

# SPECIFICATIONS OF JS-M212

File NO. : JS-OP-RD-510

Version : A/3

Effective Date : 2023-2-7



Halogen Free

Approved by	Checked By	Prepared by
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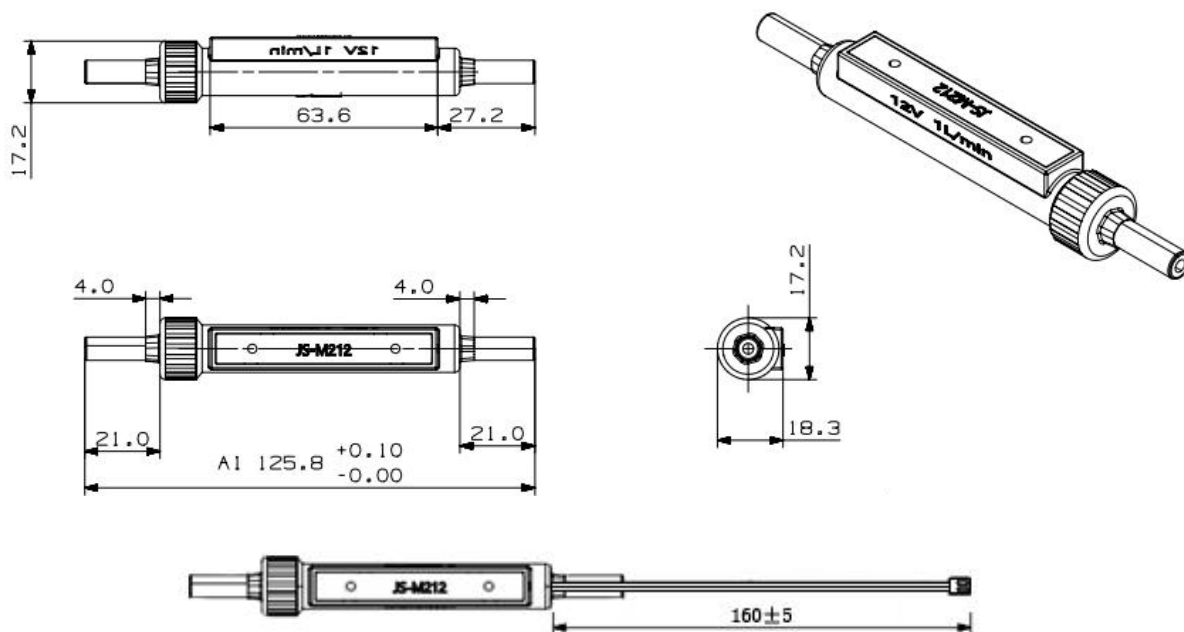
## Features

- Adopt the international advanced sterilization technology of DUV LED
- Easy to install and easy to use
- RoHS compliant

## Applications

- All kinds of water purification, direct drinking water equipment

## Product Specification



Size	Ø17mm x 125mm
Inlet and outlet	2-point standard quick-plug interface(2/8 inches)
Maximum design velocity	1L/min
Maximum inlet pressure	0.45MPa
Bactericidal rate	99.99%
NET weight	20g
Terminal Drawing Force	≥30N
Terminal type	XH2.54-2P

## Performance Characteristics

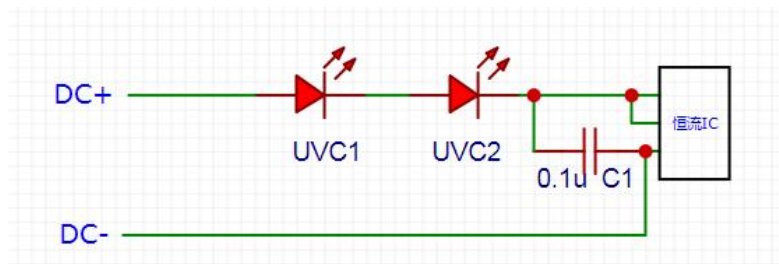
Parameter	Symbol	Value
Input Voltage	VIN	DC12V/DC24V
Input Power	W	≤1.8W
Output Radiant Power	Φe	≥28mW
Peak Wavelength	WLP	270nm-280nm
Life Test	L70	≥10000h

