



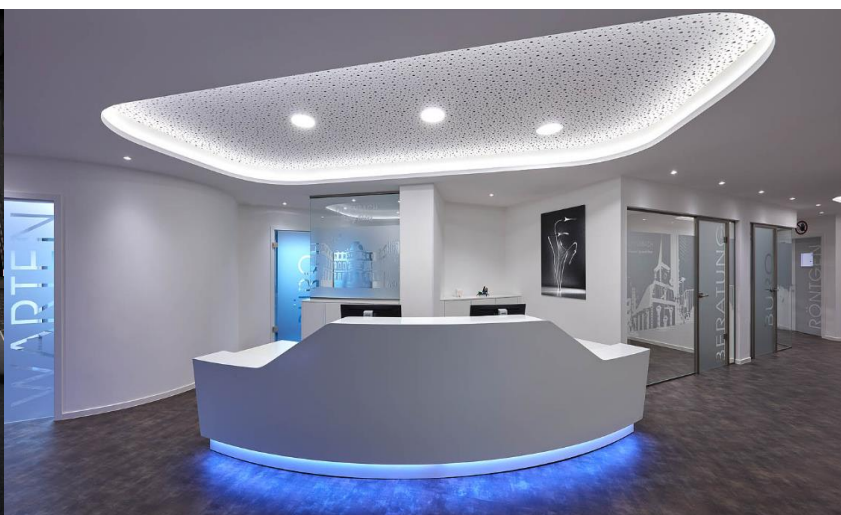
protect your world



# >95% virus and germ disinfection

Patented UV-C air disinfection to protect your passengers and patients





## UV-C light

The effect of ultraviolet radiation has been known for a long time. What is new, however, are the technologies that use the effect of UV-C light for disinfection purposes and to reduce germs, such as the inactivation of corona viruses. In the future, too, innovative health concepts will be a mainstay in containing multi-resistant germs, possible future pandemics and germ reduction in air filtration systems, in the water supply and in the food industry.

## Characteristics

Due to the recent COVID-19 pandemic, innovative disinfection technologies have gained enormous importance. The disinfection method with UV-C light has proven to be particularly effective, which also meets the specifications and standards of the World Health Organization (WHO).

Ultraviolet (UV) radiation is electromagnetic radiation that is more energetic than visible light. Artificially generated UV radiation does not differ in its mode of action from natural UV radiation and is used in various industrial applications. Electromagnetic radiation is characterized by a specific wavelength.

## UV-A (315-400 nm)

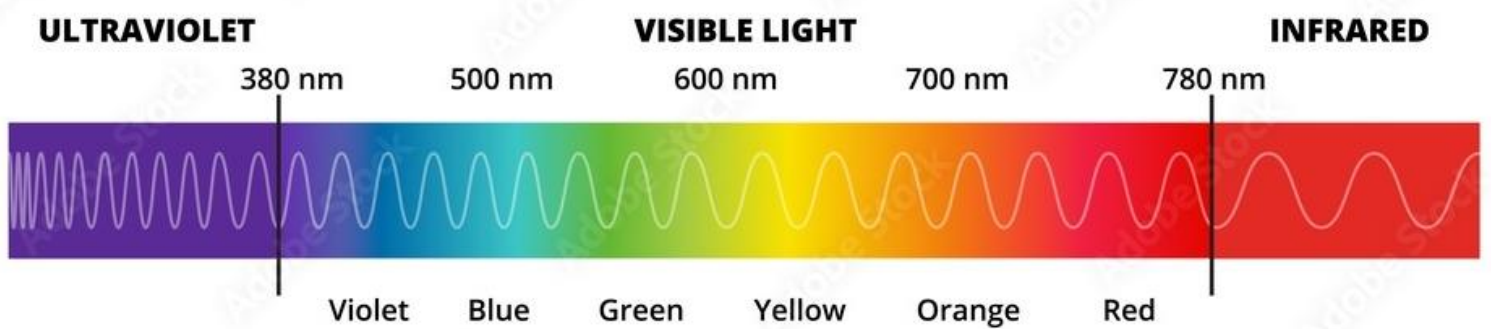
Use in material testing and for surface hardening

