



Ruijie RG-PA600I-P-F Datasheet



Product Overview

- The RG-PA600I-P-F is an AC power supply module that supports both AC and HVDC input, providing a 56 V DC output with up to 600 W total power (PoE power less than 600 W).
- It is designed for use in enterprise-level PoE switches or similar network equipment that require stable and redundant power delivery.
- When paired with the RG-PD600I-P-F, a DC-to-DC power module with the same output voltage and capacity, it supports power redundancy and shared load balancing.
- Both models support intelligent monitoring via I²C, ensuring effective system communication and operational transparency.
- Compact, efficient, and reliable, the RG-PA600I-P-F is suitable for critical power environments that require fault tolerance and high PoE output.
- Ideal for use in classrooms, conference rooms, production lines, and healthcare facilities.

Product Highlights

- **High-Power Output Design:** Delivers up to 600 W of total power with 56 V DC output, making it ideal for powering high-capacity PoE switches and access points in enterprise networks.
- **AC/HVDC Dual Input Flexibility:** Supports both AC and high-voltage DC inputs, enabling adaptable deployment in diverse power environments.
- **Redundant Power Architecture:** Supports power redundancy when PoE load is under 370 W, with dual modules sharing the load to ensure stable operation and continuous uptime.
- **Hot-Swappable Operation:** Enables safe insertion and removal of power modules while the system is running.

Detailed Features



RG-PA600I-P-F

Component	Specification
Input Type	AC / HVDC Input
Output Voltage	56 V DC
Maximum Output Power	600 W
PoE Power Budget	Less than 600 W
Redundancy Support	Power redundancy supported (≤370 W load)



Dual Mode Input Support

The RG-PA600I-P-F power module is designed with flexibility in mind, supporting both AC and HVDC input types. This allows seamless integration into a variety of enterprise power environments, ensuring compatibility with different power supply systems.

High-Power Output for PoE Applications

Delivering up to 600W total power output at 56V, the RG-PA600I-P-F is optimized to support a wide range of Power over Ethernet (PoE) devices. This makes it an ideal choice for powering high-performance wireless access points, IP cameras, and other PoE-enabled networking hardware.

Power Supply Redundancy

The module supports power redundancy when PoE power consumption is below 370W. This ensures continuous and reliable power supply in mission-critical scenarios by allowing dual power modules to work in parallel with current sharing.

Hot-Swappable Design

With full hot-swapping capabilities, the RG-PA600I-P-F can be removed or inserted without powering down the system. This enables quick and convenient maintenance or upgrades, reducing network downtime and ensuring uninterrupted service.

Advanced Protection Mechanisms

Built-in security protection features include undervoltage protection, output overcurrent protection, output overvoltage protection, and output short-circuit protection.

Conformal Coating for Harsh Environments

The internal circuitry of the RG-PA600I-P-F is coated with a conformal layer that protects against moisture, mold, corrosion, and electrical shock. This enhances reliability in environments with humidity or chemical exposure.

Intelligent I²C Communication

The module features I²C communication capabilities, allowing it to interact with the host device for real-time status monitoring and fault diagnostics. This intelligent communication supports centralized power management and improved operational visibility.

Real-Time Power Alarm Notification

In the event of a power fault, the RG-PA600I-P-F triggers an alarm via the LED indicator by turning off the output status light. This provides immediate visual feedback and helps IT personnel quickly identify and address power issues.

Compact Form Factor for Easy Installation

The RG-PA600I-P-F features a compact and modular design that fits seamlessly into standard power module slots. Its lightweight build and intuitive connectors enable fast installation and replacement, minimizing deployment complexity in enterprise environments.

