

**DAIKIN**

**DIDSK0523**

# KIRIU

## SURROUND CASSETTE



GOOD DESIGN  
AWARD 2020

**BEST  
100**

Japan's Good  
Design Award  
Best 100  
Year: 2020



DESIGN  
AWARD  
2021

Germany's  
iF Design  
Award  
Year: 2021

# The art of well-being begins with the air you breathe in.

Over the years, our air specialists have remained committed to develop and innovate high-quality air technology in order to perfect the air that surrounds you.

Our journey to bringing you quality air and comfort will always be driven by your needs first because at Daikin we believe that breathing well starts with breathing at ease.





## Indulge in ideal living ambience

The New Surround Cassette embodies the ideal ambient experience where every aspect is carefully designed to elevate your wellbeing and complement your space and daily needs.

Where design meets comfort, redefine the meaning of our New Surround Cassette "airflow" and experience ambient living worthy of your senses.

## Heart of the space

  
**Aesthetics refined**

Designed to carefully blend into any interior to complement your space while delivering full airflow coverage and top performance.

  
**Comfort maximised**

With surround cooling and uniform distribution of airflow, sit back and relax as you go about your tasks and enjoy the ultimate zen experience.

  
**Health prioritised**

Where craft and artistry meets high-end technology, equipped with enhanced air purification for double air quality protection so you can breathe at peace.

  
**Senses elevated**

Built with eco-friendly refrigerant to maintain energy efficiency to not only meet your needs, but also for the benefit of the planet's well-being.

# Aesthetic

Every aspect of the New Surround Cassette was designed with care to complement your daily needs and elevate your overall space and surrounding environment.

Features a sleek edge-to-edge bottom inlet and all-round horizontal outlet with a grille pattern that is carefully arranged to minimise ceiling contrast and blend in seamlessly with your space.



Japan's Good Design Award Best 100 Year: 2020



Germany's iF Design Award Year: 2021



## Slim Remote Control

Notable temperature display

Accurate time display

Easily accessible controls

## Luminous LED Lights

Simple yet focused indicator light bar that lets you stay in the know without the disturbance.

