

HITACHI

# Air conditioning your home

## MINI SPLIT

Wall Mounted  
Air Conditioner Series

Cooling & Heating



# Air like never before

**Often it's the work that happens behind the scenes that helps to create a wonderful outcome.**

The same is true of keeping your home air conditioning system operating at its very best.

Advanced technologies, such as Frost Wash, work invisibly to help keep your air conditioning unit clean and hygienic, so you can enjoy your ideal indoor climate, all year round.

You may not notice the technology, but you will definitely feel the difference it makes to your home.



## Fresher air starts with a clean unit

Today, we are increasingly conscious of how the air in our homes affects our health and wellbeing. Even with modern air conditioning systems, dust and bacteria accumulates inside indoor units and this can lead to reduced air quality and efficiency.



### Frost Wash\*

Frost Wash is our latest self-cleaning technology. It works by freezing moisture inside the unit, capturing and then flushing away impurities that can build up over time.



### Stainless Clean System

Compared to plastic, the anti-static properties of stainless steel attract 50% less dust. The metal ions in stainless steel trap bacteria which helps to reduce bacterial growth by up to 99%\*.



### Air Purifying Filter

Air Purifying Filters are coated with a solution made from Nano Titanium and Wasabi to provide an antibacterial, anti-allergen, anti-mold and deodorizing effect.

\* Please refer to the last page for available features of each model.

# CLEANING FEATURES

## FROST WASH TECHNOLOGY

# Freeze

1

Frost is created as your unit uses dew from collected air moisture to cover the heat exchanger while it cools down to a maximum of  $-15^{\circ}\text{C}$ .



Air flows through the heat exchanger during standard operation. A clean heat exchanger keeps the air in your home fresher and cleaner.



### Long-lasting hygienic air

With Frost Wash, a revolutionary new cleaning technology, you can depend on cleaner, fresher air all year round. The unique Frost Wash feature eliminates dust and bacteria built up on the heat exchanger's surface by trapping and freezing these particles in ice. When the ice melts, the particles are flushed out safely via the drainage pipe.

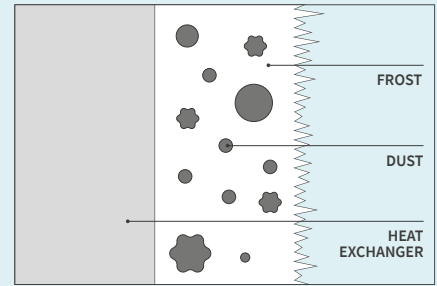
As they heat or cool your home, the surfaces inside air conditioners can attract dust, bacteria and particles. If allowed to build up, this can affect unit performance, reducing efficiency and air quality.

The Frost Wash cycle regularly removes these accumulated impurities to keep your unit in optimal condition, while you enjoy cleaner, fresher air all year round.

## Frost Wash is the secret to cleaner air at home

This unique self-cleaning function removes dust and unwanted particles you might not even be aware of.

Frost Wash achieves a 93% reduction\* of mold and bacteria in your unit.



Dust is lifted from the heat exchanger when the water expands during the freezing process.

# & Melt

2

Accumulated frost then melts and washes away dust attached to the heat exchanger.



Unit shown for example purposes only.  
Units available may differ by region.



### Stop dust build-up

During Frost Wash operation, the surface of the heat exchanger is covered with a light dew. The function then turns this moisture into frost, locking in dust and particles. The frost layer is then melted, allowing the trapped particles to be safely and hygienically flushed away. This ensures that your unit stays cleaner, for better long-term performance.



### Water droplet prevention

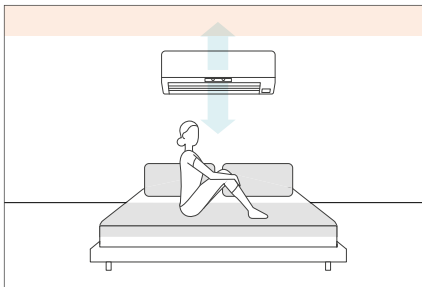
While Frost Wash cleans the inside of your unit, it also ensures that any excess moisture is quickly removed through the concealed drainage pipe.

