

PANASONIC AIR CONDITIONING

ECONAVI REVERSE CYCLE INVERTER
2014/2015



ECONAVI

INVERTER

Panasonic

FOR FUTURE GENERATIONS

Panasonic aims to become the No.1 green innovation company in the electronics industry



THE 2014 BEST GLOBAL GREEN BRANDS

2014 Brand Ranking Top 10

- 1 FORD
- 2 TOYOTA
- 3 HONDA
- 4 NISSAN
- 5 **Panasonic**
- 6 NOKIA
- 7 SONY
- 8 ADIDAS
- 9 DANONE
- 10 DELL

Interbrand has announced its 2014 ranking of Best Global Green Brands. In this year's ranking Panasonic was ranked number four, fulfilling our eco pledge "For future generations, Panasonic aims to become the No.1 Green Innovation Company in the Electronics Industry."

At Panasonic, our eco pledge is more than just a tagline; it's a harmonious way of life that we take very seriously. Panasonic was founded based on the philosophy of contributing to progress in society and to enriching people's lives through business activities. By offering products that

help people lead better, greener lives, we are making good on our strong commitment to continuous environmental sustainability management.

Interbrand's Best Global Green Brands 2014 report is a look at sustainability with performance data powered by Deloitte and consumer perception data. Interbrand evaluates organisations based on market perception; actual environmental performance; and products and services.

*Source: Best Global Green Brands 2014, Interbrand.
Go to www.bestglobalgreenbrands.com for more information.



**PANASONIC ECO CITY
TIANJIN, CHINA**

ENERGY EFFICIENT + CLEANER HEALTHIER AIR

Panasonic air conditioners are designed to do more than just cool and heat your home. They save energy, they purify your surroundings and they adjust the temperature to suit your living space and lifestyle. Living an eco life your way is now easier than ever.





INTELLIGENT ECO SENSORS



ECONAVI

ECONAVI now comes with 5 features that save energy by adjusting to changes in human movement, activity levels, absence and sunlight intensity.



INVERTER

INVERTER technology maintains the room temperature by varying the rotation speed of the compressor; giving you exceptional energy savings.



nanoe-G

nanoe-G uses nano-technology fine particles that work effectively on micro-organisms in the air, on surfaces and even in the filter to ensure a cleaner living environment.

RELIABLE COMFORT COMES FROM RELIABLE TECHNOLOGY

Through years of research, testing and product manufacture, Panasonic has the know-how to deliver air-conditioners you can rely on over many years and under a wide range of conditions.



COMFORT

A Panasonic air conditioner should be the hard-working hero you never notice. From noise measurements, to environmental performance and even operating ease, we repeatedly test our models to make sure they keep your home comfortable without ever intruding on your life.



DURABILITY

We simulate continuous operation under the harshest of conditions, subject the outdoor units to wind and rain tests and then examine every mechanism to ensure are delivering a rugged product you can depend on for many years.



SHOCK RESISTANCE

We love our air conditioners but that doesn't mean we go easy on them. We simulate impacts, vibrations, drops and stacking issues the units might face in transportation and storage so we know they will be ready for action when they reach your home.



CLASS LEADING FEATURES

ENERGY SAVING TECHNOLOGY

Panasonic combine Inverter technology with our exclusive ECONAVI sensor technology to create a powerhouse energy-saving product. These clever technologies benefit both the environment and your power bill, so your green intentions don't have to prevent you from living a comfortable life.



CLEANER, HEALTHIER AIR

As well as a cool, comfortable home, a Panasonic air conditioner provides the ultimate peace of mind with the nanoe-G air purifying system to eliminate unwanted contaminants and make the air healthier for you and your family. There is even an option for maintaining air moisture to reduce effects like dry skin, dry mouths and throats.



QUIET OPERATION

Panasonic systems are amongst the quietest in the world, so you can enjoy the comfort of running your air conditioner at night and still have a relaxing sleep. The outdoor unit is also very quiet which means you don't have to worry about keeping your neighbours up either.

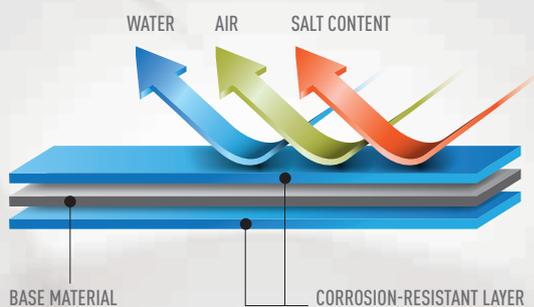


Control, comfort & reassurance



DESIGNED FOR AUSTRALIAN TEMPERATURES

Our air conditioning systems boast an outstanding operating temperature range. Cooling operation is possible even when it is a scorching +46°C outside, which is perfect for Australia's hot summer days and the heating operation is designed to operate even when it's a freezing -15°C outside, so even the coldest parts of Australia are covered.