Timer

Cooling

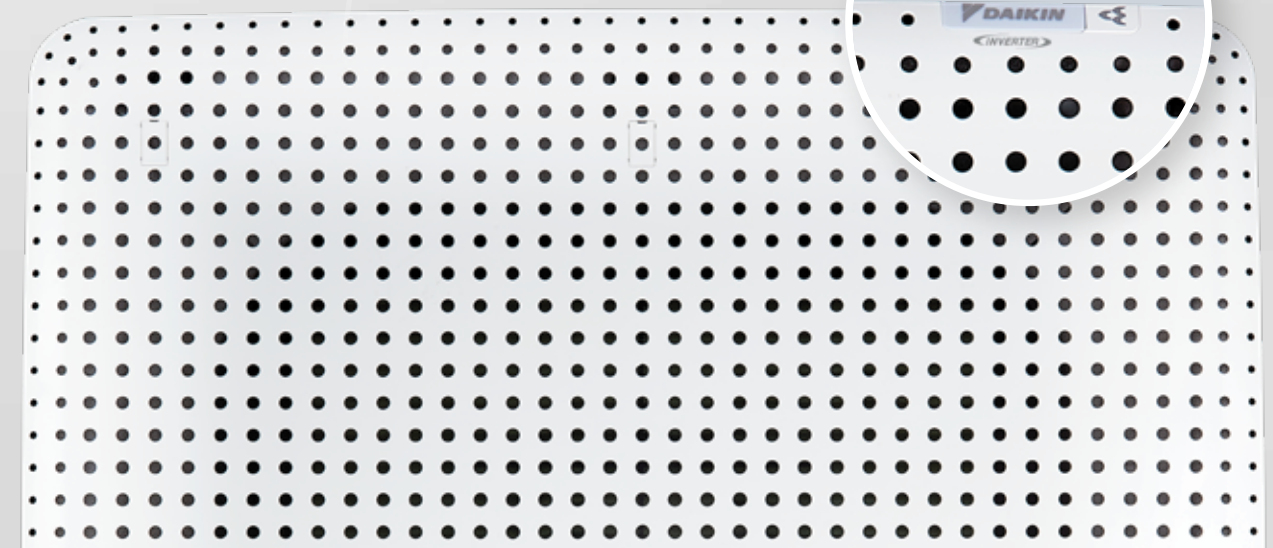
ECO+

24-hour ON/OFF Timer (R/C)

Operation starts when the preset time of ON timer elapses and stops when preset time of the OFF timer elapses.

Once activated, set temperature will be adjusted automatically to an eco-friendly level.

Standard cooling operation mode where the air conditioner cools down the room by releasing the heat to outdoor unit.





Tasteful interior design is focused on bringing comfort and creating an inviting atmosphere



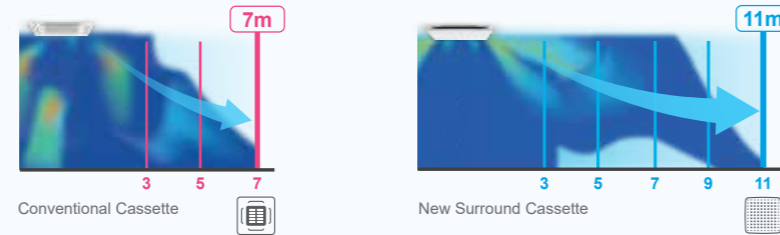
# Comfort

In pursuit of perfecting your air, we have designed the New Surround Cassette with your well-being in mind. Say goodbye to uncomfortable direct drafts, and hello to all around comfort living.

As we bring comfort in your offices and cafes for users to linger in the same spot for hours without feeling the unnecessary discomfort from excess cooling.

## 1 Wide Coverage

Designed to deliver **wider coverage and even airflow distribution** throughout your space while cooling off comfortably at your own leisure.



**Test Organisation:** Daikin Research and Development Malaysia Sdn Bhd  
**Test Method:** The air throw distance is determined based on wind velocity of 0.25m/s and above.  
**Test Result:** The **New Surround Cassette** achieved the furthest air throw distance of **11-meter** compared to the conventional cassette, which is 7-meter. The surround airflow from New Surround Cassette is able to air throw horizontally to the edge of the room. Therefore, the achievement of the New Surround Cassette **achieved 1.6 times higher** compared to the conventional cassette.  
 Note: The result was simulated based on the highest capacity model (5hp) with "High" fan speed setting. The louvers set at the highest position for the conventional cassette, whereas the New Surround Cassette has no louvers.

## 2 Draftless Comfort

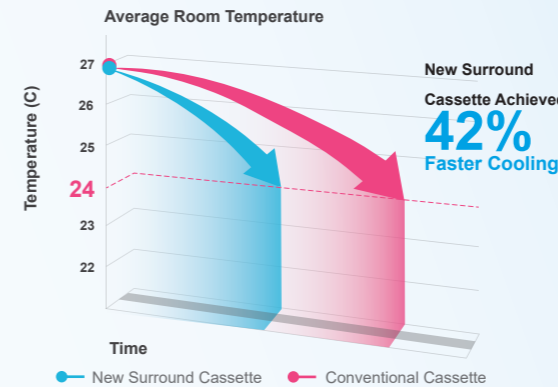
With up to **1.3 times improvement in providing draftless cooling experience**, the New Surround Cassette maintains comfortable and uniform wind velocity across the room so you can linger with minimal disruption.