\*Tested by Kitasato Research Center of Environmental Science.  
Test No. 2017\_40194: antibacterial & anti-mold effects when operating Frost Wash four times.

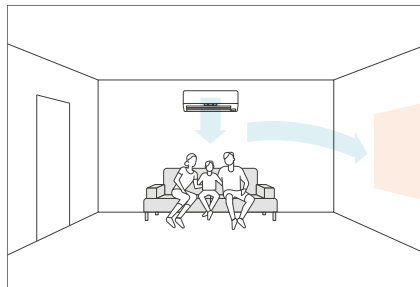
# FEATURES & BENEFITS

## COMFORT & SAFETY

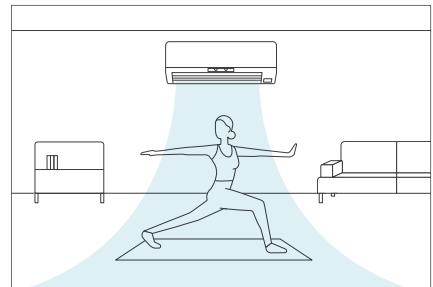
Always working behind the scenes for your continuous comfort, the Sensor System detects human activity and heat sources to precisely auto-adjust cooling or heating operation. It also supports Eco Mode for consistent energy saving performance.



**Top floor room with heated ceiling**  
Targeting heated ceilings, the louver swings up and down with longer blasts of cool air.



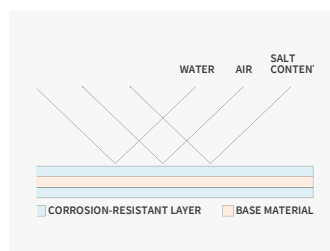
**Sunny day with curtains open**  
Targeting hot windows, the louver swings left and right with longer blasts of cool air.



**The Power of Two**  
Dual Thermal and Image Sensor work together to enhance both your comfort and improve energy performance. They constantly monitor room temperature and activity levels and adjust your unit's cooling performance to maintain your ideal indoor environment.

## Durability and safety features, for peace of mind

- Fireproof electrical enclosure
- Anti-corrosion coating for outdoor units
- Anti-rust outdoor casing



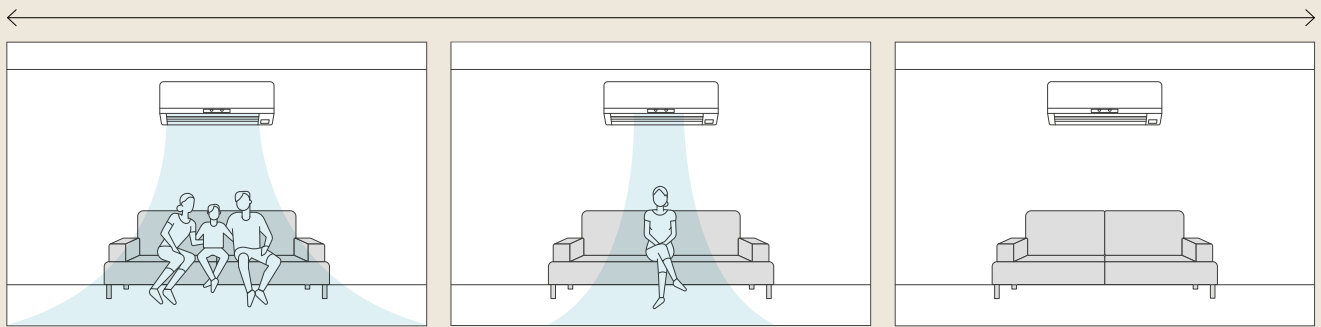
## Smart energy saving

### Eco Mode

In Eco Mode, your unit adjusts operations to account for the number of people, activity levels, and even the amount of sunlight in the room.