Note:

- ✓ These values measured by the Jason optical spectrum analyzer  
And tolerances are followings as below.
  - Forward Voltage(Vf1): ±0.2V
  - Output Radiant Power(Φe): ±10%
  - Peak Wavelength(WLP): ±3nm

## Circuit check

Internal Circuit



## Test Item

Test	Test conditions
Tensile	The force of Terminal and connecting line $\geq$ 30N 1min The force of solder joint and connecting line $\geq$ 35N 10s
Insulation withstand voltage	AC1500V, 50HZ 1min
Life Test	The decay rate of sterilization does not exceed 5% $\text{@}$ 2000hrs
Sealing property	0.4MPa 5min
Bearing pressure	Increased the hydrostatic pressure to 0.6MPa within 5 min (velocity $\leq$ 0.4 mpa/s) ; kept for 15 min
Blasting	Increased the hydrostatic pressure to 0.8 MPa within 70s (velocity $\leq$ 0.4 mpa/s) ;kept for 5s
Circulates	Cycle pressure 0-0.45MPa and repeat 10000 times (pressure rise time 2s)
Freezing test	Fill with water, fill in and out of water block,-18 $^{\circ}$ C for 48 hours, natural thawing
Low temperature storage	Tamb -30 $^{\circ}$ C $\pm$ 2 $^{\circ}$ C 72hrs
High temperature storage	Tamb 50 $^{\circ}$ C $\pm$ 2 $^{\circ}$ C 72hrs
Thermal Shock	Tamb -30 $^{\circ}$ C to 85 $^{\circ}$ C change rate35-40 $^{\circ}$ C/min, cycle time 60 minutes
High temperature and humidity storage	Tamb 40 $^{\circ}$ C/85%RH 168hrs
Vibration	4Hz(240CPM) 60min (ISTA-2001)
Drop	The corners, edges and faces fell freely from the 1-meter-high stage respectively
Hazardous substance	Comply with EU RoHS directive requirements