**Test Organisation:** Daikin Research and Development Malaysia Sdn Bhd  
**Test Method:** From the simulated result of the highest capacity model (5hp) with "High" speed setting, wind velocity was measured at 363 points evenly distributed across the room. Out of the 363 points measured, the New Surround Cassette ensured 80% of them achieved draftless comfort criteria, while the conventional cassette only ensured 63% achieved draftless comfort criteria.  
**Test Result:** The **New Surround Cassette** achieved **1.3 times improvement in providing draftless air** with comfortable wind velocity compared to the conventional cassette.  
 Note: Based on ASHRAE Thermal Comfort Standard.  
 Remarks: The test result may vary based on a different room and condition.

## 3 Fast Cooling

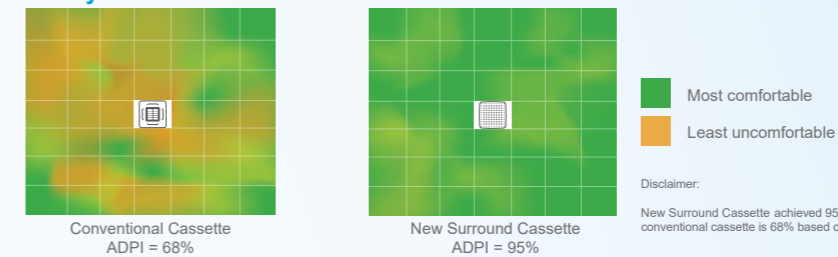
Designed with comfort in mind, the New Surround Cassette's unique design and technology is able to **deliver cooling airflow that cools a room 42% faster** than conventional cassettes.



**Test Organisation:** Daikin Research and Development Malaysia Sdn Bhd  
**Test Number:** 103-T2-TR1-20-R1-S0  
**Test Method:** The achievement was tabulated from 75 measured points (25 points for each height) that are evenly placed at of 0.7m, 1.0m and 1.5m of object distance from the floor based on tested result of the small capacity model (3hp) and at the set temperature of 24°C.  
**Test Result:** The **New Surround Cassette** is **42% faster to cool a room**, compared to the conventional cassette. The New Surround Cassette recorded achieving the set temperature of 24°C is within 32 minutes compared to 56 minutes by a conventional cassette.  
 Note: The set temperature is set based on ASHRAE Standard guideline for recommended indoor air temperature.

## 4 Uniform Distribution

While most conventional cassettes feature high air velocity that creates unpleasant direct drafts towards users, the New Surround Cassette was designed with an **end-to-end grille to distribute cooling more evenly**.

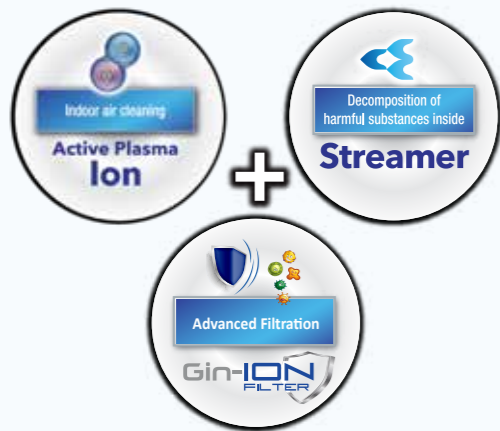


**Test Organisation:** Daikin Research and Development Malaysia Sdn Bhd  
**Test Number:** 103-T2-TR1-20-R1-S0  
**Test Result:** The **New Surround Cassette** achieved **cooling uniformity of 1.4 times** better than the conventional cassette and it showed that a more evenly distributed cooling experience achieved by New Surround Cassette. The uniformity of cooling distribution is evaluated using the Air Diffusion Performance Index (ADPI).  
**Test Method:** The result is calculated from 75 measured points (25 points for each height) that are evenly placed at 0.7 m, 1.0m and 1.5m of object distance from the floor based on tested result of the small capacity model (3hp) and at the set temperature of 24°C.  
 Note:  
**Air Diffusion Performance Index (ADPI)**  
 The ADPI is a single number that quantifies the overall comfort of a space when in cooling.  
 Remarks: The test result may vary based on a different room and condition.

