

# PX<sup>®</sup> Intelligent Power Distribution Units



## PX Series

Intelligent PDUs and inline meters that give you more control of power and cooling in the data center.

- ▶ Remote power monitoring and metering of current (amps), voltage, power (kVA, kW) and energy consumption (kWh)
- ▶ Capable of ISO/IEC +/- 1% kWh billing accuracy
- ▶ Environment sensor ready
- ▶ Power information from individual outlets, units, lines and circuit breakers
- ▶ Individual outlet and outlet group switching available
- ▶ User-configurable, outlet-level delays for power sequencing
- ▶ Ethernet and serial access
- ▶ Alerts via SNMP, e-mail and syslog when thresholds are exceeded
- ▶ Supports HTTP, HTTPS, SSH, Telnet and SNMP
- ▶ Advanced authorization options, including permissions, LDAP/S and Active Directory<sup>®</sup>
- ▶ Strong encryption and passwords
- ▶ Cisco EnergyWise<sup>™</sup> compliant<sup>1</sup>

## Intelligent Rack Power Distribution

### Broadest portfolio of smart PDUs to enable energy management in the data center

The Raritan PX family of high-quality rack power distribution units (PDUs) offers real-time remote power monitoring of current (amps), voltage, power (kVA, kW) and energy consumption (kWh) with +/- 1% billing-grade accuracy. The Dominion<sup>®</sup> PX series offers hundreds of models to meet all your data center applications, including models with outlet switching, individual outlet metering, high power for blade servers and high density applications, and 400V power distribution.

Raritan power management solutions enable data center and facilities managers to:

- ▶ Make informed capacity planning decisions
- ▶ Efficiently utilize power resources
- ▶ Improve uptime and staff productivity
- ▶ Save power and money
- ▶ Measure PUE (power usage effectiveness) and drive green data center initiatives

### Monitor and manage power, energy and the data center environment

With PX, accurate real-time power monitoring and metering is now available down to the individual outlets. PX provides alerts based on preset power and environment events. All PXs are environment-monitoring ready and accept Raritan's plug-and-play environment sensors. The PX intelligent rack PDU allows you to:

- ▶ Find stranded power in racks
- ▶ Load balance lines and circuits
- ▶ Trend and track energy utilization and bill power costs to users
- ▶ Electrically track IT assets
- ▶ Remotely reboot servers and provision (turn on) power outlets in racks
- ▶ Detect data center hot spots
- ▶ Eliminate overcooling and increase temperature set points safely
- ▶ Support hot aisle containment and high-power blade racks

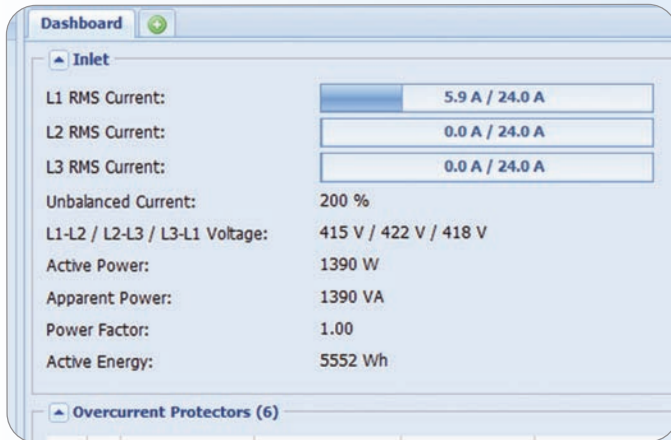
### Take a step towards Green Grid's PUE Level 3

Raritan's PX gives you the granular power information required to get to Green Grid's PUE Level 2 and Level 3. Coupled with Power IQ<sup>®</sup>, Raritan's energy management software, data center managers can now centralize power control and analytics from Raritan's intelligent PDUs and a wide range of third-party rack PDUs and UPSs, including those from APC<sup>®</sup>, Server Technology<sup>®</sup> and many others.

# Quality Rack PDUs with Intelligence

## Simple, Web-Based Power and Energy Management

### PX Web-Based GUI<sup>1</sup>



- ▶ Set power and environmental thresholds and receive alerts
- ▶ Check status of PDUs, lines, circuit breakers and individual outlets
- ▶ Monitor data center environment
- ▶ Remotely provision and switch outlets
- ▶ Configure user access rights and security

### Power IQ Energy Management Software



- ▶ Multivendor data collection
- ▶ PDU management, including bulk configuration and advanced power control
- ▶ Dashboard reports and trend charts
- ▶ Open APIs for easy integration



