Huawei SUN2000-450W-P2

The Huawei SUN2000-450W-P2 is a module-level power optimizer with 99.5% efficiency and IP68 protection. Provides panel-level MPPT optimization, rapid shutdown safety, and module-level monitoring via MBUS communication.

Models Covered: SUN2000-450W-P2

Manufacturer: Huawei Digital Power Technologies Co., Ltd.

Application: Ideal for United Arab Emirates's climate with wide operating temperature range and dust-resistant design.

OPTIMIZER | SMART PV OPTIMIZER | 99.5% MAX EFFICIENCY | IP68 WATERPROOF | MODULE-LEVEL MPPT | RAPID SHUTDOWN (RSD) | MBUS COMMUNICATION

Technical Specifications

Parameter	SUN2000-450W-P2
Input	
Rated Input DC Power [W]	450
Absolute Max Input Voltage [V]	80
MPPT Voltage Range [V]	10-80
Max Short-Circuit Current [A]	14.5
Output	
Max Output Voltage [V]	80
Max Output Current [A]	15
Max Efficiency [%]	99.5
Weighted Efficiency [%]	99.0
General Data	
Dimensions (W×H×D) [mm]	75 × 140 × 28
Weight (incl. cables) [kg]	0.6
Protection Degree	IP68
Operating Temperature	-40 °C ~ +85 °C
Communication	MBUS
Connector	Staubli MC4

Note: Specifications are based on the official Huawei datasheet. Values may be subject to change; always verify against the latest manufacturer documentation.

Key Features

99.5% Max Efficiency	IP68 Waterproof	Module-Level MPPT
Rapid Shutdown (RSD)	MBUS Communication	0.6kg Ultra-Lightweight

Applications & Use Cases

Typical Applications

- Residential solar systems
- Commercial installations
- Industrial solar plants
- Utility-scale projects
- Smart grid integration

Frequently Asked Questions

▼ **When should I use optimizers?**

Optimizers are recommended for roofs with partial shading, multiple orientations, or mixed module types. Each panel operates at its maximum power point independently, improving total system yield by up to 30%.

▶ **What is the warranty?**

▶ **What is the warranty coverage for the Huawei SUN2000-450W-P2?**

▶ **What certifications does the Huawei SUN2000-450W-P2 have?**

▶ **What are the installation requirements for the Huawei SUN2000-450W-P2?**

▶ **How does the Huawei SUN2000-450W-P2 perform in hot climates?**

▶ **What are the dimensions and weight of the Huawei SUN2000-450W-P2?**

▶ **What are the key features of the Huawei SUN2000-450W-P2?**

Availability & grid compliance in UAE

Market	UAE
Grid authority / regulator	DEWA, ADDC, SEWA
Quotation currency	AED
Support hours timezone	Asia/Dubai
Delivery & installation coverage	Dubai, Abu Dhabi, Sharjah, Ajman, Ras Al Khaimah

Figures on this page are the manufacturer's own, measured at the test conditions the datasheet states — they do not change by country. What changes is the approval that has to be met before the unit is energised: in UAE that is DEWA, ADDC, SEWA. Confirm the grid code, import requirements and any local certification with them, or with us, before you order.

Official Source & Documentation

This technical datasheet is derived from official manufacturer documentation provided by **Huawei Digital Power Technologies Co., Ltd.**.

- **Manufacturer Website:** https://solar.huawei.com
- **Technical Support:** sales@huawei-solar.org
- **Sales Inquiries:** sales@huawei-solar.org
- **Data Source:** Official Datasheet - Huawei Digital Power Technologies Co., Ltd.

Disclaimer: *All specifications are based on the official datasheet. Specifications are subject to change without notice. Please verify with the manufacturer for the most current information.*

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