



# **UVCSAN® - AIR PURIFICATION SYSTEM**



**UVCSAN®** is a completely safe system designed by **VDGLab**, ideal for air purification from bacteria and virus, thanks to **LED** technology and a smart design. Our product is based on **UVC-LED** short wavelength emitting, safe for the environment compare to mercury lamp.

Compared to standard cleaning procedure, **UVCSAN®** lamp is able to inactivate 99,9% of microorganism by destroying their DNA.

### **ORDERING CODE**



ASSOCIATION





# UVCSAN® - AIR PURIFICATION SYSTEM TECHNICAL SPECIFICATIONS AND DRAWINGS

#### **KEY FEATURES**

- Based on LED technology
- Easy to install
- Long life time >10 years life expectancy
- Continuously operating

#### **MECHANICAL FEATURES**

- UVC-resistant materials
- Fan rated flow: 40 m3/h
- Turbolent flow for maximizing UVC exposure
- Dust filter at air output
- Operating temperature: -30 °C to + 60 °C
- Storage temperature: -40 °C to + 80 °C
- Totally sealed enclosure
- Degree of protection: IP44

#### **ELECTRICAL FEATURES**

- Power supply: 110/220 VAC, 12 VDC
- Power consumption:
  - 30W, version 460
  - 60W, version 690
  - 90W, version 920
- Optional floodlight power consumption:
  - 6W, 1100 lm version 460
  - 12W, 2200 lm version 690
  - 18W, 3300 lm version 920
- LED feeded at constant current

#### **ECOLOGICAL FEATURES**

- Environmentally friendly
- Mercury-free lamp
- More efficient than standard cleaning methods

#### **SAFETY FEATURES**

- No direct UVC radiation exposure
- 99,9% microorganism destroyed
- Smart functioning

#### **APPLY TO**

- Lift
- Hotel room
- Office
- Classroom
- Hospital
- Trains, Buses, Airports
- Ambulance
- Laboratory
- All kind of closed area

#### WHITE LIGHT FEATURES

- Flux: 1100 lm version 460
- CRI: 80
- Correlated color temperature (CCT): 4000K
- Long life-time: >50,000 hours

#### CERTIFICATION

CE Marking

#### **FRONT VIEW**



#### **SIDE VIEW**







# **UVCSAN® – AIR PURIFICATION SYSTEM** TECHNICAL SPECIFICATIONS AND DRAWINGS

## **UV-C LED TECHNOLOGY**

According to the International Association, the germicidal region important for the air disinfection is a portion of **UV** spectrum between 200 and 300 nm.

LED technology emits a selected short wavelength able to kill or inactivate microorganisms such as bacteria and virus by destroying their DNA.

This technology has several advantages compared to common Hg germicidal lamps:

- Energy efficiency
- Hg free according to environmental principles set at Minamata Convention
- Instantaneously on/off technology

Thanks to VDGLab wide experience, we designed an innovative system based on LED technology



### **INNOVATION**

- Totally sealed enclosure: no external hazardous UV-C irradiance
- In case of unwanted enclosure openings (which could cause damage for users) electrical switches are provided, to completely inactivate power supply
- SMART system: fan speed and flow controlled by microprocessor
- Optional integrated white led sanitizing system
- Optional TiO, integrated catalyst system
- UV-C resistant materials
- Optional floodlight for ambient illumination
- Filter for dust outlet





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## **ENVIRONMENTAL SUSTAINABILITY**

- Mercury-free lamp: VDGLab UVCSAN® system uses LED technology
- Focused light emission: **VDGLab UVCSAN**<sup>®</sup> system emits a narrow bandwidth around 280 nm, correct wavelength for virus DNA inactivation which means lower energy consumption up to 80%. As you can see in the graph below, a commercial Hg lamp has a broadband emission spectrum, especially in a range useless for disinfection leading to a energy waste.

On the contrary UV-C LED has a power emission focused on wavelength specific for DNA inactivation.



Comparison between UV-C LED narrow emission and Hg pressure lamp broadband emission

- Easier waste disposal: VDGLab UVCSAN® device materials are not harmful to the environment
- 100% recyclable materials used
- Environmentally—friendly: **VDGLab UVCSAN**<sup>®</sup> system is environmentally compatible, due to low energy consumption, safer materials, absence of poisonous elements

### **INTERNATIONAL UV-C SAFETY GUIDELINES**

**VDGLab UVCSAN®** system is in compliance with International UV-C Safety Guidelines, on the subject of electrical, thermal, mechanical, human exposure to electromagnetic fields (EMF) and photobiological safety requirements provided in IEC and UL standards.