Huawei MERC-600W-PA0

The Huawei MERC-600W-PA0 is a smart module controller providing module-level optimization with 99.5% efficiency and IP68 protection. Supports rapid shutdown, module-level monitoring, and long-string designs up to 35 modules per string.

Models Covered: MERC-600W-PA0

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 MODULE CONTROLLER | 99.5% MAX EFFICIENCY | MODULE-LEVEL OPTIMIZATION (30% MORE YIELD) | RAPID SHUTDOWN (RSD) | IP68 WATERPROOF | LONG-STRING DESIGN (35 MODULES/STRING)

Technical Specifications

Parameter	MERC-600W-PA0
Input	
Rated Input DC Power [W]	600
Absolute Max Input Voltage [V]	80
MPPT Voltage Range [V]	10-80
Max Short-Circuit Current [A]	16
Output	
Max Output Voltage [V]	80
Max Output Current [A]	16
Max Efficiency [%]	99.5
Weighted Efficiency [%]	99.0
Standby Output Voltage [V]	1
General Data	
Dimensions (W×H×D) [mm]	73.8 × 145 × 27.2
Weight (incl. cables) [kg]	0.65
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	Module-Level Optimization (30% More Yield)	Rapid Shutdown (RSD)
IP68 Waterproof	Long-String Design (35 Modules/String)	FusionSolar APP Module Monitoring

Applications & Use Cases

Typical Applications

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

Frequently Asked Questions

▼ **What is the difference between the MERC and SUN2000 optimizers?**

The MERC-600W-PA0 is a newer Smart Module Controller specifically designed for the M1 three-phase inverter series. It offers slightly higher input current (16A vs 14.5A) and is optimized for three-phase system integration.

▶ **What is the warranty coverage for the Huawei MERC-600W-PA0?**

▶ **What certifications does the Huawei MERC-600W-PA0 have?**

▶ **What are the installation requirements for the Huawei MERC-600W-PA0?**

▶ **How does the Huawei MERC-600W-PA0 perform in hot climates?**

▶ **What are the dimensions and weight of the Huawei MERC-600W-PA0?**

▶ **What are the key features of the Huawei MERC-600W-PA0?**

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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