HIGH ACTIVITY LEVEL

LOW ACTIVITY LEVEL



Comfortable Cooling

Energy Saving

Automatically Off

## Working smarter, even while you sleep (Air Sleep)

By monitoring your sleep conditions during the night, temperature and humidity levels are optimized and automatically adjusted to super silent operation for a restful sleep. Normal cooling mode reactivates when the sensor detects you are awake.



# PREMIUM INVERTER VJ

- Frost Wash
- Stainless Clean
- Sensor System
- Air Sleep Ceiling
- Air Sleep Feel
- Vector DC Inverter



RAS-VJ10CJM / VJ13CJM



RAS-VJ18CJM / VJ24CJM

## PREMIUM INVERTER VJ

Model	Indoor		RAS-VJ10CJM	RAS-VJ13CJM	RAS-VJ18CJM	RAS-VJ24CJM
	Outdoor		RAC-VJ10CJM	RAC-VJ13CJM	RAC-VJ18CJM	RAC-VJ24CJM
Power Supply	Current		1 Phase			
	V/Hz		220-230/50			
	Source		Indoor			
Cooling Capacity	Rated (max/min)	kW	2.85(0.9-3.5)	3.4(0.9-4.2)	5.0(0.9-5.8)	6.2(1.5-8.0)
	Rated (max/min)	BTU/h	9,730 (3,070-12,000)	11,598 (3,070-14,330)	17,060 (3,070-19,789)	22,160 (5,118-23,891)
EER		BTU/h/Watt	15.00	11.80	11.60	9.84
Total Input	Rated (max/min)	W	648 (210-1,190)	983(330-1,280)	1,541(320-2,000)	2,150(300-2,820)
Total Amperes		A	3.40-3.25	5.42 - 5.02	6.75 - 6.45	9.87 - 9.44
Air Flow	Powerful/H/M/L/Silent	m <sup>3</sup> /min	12.0/11.5/9.0/6.0/3.5	12.0/11.5/9.0/6.0/3.5	15.0/14.5/12.0/8.0/6.0	15.0/14.0/12.0/8.0/6.0
Sound Level	Powerful/H/M/L/Silent	dB(A)	48/44/35/27/19	48/44/35/27/19	49/48/40/33/30	49/48/40/33/30
Dehumidifying Capacity		L/h	1.6	1.6	3.4	4.5
Maximum Length / Height of Piping		m	20/10	20/10	20/10	30/20
Diameter for Liquid / Gas		mm	6.35/9.52	6.35/9.52	6.35/12.7	6.35/12.7
Net Dimensions	Indoor (W*H*D)	mm	790 x 300 x 280	790 x 300 x 280	900 x 300 x 230	900 x 300 x 230
	Outdoor (W*H*D)	mm	750 x 570 x 280	750 x 570 x 280	850 x 650 x 298	850 x 750 x 298
Net Weight	Indoor / Outdoor	kg	11/32	11/32	10.5/43	11.5/45
Refrigerant			R32			