BUILT TOUGH TO LAST

Panasonic outdoor units are built to last in the harsh Australian environment. Internal components of the outdoor unit are coated with a special blue coating that protects the unit from the damaging effects of salty air, dust, wind and rain. This special coating lets you enjoy more years of reliable comfort plus extra economy over the long run.



**5 YEARS
FULL
PARTS
AND
LABOUR
WARRANTY**

YOU CAN COUNT ON PANASONIC

Panasonic air conditioners are manufactured to the highest quality standards to ensure years of reliable comfort. We even back our reliability by offering a full 5 year parts and labour warranty.



INTELLIGENT ECO SENSORS

ECONAVI

LEADING ENERGY EFFICIENCY WITH ECONAVI

ECONAVI is a combination of intelligent sensors that work together to reduce energy wastage and save you money on your power bill. Human activity, sunlight and temperature sensors detect and reduce waste by optimising air conditioner operation according to room conditions.

CLEVER SENSORS COMBINE TO SAVE ENERGY



2 SUNLIGHT DETECTION
Adjusts cooling and heating power to changes in sunlight intensity.



1 ABSENCE DETECTION
Reduces cooling and heating power when you are not around.



**HUMAN ACTIVITY
SENSOR**

**SUNLIGHT
SENSOR**

ECONAVI WITH INTELLIGENT ECO SENSORS

ECONAVI Intelligent Sensors detect unconscious waste of energy using the Human Activity Sensor and Sunlight Sensor. It is able to monitor human location, movements, absence and sunlight intensity. It then automatically adjusts cooling and heating power to save energy efficiently with uninterrupted comfort and convenience.

ECONAVI



5 ACTIVITY DETECTION
Adapts cooling and heating power to your daily activities.



4 AREA SEARCH
Directs airflow to wherever you are in the room.



3 TEMPERATURE WAVE
Rhythmic temperature-controlled pattern to save energy without sacrificing comfort.



DURING COOLING

UP TO **38%**¹

ENERGY SAVINGS

for Inverter Cooling Model with Temperature Wave

DURING HEATING

UP TO **45%**²

ENERGY SAVINGS

for Inverter Heating Model

SO MUCH SAVED WITH SO LITTLE EFFORT

¹ Comparison of 3.5kW Inverter model between ECONAVI with (Dual Human Activity Sensor, Sunlight Sensor, and Temperature Wave) ON and ECONAVI OFF (Cooling). ECONAVI ON, Outside temperature: 35°C/24°C Remote setting temperature: 23°C with Fan Speed (High) Vertical Airflow direction: Auto, Horizontal Airflow direction: ECONAVI Mode. Setting temperature goes up 2°C in total, 1°C controlled by ECONAVI activity level detection and another 1°C controlled by ECONAVI light intensity detection. Temperature Wave is ON, electric heater (300W, simulating the heat of human and TV etc). ECONAVI OFF, Outside temperature: 35°C/24°C Remote setting temperature: 23°C with Fan Speed (High) Vertical Airflow direction: Auto, Horizontal Airflow direction: Front. Total power consumption amount are measured for 2 hours in stable condition. At Panasonic Amenity Room (size:16.6m²). This is the maximum energy savings value, and the effect differs according to conditions in installation and usage.

² Comparison of 3.5kW Inverter model between ECONAVI with dual sensor ON and OFF (Heating). ECONAVI dual sensor ON, Outside temperature: 2°C/1°C, Remote setting temperature: 26°C with Fan Speed (High), Vertical Airflow direction: Auto, Horizontal Airflow direction: ECONAVI Mode. Setting temperature goes down 3°C in total, 2°C controlled by ECONAVI activity level detection and another 1°C controlled by ECONAVI light intensity detection. ECONAVI dual sensor OFF, Outside temperature: 2°C/1°C, Remote setting temperature: 26°C with Fan Speed (High), Vertical Airflow direction: Auto, Horizontal Airflow direction: Front. Total power consumption amount are measured for 1 hour in stable condition. At Panasonic Amenity Room (size:16.6m²). This is the maximum energy savings value, and the effect differs according to conditions in installation and usage.