## UV-B (280-315 nm)

Use for phototherapy and horticulture

## UV-C (100-280 nm)

U. a. for disinfection and germ reduction



## Everything from a single source with a patented in-house development

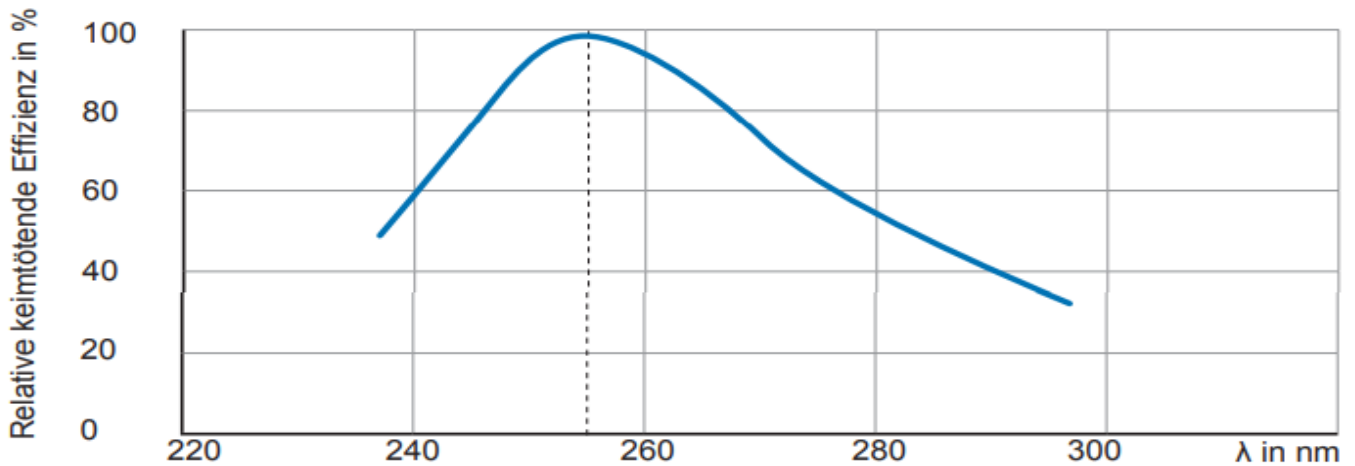
Irradiation with UV-C light is a proven method for disinfecting and deactivating microorganisms and various viruses, including SARS-CoV-2.

- If the irradiation time and intensity are sufficient, the DNA of the virus is destroyed in such a way that it can no longer reproduce itself
- This technology reduces the concentration of viruses
- Patented EMC Peci

## With efficiency in action

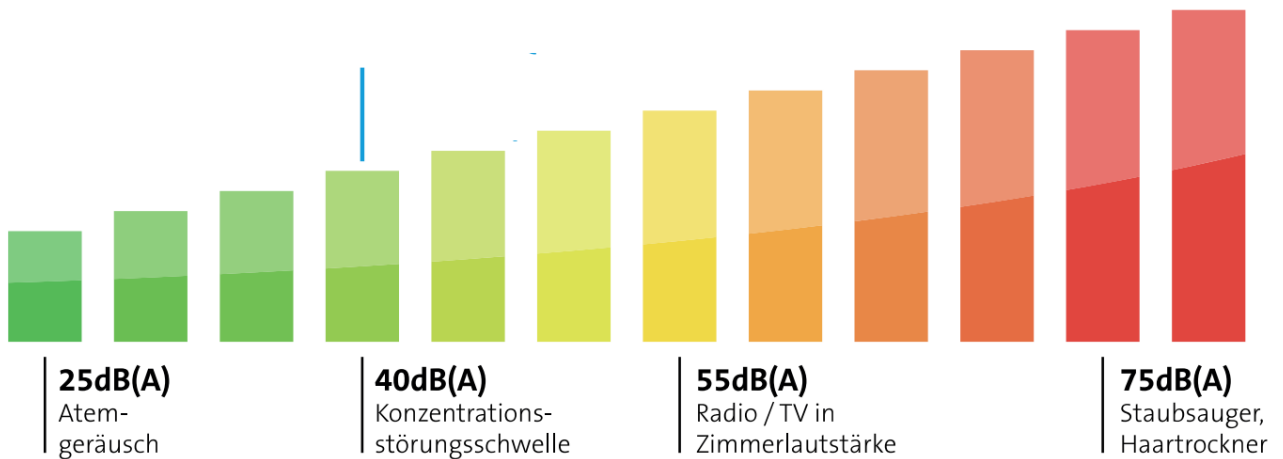
This technology is used for mobile applications such as in public transport / buses and trains, but also in medical facilities. The Rayslab RB 254 fan is also ideal for use in rooms and surgeries for body-related services.