## OUTDOOR UNITS



RAC-VJ10CJM / VJ13CJM



RAC-VJ18CJM



RAC-VJ24CJM

The actual product may differ in appearance



# REMOTE CONTROLLER

**HITACHI**  
SCENE CAMERA

25°C

\*\*\*\*\* One Touch On \*\*\*\*\*

W Breeze | Air Sleep | Cool/Refresh On

Powerful | Off | Silent / Dry

Off Timer | ↑ | Frost Wash

On Timer | ↓ | Fan Speed

Left/Right | Swing Mode | Up/Down

Smart Swing

**Smart Swing**  
RAS-VJ18CJM / VJ24CJM

**Set Temperature**

**Welcome Breeze**

**Off Button**

**Powerful Mode**

**Off Timer**

**On Timer**

**Left / Right Air Flow Control**

**Air Sleep Ceiling, Air Sleep Feel, & Eco Mode**

**On Button / Refresh Mode**

**Silent / Dry Mode**

**Frost Wash**

**Fan Speed**

**Up / Down Air Flow Control**

**Swing Mode**

**Smart Swing**  
RAS-VJ18CJM / VJ24CJM

# MASS INVERTER XJ

- Frost Wash
- Air Sleep Timer
- Vector DC Inverter



RAS-XJ10CKM / XJ13CKM



RAS-XJ18CKM / XJ24CKM

## MASS INVERTER XJ

Model	Indoor		RAS-XJ10CKM	RAS-XJ13CKM	RAS-XJ18CKM	RAS-XJ24CKM
	Outdoor		RAC-XJ10CKM	RAC-XJ13CKM	RAC-XJ18CKM	RAC-XJ24CKM
Power Supply	Current		1 Phase			
	V/Hz		220-230/50			
	Source		Indoor			
Cooling Capacity	Rated (max/min)	kW	2.7(0.9-3.3)	3.55 (0.9-4.0)	5.36(0.9-5.5)	6.5(1.5-6.7)
	Rated (max/min)	BTU/h	9,210 (3,070-11,260)	12,110 (3,070-13,640)	18,300 (3,070-18,760)	22,180 (5,110-22,860)
EER		BTU/h/Watt	11.51	11.01	11.09	11.09
Total Input	Rated (max/min)	W	800(210-1,190)	1,150(350-1,350)	1,650(320-2,000)	2,000(350-2,820)
Total Amperes		A	4.28 - 4.09	5.50 - 5.25	7.90 - 7.55	9.55 - 9.15
Air Flow	Powerful/H/M/L/Silent	m <sup>3</sup> /min	10.5/8.5/7.0/5.0/3.0	11.0/10.5/8.0/5.5/3.5	15.0/14.5/12.0/8.0/6.0	15.0/14.5/12.0/8.0/6.0
Sound Level	Powerful/H/M/L/Silent	dB(A)	44/41/32/24/19	48/43/33/27/19	49/48/40/33/30	49/48/40/33/30
Dehumidifying Capacity		L/h	1.4	1.6	3.4	4.5
Maximum Length / Height of Piping		m	20/10	20/10	20/10	30/20
Diameter for Liquid / Gas		mm	6.35/9.52	6.35/9.52	6.35/12.7	6.35/12.7
Net Dimensions	Indoor (W*H*D)	mm	780 x 280 x 230	780 x 280 x 230	900 x 300 x 230	900 x 300 x 230
	Outdoor (W*H*D)	mm	658 x 530 x 275	658 x 530 x 275	750 x 570 x 280	850 x 650 x 298
Net Weight	Indoor / Outdoor	kg	8/21	8/22	10/33	10/43
Refrigerant			R32			

