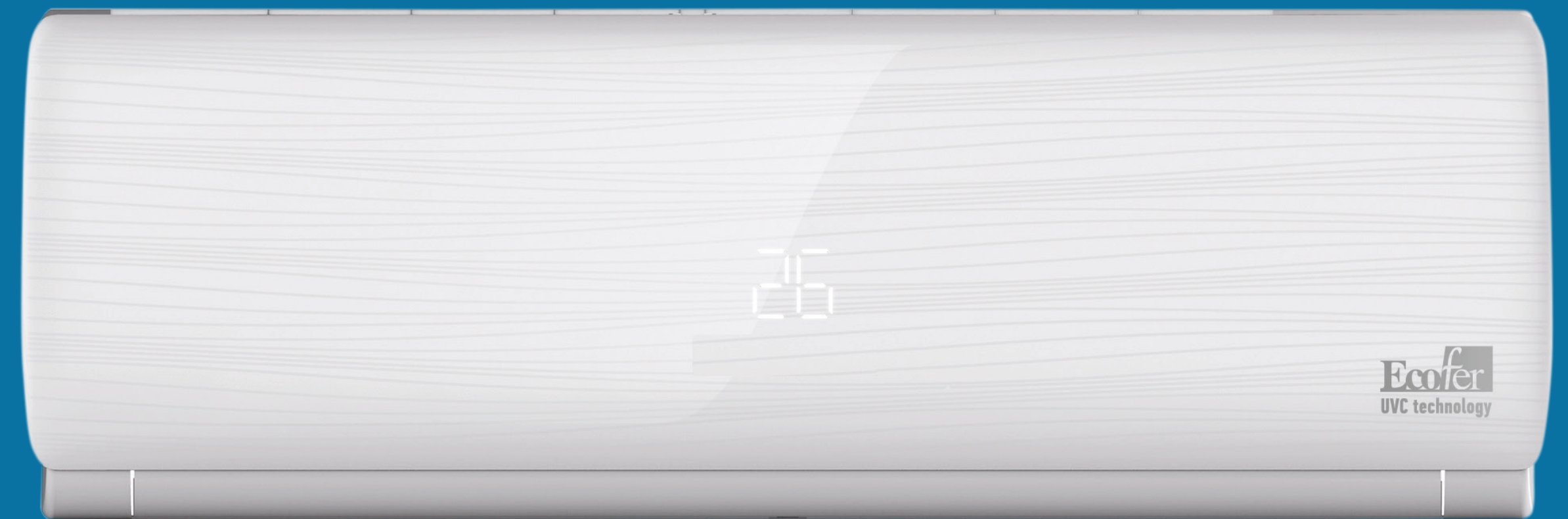


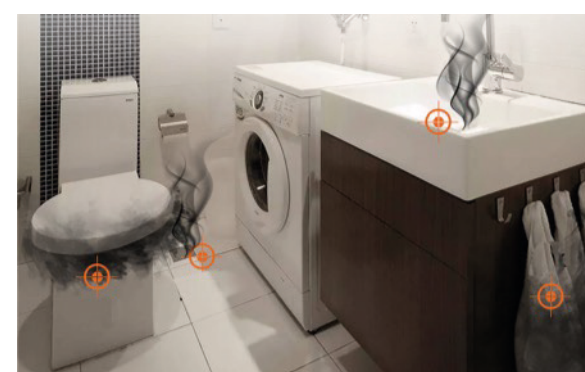
**Ecofer**  
UVC technology



*the air quality expert*

# The problem

Germs, bacteria, viruses at interior airconditioned spaces.



Daily household cleaning and sterilization are not in place.



Bacteria and viruses often directly lead to our sickness.



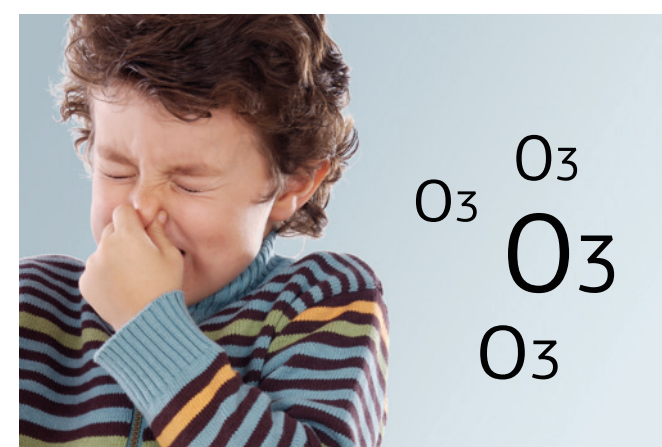
The airborne virus virus could cause the cross infection.

