

## PV-Powered UV Water Disinfection System

Our solar-powered UV water disinfection system employs innovative technology to deliver safe, clean drinking water using the power of sunlight. Combining renewable energy with advanced UV-C disinfection, this solution provides reliable water treatment for remote areas, emergency scenarios, and routine applications.

### Features Highlights

#### Solar-Powered Operation

- Direct PV-panel drive with simplified connectivity
- Auto-start/stop based on solar availability
- Optional 48Vdc lithium battery for 24/7 operation
- Eco-friendly with minimal carbon footprint

#### Advanced Integration

- 254 nm high-intensity lamp ( $\geq 99.9\%$  disinfection rate)
- Gravity-fed design eliminates need for pumps
- Adjustable valve for flow control ( $\leq 38$  LPM optimal rate)

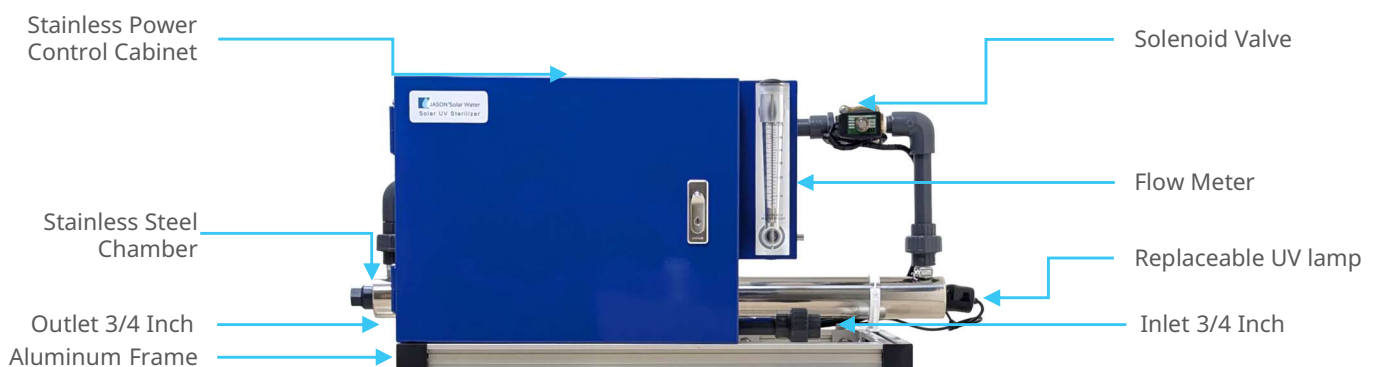
#### Rugged Smart Design

- LED status indicators for UV lamp operation
- Built-in timer to monitor the lamp's lifetime
- SUS304 and weather-resistant construction control cabinet
- Low-maintenance operation with easy installation



Supporting poles not included (Optional)

### System Overview



### Applications

- Remote communities without reliable power
- Disaster relief and emergency response
- Refugee camps and temporary settlements
- Small-scale facilities (Agriculture & Livestock)

## System Architecture



## Specification

Model	JS-SUV
<b>Solar Input</b>	
Maximum Input Voltage	55 Vdc (Voc)
MPP Tracking Voltage Range	30-50 V (Vmp)
Maximum Input Current	10A
Off-Grid Operation in Battery-free	Yes, Automatically adjusts according to energy from solar panel
<b>Water Input</b>	
Pure Water Flow Rate	12 GPM (45 LPM)
Recommended Flow Rate	<10 GPM (38 LPM)
Number of Lamps	1
UV Lamp Rated Power	40W
Total Rated Power	61W
Inlet/Outlet Diameter	3/4 inch
Maximum Operating Pressure	70 PSI
Operating Temperature Range	2-70°C
<b>General Information</b>	
Material of Chamber	304 Stainless Steel
Material of Control Panel	304 Stainless Steel
Material of Supporting Platform	Aluminum Alloy
Dimensions (Excluding Supporting Poles)	W 95 x H 40 x D 40 cm
<b>Battery Input (Optional)</b>	
Battery Rated Voltage	48 Vdc
Battery Type	LiFePO <sub>4</sub>
Recommended Battery Capacity	15-40 Ah

Product Specifications and features are for reference only and are subject to change without prior notice.



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