## OUTDOOR UNITS



RAC- XJ10CKM



RAC- XJ13CKM



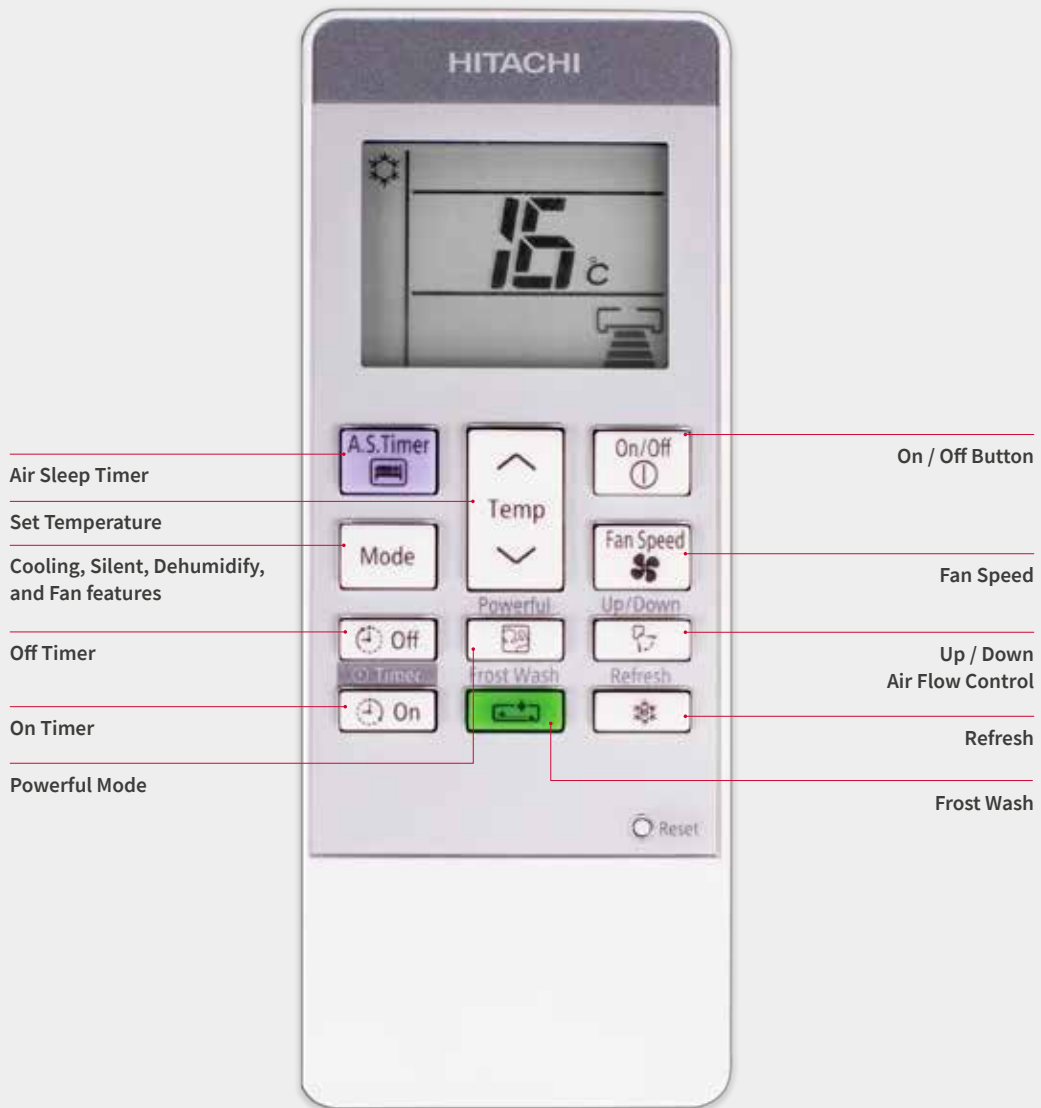
RAC- XJ18CKM



RAC- XJ24CKM

The actual product may differ in appearance

## REMOTE CONTROLLER



RAS-XJ10CKM / XJ13CKM / XJ18CKM / XJ24CKM

# MASS FIXED SPEED EJ

- Air Sleep Timer



RAS-EJ10CKM / EJ13CKM



RAS-EJ18CKM / EJ24CKM

## MASS FIXED SPEED EJ

Model	Indoor		RAS-EJ10CKM	RAS-EJ13CKM	RAS-EJ18CKM	RAS-EJ24CKM
	Outdoor		RAC-EJ10CKM	RAC-EJ13CKM	RAC-EJ18CKM	RAC-EJ24CKM
Power Supply	Current		1 Phase			
	V/Hz		220-230/50			
	Source		Indoor			
Cooling Capacity	Rated (max/min)	kW	2.65	3.5	5.48	6.45
	Rated (max/min)	BTU/h	9,040	11,940	18,700	22,007
EER		BTU/h/Watt	10.96	10.85	11.00	11.29
Total Input	Rated (max/min)	W	825	1100	1700	1950
Total Amperes		A	3.94 - 3.77	5.05 - 4.83	8.13 - 7.78	9.33 - 8.92
Air Flow	Powerful/H/M/L/Silent	m <sup>3</sup> /min	10.5/9.5/7.5/6.0/4.5	12.0/11.5/9.0/7.5/6.2	18.0/16.5/12.5/10.5/7.5	18.0/17.0/13.5/11.5/8.0
Sound Level	Powerful/H/M/L/Silent	dB(A)	46/39/34/28/25	48/43/37/31/29	50/45/38/35/29	50/48/41/36/30
Dehumidifying Capacity		L/h	1.4	1.8	3.5	3.5
Maximum Length / Height of Piping		m	15/10	15/10	20/10	20/10
Diameter for Liquid / Gas		mm	6.35/9.52	6.35/9.52	6.35/12.7	6.35/15.88
Net Dimensions	Indoor (W*H*D)	mm	780 x 280 x 230	780 x 280 x 230	1100 x 300 x 260	1100 x 300 x 260
	Outdoor (W*H*D)	mm	658 x 530 x 275	658 x 530 x 275	750 x 570 x 280	850 x 650 x 298
Net Weight	Indoor / Outdoor	kg	8.0/23	8.0/26	14/37	14/47.5
Refrigerant			R32			