# Health

Enjoy enhanced air purification that ensuring your surrounding air remains healthy with the Daikin triple method consist with 3 keys technologies

## 3 Keys Technologies of Daikin Triple Methods



The three keys technology of Daikin triple method combining Streamer, Active Plasma Ion and Gin-ION Filter ensuring the cleaner air by three angles of protection.

The decomposition and filtration of viruses and bacteria, allow to have a better quality of air and surroundings.

### 1st Key Tecnology : Streamer

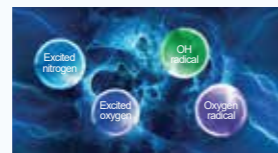


Equipped with decomposition technology, Streamer discharge is a type of plasma discharge which generates high speed electrons that combine with oxygen and nitrogen in the air and turn into active species with strong oxidative decomposition power and thereby eliminate allergens such as mould, mites, pollen, hazardous chemical substances (formaldehyde) as well as, deodorises anti-bacterial dust filters so you can breathe with ease.

### Mechanism of decomposition by Streamer



Streamer emits high-speed electrons.



The electrons collide and combine with nitrogen and oxygen in the air to form four kinds of decomposing elements with decomposition power.



The decomposing elements provide decomposition power.

### 2nd Key Tecnology : Active Plasma Ion

\*MCK55 and MC55 models.

The plasma ion technology uses plasma discharge to release ions into the air, which combine with components of the air to form active species with strong oxidizing power like OH radical. They attach to the surface of fungi and allergens and decompose proteins in the air by oxidation.

#### Mechanism of reduction by Active Plasma Ion

Concentration: 25,000 ions/cm<sup>3</sup>

Note:

\*1 The number of ions per 1cm<sup>3</sup> of air blown into the atmosphere measured near the air outlet during operation with maximum airflow. Test conditions: temperature 25°C, humidity 50%.

Daikin's plasma ions have been proved safe. Safety concerning effect on skin, eyes, and respiratory organs  
Testing organization: Life Science Laboratories, Ltd.  
Name of test: repeated-dose toxicity test  
Test number: 12-II A2-0401



Image is for illustrative purposes

### 3rd Key Tecnology : Gin-ION Filter



The Gin-ION Filter is designed to effectively decompose the virus on the air filter surface. It is to provide better quality of indoor air for healthier life

This filter is treated with positively charged silver ion which effectively attract virus and bacteria onto its surface then decompose. On top of that, this filter can also prevent any fungal growth on its surface to provide better indoor air quality for healthier life. Supplied as standard with New Surround Cassette panel.

- ✓ 99% Virus Reduction<sup>※1</sup>
- ✓ Skin Friendly<sup>※2</sup>
- ✓ Non-Toxicity<sup>※3</sup>
- ✓ Non-Hazardous<sup>※4</sup>
- ✓ No Harm<sup>※4</sup>
- ✓ Easy maintenance
- ✓ Suitable for Residential & Light Commercial Application

※1 The effect stated here is effect against the viruses that attach to the filter in the experimental facility for 2 hours.  
 ※2 Test Organization: Ningbo Customs District Technology Center. Test Number: 232000034026. Test Method : Animal Irritation Test: Single-exposure Test, Acute Ocular Irritation Test. (PP Antiviral Screen (ISO 10993- 10:2010)).  
 ※3 Test Organization: Ningbo Customs District Technology Center. Test Number: 232000034026. Test Method: Acute Oral Toxicity Test. Test Standard: Technical Standard for Disinfection.  
 ※4 Test Organization: Ningbo Customs District Technology Center. Test Number: 232000034026. Test Method: Acute Dermal Toxicity Test, Acute Inhalation Toxicity Test. (ISO10993.11-2017).



## PM2.5 Filter (MERV14 Ratings)

Particulate matter as small as 2.5 micrometers ( $\mu\text{m}$ ) can be breathed deep into the lungs, rest assure that your air remains clean as the filter is able to remove particulate matter as small as PM2.5 with MERV14 Ratings in accordance to ASHRAE 52.2 Standards.

