-DX18CF	RAS-DX24CF
	Outdoor		RAC-VX10CF	RAC-VX13CF	RAC-SX10CD	RAC-SX13CD	RAC-SX10CD	RAC-SX13CD	RAC-DX18CF	RAC-DX24CF
Phase, Voltage, Frequency		φ,V,Hz	1φ,220-230V,50Hz							
Cooling Capacity		kW	2.85(0.9-3.5)	3.6(0.9-4.2)	2.85(0.9-3.4)	3.7(0.9-4.2)	2.85(0.9-3.4)	3.7(0.9-4.2)	5.2(0.9-5.4)	6.5(1.5-8.0)
		BTU/h	9,730(3,070-12,000)	12,280(3,070-14,330)	9,730(3,070-11,500)	12,640(3,070-14,330)	9,730(3,070-11,500)	12,640(3,070-14,330)	17,740(3,070-18,430)	22,180(5,117-27,299)
Total Input		W	648(210-1,190)	943(330-1,280)	740(210-1,190)	1,040(330-1,280)	740(210-1,190)	1,040(330-1,280)	1,580(355-2,200)	1,960(200-2,820)
Total Amperes		A	3.40-3.25	4.95-4.70	4.32-4.13	5.91-5.65	4.32-4.13	5.91-5.65	8.95-8.55	9.00-8.60
EER		BTU/h.W	15.00	13.00	13.10	12.15	13.10	12.15	11.20	11.32
COP			4.40	3.82	3.85	3.56	3.85	3.56	3.29	3.32
Airflow (HH/H/M/L/Silent)		m³/min	12.0/11.0/9.5/7.5/3.5	12.0/11.0/9.5/7.5/4.5	12.0/11.0/9.0/8.0/3.5	12.0/11.0/9.5/7.5/3.5	12.0/11.0/9.0/8.0/3.5	12.0/11.0/9.5/7.5/3.5	15.0/14.5/13.0/9.0/6.5	15.5/15.0/13.5/10.0/7.0
Indoor Sound Level (HH/H/M/L/Silent)		dB	44/42/37/32/19	48/47/40/33/19	44/42/37/32/19	48/47/40/33/19	44/42/37/32/19	48/47/40/33/19	48/47/41/32/26	49/48/41/34/28
Dehumidifying Capacity		L/h	1.6	1.6	1.4	1.6	1.4	1.6	2.8	4.5
Net Dimensions	Indoor(WxHxD)	mm	790 x 300 x 280	790 x 300 x 280	790 x 300 x 230	790 x 300 x 230	790 x 300 x 230	790 x 300 x 230	900 x 300 x 230	900 x 300 x 230
	Outdoor(WxHxD)	mm	750 x 570 x 280	750 x 570 x 280	700 x 468 x 258	700 x 468 x 258	700 x 468 x 258	700 x 468 x 258	750/570/280	850 x 800 x 298
Net Weight	Indoor/Outdoor	kg	10/32	10/32	9/23	10/24	9/23	10/24	10/37	10/53
Maximum Length/Height of Piping		m	20/10	20/10	20/10	20/10	20/10	20/10	20/10	30/20
Diameter for Pipe Gas/Liquid		mm	9.52/6.35	9.52/6.35	9.52/6.35	9.52/6.35	9.52/6.35	9.52/6.35	12.70/6.35	15.88/6.35
Power Supply			Outdoor	Outdoor	Outdoor	Outdoor	Outdoor	Outdoor	Outdoor	Outdoor
Refrigerant			R410A							

SPLIT TYPE : NON-INVERTER

Model			Standard		Standard Wide		
Model	Indoor		RAS-F10CF	RAS-F13CF	RAS-F18CF	RAS-F24CF	RAS-30CE9G
	Outdoor		RAC-F10CF	RAC-F13CF	RAC-F18CF	RAC-F24CF	RAC-30CE9G
Phase, Voltage, Frequency		φ,V,Hz	1φ,220-230V,50Hz				1φ,220-240
Cooling Capacity		kW	2.70	3.50-3.52	5.10-5.20	6.51	8.55-8.65
		BTU/h	9,210-9,210	11,950-12,020	17,420-17,760	22,215-22,215	29,180-29,520
Total Input		W	880-915	1,100-1,120	1,790-1,790	2,270-2,400	3,000-3,130
Total Amperes		A	4.10-4.05	5.10-4.75	8.30-8.10	10.90-10.60	13.90-14.00
EER		BTU/h.W	10.47-10.06	10.86-10.73	9.73-9.92	9.79-9.26	9.73-9.43
COP			3.07-2.95	3.18-3.14	2.85-2.91	2.87-2.71	2.85-2.76
Airflow (HH/H/M/L/Silent (Sleep)*		m³/min	-/7.5/6.0/4.5/(3.5)*	-/12.0/10.5/8.5/(6.0)*	-/14.7/12.5/10.5/(-)*	-/14.5/12.0/11.0/(9.2)*	20.0/18.0/16.0/14.0/12.0
Indoor Sound Level (HH/H/M/L/Silent (Sleep)*		dB	-/43/37/31/(24)*	-/47/43/37/(29)*	-/47/42/39/(36)*	-/49/42/39/(36)*	-/47/43/40/34
Dehumidifying Capacity		L/h	1.4	2.8	2.8	3.5	5.2
Net Dimensions	Indoor(WxHxD)	mm	785 x 248 x 200	790 x 300 x 230	900 x 300 x 230	1,030 x 295 x 207	1,150 x 333 x 245
	Outdoor(WxHxD)	mm	700 x 468 x 258	750 x 570 x 280	750 x 570 x 280	850 x 650 x 298	850 x 800 x 298
Net Weight	Indoor/Outdoor	kg	7.5/23	10/34	10.5/34	12/48	18/70
Maximum Length/Height of Piping		m	15/10	15/10	15/10	15/10	30/10
Diameter for Pipe Gas/Liquid		mm	9.52/6.35	12.70/6.35	12.70/6.35	15.88/6.35	15.88/6.35
Power Supply			Outdoor	Outdoor	Outdoor	Outdoor	Indoor
Refrigerant			R410A				R22

WINDOW TYPE

			Standard	
Model			RA-10LF	RA-13LF
Phase, Voltage, Frequency		φ,V,Hz	1φ,220V,50Hz	
Cooling Capacity		kW	2.65	3.78
		BTU/h	9,040	12,890
Total Input		W	970	1,390
Total Amperes		A	4.6	6.65
EER		BTU/h.W	9.32	9.28
COP			2.73	2.72
Airflow (H		m³/min	7.5/5.3	9.2/6.1
Dehumidifying Capacity		L/h	1.6	2.1
Net Dimensions	WxHxD	mm	470 x 345 x 640	560 x 375 x 709
Net Weight		kg	34	45
Refrigerant			R410A	

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