## OUTDOOR UNITS



RAC- EJ10CKM



RAC- EJ13CKM



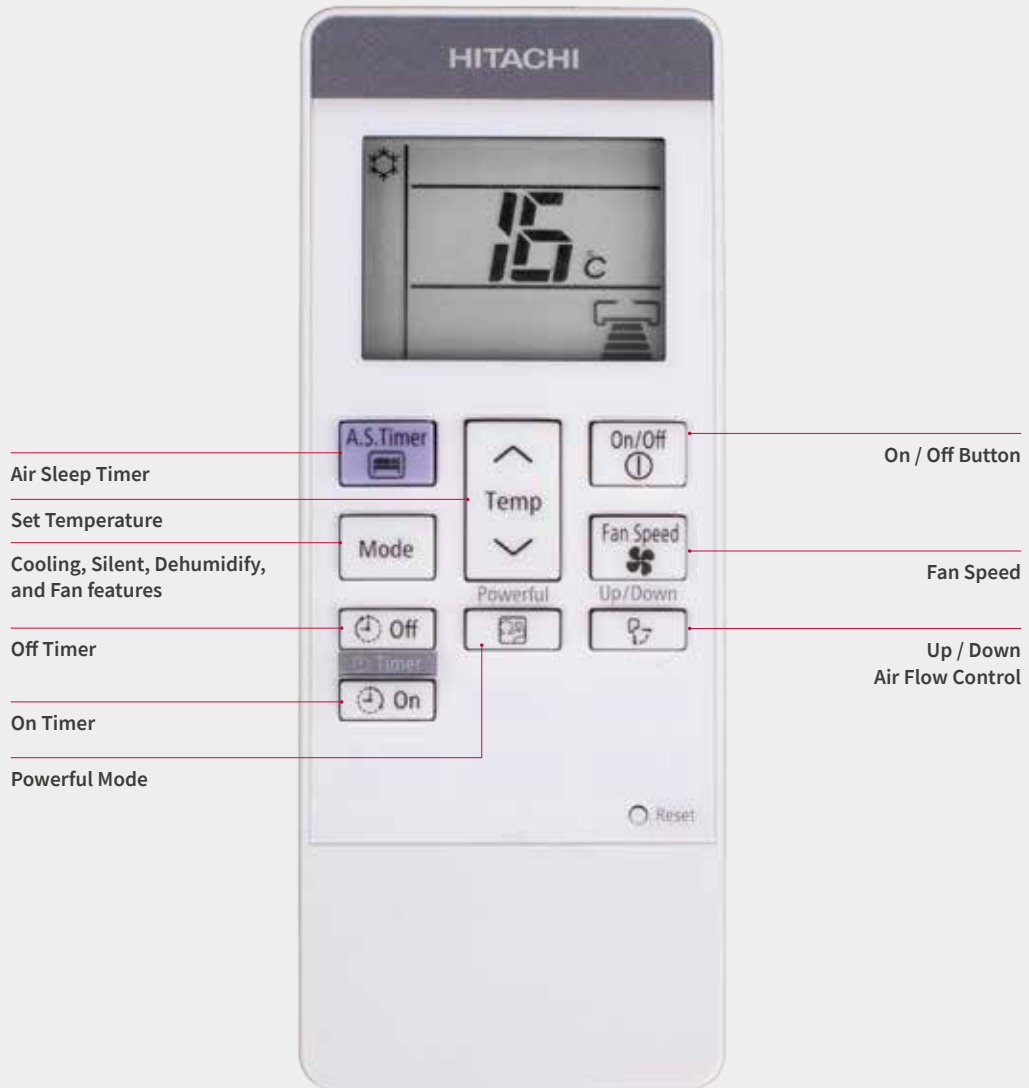
RAC- EJ18CKM



RAC- EJ24CKM

The actual product may differ in appearance

## REMOTE CONTROLLER



RAS-EJ10CKM / EJ13CKM / EJ18CKM / EJ24CKM

# FEATURES COMPARISON

		VECTOR DC INVERTER				NON-INVERTER	
		PREMIUM VJ		MASS XJ		MASS EJ	
		RAS-VJ10CJM RAS-VJ13CJM	RAS-VJ18CJM RAS-VJ24CJM	RAS-XJ10CKM RAS-XJ13CKM	RAS-XJ18CKM RAS-XJ24CKM	RAS-EJ10CKM RAS-EJ13CKM	RAS-EJ18CKM RAS-EJ24CKM
Clean	Frost Wash	•	•	• <sup>(1)</sup>	• <sup>(1)</sup>		
	Nano Titanium Stainless Pre-Filter	•	•				
	Normal Pre-Filter			•	•	•	•
	Nano Titanium Wasabi Air Purifying Filter	•	•	Optional	Optional	Optional	Optional
	Stainless Clean	•	•				
	UV Fresh	•	•				
	Washable Detachable Front Panel	•	•	•	•	•	•
Comfort	Direct/Indirect Swing	•					
	Up-Down Auto Swing	•	•	•	•	•	•
	Left-Right Auto Swing	•	•				
	Fan Speed	4 Grades	4 Grades	4 Grades	4 Grades	3 Grades	3 Grades
	Seamless Fan Speed Control	•	•	•	•		
	Powerful Mode	•	•	•	•	•	•
	Refresh Mode	•	•	•	•		
	Dry Operation	•	•	•	•	•	•