THE SECRET TO ITS ABILITY IS FLEXIBILITY





INVERTER TECHNOLOGY IS ANYTHING BUT RIGID

Many air conditioners operate at one constant speed and need to constantly turn on and off to maintain a set temperature but Panasonic Inverter air conditioners have the flexibility to vary the rotation speed of the compressor, allowing them to use less energy to maintain the set temperature while also being able to cool and heat the room quicker at start up.

QUICK COOLING CONSTANT COMFORT



1 QUICK COOLING
Cools room faster at start up.

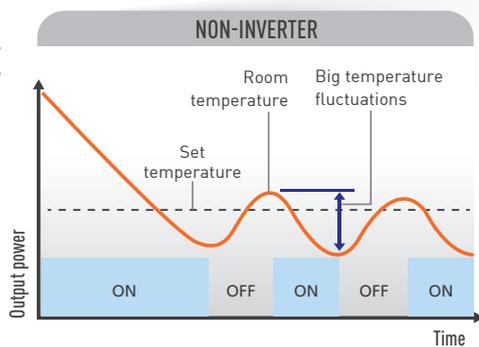
2 CONSTANT COMFORT
Easily maintains set temperature to keep you comfortable.



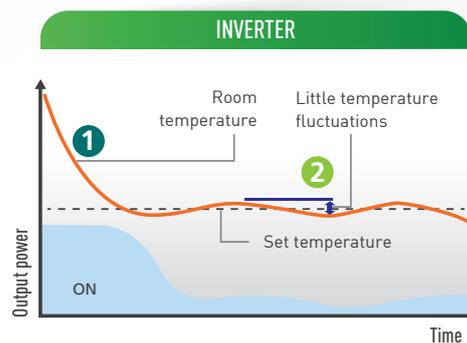
REDUCE ENERGY WASTAGE

Panasonic air conditioners feature Inverter technology, an innovation that allows the unit to vary the rate of the compressor and achieve a precise room temperature without wasting such huge amounts of energy. In fact, Panasonic Inverter works so well that it cools 1.5 times faster than a non-Inverter model and enables up to 50% energy savings during cooling operation and 64% during heating*.

PERFORMANCE COMPARISON



NOTE: Energy is wasted by switching the compressor ON and OFF to maintain the set temperature.



NOTE: Saves energy by varying the rotation speed of the compressor to maintain the set temperature.

Legend:
■ Output power
— Temperature



INVERTER

3 ENERGY SAVING

Varies compressor rotation speed to reduce wasteful consumption of energy.

4 QUIET OPERATION

Indoor and outdoor units run quietly, so you can relax and even sleep in peace.



Non-Inverter Model

50%
DOWN



Inverter Model

UP TO **50%**
ENERGY SAVINGS*

***Comparison of 3.5kW Inverter model and 3.5kW Non-Inverter model (Cooling)**

Outside temperature: 35°C/24°C. Remote setting temperature: 25°C with Fan speed (High) Vertical Airflow direction: Auto, Horizontal Airflow direction: Front. Total power consumption amount are measured for 8 hours from start. At Panasonic Amenity Room (size:16.6m²) This is the maximum energy savings value, and the effect differs according to conditions in installation and usage.

BRING PURITY INTO YOUR HOME WITH NANO-E-G





ALL YOU NEED IS THE AIR THAT YOU BREATHE

Enjoy cleaner, healthier air thanks to the nanoe-G air purification system. Using nano technology, fine particles and harmful micro-organisms are removed from the air you breathe, banished from surfaces and furniture and even deactivated from the filter inside the indoor unit.

ADVANCED AIR PURIFICATION

2 AIRBORNE
Removes 99%² bacteria, viruses and mould in the air.

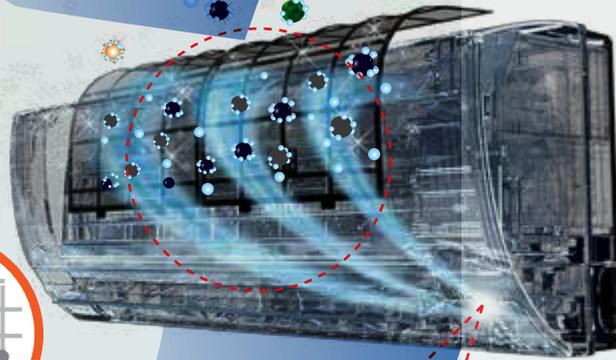
1 ADHESIVE
Deactivates 99%¹ bacteria, viruses and inhibits mould growth on surfaces.



