

PPM-DT7C

Product Datasheet SPECIFICATIONS



UVC LED Purple Planet Mods



深圳市华瑗科技有限公司
ShenZhen HUAAI Technology Co., Ltd.



深圳市紫色星球科技有限公司
ShenZhen Purple Planet Technology Co., Ltd

Add: 7th Floor, South Side of Building B2, CIMC
Shanghe Aerospace Industrial Park, Bao'an
District, Shenzhen, Guangdong, China China
Tel: 0755 23351635 0755 23358796 (Fax)

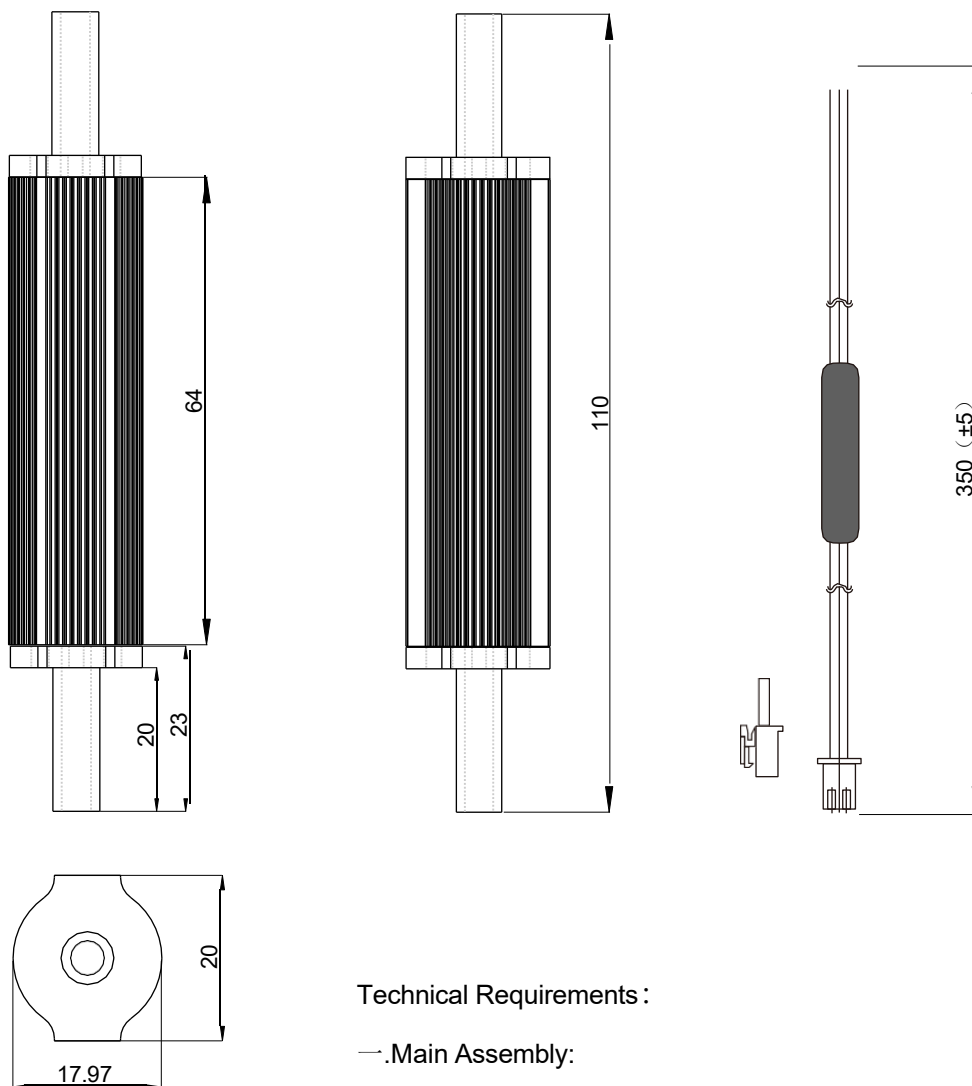
Key Features

- Deep Ultraviolet (UV-C) LED Light Source
- Lead-Free & Mercury-Free Design for Eco-Friendly Applications
- All Wetted Parts Are Made of Food-Grade Materials
- IP65-Rated Protection

