

Panasonic

AIR CONDITIONER
2017

NEW ELITE INVERTER
SKY SERIES

THE FUTURE IS UP

INVERTER

SKYWING

nanoe-G
featuring DUST SENSOR

**XTRA
QUIET**



- Please read the Installation Instructions carefully before installing the unit, and the Operating Instructions before using it.
- Specifications are subject to change without prior notice.
- The contents of this catalogue are accurate as of January 2017.
- Due to printing considerations, the actual colours may vary slightly from those shown.
- All graphics are provided merely for the purpose of illustrating a point.



Do not add or replace refrigerant other than the specified type. Manufacturer is not responsible for the damage and deterioration in safety due to usage of other refrigerant.



THE FUTURE IS UP

1958 marked the start of Panasonic's venture into creating air conditioners through cutting edge technology.

Today, we bring you a quantum leap in design and performance, creating a new standard for how all air conditioners will be made.

Peerless design. Powerful cooling. Perfect comfort.



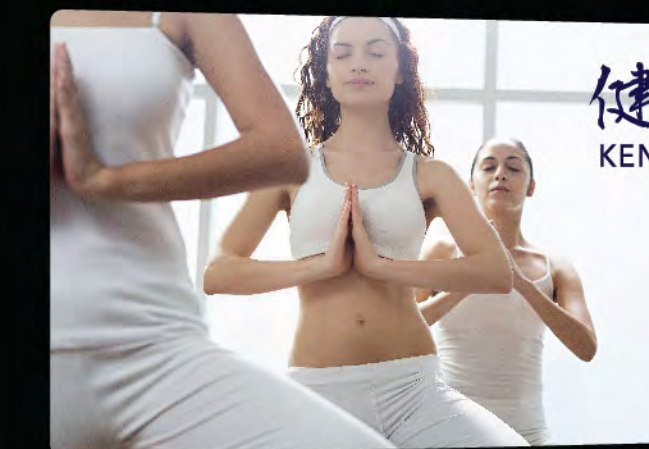
THE PHILOSOPHY OF PANASONIC AIR CONDITIONER COMPANY

At Panasonic, we're constantly finding new ways to improve your life. Our innovations bring you comfort when you need it the most, take care of your health and beautify your homes and lives.



COMFORT

Essential air conditioner functions that cool you the way you want.



HEALTH

Purifies the air that improves your health and well being.



BEAUTY

Minimalist and modern air conditioners that beautify your homes.

SKY STREAM DESIGN

- FORM & FUNCTION UP

The SKY STREAM design embodies the elegance and pursuit of perfection inherent in Japanese design philosophy. Each timeless, precise line and feature creates an unmistakable impression of premium luxury. Yet, the true power of its design is only revealed when it is switched on.



MODERN & MINIMALIST LINES

Sleek and striking design that makes it a luxurious complement to the interior design.



MULTIDIRECTIONAL ARM

Experience better agility through better control with a multidirectional arm that adjusts cooling the way you want it.



SLIDING LED PANEL

When switched on, the Sliding LED Panel slides open to reveal its setting indicators.



SKYWING

- FLEXIBILITY UP

The new SKYWING is set to create a new standard in air conditioner design. Located at the top, the SKYWING is better able to direct cool air towards the ceiling. This cool air naturally glides along the surface, spreading throughout the room and down the walls. Heat is removed from the ceiling and walls, resulting in a feeling of even, all-round coolness – RADIANT COOLING.

MULTIDIRECTIONAL ARM



Controlled by a Multidirectional Arm, the SKYWING can cool you in two ways:

RADIANT COOLING



The SKYWING angles upwards to direct cool air towards the ceiling and walls, spreading cool air gently and evenly throughout the room.

FAST COOLING



The SKYWING angles downward to provide you fast cooling at start up. Together with the high-powered Inverter compressor technology, P-TECh, SKY Series gives you extreme cool air with extra fast speed.

XTREME COOL.
TRA FAST.



VERSATILE COOLING COMFORT WITH SKYWING

At the touch of a button, the SKYWING tilts down for you to enjoy Panasonic's powerful and efficient Fast Cooling whenever you need to cool down quickly. Experience more powerful cooling from the moment you switch on the air conditioner. Once the room has reached the set temperature, the SKYWING will adjust to RADIANT COOLING for continuous comfort.