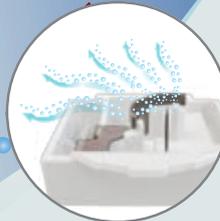
	1. ADHESIVE	2. AIRBORNE	3. IN-FILTER DEACTIVATION
BACTERIA 	99% DEACTIVATION	99% REMOVAL	99% DEACTIVATION
VIRUSES 	99% DEACTIVATION	99% REMOVAL	99% DEACTIVATION
MOULD 	GROWTH INHIBITION	99% REMOVAL	—

3 IN-FILTER DEACTIVATION

Deactivates 99%³ bacteria and viruses trapped in the filter.



3 trillion* nanoe-G fine particles released from the generator.



Natural Ion Wind spreads nanoe-G fine particles that are released from the nanoe-G generator.

NOTE: *1 Adhesive Deactivation was certified by Japan Food Research Laboratories - Test Report number: 11047933001-02 Bacteria: Staphylococcus aureus (NBRC 12732), Test Report number: 11073649001-02 Virus: Bacteriophage (Phi X 174 NBRC 103405), Test Report number: 11047937001-02 Mould: Cladosporium cladosporioides (NBRC 6348) *2 Airborne Removal was certified by Kitasato Research Centre for Environmental Science KRCEs-Bio. Test Report no: 23_0182 Bacteria: Staphylococcus aureus (NBRC 12732) KRCEs-Env. Test Report no: 22_0008 Virus: Escherichia coli phage (øX-174 ATCC 13706-B1) Influenza (H1N1) 2009 virus KRCEs-Env. Test Report no: 23_0140 Mould: Penicillium pinophilum (NBRC 6345) *3 In-Filter Deactivation was certified by Japan Food Research Laboratories Test Report number: 12037932001 Bacteria: Staphylococcus aureus (NBRC 12732) Test Report number: 12014705001 Virus: Escherichia coli phage (øX-174 ATCC 13706-B1) ** All results are based on specific testing conditions. All tests are not demonstrated under actual usage situation *3 trillion is the simulated number of nanoe-G fine particles under the mentioned conditions. Actual measured nanoe-G fine particles at the centre of the room (13m2):100k/cc calculated number of nanoe-G fine particles in the entire room assuming they are evenly distributed.

NO MORE DRY AIR

Your clean air will also be comfortable air, thanks to the Mild Dry Cooling feature which is designed to maintain the level of air moisture in your room. Mild Dry Cooling reduces unwanted effects like dry eyes, dry skin, dry mouths and throats and is especially useful if you like to leave the air conditioner on overnight while you sleep.



LOWERS ROOM TEMPERATURE WHILE MAINTAINING HIGH HUMIDITY

WALL MOUNTED - ECONAVI REVERSE CYCLE



Wireless Large Remote Controller

CS-E9PKR | CS-E12PKR | CS-E15PKR



Wireless Large Remote Controller

CS-E18PKR | CS-E21PKR | CS-E24PKR | CS-E28PKR

SPECIFICATIONS

Cooling (): Outdoor Unit EER : Cooling Efficiency
Heating COP: Heating Efficiency