## Disadvantages of common sterilization methods.



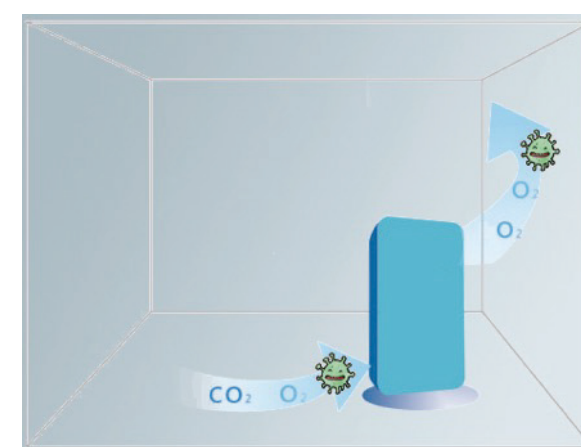
### Bare UV light

This could burn our skin, and it is not very effective if the corners or remote areas are covered with something.



### O<sub>3</sub> Sterilization

The gas is harmful to our body.



### Air purifier

Only absorb the bacteria or virus, but could hardly destroy the bacteria.

# The solution

## UVC Technology

UVC working theory

The UVC band has a short wavelength and high energy. It destroys the molecular structure in the cells of microbial organisms (bacteria, viruses and other pathogens) in a short time. By destroying the DNA and RNA of the microbes to prevent their reproduction, it can achieve an efficient and rapid broad-spectrum sterilization effect. The air and the surface of the object are sterilized and disinfected, making the cells unable to regenerate, so they are widely used in the sterilization and disinfection of water and air. The data shows that only 30mW/cm<sup>2</sup> of UVC ultraviolet radiation intensity can kill almost 100% of most bacteria in one second. The effect is very significant, and it can be widely used in the medical and health field. In the field of personal health and household hygiene, ultraviolet light can be used for disinfection of water glasses and tableware, air purification and sterilization, killing insects, sterilization and deodorization of shoes and socks, and disinfection of baby bottles.

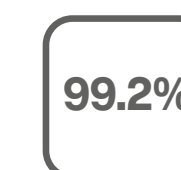
## Advantages of integrated UVC technology in the air conditioner



Safe and reliable operation.



Dynamic sterilization with high efficiency.