**Testing Organization:**

Goldensea

**Test Number:**

GS-GL-0527-2021-01

**Test Method:**

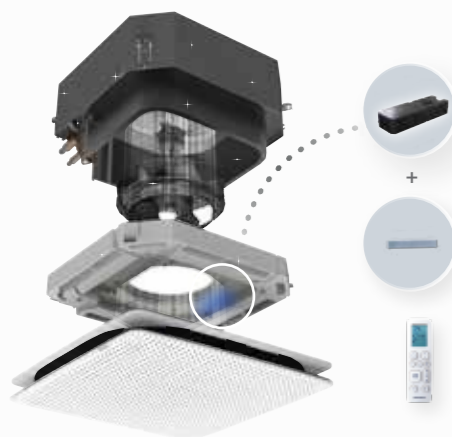
Filter performance test based on ASHRAE 52.2

**Test Result:**

The filter meets MERV14 rating

Standard 52.2 Minimum Efficiency Reporting Value	Composite Average Particle Size Efficiency, % in Size Range, $\mu\text{m}$		
	Range 1 (0.3-1.0)	Range 2 (1.0-3.0)	Range 3 (3.0-10.0)
14	$\geq 75\%$	$\geq 90\%$	$\geq 95\%$

## Bacteria Reduction Performance Efficiency Test



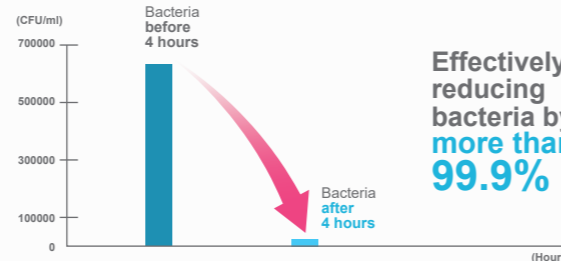
### Streamer Device + Titanium Apatite Filter (TiAP)

Streamer discharge decomposes bacteria and mould absorbed on the filter by irradiating them with an advanced plasma electric discharge. It provides highly effective oxidative decomposition.

### Streamer logo display on remote control

Prominent temperature display for remote control with Streamer logo (when the Streamer is turned on)

### Bacteria Reduction Performance Efficiency



**Testing Organization:**

Tropical Infectious Disease Research Center (TIDREC), Universiti Malaya

**Test Number:**

TS4-0390

**Test Method:**

The antibacterial testing method for New Concept Ceiling Cassette was based on JEM 1467 (Appendix F) standard, conducted in a room with volume of 31.2m<sup>3</sup>.

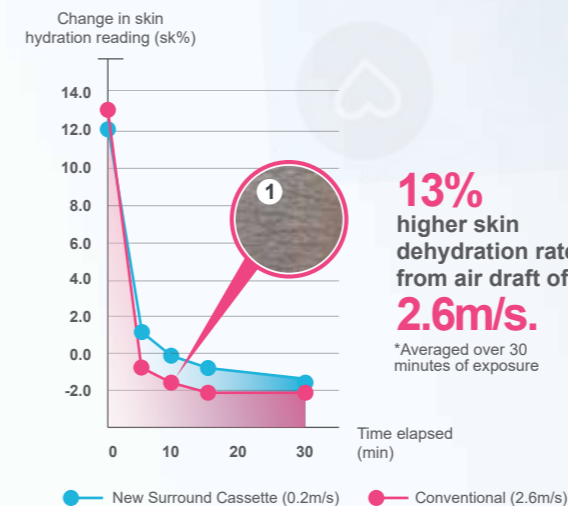
**Test Result:**

The ceiling cassette unit, which has Streamer irradiation on the Titanium Apatite filter (TiAP), was able to give bacteria reduction by 99.96% after exposure of 4 hours.



