QUANTUM DEEP UV (A-30112020)

Medical grade deep UV LED Module 275nm 200mA @ 36V 150mW 12S

DATASHEET

Like all viruses, the corona pathogen SARS-CoV-2 can only reproduce with the help of a host. Cells infected by the virus are "reprogrammed" by its ribonucleic acid (RNA) to produce new viruses. These are then released in the body and infect other cells. The host cells are destroyed by the reproduction process, which causes disease in the host body. Since each virus only attacks certain cell types, different disease patterns are triggered; in the current epidemic, for example, the respiratory organs are affected.

UVC is high-energy, short-wave radiation in the wavelength range between 100nm and 300nm. In the range of from approximately 250nm to 290nm, it is absorbed by the RNA strands of the viruses.

This ensures that in the pyrimidine bases — thymine and cytosine — neighboring molecules "clump" together'. This prevents the cells from reproducing or even kills them. In either case, the virus is no longer dangerous because it only causes damage when it multiplies.

The natural UVC radiation of sunlight is absorbed by the ozone layer of our atmosphere. Therefore, neither organisms nor viruses have developed protective mechanisms against it. Irradiation with artificially produced UVC is, therefore, a particularly effective method of sterilization and disinfection

Medical grade deep UV LED module, it was conceived, to follow the SARS CoV-2 disease control, in rooms or places of stay or flow of people, in public spaces or areas, like elevators, automatic stairs, and others like that.

The equipment concerns in light beam with predominant wavelength of 275nm to ensure the viruses DNA degradation by exposure to UVC light.

The main application of this end equipment are fundamentally the viruses cleaning and industrial sterilization in hospitals, nursing homes, healthcare clinics, hotels, offices, public spaces, public flow places.

This product is intended exclusively for industrial or professional customers who are trained in the use of UVC radiation and can ensure hazard-free use, every device used should be flagged with special labels.

UVC radiation is extremely aggressive to human body and eyes, any contact with light source must be avoid.

Further information can be found in:

https://advanceprobe.pt/covid-19

Installation	
Mounting	Ceiling mount (surface)

Power supply specifications	
Standard input voltage	85 – 264V AC (50/60Hz)
Input current	0,35A @ 230V AC
DC output voltage	36 – 40V DC (10mV output ripple)
DC current supply	1000mA (min)
Power Supply Type	Switch Mode

Photometric data (I_F=150mA and TJ=65°C ±10%)	
Light source beam type	UV-C
Predominant wavelength	275 nm
Luminous power	150 mW (Max)
Light beam angle	55º
Lifetime cycle	15.000h (L70B10C1)

Electrical characteristics (T_J=65°C ±10%)	
Operation mode (DC supply)	
Constant voltage	36 – 40V DC
Current consumption	450mA @ 36V DC
Power consumption	11,5W
Dimmable	PWM mode dimmer
Class	Class II – SELV (Safety Extra Low Voltage)

Mechanical characteristics	
Dimensions (mm) (LxWxH)	295x42x50
Number of light emitters	12
Maximum Weight (kg)	0,5Kg
Lens type	silicone
Lens support frame	Stainless steel AISI 304

Environmental specs	
Protection grade	IP66
Ambient temperature	-10ºC to 80ºC
Relative humidity	0 to 90% non-condensing

Safety standards	
2014/35/EU Low voltage directive with harmonized standards	
IEC EN 61000-3-2	Electromagnetic compatibility (EMC) - Limits
IEC EN 60335-1	Requirements for safety of household appliances
IEC EN 61000-6-2	EMC Immunity for industrial environments
CE Mark	Yes
Reach / RoHS	Yes
IEC EN 62471 Risk group	Risk group 3 (Hazardous even for momentary exposure)

Physical dimensions (mm)	
Width	600
Height	450
Depth	450
Weight	10Kg (Approx.)