* Applicable to ELITE Inverter only.

RADIANT COOLING

- ALL-ROUND COOLING UP

Ceilings and walls tend to trap heat, which make living spaces inside hot and uncomfortable. The solution was inspired by a scientific principle called the Coanda Effect.



THE PRINCIPLE OF THE COANDA EFFECT

The Coanda Effect is the tendency of airflow to be drawn to a surface and to flow along it.

RADIANT COOLING AIRFLOW ASSESSMENT

AIRFLOW SMOKE TEST



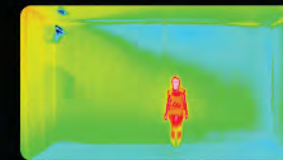
Instead of blowing cold air directly onto people, the SKYWING directs the airflow upwards to cool the ceiling and walls.

TEMPERATURE DISTRIBUTION TEST



CONVENTIONAL AIR CONDITIONER

Cold air blows downward, leaving some parts of the room warmer and others colder.



RADIANT COOLING

By cooling the ceiling and walls first, comfortable cooling spreads evenly across the room.

BOTTOM AIR INTAKE



Hot air is drawn in from the bottom, and cool air discharged from the top to facilitate the even distribution of cool air.



Here is how
RADIANT COOLING works:

1

Cool air is directed towards the ceiling.

2

Cool air is evenly distributed throughout the room.

3

Heat trapped in the ceiling and walls is removed.

4

The room is evenly cooled down.

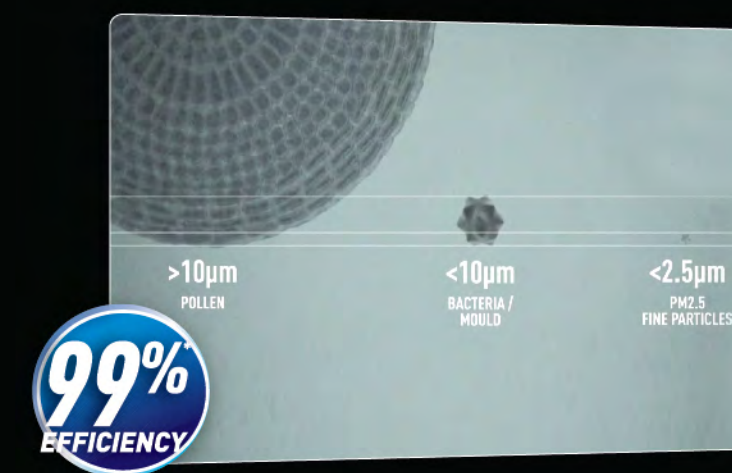
RADIANT COOLING cools without direct airflow. The feeling is just like walking into a mall.



featuring **DUST SENSOR**

- HEALTH & WELLBEING UP

SKY Series also features Panasonic's advanced air purification system, nanoe-G, which now comes with a new, innovative DUST SENSOR.



REMOVES PM2.5

nanoe-G releases negative ions which get attached to particles as small as PM2.5, the measuring benchmark of air quality monitoring agencies. These particles are then brought back to the positively-charged filter and removed from the air.

AUTOMATED ACTIVATION

The DUST SENSOR automatically switches on nanoe-G to purify the air whenever a high level of particle concentration is detected.



CONSTANT AIR MONITORING

The DUST SENSOR is constantly monitoring particle concentration levels in the room.



When the particle concentration level is safe, the indicator on the LED panel is white.

	LED	ACTIVITY
DUST SENSOR	WHITE	AIR IS CLEAN
nanoe-G	OFF	



When the particle concentration level is high, the indicator light turns red. nanoe-G switches on to purify the air.

	LED	ACTIVITY
DUST SENSOR	RED	AIR IS DIRTY
nanoe-G	WHITE	nanoe-G IS ACTIVATED TO PURIFY THE AIR

*Applicable to ELITE Inverter only.

SKY CONTROLLER

- VERSATILE CONTROL UP



The remote control has been redesigned for maximum ease of use and to complement the stylish new design for SKY Series. With simple and intuitive controls, the Sky Controller comes with various settings that meet your everyday air conditioning needs.



BACKLIT LED SCREEN

Thanks to the backlit screen, now you can see the settings on the Sky controller easily. Now you can adjust your settings without having to switch on the lights.