Model	(240V)	CS-E9PKR (CU-E9PKR)	CS-E12PKR (CU-E12PKR)	CS-E15PKR (CU-E15PKR)	CS-E18PKR (CU-E18PKR)	CS-E21PKR (CU-E21PKR)	CS-E24PKR (CU-E24PKR)	CS-E28PKR (CU-E28PKR)
Cooling/Heating** Capacity	kW	2.60 (0.90-3.00) 3.60 (0.80-5.00)	3.50 (0.90-4.00) 4.90 (0.80-6.70)	4.40 (0.90-5.00) 5.50 (0.90-7.10)	5.00 (0.90-6.00) 6.35 (0.90-8.00)	6.30 (1.70-7.10) 7.20 (1.70-8.50)	7.00 (1.70-8.10) 8.00 (1.70-9.90)	8.00 (2.30-8.60) 9.00 (2.20-11.00)
	Btu/h	8,870 (3,070-10,200) 12,300 (2,730-17,100)	11,900 (3,070-13,600) 16,700 (2,730-22,800)	15,000 (3,070-17,100) 18,800 (3,070-24,200)	17,100 (3,070-20,500) 21,700 (3,070-27,300)	21,500 (5,800-24,200) 24,600 (5,800-29,000)	23,900 (5,800-27,600) 27,300 (5,800-33,800)	27,300 (7,840-29,300) 30,700 (7,500-37,500)
Air Flow	L/s	200 215	213 222	247 243	283 295	288 277	340 347	359 357
Dehumid	L/h	1.6	2.0	2.4	2.8	3.5	4.0	4.7
Running Current	A	2.5 3.4	3.7 5.5	5.4 6.5	5.8 7.5	8.4 8.5	9.5 9.7	10.9 11.9
Power Input	kW	0.55 (0.21-0.78) 0.75 (0.18-1.36)	0.83 (0.21-1.10) 1.22 (0.18-1.89)	1.20 (0.22-1.60) 1.47 (0.25-2.25)	1.30 (0.23-2.05) 1.69 (0.26-2.65)	1.80 (0.44-2.20) 1.98 (0.40-2.50)	2.11 (0.43-2.48) 2.21 (0.38-3.00)	2.39 (0.46-2.70) 2.63 (0.50-3.30)
EER/COP	w / w	4.73 4.80	4.22 4.02	3.67 3.74	3.85 3.76	3.50 3.64	3.32 3.62	3.35 3.42
Star Rating		4.5 4.5	3.0 3.0	2.5 2.5	2.5 2.5	2.0 2.0	2.0 2.5	2.0 2.0
Sound Pressure Level** dB (A)	Inside (Hi/Lo/S-Lo)	42/25/21 41/27/21	43/26/21 46/29/26	47/30/23 45/31/27	47/34/31 44/33/29	47/36/33 47/35/32	49/37/34 49/37/34	51/38/35 50/38/35
	Outside (Hi/S-Lo)	47/— 47/—	49/— 50/—	47/42 47/42	48/43 48/43	53/48 53/48	54/49 54/49	55/50 55/50
Sound Power Level dB (A)	Outside (Hi/S-Lo)	62/— 62/—	64/— 65/—	62/57 62/57	62/57 62/57	67/62 67/62	68/63 68/63	73/68 73/68
	Net Weight (Outdoor)	kg	9 (33)	9 (33)	9 (51)	12 (52)	12 (59)	12 (60)
Dimensions	Height x Width x Depth	mm	290 x 870 x 214 (619 x 824 x 299)	290 x 870 x 214 (619 x 824 x 299)	290 x 870 x 214 (795 x 875 x 320)	290 x 1070 x 240 (795 x 875 x 320)	290 x 1070 x 240 (795 x 875 x 320)	290 x 1070 x 240 (795 x 875 x 320)
	Refrigerant Pipe Diameter	Liquid Side	mm/(inch)	6.35 (1/4)	6.35 (1/4)	6.35 (1/4)	6.35 (1/4)	6.35 (1/4)
	Gas Side	mm/(inch)	9.52 (3/8)	12.70 (1/2)	12.70 (1/2)	12.70 (1/2)	15.88 (5/8)	15.88 (5/8)
Pipe Extension Length	Min-Max (m)	3-15	3-15	3-20	3-20	3-20	3-30	3-30
Pipe Length for Additional Gas	m	7.5	7.5	7.5	10	10	10	10
Additional Gas Amount	g/m	20	20	20	20	20	30	30
Power Supply		Outdoor	Outdoor	Outdoor	Outdoor	Outdoor	Outdoor	Outdoor
Operating Range (Outdoor)	Cooling	Degree (°C)	5-46	5-46	5-46	5-46	5-46	5-46
	Heating	Degree (°C)	-15-24	-15-24	-15-24	-15-24	-15-24	-15-24

*1 Sound pressure level specification is measured according to JIS C9612.
*2 Maximum heating capacity shown are the values based on powerful operation.

Rating Conditions

	Cooling	Heating
Inside air temperature	27°C DB/19°C WB	20°C DB
Outside air temperature	35°C DB	7°C DB/6°C WB

- Power plugs are not supplied with the unit.
- Electrical work must be installed by a licensed electrician. Be sure to use the correct rating of the power plug and mains circuit for the model to be installed.
- Please read the Installation Instructions carefully before installing the unit, and read the Operating Instructions before using.

OUTDOOR



CU-E9PKR
CU-E12PKR



CU-E15PKR
CU-E18PKR
CU-E21PKR
CU-E24PKR



CU-E28PKR



CLEANER AIR

nanoe-G

nanoe-G works effectively on airborne and adhesive micro-organisms such as bacteria, viruses and mould ensuring a cleaner living environment.

» see page 18-21



Odour-Removing Function

With this function, there's no unpleasant odour when the unit starts up. That's because the fan remains off momentarily, while the source of the odour inside the air conditioner is suppressed.

