

*Dolphin Care UVC Air Sterilizer Series  
1/2021*

## FUNCTION

The Dolphin Care UVC Air Sterilizer is an air cleaning system, combining ultraviolet C (UVC) light, titanium dioxide (TiO<sub>2</sub>) coated filter, activated carbon filter, and HEPA14 filter.

The Dolphin Care UVC Air Sterilizer is a movable floor unit that uses a four-phase process to sterilize the air in the rooms. Microorganisms are reduced as well as the allergens and the bad odors.

The contaminated air is sucked in through the bottom of the unit. At first, the air passes through a prefilter located at the inlet, which removes the particles having a diameter bigger than 200 µm. The air is then moved via a ventilator into a cartridge filter. Inside the cartridge filter, the air is irradiated by UVC light - wavelength 254 nm - with an intensity of 392 µW/cm<sup>2</sup>, which destroys the DNA/RNA from microorganisms.

Next, the air passes through a titanium dioxide coated filter. When this filter is irradiated with UVC light oxidizing hydroxyl radicals are formed destroying the cell wall of the microorganisms. Thus, viruses, bacteria, molds, and spores are killed. Hereafter, the air passes through an active carbon filter that absorbs odors.

Finally, the air passes through a HEPA H14 filter that removes 99.995% of the particles larger than 0.3 µm. The air is sterile after passing through the UVC Air Sterilizer and the sterilized air is recirculated into the surroundings.

## USAGE

The Dolphin Care UVC Air Sterilizer is used to sterilize the air and reduce the number of bacteria and molds in contaminated rooms. The bad odor and smell are reduced leading to a better climate and working environment in the room.

*Small UVC Air Sterilizer:* Designed for rooms up to 80 m<sup>2</sup>.

*Large UVC Air Sterilizer:* Designed for rooms over 80 m<sup>2</sup>.

*Large Extra High Capacity UVC Air Sterilizer:* Designed for larger rooms like, hotel lobbies, open space offices

*Industrial Model UVC Air Sterilizer:* Designed for production locations

## TECHNICAL DESCRIPTION OF THE DOLPHIN CARE AIR STERILIZER

*Small UVC Air Sterilizer:* The unit processes 400 m<sup>3</sup> of air/hour during daytime and 200 m<sup>3</sup>/hour during nighttime. It has three powerful UVC lamps (254 nm), a 0,75 m<sup>2</sup> TiO<sub>2</sub> coated filter, a 0,8 m<sup>2</sup> activated carbon filter with 500 gram activated carbon per m<sup>2</sup> and a 14,5 m<sup>2</sup> HEPA 14 filter.

*Large UVC Air Sterilizer:* The unit processes 800 m<sup>3</sup> of air/hour during daytime and 400 m<sup>3</sup>/hour during nighttime. It has four powerful UVC lamps (254 nm), a 1,15 m<sup>2</sup> TiO<sub>2</sub> coated filter, a 1,2 m<sup>2</sup> activated carbon filter with 500 gram activated carbon per m<sup>2</sup> and a 22,5 m<sup>2</sup> HEPA 14 filter.

*Large Extra High Capacity UVC Air Sterilizer:* The unit processes 1,840 m<sup>3</sup> of air/hour. It has four powerful UVC lamps (254 nm), a 1,15 m<sup>2</sup> TiO<sub>2</sub> coated filter, a 1,2 m<sup>2</sup> activated carbon filter with 500 gram activated carbon per m<sup>2</sup> and a 22,5 m<sup>2</sup> HEPA 14 filter.

*Industrial UVC Air Sterilizer:* The unit processes 1,030 m<sup>3</sup> of air/hour. It has four powerful UVC lamps (254 nm), a 1,15 m<sup>2</sup> TiO<sub>2</sub> coated filter, a 1,2 m<sup>2</sup> activated carbon filter with 500 gram activated carbon per m<sup>2</sup> and a 22,5 m<sup>2</sup> HEPA 14 filter.

## CONTACT

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## CABLE AND ELECTRICITY CONSUMPTION

The unit is equipped with a 5 meters cable. The cable has three legs plug (earth) and operates at 230 volts.

- UVC Air Sterilizer Small: 4,5 kW/24hour
- UVC Air Sterilizer: Large: 6,5 kW/24 hour
- UVC Air Sterilizer Large Extra High capacity: 14,3 kW/24 hour
- UVC Air Sterilizer Industrial: 6,5 kW/24 hour

## SAFETY INSTRUCTIONS

There are no specific safety instructions related to the use of Dolphin Care UVC Air Sterilizer.

Two of the wheels are equipped with brakes that can fix the position of the unit.

## DURABILITY AND SERVICE

The UVC lamps and the filters inside the UVC Air Sterilizer must be changed once a year.

*Please contact Dolphin Care or their local representative for service requests.*

## DISPOSAL INSTRUCTIONS

Dispose of the unit as electronic equipment.

Dispose of the used UVC lamps as hazardous illuminants.

## CE MARKING AND LEGISLATION

The Dolphin Care Air Sterilizer is CE marked and is tested under legislation number:

- EN 55014-1:2006 + A1:2009+A2:2011
- EN 55014-2:1997 + A1:2001+A2:2008
- EN 55014-2:2015
- EN 55015:2013
- EN 61547:2009
- EN 61000-6-1:2007
- EN 61000-6-3:3007+A1:2011

The legislation is in accordance with the following directives and standards:

- The low voltage directive 2014/35/EC from 2016/04/20
- The EMC-directive 2014/30/EC from 2016/04/20
- The RoHS-directive 2011/65/EU

## DIMENSIONS

Small UVC Air Sterilizer: H 85,1 cm W: 56,8 cm - 36 kilos

Large UVC Air Sterilizer: H: 97,4 cm W: 70,0 cm - 40 kilos

Large Extra High Capacity UVC Air Sterilizer: H: 97,4 cm W: 70,0 cm - 40 kilos

Industrial UVC Air Sterilizer: H: 140 cm, W: 70 cm L: 62 cm - 40 kilos

## NOISE LEVEL

Small UVC Air Sterilizer: Day mode 28,7 dBA - Night mode 17,9 dBA

Large UVC Air Sterilizer: Day mode 28,2 dBA - Night mode 18,1 dBA

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