DISTINCTIVE SLIDING COVER

A smooth sliding cover not only enhances the remote's clean lines, but also keeps the buttons free from dirt and smudges.



PRECISE TEMPERATURE CONTROL

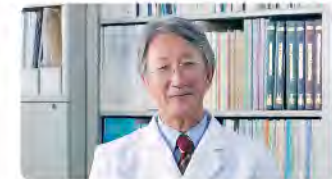
With the Sky Controller's 0.5°C temperature control, enjoy more precise temperature regulation and experience greater comfort.

*Applicable to ELITE Inverter only.

BENEFITS OF RADIANT COOLING

- BENEFITS UP

Conventional air conditioners are built to blow cold air downwards and directly at people to cool them instantly. However, when in direct contact with cold air for too long, some people experience discomfort and dry skin.



DR NAOSHI KAKITSUBA
DEPT. OF ENVIRONMENTAL
SCIENCE AND TECHNOLOGY,
MEIJO UNIVERSITY JAPAN

Inspired by the cooling effect of caves, Dr. Naoshi Kakitsuba investigated the benefits of RADIANT COOLING. He found that this gentler and more even cooling method results in a greater feeling of comfort and well-being.



THE PRINCIPLE OF RADIANT COOLING



Heat is absorbed by the breeze on the skin, resulting in a cool feeling.

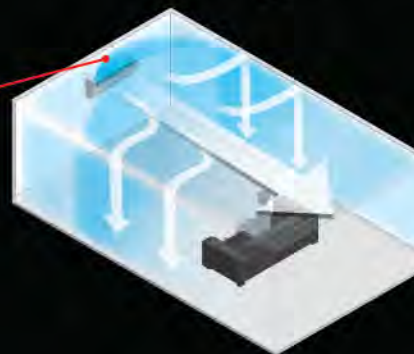
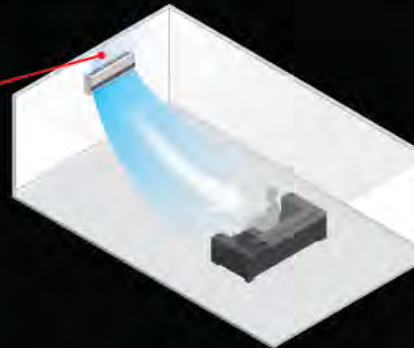
Conventional air conditioner

The breeze directly comes in contact with the body to cool it.

Heat is absorbed by the cool surrounding walls and ceiling, resulting in a cool feeling.

SKY SERIES

The breeze cools the walls and ceiling, which absorb the body heat.



Conventional air conditioner

vs

SKY SERIES

COOLS GENTLY AND EVENLY

SKY Series makes the room evenly cool, even though there is no feeling of direct air flow. The cooling system of SKY Series gives comfort based on the principle of RADIANT COOLING.

Temperature distribution



Conventional AC



SKY Series

The temperature in all areas of the room can be evenly set at a comfortable level.

Air velocity distribution



Conventional AC



SKY Series

Comfortable in living space with no wind (less than 0.2 m/s*)
*Meter per second



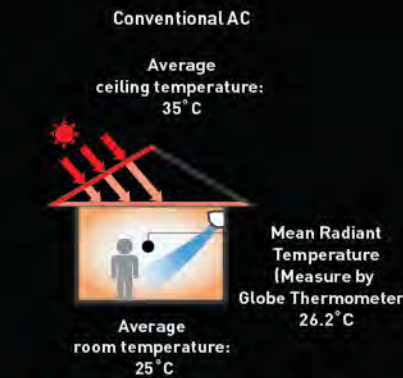
Test conditions: Measured in stable operation at 25°C cooling with fan speed set at "HI."



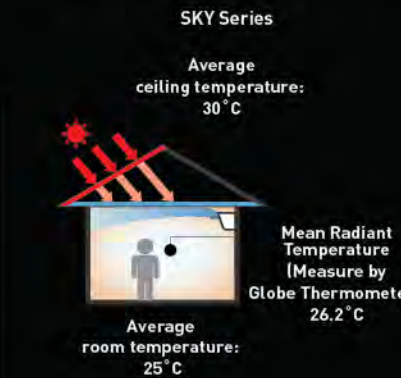
RADIANT COOLING REMOVES HEAT FROM CEILING AND WALLS

SKY Series makes people comfortable because the radiant heat from ceiling is less.