	Silent Mode	•	•	•	•	•	•
	Smart Swing	•	•				
	Sensor System	•	• <sup>(2)</sup>				
	Welcome Breeze	•	•				
	12-hr Timer	•	•	•	•	•	•
Energy Saving	Air Sleep Ceiling	•	•				
	Air Sleep Feel	•	•				
	Air Sleep Timer			•	•	•	•
	Auto Save/Auto Off	•					
	Eco Mode	•	•				
	Save Mode	•	•				
Reliability	Anti-Corrosion Green Fin	•	•	•	•	•	•
	Anti-Rust Outdoor Casing	•	•	•	•	•	•
	Auto Restart	•	•	•	•	•	•
	Changeable Drainage Pipe	•	•	•	•	•	•
	DC Power System	•	•	•	•	•	•
	Vector DC Inverter System	•	•	•	•		
	Fireproof Electrical Enclosure	•	•	•	•	•	•
	Refrigerant	R32	R32	R32	R32	R32	R32
	Two Cylinder Rotary Compressor		• <sup>(3)</sup>		• <sup>(3)</sup>		
	3-Minute Delay Circuit (Fuse Blow Prevention)	•	•	•	•	•	•

(1) Manual operation only.

(2) Heat distribution and human activity level are detected.

(3) RAS-VJ24CJM and RAS-XJ24CKM only.

# FEATURE DESCRIPTIONS

## Clean

### Frost Wash

Eliminates dust build-up on the heat exchanger surface by trapping particles in ice, which are then flushed out via the drainage pipe.