*The unit must be in cool or dry mode and the fan speed must be set to automatic.



Removable, Washable Panel

The front panel is easy to keep clean. It removes quickly with a simple one-step operation and can be washed in water. A clean front panel promotes smoother, more efficient performance, which can save energy.



COMFORT

ECONAVI

Detects and reduces waste for more energy savings.

» see page 10-13



Quiet Mode

The Quiet Mode reduces both indoor and outdoor unit operating sound. This function is especially convenient for operation near a sleeping baby and at night-time.



Soft Dry Operation Mode

Starts with cooling to dehumidify, then provides continuous breeze at a low frequency to keep a room dry without much change in temperature.



AUTOCOMFORT

Autocomfort mode detects high activity levels and switches to comfort operation for maximum comfort.



Powerful Mode

Pressing the Powerful button cools or heats the room quickly. It provides fast comfort, with full power and a strong airflow. This is perfect for use immediately after coming home, or when unexpected guests arrive.



Fan Mode

Only the fan operates to circulate air in your room.



Inverter Control

An inverter air conditioner provides optimum power control, which is impossible for conventional units. The secret lies in the inverter circuit. By changing the frequency of power supply, this circuit alters the rotation speed of the compressor, which is the heart of the air conditioner. The result is comfortable, economical air conditioning.

» see page 14-17



Heating Operation Low Limit

Providing outstanding cold climate performance, Panasonic air conditioners let you enjoy stable heating even when the outside temperature is below freezing. Add to this exceptional durability and reliability and you're looking at worry-free operation for comfort during the harsh winter.

» see page 9



Personal Airflow Creation

Vertical and horizontal airflow patterns can be combined as desired to gain the greatest comfort, with operation possible by remote control.



Mild Dry Cooling

Fine control helps prevent a rapid decrease in room humidity while maintaining the set temperature. Maintains an RH* of up to 10% higher than cooling operation. Ideal when sleeping with the air conditioner on.

*RH: Relative Humidity

» see page 21



Cooling Operation Higher Limit

Cooling is possible even when the outside temperature is extremely hot. Highly durable compressor and fan motor helps to maintain room comfort even under the hottest conditions.

» see page 9



Auto Changeover (Inverter)

Change automatically from cooling to heating in function of the temperature of the room.



Hot Start Control

On the start of heating cycle and after defrost cycle, the indoor fan will start up once the indoor heat exchanger is warm.



CONVENIENCE

24-Hour Dual ON & OFF Real Setting Timer

This feature enables you to preset two different sets of start/stop operation timer (hour and minute) within a 24-hour time frame.



Demand Control



LCD Wireless Remote Controller



3rd Party Connectivity



Wired Remote Controller (Optional)



Wireless Backlight Remote Controller (Optional)



RELIABILITY

Blue Fin Condenser

Condensers can take a beating from exposure to salty air, rain and other corrosive factors. Panasonic has expanded the life of our condensers with an original anti-rust coating.

» see page 9



Long Piping

The basic piping can be extended, allowing the outdoor unit to be installed further away from the indoor unit and providing greater installation flexibility.



Self-Diagnostic Function

Should a malfunction occur, the unit diagnoses the problem and shows the corresponding alphanumeric code. This allows for quicker servicing.



Random Auto Restart

All models are now safe to operate without a starter. With the exclusive Random Auto Restart feature, the air conditioners automatically restart after power failure. Its 32 different recovery-timing patterns ensure that air conditioners in the same building resume one after another instead of all at the same time. This feature helps prevent power surges after a blackout.



Top-Panel Maintenance Access

Maintenance of the outdoor unit used to be quite a tedious chore, especially when the unit was installed on a narrow balcony or attached to the outer wall of a high-rise building.



OPTIONAL ACCESSORIES

■ Remote Control

Wireless Backlight Remote Controller



CZ-RR8

Wired Remote Controller



CZ-RD514C

PANASONIC SIZING WIZARD APP

The Panasonic Air Conditioning Sizing Wizard makes choosing the right air conditioner easier. This application is very easy to use; simply enter some basic details about your room size and environment, and the Sizing Wizard will return the air conditioner best suited to your needs. You can use it online, or download the app for your Android smartphone or tablet, or your iPhone or iPad.

FEATURES:

- ▶ Product Selector
- ▶ Model Recommendation
- ▶ Model Specifications
- ▶ Product Feature Videos
- ▶ Where to Buy



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Panasonic