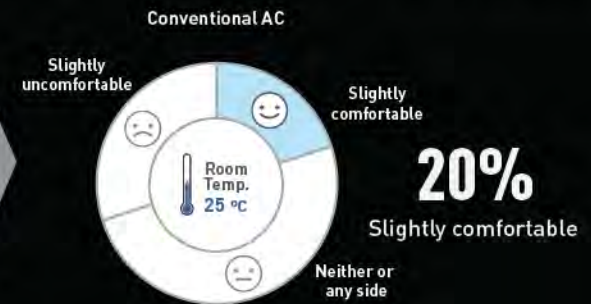
Radiant heat from roof top and ceiling



The globe temperature is about 0.8°C higher
(About 1.1°C higher in terms of how people feel comfortable)
The globe temperature is a composite temperature used to estimate the effect of temperature, humidity, and solar radiation on humans.



Sensation evaluation



Measured in stable operation at 25°C cooling with fan speed set at "MEDIUM." The actual average room temperature is the same.

*Applicable to ELITE Inverter only



Conventional air conditioner



vs

SKY SERIES



MAINTAINS SKIN MOISTURE AND PREVENTS DRY SKIN

Skin doesn't become dry in a room with SKY Series operating.

Skin moisture
after
60 minutes



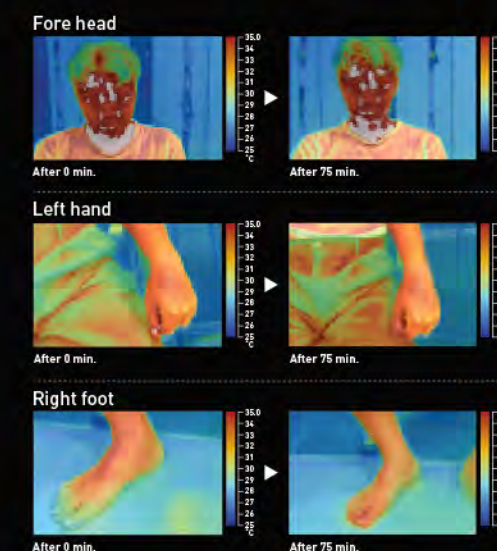
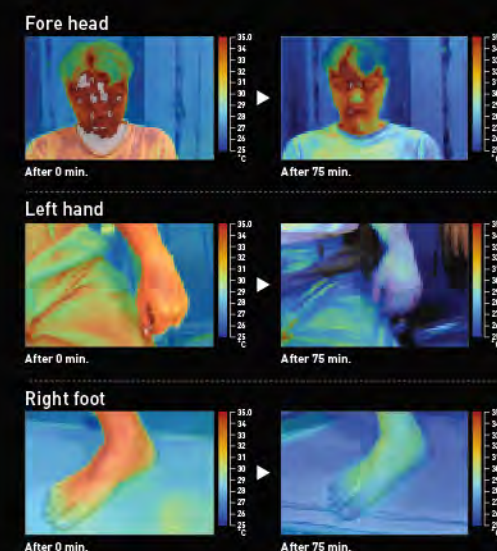
Measured in stable operation at 25°C cooling with fan speed set at "HI."



SKY SERIES CREATES NO EXCESSIVE COOLING

SKY Series doesn't lower the temperature of the skin surface but gives a comfortable feeling.

Skin
temperatures
[Thermal
images]



Test conditions: Measured in stable operation at 25°C cooling with fan speed set at "HI."

AN ORIGINAL RADIANT COOLING SYSTEM FOR A PREMIUM-QUALITY, COMFORTABLE ROOM ENVIRONMENT



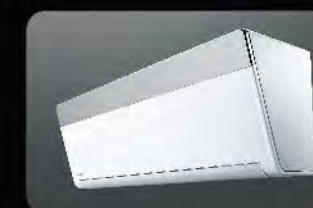
THE ORIGINAL RADIANT COOLING SYSTEM ENHANCES THE LEVEL OF ROOM COMFORT

This all-new cooling system prevents cold air from directly contacting the body to prevent over-cooling. It achieves comfortable, healthy air-conditioning.



nanoe-G featuring DUST SENSOR

SKY Series also features Panasonic's advanced air purification system, nanoe-G, which now comes with a new, innovative DUST SENSOR. It automatically switches on nanoe-G to purify the air whenever high level of particle concentration is detected.