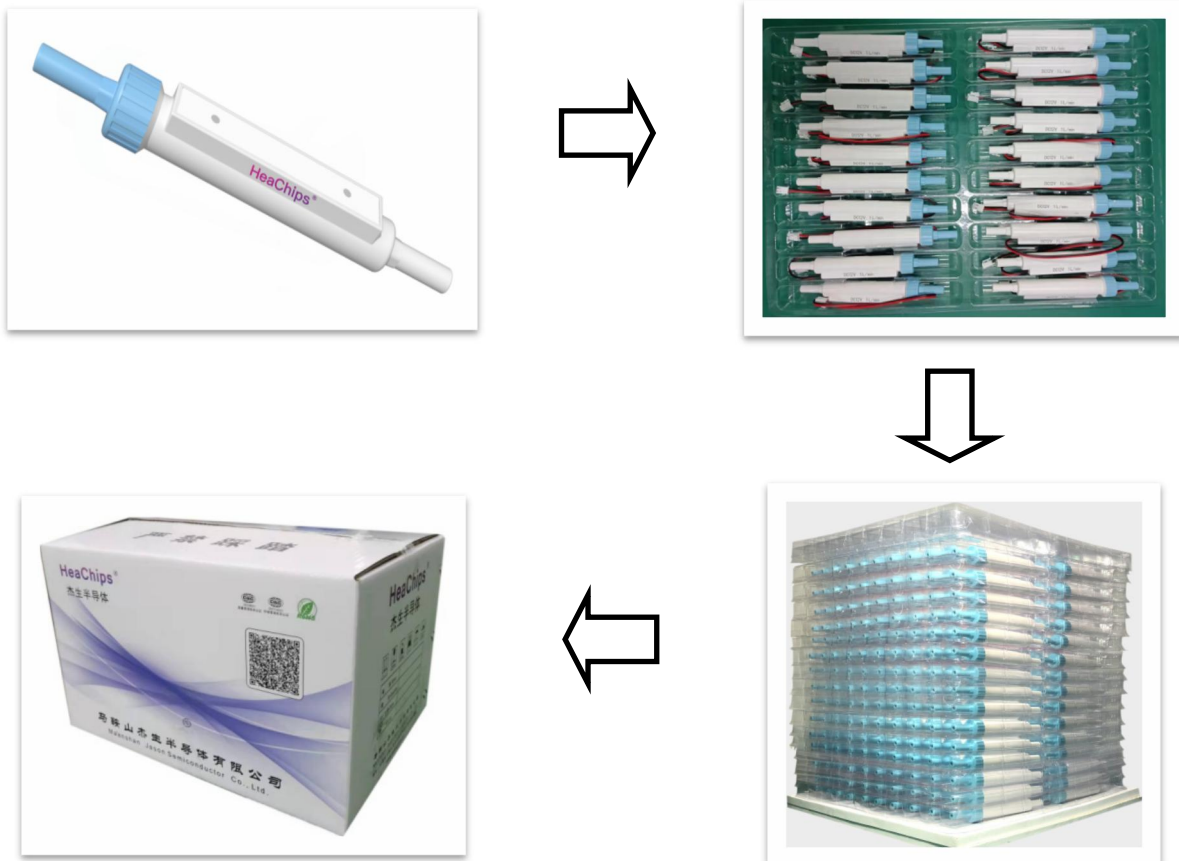
## Reference Standard

- GB/T191 Pictorial mark for packaging and storage (GB/191-2008, ISO780: 1997,MOD) .
- GB/T1019 General Rules for packaging of household and similar electrical appliances.
- GB/T2423.17 Environmental testing for electrical and electronic products-part 2: Test Methods, Test Ka: Salt Spray.
- GB/4706.1 Household and similar electrical appliances-safety-part 1: General Requirements.
- GB/5749 Hygienic Standard for drinking water.
- QB/4827 Ultraviolet sterilization units for domestic and similar drinking water treatment plants.
- GB/T2828.1 Technical Sampling Inspection procedures-part 1: batch-by-batch inspection sampling plans retrieved according to the acceptance Quality Limit ( AQL ) .

## Packaging and transportation

This product packaging materials and packaging form reference and in line with the "GB/T191, GJB145A-1993 protective packaging code" and other related standards.

Packing Diagram:



## Cautions on Use

### Storage of products

Module recommended storage conditions: temperature 0°C-45°C, humidity 40%-65% .

Please check whether the module is damaged by transportation after unpacking or before using. If yes, please stop using and contact us. This product can only be used under the condition of good appearance.

### Access and installation

The distribution of current and voltage should be fully considered in the circuit design to avoid exceeding the absolute maximum rated parameters of the product. In order to ensure the best use effect, it is suggested to assign a resistor series connection to each product in the Matrix circuit.

### Important Safety tips

- It is suggested that a filtering device should be installed at the front of the water inlet to reduce the influence of water quality on the sterilization effect.
- Disassembly of products by oneself is strictly prohibited.
- Be careful not to damage your eyes when observe the LEDs with optical instruments.





**Test Report**

NBF21-013723-02

Date: 02 Dec 2021

Sample Description:

Specimen No.	SGS Sample ID	Description
1	NBF21-013723.001	Dynamic Steralization Module

**TEST REQUESTED:**

Selected test(s) as requested by applicant:  
Removal rate of Total coliforms at the startup of operating life.

**TEST STRAIN(S):**

Escherichia coli CICC 10389

**Test Method:**

Removal rate of Total coliforms: Refer to Ministry of Health of the People's Republic of China Standards for Drinking Water Quality Sanitary Standard for Hygienic Safety and Function Evaluation on Treatment Devices of Drinking Water-General Devices & GB/T 5750.12-2006 Standard examination methods for drinking water-Microbiological parameters



**Test Result(s):**

Test item(s)	Unit(s)	Test method(s)	Test result(s)		*Removal rate(s) %
			Influent spiked water	Effluent filtrated water	
Total coliforms	CFU/100mL	GB/T 5750.12-2006	5.6×10 <sup>8</sup>	<1	>99.9999

Remark:

- \*Removal rate (%) = (test result of Influent spiked water - test result of Effluent filtrated water) / test result of Influent spiked water × 100%.
- The flow rate is 3 L/min, the Voltage is 24 V