

Declaration of Conformity

DEVICE IDENTIFICATION

MANUFACTURER: **VORTEX SRLS**
Viale San Bartolomeo, 303
19126 - La Spezia (SP)

Marking object: **DEVICE FOR HVAC DISINFECTION Model VLED**
S/N:
Year of Construction: **2021**

DECLARATION OF CONFORMITY



I, the signatory of this declaration, declare on my sole responsibility that the device above mentioned complies with the requirements of the following Directives:

- **2014/30/CE “Electromagnetic compatibility”**, of 26 February 2014 on the harmonisation of the laws of the Member States relating to electromagnetic compatibility.
- **2017/2102/UE “ROHS”**, of 15 November 2017 amending Directive 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment.
- **ISO 15858:2016**, UV-C Devices - Safety information - Permissible human exposure

The technical standards used for the analysis and electrical design of the object of marking are:
EN 60950-1+A11:2004 – “Information technology equipment – Safety – Part 1: General requirements (IEC 60950-1:2005 (MOD)).

Place and Date
La Spezia (SP), 16/12/2021

Signed
MATTIA NUTI
C.E.O. Vortex S.r.l.s.

A handwritten signature in black ink, appearing to read 'M. Nuti'.

ROHS

DECLARATION OF CONFORMITY

Declaration of Conformity to EU RoHS

Products are in compliance with Directive 2011/65/EU of the European Parliament and of the Council of 8 June 2011 on the restriction of the use of certain hazardous substances in electrical and electronic equipment (also known as “RoHS Recast”). In addition, this declaration of conformity is issued under the sole responsibility of the manufacturer, specifically, products manufactured do not contain the substances listed in the table below in concentrations greater than the listed maximum value. This declaration also implements the COMMISSION DELEGATED DIRECTIVE (EU) 2021/1980 of 11 August 2021.

Substance	Maximum Limit %
Lead	0.1
Mercury	0.1
Cadmium	0.01
Hexavalent chromium	0.1
Polybrominated biphenyls (PBB)	0.1
Polybrominated diphenyl ethers (PBDE)	0.1
Bis(2-ethylhexyl) phthalate (DEHP)	0.1
Butyl benzyl phthalate (BBP)	0.1
Dibutyl phthalate (DBP)	0.1
Diisobutyl phthalate (DIBP)	0.1

Place and Date

La Spezia (SP), 16/12/2021

Signed

MATTIA NUTI

C.E.O. Vortex S.r.l.s.


 **vortex**



We Make it Easier; We Make it Better; We Make it Sustainable.

COMPANY OVERVIEW

VORTEX BIOTECH is an innovative, Dubai-based company with a mission to develop smart solutions for a better tomorrow, founded in 2021 by a group of experts with extensive experience in the field of medical technology.

- MADE IN ITALY, with all the production in Italy
- Quality control system for the entire supply chain
- HQ: Dubai (UAE) | PRODUCTION: Italy (IT)
- High-Tech Devices for Indoor Environmental Quality

THE FUTURE OF INDOOR AIR QUALITY

The exciting innovation designed to clean and maintain sanitized air in closed environments!

According to the World Health Organization, poor air quality is one of the greatest threats to human health.

'Inside' air has been proven to be up to five times more contaminated than 'outside' air, and since many of us spend 90% of our day indoors, we are especially susceptible to a wide range of viruses, mold, and bacteria being circulated through the air. This is true in our homes, our work places and our public transport!

There is a clear and urgent need for exploring new ways to sanitize air especially indoors!

The air that we breathe in closed environments is often being recycled through AC systems without being sanitized. And while most people believe that air-conditioning equals 'fresh air,' there is nothing farther than the truth! Cold air does not kill germs, and some viruses actually replicate better in dry, cold temperatures!

The existing technologies:

Every technology for AC Systems disinfection on the market has a huge power consumption, high maintenance cost and long term side effects.

Every technology on the market doesn't take in consideration the proliferation of bacteria and mold during all the tract of ducts.