Technical Specifications

Product Specifications

Feature	Value
Rated Input Voltage	<ul style="list-style-type: none">- AC input: 100 V AC to 240 V AC; 50 to 60 Hz- HVDC input: 240 V DC
Maximum Input Voltage	<ul style="list-style-type: none">- AC input: 90 V AC to 290 V AC; 47 to 63 Hz- HVDC input: 192 V DC to 290 V DC
Maximum Input Current	<ul style="list-style-type: none">- AC input: 8 A- HVDC input: 4 A
Input Leakage Current	≤1.75 mA
Output Voltage	56 V
Maximum Output Current	10.72 A



Feature	Value
Maximum Output Power	600 W
PoE Output Power	<600 W
Dimensions (W x D x H)	196 mm × 90 mm × 40 mm (7.72 in. × 3.54 in. × 1.57 in.)
Net Weight	0.9 kg (1.98 lbs.)
Primary Airflow	Rear-to-front: air intake from the connector, air outlet from the front panel
Operating Temperature	-10°C to +55°C (14°F to 131°F)
Storage Temperature	-40°C to +70°C (-40°F to +158°F)
Operating Humidity	5% to 95% (non-condensing)
Storage Humidity	5% to 95% (non-condensing)
Operating Altitude	-500 m to +5,000 m (-1640.42 ft. to 16404.20 ft.)
Power Cord Requirement	10 A power cord
Efficiency	≥88% at full load
MTBF (Mean Time Between Failures)	≥200,000 hours at 25°C

Product Comparison

Feature	RG-PA600I-P-F	RG-PD600I-P-F	RG-PA300I-P-F
Product Type	AC/HVDC input, DC output	DC input, DC output	AC input, DC output
Input Voltage Range	90–290V AC / 192–290V DC	-38 to -75V DC	100–240V AC
Output Voltage	56V	56V	56V
Max Output Power	600W	600W	300W
PoE Output Power	<600W	<600W	<300W
Redundant Support	Yes (≤370W)	Yes (≤370W)	No
Hot Swapping	Supported	Supported	Not Supported
Protection Features	Undervoltage, overcurrent, overvoltage, short circuit	Same as left	Basic overload protection
Conformal Coating	Yes	Yes	No



Feature	RG-PA600I-P-F	RG-PD600I-P-F	RG-PA300I-P-F
Communication	I2C	I2C	None
Power Supply Alarm	Supported	Supported	Not Supported
Dimensions (W×D×H)	196 × 90 × 40 mm	196 × 90 × 40 mm	130 × 75 × 30 mm
Weight	0.9 kg	0.9 kg	0.5 kg
Operating Temp.	-10°C to +55°C	-10°C to +55°C	0°C to +40°C
Input Current Range	AC: 8A / HVDC: 4A	DC: 20A	AC: 4.5A / HVDC: 2.2A

Accessories

Category	Accessories
Included Accessories	- Power Cable
	- Mounting Bracket
	- Quick Installation Guide
Optional Accessories	- Rack Mount Kit: SP-RM-1000
	- SFP Transceivers: FG-TRAN-GC
	- Power Supply: FG-PSU-1000



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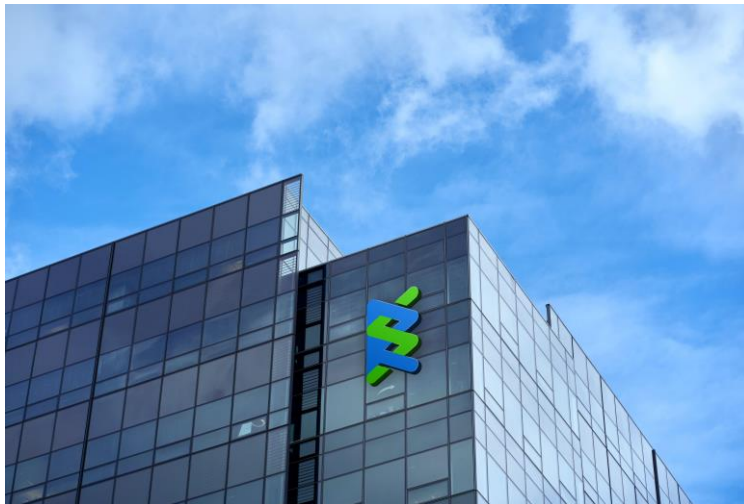