### Nano Titanium Stainless Pre-Filter

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

### Stainless Clean System

Antibacterial and dust-trapping stainless steel is applied to air ducts, louvers, dew plate and pre-filter.

### Stainless Dew Plate

Antibacterial and dust-trapping stainless steel is applied to water pathways inside indoor unit.

### UV Fresh

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

### Wasabi Air Purifying Filter

Air purifying filters are coated with a solution made from Nano Titanium and Wasabi to provide an antibacterial, anti-allergen, anti-mold and deodorizing effect.

### Washable Detachable Front Panel

The front panel of the unit can be easily removed for cleaning and maintenance.

## Comfort

### Direct/Indirect Swing

Direct Swing: Automatically directs cool or warm air toward human activity.

Indirect Swing: Automatically directs air away from activity areas.

### Dry Operation

Decreases room humidity by gently cooling the room.

### Left-Right Auto Swing

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

### Powerful Mode

Engages maximum power and fan speed for rapid cooling or heating.

### Refresh Mode

Activates refreshing cooling that reduces humidity by controlling both the temperature and compressor operation.

### Seamless Fan Speed Control

Transitions smoothly between fan speed levels (Powerful, High, Medium, Low, Silent) for seamless performance.

### Silent Mode

Activates quiet operation mode.

### Smart Swing

Used to auto-adjust air flow direction (left/right, near/far) and swing time depending on the room conditions.

### Timer (12h)

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

### Up-Down Auto Swing

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

### Sensor System

Heat distribution, human activity level and location are monitored to auto-adjust cooling operation.

### Welcome Breeze

Directs extra-cold and powerful airflow to people in the room for the first 15 minutes. Automatically shifts to heat source cooling after 15 minutes.

## Energy Saving

### Air Sleep Ceiling

In Air Sleep Mode, Air Sleep Ceiling auto-selects ideal air flow speed and direction depending on location and activity of people in the room.

### Air Sleep Feel

By monitoring your sleep conditions during the night, temperature and humidity levels are optimized and automatically adjusted to super silent operation for a restful sleep. Normal cooling mode reactivates when the sensor detects you are awake.

### Air Sleep Timer

When Air Sleep Timer is set, the unit will shift to silent operation and optimum temperature for restful sleep. The operation will stop after the selected number of hours.

### Auto Off

The unit automatically shuts off if no human activity is detected in the room for over an hour.

### Auto On

Air conditioning begins automatically if activity is detected.

### Eco Mode

Uses Sensor System to detect and measure activity levels, sunlight and temperature. Cooling operation adjusts automatically for maximum comfort and minimum energy consumption.

### Save Mode

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

## Reliability

### Anti-Corrosion Green Fin

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

### Anti-Rust Outdoor Casing

Constructed of galvanized sheet with a baked synthetic resin coating designed to withstand rust and harsh weather conditions.

### Auto Restart

Automatically restarts the air conditioning unit at the previous setting in the event of a power failure.

### Changeable Drainage Pipe

The drainage pipe connection can be easily attached to either the left or right side of the indoor unit.

### DC Power System

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

### Fireproof Electrical Casing

Electrical parts are securely located in a fireproof metal enclosure to minimize the possibility of fire spreading.

### 3-Minute Delay Circuit (Fuse Blow Prevention)

This safety feature protects fuses and internal components if operation is restarted accidentally.

### Two Cylinder Rotary Compressor

Twin rotating cylinders create less vibration and quieter operation.

### Vector DC Inverter System

Uses a microchip pre-loaded with the compressor's mechanical data to monitor and adjust compressor rotation speed for efficient, powerful and stable operation.



## Johnson Controls-Hitachi Air Conditioning

### Johnson Controls-Hitachi Air Conditioning Singapore Pte. Ltd.

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### CERTIFICATION



CERTIFIED TO ISO 9001:2015 CERT NO: MY-QMS 00285



CERTIFIED TO ISO 14001:2015 CERT NO: MY-ER 0103



CERTIFIED TO OHSAS 18001:2007 CERT NO: MY-SR 0299

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