UVC LED
Water Disinfection Purifier

MASSPHOTON

—MP-UVC-48LC



Mercury-Free, Instant-Start, High-Efficiency Water Disinfection

The MASSPHOTON UV-C LED Water Disinfection System features independently developed high-performance UV-C LED devices and a unique structure. It outperforms traditional mercury-lamp solutions with higher disinfection efficiency, better stability, and faster response. It redefines domestic and commercial water safety through Technology — from efficient disinfection and durability to easy installation and smart energy saving. The system meets the continuous high-flow disinfection needs of whole-house water purification, commercial water supply, and food processing, achieving 99.999% bacterial inactivation with zero maintenance and mercury-free safety.

Key Features

- **Safe: Mercury-Free UV-C LED Technology** Eco-Friendly non-toxic, and compliant with global regulations.
- **Effective:** Achieves up to **99.999% Pathogen Reduction** (5.0 log) against bacteria, viruses, and microbes.
- **Efficient:** Up to **90% energy savings** with low-power operation, reducing costs.

Product Overview

- Designed for disinfection, the MP-UVC-48LC uses **mercury-free UVC LEDs** (270-280 nm) to deliver **up to 99.999% pathogen reduction**, ensuring safe, clean water. Every module undergoes **100% efficacy and water tight testing**, ensuring quality and durability.

Effective Disinfection

Low Maintenance

100% Efficacy Test

Intelligent

Easy to Install

Eco-Friendly & Energy-Efficient



Whole-House Water Treatment



Food & Beverage Process Water



Medical-Purified Water



Laboratory Water



Aquaculture and Agriculture

MASSPHOTON

MASSPHOTON LIMITED

Semiconductor Ultraviolet Technology and Applications Expert

www.massphoton.com

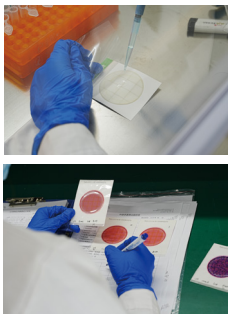
info@massphoton.com

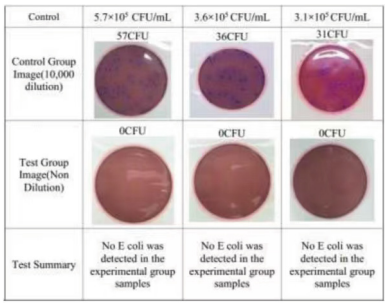
Unit 542, 5/F, Building 5W, Hong Kong Science Park

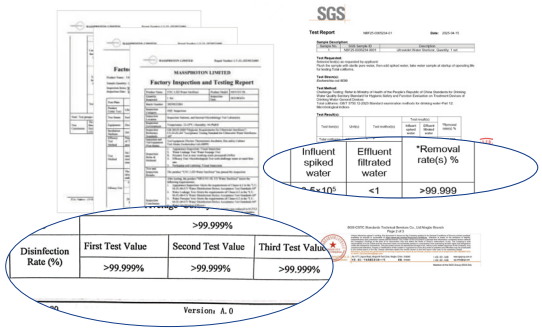
Product Features

100% Factory-Tested for Disinfection Efficacy











Key Product Parameters

Model	MP-UVC-48LC
MASSPHOTON STANDARD CONFIGURATION (30 mJ/cm2 at 95% UVT)	48 LPM / 12.7 gpm / 2.9 m³/hr
ALTERNATE CONFIGURATION (16 mJ/cm2 at 95% UVT)	90 LPM / 23.8 gpm / 5.5 m³/hr
ALTERNATE CONFIGURATION (40 mJ/cm2 at 95% UVT)	36 LPM / 10 gpm / 2.1 m³/hr
Operating Pressure	0.8 MPa (116 psi)
Connection Size	1" MNPT
UVC LED Wavelength	270 nm-280 nm
Electrical	100~240 V 50/60 Hz
UVC LED Lifetime	L70 > 15,000 hours
Power	33 W
Disinfection Efficiency	≥99.999% or 5.0 Log Reduction (*)
Exterior Material	Anodized Aluminum
Operating Water Temperature	5°C to 40°C (41°F to 104°F)
Product Dimensions	Φ2.8*13.3 in (Φ70*338.5 mm)

(*) The actual disinfection efficiency subjects to the water quality.

The above test results are based on the following test conditions with test strain of Escherichia coli (8099), with 5 × 10^4 to 5 × 10^5 CFU/mL dechlorinated sterile test water.

pH	UV transmittance	Turbidity	Temperature	TDS
7.5 ± 0.5	98 ± 2%	< 1.0 NTU	20 ± 2.5°C (68 ± 5 °F)	200 to 500 mg/L