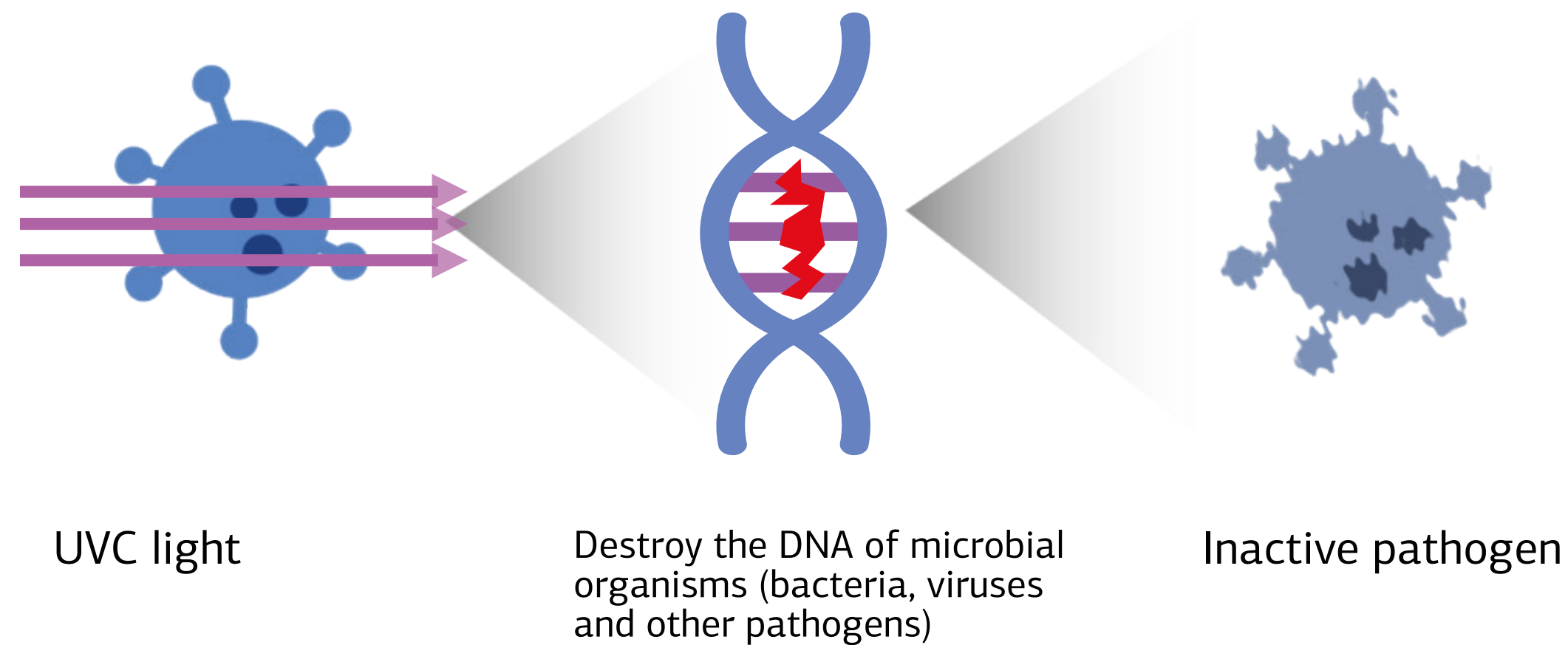
Sterilization rate that reaches **99.2%**



# Functions & characteristics

## UVC working theory

(inside the indoor unit without emitting UVC light to the outside)



## Device characteristics

- UVC button
- Long service life cycle, 30,000 hours.
- 3rd Generation UVC LED, 30° working angle; powerful light gatherin enhance the sterilization rate to 200%.
  - 1st generation: 100mm length with 120° angle.
  - 2nd generation: 200mm length with 60° angle.
  - 3rd generation: 400mm length with 30° angle.