## Skin Hydration by Draftless Air

On the average, users of conventional ceiling cassettes showed 13% higher skin dehydration rates after exposure of 30 minutes at 2.6m/s of strong direct air draft, which causes formation of longer and wider lines on the skin surface. In comparison, the New Surround Cassette delivers ideal gentle cooling solution at 0.2m/s air movement which reduces the skin dryness and discomfort.



**Test Organisation:**

Daikin Research and Development Malaysia Sdn Bhd

**Test Number:**

RG-2021-002

**Test Method:**

The test examines the effect of air draft on 14 volunteers (9 Males & 5 Females) in a controlled ambient environment using the skin moisture meter and ambient condition: 27°C, RH47% and the readings taken during 30 minutes of exposure.

- New Surround Cassette → gentle air draft of 0.2m/s.
- Conventional Cassette → strong direct air draft of 2.6m/s.

**Test Result:**

From the test result, after exposing to 0.2m/s gentle indirect air draft from New Surround Cassette for 30 minutes, there was no significant difference in skin appearance and no formation of long and wide lines on the skin. Conversely, after 10 minutes of exposure to 2.6m/s direct air draft from the conventional cassette, ① long fine lines were observed on the skin. Then after 30 minutes, ② sulcus cutis (lines on the skin) becomes wider with rough edges, ③ crista cutis (surface between lines) becomes smaller and rough, and ④ additional wide lines in small area is visible. These combination causes the skin to look dull and rough.



Remarks: The test result may vary based on a different room and condition.



## Senses

New Surround Cassette doesn't just stop with its meticulous design and performance, but it is also built with 'Earth Loving' components for the benefit of the planet.

### Caring for the environment and your pocket

**R32**

is the next generation refrigerant that efficiently carries heat and has a lower environmental impact making it safer for our environment. Worry less on bills, as it reduces electricity consumption to approximately 10% compared to R22 refrigerant.



## New Outdoor Features



RZFG50/60/71A



RZFG85/100A



RZFG125/140A

### 1 Improved PCB Voltage Shield with Durable PCB feature

With durable PCB feature, it can further protect PCB

- Class 50/60/71/85/100 (1phase) – 130-415V
- Class 125/140 (3phase) – 277-457V



### 2 V-cut Propeller Fan

By imitating the grace of a swan, the use of a V-cut propeller fan imitates the smooth airflow of the migratory bird, in turn increasing performance and reducing sound pressure level.



### 3 High Durability

Outdoor Casing : Adopted zinc coated heavy gauge galvanized steel, with exterior surfaces finished with a weather resistant polyester powder casing, painted with ivory white colour to increase durability.

### 4 Long Piping Length

Improved piping length to provide installation flexibility.

Class	Max Piping Length	Max Piping Elevation
50	30	15
60	30	15
71	30	15
85	50	30
100	50	30
125	50	30
140	50	30

Note: Long piping length to provide installation flexibility

## 5 High Performance Inverter R32 Compressor

Swing compressor providing high efficiency during partial load operation.



## 6 Anti-Corrosion Outdoor Heat Exchanger

The outdoor units come with anti-corrosion properties with its gold fin heat exchanger and new corrosion resistant aluminium alloy microchannel heat exchanger.

Remark : Gold fins heat exchanger for RZFG50-71A and microchannel heat exchanger for RZFG85-140A

## 7 Refrigerant Cooling










Daikin's unique refrigerant cooling system helps to protect the printed circuit board and maintains high cooling capacity even during high outdoor temperatures.

Remark : For RZFG125/140A only.

## 8 Coated Printed Circuit Boards (PCB)

Coated PCB prevent problems caused by humidity and airborne dust. It also protects against salt contained in sea breezes. Both side of the PCB in outdoor units are coated.

