



I. Product Information

Item	Specification
Product Name	LED Solar Pool Copper Ionizer
Product Type	Floating Solar Copper Ionization Device
Working Principle	Solar Powered Copper Ionization + RGB LED Ambient Lighting
Installation Method	Floating Type
Application Scenarios	Home Pools / SPA / Landscape Pools

II. Solar Panel Specifications Item Specification

Item	Specification
Solar Panel Type	Monocrystalline Solar Panel
Solar Panel Size	φ150mm
Operating Voltage	5.0 V
Operating Current	0.175 A
Peak Power	≈0.9 W
Output Type	DC Output
Operating Mode	Automatic Operation Under Direct Sunlight
Sunlight Exposure Time	6 Hours Direct Sunlight

III. Battery Specifications

Item	Specification
Battery Type	Lithium polymer battery - 18650
Battery Capacity	2500 mAh
Battery Voltage	3.7 V
Charging Method	Solar Charging
Protection Function	Overcharge / Over-discharge Protection

IV. Electrolysis System Specifications

Item	Specification
Copper Electrode	Material
Copper Rod Size	Ø20 × 105 mm
Copper Rod Quantity	1 pcs
Cathode Material	304 Stainless Steel
Cathode Structure	Spring Structure
Cathode Quantity	1 pcs
Electrolysis Method	Low Voltage DC Electrolysis
Copper Ion Release Rate Approx	625–1000 mg/day
Recommended Copper Ion Concentration	0.2–0.4 ppm
Cathode / Anode Replacement Cycle	10 Months

V. LED Lighting Specifications

Item	Specification
LED Color	RGB
LED Quantity	8 pcs
LED Operating Voltage	3.7 V
LED Output Current	50 mA
Lighting Mode	RGB Color Changing
Full-Power Operating Time Approx	≈20 h
Control Method	Light Sensor Automatic Lighting

VI. Product Functions

Item	Specification
Main Function	Helps Prevent Algae Growth
Auxiliary Function	Helps Reduce Chlorine Usage
LED Function	Night Pool Ambient Lighting
Operating Method	Solar Charging During Daytime / Automatic Lighting at Night
Waterproof Rating	IPX7
External Power Supply	None
Chemical Additives	None

VII. Recommended Water Conditions

Item	Recommended Range
pH	7.2–7.6
Water Temperature	15–35°C

Salinity	0–4000 ppm
Free Chlorine	0.5–2 ppm
VIII. Recommended Pool Size	
Pool Volume	Recommendation
≤5 m ³	Limit usage time to avoid elevated copper ion levels
10–30 m ³	Recommended
>30 m ³	Use Multiple Units
IX. Product Features	
Solar Powered Operation	
Floating Design	
RGB LED Pool Ambient Lighting	
Helps Prevent Algae Growth	
Helps Reduce Chlorine Usage	
Automatic Day & Night Operation	
Low Maintenance	
Suitable for Pools and Landscape Pools	
X. Notes	
Regularly test pool pH and copper ion levels using test strips, Over-Concentration Warning Remove the Ionizer if Copper Ion Level Exceeds Recommended Range	
For best results, use together with a small amount of chlorine.	
Copper electrodes are consumable parts and should be replaced periodically according to usage conditions.	
Remove and clean the unit if not used for a long period.	