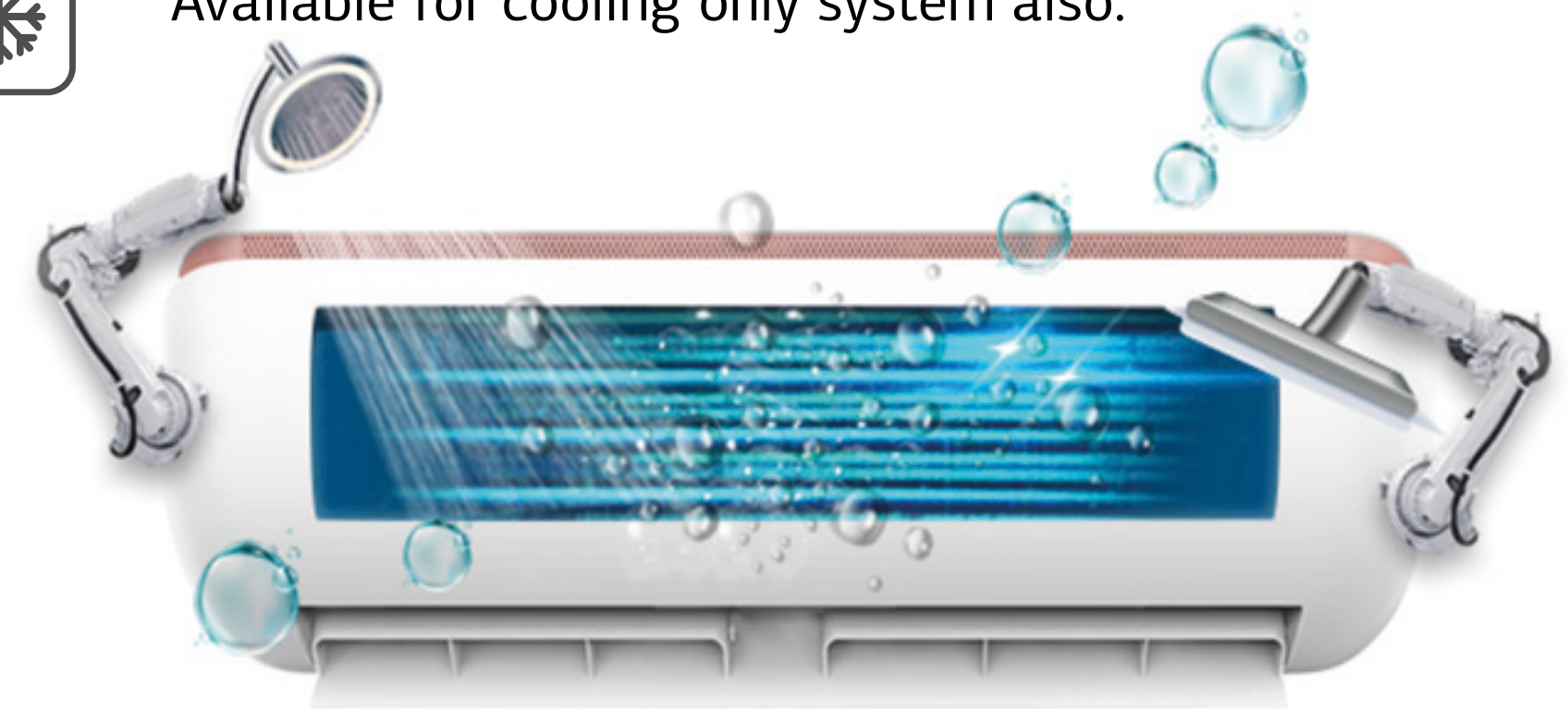
## Self-cleaning



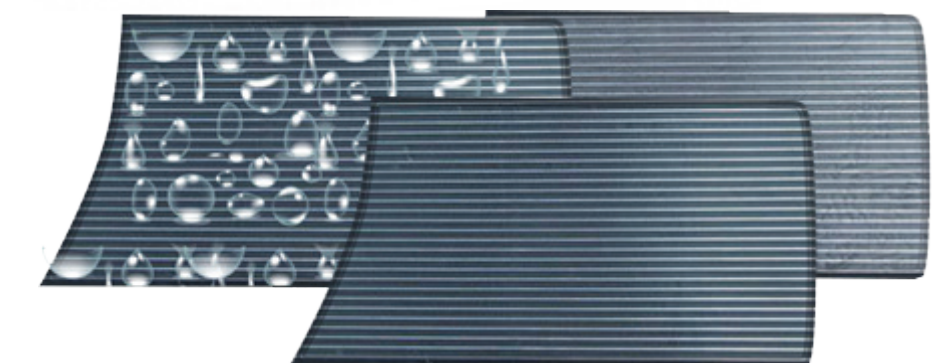
58 °C high temperature self-cleaning



Available for cooling only system also.



- ✓ Frosting
- ✓ Heating
- ✓ Melting
- ✓ Fast drying at 58°C



When self-cleaning is on.

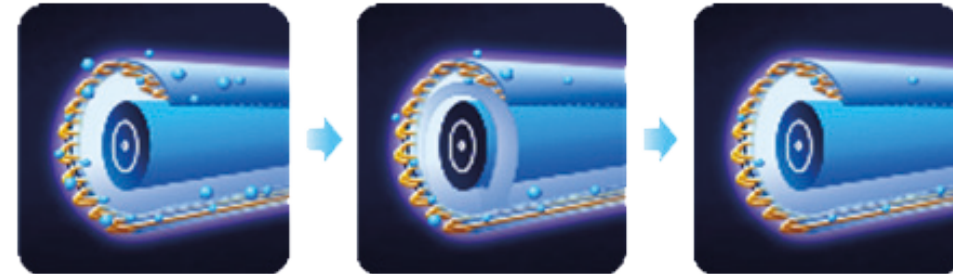
**a. Frosting:** the evaporator temperature drop down sharply, the frost and ice are created.