## Product Line Up

Class	50	60	71	85	100	125	140
							
Indoor unit	FCFG50AV14	FCFG60AV14	FCFG71AV14	FCFG85AV14	FCFG100AV14	FCFG125AV14	FCFG140AV14
							
Outdoor unit	RZFG50AGV14	RZFG60AGV14	RZFG71AGV14	RZFG85AV14	RZFG100AV14	RZFG125AY14	RZFG140AY14
Power Supply	220-240/1/50 Power from OUTDOOR	220-240/1/50 Power from OUTDOOR	220-240/1/50 Power from OUTDOOR	220-240/1/50 Power from OUTDOOR	220-240/1/50 Power from OUTDOOR	380-415/3/50 Power from OUTDOOR	380-415/3/50 Power from OUTDOOR

# Technical Specifications

			50	60	71	85	100	125	140
Model	Indoor unit		FCFG50AV14	FCFG60AV14	FCFG71AV14	FCFG85AV14	FCFG100AV14	FCFG125AV14	FCFG140AV14
	Outdoor unit		RZFG50AGV14	RZFG60AGV14	RZFG71AGV14	RZFG85AV14	RZFG100AV14	RZFG125AY14	RZFG140AY14
	Decoration Panel		BCR50G4	BCR50G4	BCR50G4	BCR50G4	BCR50G4	BCR50G4	BCR50G4
Cooling Capacity		Btu/h	18500	20500	24200	30000	36000	42000	48000
		kW	5.42	6.00	7.10	8.79	10.55	12.31	14.07
Total Power Input		W	1680	1960	2070	2710	3470	4215	5455
Total Current		A	7.37	8.55	9.07	12.0	15.3	6.48	8.38
CSPF		Wh/Wh	4.47	4.34	4.78	4.67	4.68	4.29	4.10
Power supply		V/Ph/Hz	220-240/1/50	220-240/1/50	220-240/1/50	220-240/1/50	220-240/1/50	380-415/3/50	380-415/3/50
			Power from OUTDOOR	Power from OUTDOOR	Power from OUTDOOR	Power from OUTDOOR	Power from OUTDOOR	Power from OUTDOOR	Power from OUTDOOR
Indoor Unit	Airflow (H)		cfm	855	855	855	855	1075	1075
	Sound Pressure Level (H/L)		dB(A)	44/37	44/37	44/37	44/37	48/43	48/43
	Unit Dimension (H x W x D)	Unit	mm	246 X 840 X 840	246 X 840 X 840	246 X 840 X 840	246 X 840 X 840	288 X 840 X 840	288 X 840 X 840
		Packaging	mm	324 X 922 X 922	324 X 922 X 922	324 X 922 X 922	324 X 922 X 922	370 X 922 X 922	370 X 922 X 922
	Panel Dimension (H x W x D)	Panel	mm	135 X 962 X 962	135 X 962 X 962	135 X 962 X 962	135 X 962 X 962	135 X 962 X 962	135 X 962 X 962
		Packaging	mm	246 X 1021 X 1024	246 X 1021 X 1024	246 X 1021 X 1024	246 X 1021 X 1024	246 X 1021 X 1024	246 X 1021 X 1024
Machine Weight	Unit	kg	22	22	22	22	25	25	
	Panel	kg	8.5	8.5	8.5	8.5	8.5	8.5	
Outdoor Unit	Sound Pressure Level		dB(A)	52	52	52	53	54	56
	Dimensions (H x W x D)	Unit	mm	615 X 845 X 300	615 X 845 X 300	615 X 845 X 300	695 X 930 X 350	695 X 930 X 350	990 x 940 x 320
		Packaging	mm	679 X 992 X 414	679 X 992 X 414	679 X 992 X 414	760 X 1084 X 473	760 X 1084 X 473	1126 X 1003 X 396
Machine Weight		kg	37	37	37	40	40	62	
Pipe Connections	Liquid	mm	6.4	6.4	9.5	9.5	9.5	9.5	
	Gas	mm	12.7	12.7	15.9	15.9	15.9	15.9	
Maximum Piping Length		m	30	30	30	50	50	50	
Maximum Piping Elevation		m	15	15	15	30	30	30	
Chargeless Piping Length		m	10	10	10	15	15	15	

**Remarks**

1. Due to product innovation, all specifications are subjected to change by the manufacturer without prior notice. 2. All units are being tested and comply to ISO5151.
3. Nominal cooling capacity are based on the conditions: 27°C DB / 19°C WB indoor and 35°C DB outdoor.

