

Pulsed Ultraviolet Disinfection Robot



Sterilization Principle

The pulsed ultraviolet disinfection machine uses a special xenon lamp tube as the light source. It generates high-intensity pulsed light, concentrating high energy in a short time and releasing it instantly in the form of optical radiation. Its spectral distribution is similar to that of sunlight, and its light intensity is 20,000 to 100,000 times that of sunlight reaching the ground. The combined effect of pulsed ultraviolet, visible, and infrared wavelength light on microorganisms can damage the deoxyribonucleic acid (DNA) and ribonucleic acid (RNA) of microorganisms, break the S-H and C-H bonds of organic molecules. It can effectively kill mold, Gram-positive pathogenic bacteria, Gram-negative pathogenic bacteria, aerobic bacterial spores, fungal conidia, Staphylococcus aureus, Bacillus subtilis, yeast and other bacteria. It inhibits bacterial reproduction within a certain period, greatly improving disinfection efficiency (the killing rate of major pathogenic microorganisms is >99.99%) and shortening disinfection time. It supports remote start, disinfection time setting, usage time accumulation, and fully intelligent operation with human-machine separation. It improves the remote disinfection level of hospitals, reduces cross-infection in hospitals, and saves costs. Especially in the current context of global prevention and control of the COVID-19 pandemic, the use of this equipment is of great significance for epidemic prevention and control.

Specification Parameters

Item	Details
Model	BKS-Y-02YDT
Lamp Life	≥8 million times; single-chip microcomputer counting alarm, screen displays usage times, alarms with flashing light and prompt sound when reaching 8 million times
Material and Weight	Frosted aluminum alloy material, 28kg
Number of Pulsed Lamps	1 U-shaped lamp tube, 2Hz/s
Electrical Parameters	DC25.2V 20AH
Power and Dimensions	200W; Length × Width × Height: 450×350×800mm
Operating Environment	Temperature ≤40°C, Humidity ≤80%
Control Method	Controlled by STM32 microprocessor; configurable disinfection time and lamp service life; automatic lifting, manual on/off, or remote control on/off; disinfection time can be set arbitrarily, and it will automatically stop at the end of the timer
LCD Screen Display	Displays disinfection time setting, disinfection time, lamp service life, power level; low power alarm
Automatic Lifting Structure	Enables normal disinfection after lifting, and automatically lowers after disinfection to ensure lamp safety; equipped with electrical safety protection to ensure lifting height and in-place landing