**b. Heating and melting:** turbo heating is on to melt the ice and dry the water. During the high temperature 58°C virus will be killed in this temperature.

**c. Drying:** the dust is removed and bacteria is sterilized.

# Functions & characteristics

## Mildew proof



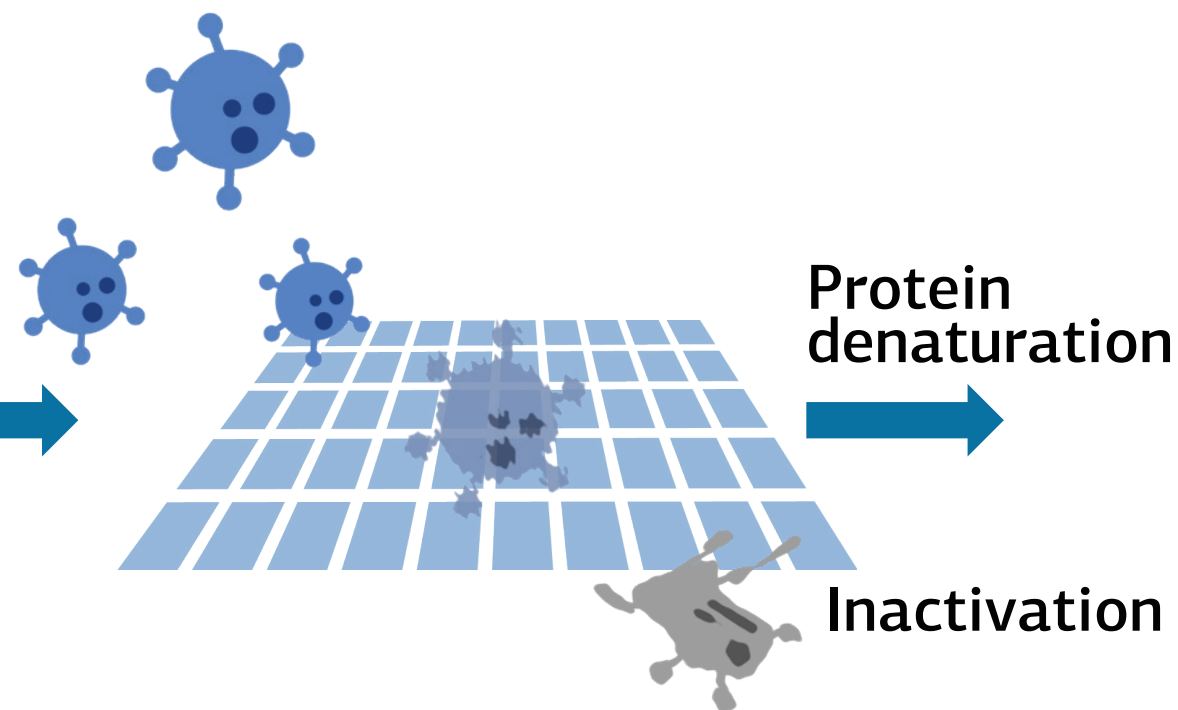
After the cooling or dehumidification mode is turned off, a large amount of water stains still remains in the evaporator and air duct of the internal unit. To prevent mildew, mold and breeding of germs, the air conditioner will continue to supply air for 3 minutes to dry residual moisture.

## Anti-Virus filter

Silver ion

Cupric ion + Ion carrier

Zinc ion



- Nanometer level, permeable and built in to destroy the structure of DNA and RNA.
- Denaturing the protein.

Lysozyme mainly breaks down the  $\beta$ -1,4 glycosidic bond between N-acetylmuramic acid and N-acetylglucosamine in the cell wall, so that the insoluble mucopolysaccharides in the cell wall are broken down into soluble glycopeptides, causing the contents of the cell wall to escape. Dissolve bacteria. Lysozyme can also directly bind to negatively charged viral proteins and form complexes with DNA, RNA, and apoproteins to inactivate microbial organisms (bacteria, viruses and other pathogens).

# Ecofer

## UVC technology



Available models:

9.000, 12.000, 18.000 και 24.000 btu/h

**OIKONOMOU Z. KOSTAS**

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