1 Key Specifications

Item	Min	Avg	Max	Unit
Electrical Parameters				
Input Voltage	12			V
Input Power	1.8			W
Interface	2-Pin XHB-2.54 Connector			
LED Parameters	TA=25℃ L70≥10000hour 5-6V 50-55mW 270-280nm			
Withstand Voltage	AC500V 50HZ / 1min Human Mode			
Mechanical Parameters				
Dimensions	110 × 20 × 17.97 mm (Including Inlet/Outlet Ports)			
Material	Aluminum Alloy + JGSL-2 Quartz + Food-Grade POM + Silicone			
Inlet/Outlet Port	2/3" Standard Quick-Connect Fitting			
Operating Environment				
Rated Pressure	0.1	0.6	— — —	Mpa
Flow Rate	3.0	— — —	3.0	L /min
Op./Storage Humidity	30%	— — —	60%	— — —
Storage Temp.	0	— — —	85	℃
Operating Temp.	0	— — —	60	℃

2 Mechanical Drawing



单位: mm

Technical Requirements:

一. Main Assembly:

1. Main Assembly

1、Aluminum Alloy Housing+Standard POM Water Fittings 2/3 Quick Connect Port: 6.4/9.4 mm (Tolerance: ± 0.2 mm)

2、Wire Length: Customizable According to Customer Requirements

二. Function:

1、Static Pressure Resistance: 12 kg pressure for 5 min, no deformation or damage, normal function maintained.

2、Burst Pressure Resistance: 200 PSI for 5 s, no deformation or damage, normal function maintained.

3、Sterilization Rate: $\geq 99.99\%$

4、Rated Voltage: DC12V/24V

5、UVC Optical Power: 140mW-160mW

6、Working Pressure: 0.1-0.6MPa

7、Compliant with "Hygienic Safety Evaluation Specification for Drinking Water Transmission and Distribution Equipment and Protective Materials"

8、Compliant with RoHS 2.0 Requirements

3 T_{xet}

Test Item		
Item	Technical Specification	Test Method
Appearance	Inlet/outlet ports free of flash/burrs. Plastic and metal parts clean with uniform finish, free of cracks, rust, or defects. Components fit securely with clear, durable markings.	Visual Inspection
Dimensions	Measure critical dimensions with caliper	Caliper
Dielectric Strength	Apply 500V AC (50Hz) for 1 min between conductive parts and non-conductive metal parts; no damage or breakdown shall occur.	Hi-Pot Tester
Sterilization Rate	<i>E. coli</i> testing and compliance per Technical Standard for Disinfection (2002) and GB/T 5750.1-2023.	Microbial Testing Equipment
Hydrostatic Test	Apply 1.1 MPa hydrostatic pressure with the outlet sealed for 15 min; no leakage, deformation, or damage shall occur.	Water hammer test machine
Burst Pressure Test	The burst test shall be conducted at a burst pressure of 2.5 MPa; the unit must function normally after the test.	Water hammer test machine

4 Safety Instructions

- This product is sensitive to static electricity. Please take precautions against static discharge during installation and use, ensure that the work surface is earthed, and reseal the packaging immediately after opening;
- It is recommended that you wear gloves or finger cots when handling this product;
- Please use this product within the voltage and current ranges specified in this specification; failure to do so may result in permanent damage to the product;
- Please ensure that this product is installed and used away from heat sources and in a relatively mild environment;
- Before installation, please ensure that the unit is installed in a stable environment and avoid vibration, shaking and compression as far as possible;
- Different microorganisms require different UV doses for sterilization. Our UV sterilization products are designed according to national standards and can eliminate 99.99% of bacteria and viruses in water. High turbidity, hardness, calcium, or magnesium levels may reduce sterilization efficiency. A filtration system is recommended before the product inlet to improve performance.
- Ultraviolet radiation can also be harmful to the human body. For safety reasons, this product is designed with all components enclosed within a sealed housing; under no circumstances should you attempt to dismantle the product yourself;

5 Standards Cited

- GB/T 191 Pictorial Symbols for Packaging, Storage and Transport (GB/191-2008, ISO 780:1997, MOD);
- GB/T 1019 General Requirements for the Package of Household and Similar Electrical Appliances;
- GB/T 2423.17 Environmental Testing for Electrical and Electronic Products – Part 2: Test Methods – Salt Mist Test
- GB/T 4706.1 Household and Similar Electrical Appliances – Safety – Part 1: General Requirements
- GB/T 5749 Standard for Drinking Water Quality
- QB/T 4827 UV Sterilization Units for Household and Similar Drinking Water Treatment Equipment
- GB/T 2828.1 Technical Sampling Procedures — Part 1: Sampling Plans for Lot-by-Lot Inspection Based on Acceptance Quality Limits (AQL)