**Comfortable Airflow**

Surround Airflow Operation ●

**Comfort Control**

Auto Fan Speed ●  
 Indoor Unit Quiet Operation ●  
 Switchable Fan Speed ● 4 steps

**Operation**

Programme Dry Function ●  
 Fan Only ●  
 Cooling ●  
 ECO+ ●  
 Powerful ●  
 Sleep ●

**Lifestyle Convenience**

Indoor Unit ON/OFF Button ●  
 Signal Receiving Sign (R/C)\*1 ●  
 L.E.D. (ON/OFF) ●  
 Streamer ON/OFF Button \*1 ●  
 R/C with Backlight \*2 ●  
 Room Temperature Display (R/C) \*2 ●

**Health & Clean**

GIN-ION FILTER ●  
 PM 2.5 ●  
 Streamer ●  
 Ceiling Soil Prevention ●  
 Washable Grille ●  
 Ionizer ●

**Timer**

Weekly Timer Operation \*2 ●  
 24-hour ON/OFF Timer (R/C)\*1 ●

\*1: Applicable when wireless (ARC485A7)remote controller used for selected models.  
 \*2: Applicable when wired (BRC51D62) (SHIRO) is used.

**Worry Free (Reliability & Durability)**

Auto Restart (After Power Failure) ●  
 Self-diagnosis ●  
 Wiring Error Check Function ●  
 Anti-corrosion Treatment of Outdoor Heat Exchanger ●  
 Class 50-71 - GOLD Fin  
 Class 85-140 - MCHE  
 Durable PCB ●  
 Class 50-100 - 130-415V  
 Class 125-140 - 277-457V

**Flexibility**

Water Pump (Water Drainage Pipe Flexibility) ●  
 °F/°C Changeover R/C Temperature Display ●  
 (Factory Setting: °C)  
 Pre-charged Piping Length ●  
 Class 50-71 - 10m  
 Class 85-140 - 15m

**Remote Control**

NIM Adaptor ●  
 Sequential NIM Adaptor ●  
 BAG ●  
 WIFI (Only compatible with DAMA APP) ●  
 Wireless ● ARC485A7  
 Wired (Optional) ● BRC51D62

● Standard ● Optional

# KIRIU

## SURROUND CASSETTE

### Dealer

#### PT. DAIKIN AIRCONDITIONING INDONESIA

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Management  
System  
ISO 9001:2015

www.daikin.com  
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Lombok, Tlp. : 0370-7843 231 | Jambi, Tlp. : 0741-3066 790 | Padang, Tlp. : 0751-896 2684
- **TRAINING CENTER** : Sunter, Telp. : 021-650 5030 • **BRANCH** : Bekasi, Telp. : 021-2945 0585  
Tangerang, Telp. : 021-5314 1195 | Bandung, Telp. : 022-522 5150 | Semarang, Telp. : 024-7660 3221  
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Makassar, Telp. : 0411-805 2691 | Palembang, Telp. : 0711-573 2282 | Pekanbaru, Telp. : 0761-561 139  
Medan, Telp. : 061-4200 8866 | Manado, Telp. : 0431-719 1199 | Batam, Tlp. : 0778-4171 445

**Daikin Contact Center : 0800 1 081 081 (Toll Free)**

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**CONTACT**  
**CENTER**

**0800 1 081 081**  
BEBAS PULSA

**365**  
hari/tahun

##### Jam Beroperasi :

Senin - Jumat :  
07:00 - 19:00 WIB  
Sabtu - Minggu & Libur Nasional :  
07:00 - 17:00 WIB