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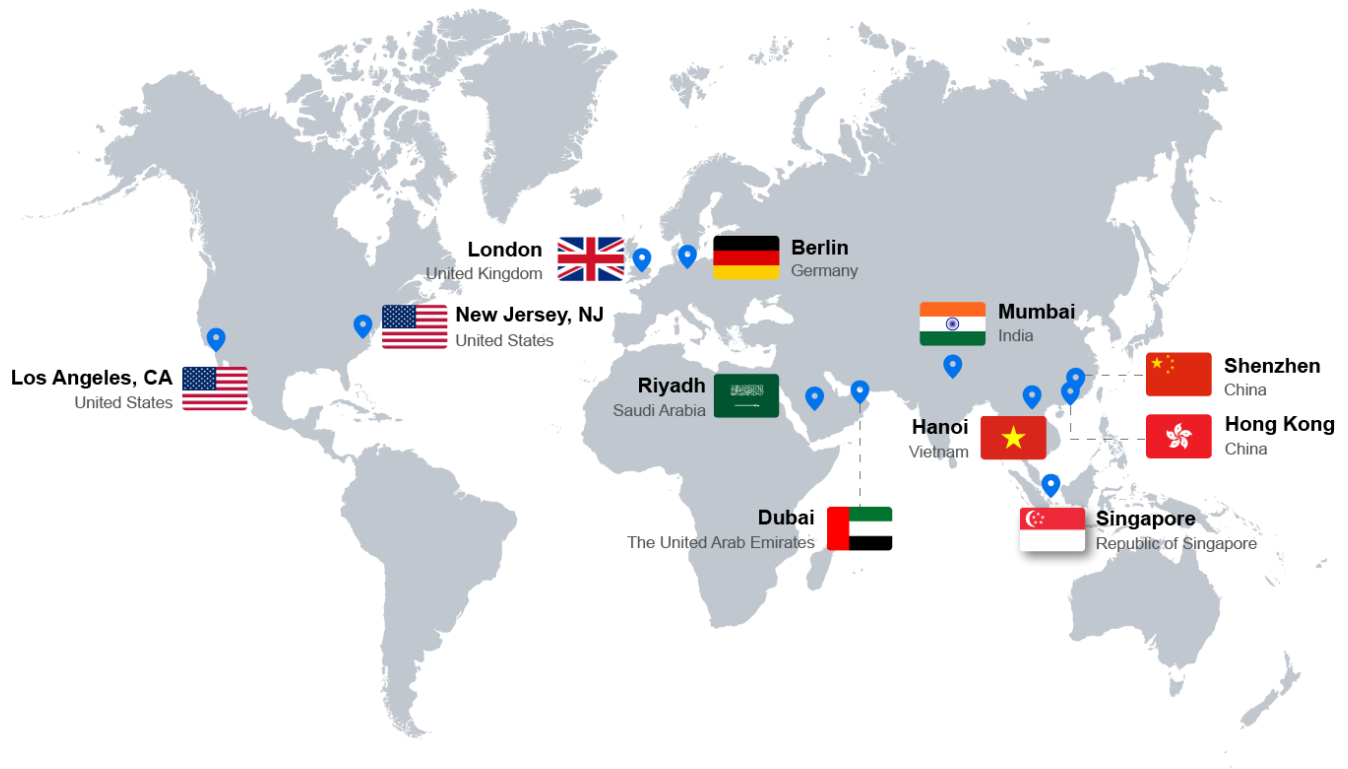
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Shenzhen Branch

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USA Branch

3592 Rosemead Blvd, B #220, Rosemead, CA 91770, USA

UK Branch

Third Floor, 207 Regent Street, London W1B 3HH, UK



References

[1] Ruijie Networks. (n.d.). Ruijie RG-PA600I-P-F & RG-PD600I-P-F Power Model Datasheet. Retrieved April 25, 2025, from <https://www.ruijie.com/en-global/resources/preview/ruijie-rg-pa600i-p-f-pd600i-p-f-power-model-datasheet-en/>