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VLED

It's a proven fact that LED technologies are far more superior in energy efficiency than all the technology on the market for light sources.

Here there is the evolution of disinfection:

 No Maintenance

 Only UV-c Light

 99,02% Effective

 6W Consumption

 Less than 1 second






MADE IN ITALY





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VLED is the solution for all the HVAC Systems, providing a constant disinfection on a continual basis, by simply being directly placed in air conditioning ducts, just before inside the vent grill or diffuser. The module is powered by a battery pack that is constantly recharged by the power of air flow. The system is 'invisible' to the casual eye, and there is no need for additional electricity!



Increase efficiency of work places



Invisible, untampered and safe



Super Low Energy Consumption



Patented method to inactivate bacteria, viruses and mold



Full Patented protection for each room



The only solution undisputed



Most cost effective solution ever invented



No maintenance cost and very high durability and life-cycle



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VLED

PARAMENTERS	SPECIFICATION
Manufacturer	Vortex SRLS
Name	Device for HVAC Disinfection
Model	VLED
Weight	200g
Dimension	200mm x 18mm x 18mm
Power	6 W max
Current	500 mA max
Tension	Input: 12V DC
Frequency	50/60 Hz
Radiant UV-C Flux	104 mJ/cm ² max

VLED has to be placed in every air inlet ducts.
Normally every centralized system has 2 air pipes for each room, one for the air inlet and one for the air outlet.

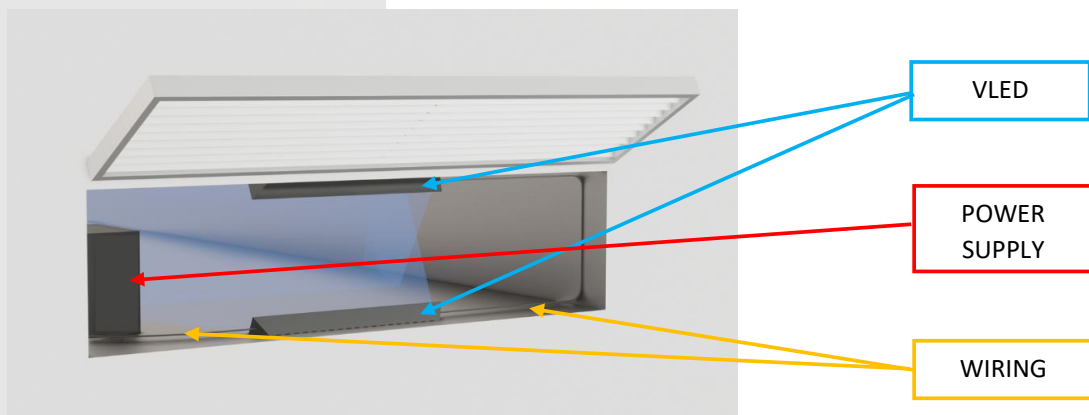


Figure 1

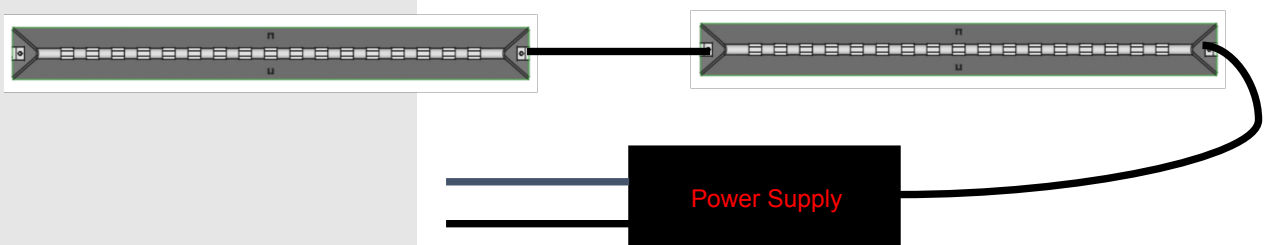


Figure 2