SKY STREAM DESIGN TO HARMONISE WITH ROOM DECORS

The totally innovative construction features flaps on top and air inlet ports below. Its design is also simple and flat to harmonise with elegant decors and plush interiors.



SKY SERIES

* Applicable to ELITE Inverter only.

WALL-MOUNTED : ELITE INVERTER Single-Split Type



CS-VS12TKY | CS-VS18TKY



Wireless

SKYWING

INVERTER

nanoe-G
featuring DUST SENSOR

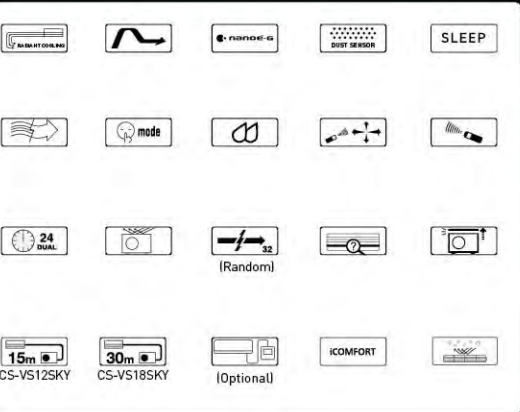
XTRA
QUIET

SPECIFICATIONS

MODEL			(50Hz)	CS-VS12TKY [CU-VS12TKY]	CS-VS18TKY [CU-VS18TKY]
Cooling Capacity		W		3500[920-4200]	4900[1100-5600]
EER		W/W		3.43[3.54-3.41]	3.16[3.79-3.15]
Electrical Data	Voltage	V		230	230
	Running Current	A		4.6	7.2
	Power Input	W		1020[260-1230]	1550[290-1780]
Moisture Removal	L/h			2.0	2.7
	Pt/h			4.2	5.7
Air Circulation (Indoor/Hi)	m³/min			12.0	13.4
	ft³/min			425	475
Dimensions	Width	cm		95.0[78.0]	95.0[82.4]
	Depth	cm		28.0[28.9]	28.0[29.9]
	Height	cm		31.8[54.2]	31.8[61.9]
Noise Level	Indoor [H/L/Q-Lo]	[dB-A]		41/27/19	46/36/31
	Outdoor	[dB-A]		48	50
Net Weight		kg		13[29]	13[34]
		lb		29[64]	29[75]
Refrigerant Pipe Diameter	Liquid Side	cm		Ø0.635	Ø0.635
	Gas Side	cm		Ø1.27	Ø1.27
Pipe Extension	Chargeless Pipe length	m		7.5	10
	Maximum Pipe length	m		15	30
	Maximum Elevation length	m		5	20
	Additional Refrigerant Gas *	g/m		15	15
Power Supply				Indoor	Indoor

Caution For CS-VS12/VS18SKY [Important] Please do not use copper pipes that are less than 0.6mm in thickness.
* When pipes are not extended from the chargeless pipe length, the required amount of refrigerant is already in the unit.

COOLING MODELS



OUTDOOR



CU-VS12TKY



CU-VS18TKY

BACKLIT SKY CONTROLLER

Enjoy innovative design at your fingertips with the new stylish and sleek Backlit Sky Controller.

With fast access to key operations and a smooth gliding cover revealing more options,controlling your settings has become simple and intuitive. With a width of 58.9mm and a length of 164.7mm, the Sky Controller fits comfortably into your hand.



- Backlit LED screen lets you view operations status in the dark.
- Power Button.
- iCOMFORT lets you come home to FAST COOLING. Then enjoy continuous comfort with RADIANT COOLING which avoids direct cooling.
*The term "RADIANT" was replaced based on running change effective for new 2017 production.
- Press up or down to set the temperature.
- Toggles between RADIANT COOLING (INDIRECT) and Fast Cooling (DIRECT).
- Activates the nanoe-G function even when the air conditioner is switched off.
- Set the airflow.
- Adjusts the fan speed.
- Toggles between COOL and DRY setting mode.
- Delays off timer with temperature control for better sleep.
- Set the 24-hour ON & OFF Timer or 24-hour Dual ON & OFF Timer.
- Set the actual time [hour and minute].



Wireless
Applicable to ELITE INVERTER