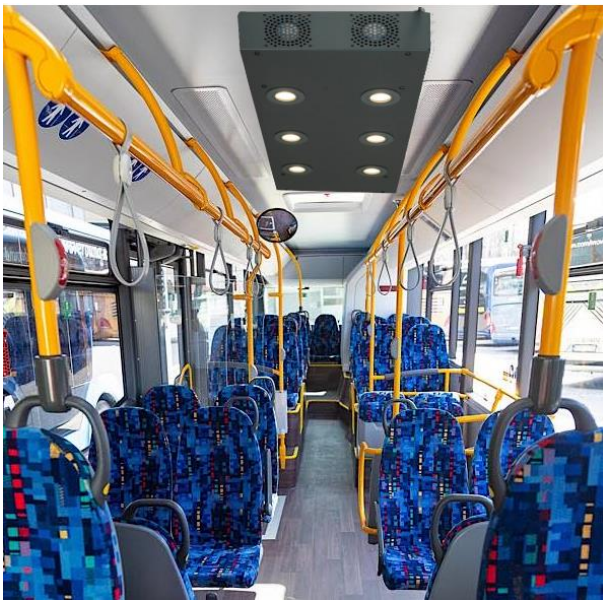
- Use of high-performance UV-C lamps that achieve the highest germicidal effect with a wavelength of 254 nm
- Irradiation time and intensity, blowing speed and geometry are coordinated in such a way that the air is considered to be almost virus-free (>95%) when it flows out of the box
- Continuous operation possible throughout the journey and while passengers are on board
- Not only cleans the air of viruses, but also of all kinds of mold spores and bacteria



- Due to the elegant design and the very quiet operation, UV-C Peci 39dB(A) fits into your premises and is nevertheless effective.

39dB(A)





## **properties and data**

### Low-noise axial fans

- Efficiency of an existing air conditioning system and better air quality
- Autonomous operation, preconditioning of the vehicle is not required
- Air disinfection installation with UV-C light in the bus
- Degree of deactivation >95% of all viruses, including SARS-CoV-2 and bacteria
- Vehicle interior lighting - advantage: This means that there is no separate space for an air disinfection
- Device

### **Technical specifications**

product designation	RB 254
Dimensions LxWxH	850x350x110 mm
Maximum air output (free blowing) per hour	Ca. 200m
UVC-C Lampe elektrische Leistung	70W
UVC-C lamp electrical power	26W
Power consumption DC12 / 24V	5,2A
Virus inactivation rate in one airflow cycle	>95 %
weight (kg)	12
6 x LED	30W

\*Ceiling installation with a 12 m standard bus: 2 devices per bus, which are installed in front of the recirculation filter cassette

## Functions

It is well known that UV-C rays are used to sterilize liquids and surfaces. Infectious pathogens in liquids have been rendered inactive using this method for years. Whether this disinfection method also works with the Covid-19 virus has been researched for a long time. In a recently published study, scientists from Germany have now been able to provide evidence that UV-C rays can also be used effectively in aerosols and thus also in the air we breathe, in order to reduce or inactivate the corona viruses contained therein.

A fog contaminated with the Covid-19 viruses was released in a high-security laboratory. In return, the scientists generated UV-C radiation at a clearly defined intensity and continued to use a method that allowed them to measure whether and to what extent the viruses continued to multiply in the air.

The evaluation showed that even a low dose of radiation reduces the viral load and the use of UV-C-based air purifiers also has a high, scientifically proven effect on the Covid-19 virus. What is certain, however, is that this UV-C-based disinfection method could be used easily via room fans. It is also particularly interesting because other viruses that can be transmitted with the air we breathe and negative environmental influences can also be reduced with this method, which is unique in the world to date.





protect your world

We advise you competently and professionally. All from a single source!



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