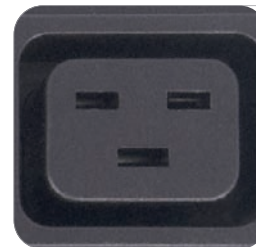
### Smart LED Display at the Rack<sup>1</sup>

- ▶ Scroll through and check individual outlet power consumption
- ▶ Check total PDU or branch circuit consumption before adding devices
- ▶ Check line draw and balance for three-phase rack PDUs
- ▶ Three-color outlet status LED indicates on, off, overload, circuit breaker open, PDU booting and firmware upgrade
- ▶ Auto-flip display



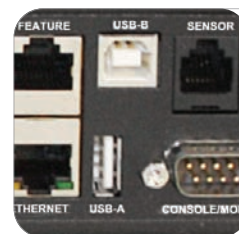
### Extruded Aluminum Chassis

- ▶ Available in a variety of colors
- ▶ Up to 36% less deep than competitive products
- ▶ Designed with 3D CAD/CAM software
- ▶ Lightweight and strong with excellent heat dissipation
- ▶ Versatile button and bracket mounts



### High-Quality Construction and Components

- ▶ Solder connections to copper bus bars in PCBs
- ▶ ISO 9000 quality manufacturing
- ▶ Quality components from Tyco, Hubbell® and Mennekes®



### Flexible and Versatile Connections

- ▶ 10–100 Mbps Ethernet (RJ-45)
- ▶ RS-232 serial (DB-9M)<sup>1</sup>
- ▶ Feature/KVM (RJ-45)
- ▶ USB-A (host), USB-B (device)<sup>1</sup>
- ▶ Sensor port (RJ-12)



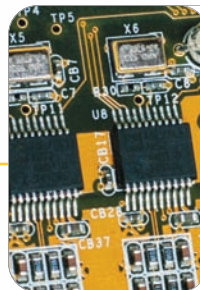
### High-Performance Processor

- ▶ 20+ years of data center management and embedded development experience
- ▶ Scalability and headroom for future upgrades
- ▶ Rich and full implementation network management, directory services and security
- ▶ Best-in-class user experience



### UL 489 Circuit Breakers

- ▶ Meet Underwriters Laboratories' latest branch circuit protection standards
- ▶ Unlike fuses, do not require an electrician or an inventory of spares
- ▶ Eliminate the possibility of installing a fuse with the wrong rating



### Outlet Metering with +/- 1% Accuracy

- ▶ Dedicated energy-metering chip per outlet
- ▶ Billing-grade power data (kWh) to report and/or bill back power consumption
- ▶ User-adjustable power data sampling and buffering
- ▶ Rich data collected, including: V, A, kVA, kW, kWh



### Plug-and-Play Optional Sensors

- ▶ Monitor temperature and humidity to identify hot spots, confidently raise the ambient temperature of your data center to reduce cooling power consumption and manage static problems
- ▶ Save costs by leveraging PX to monitor both power and data center environment
- ▶ Supports up to 16 sensors, including: temperature, humidity, airflow, air pressure and electronic asset tracking

## Intelligent power distribution for every segment

	Outlet Metered, Outlet Switched PX-5000	Outlet Metered PX-4000	Inline Metered PX-3000	PDU Metered, Outlet Switched PX-2000	PDU Metered PX-1000
Compatible with Power IQ	●	●	●	●	●
Power Metering	Outlet, PDU	Outlet, PDU	Circuit	PDU	PDU
Outlet Switching (compatible with optional Raritan KVM)	●			●	
Power Data Collected	A, V, W, VA, PF, kWh	A, V, W, VA, PF, kWh	A, V, W, VA, PF, kWh	A, V, W, VA, PF, kWh	A, V, W, VA, PF, kWh
Environmental Monitoring (e.g., temperature, humidity, airflow, air pressure)	●	●	●	●	●
User Management (e.g., Active Directory, LDAP)	●	●	●	●	●
Thresholds and Alerts	●	●	●	●	●
SNMPv2, v3 GETs, SETs, TRAPs, JSON-RPC <sup>1</sup>	●	●	●	●	●
Web Browser and CLI Access	Serial, Ethernet	Serial, Ethernet	Serial, Ethernet	Serial, Ethernet	Serial, Ethernet
High Temp 60° C Models	●	●	●	●	●
UL 489 Circuit Breakers <sup>2</sup> with Breaker Monitoring	●	●	●	●	●
Supports Wi-Fi®, Web Camera and Electronic Asset Tracking	PX2-5nnn models	PX2-4nnn models	PX2-3nnn models	●	●

### Broad range of options built to your specific needs

Hundreds of PX models available in numerous configurations:

- ▶ 100V, 208V, 230V and 400V inputs
- ▶ Single-phase and three-phase power
- ▶ 15A to 80A input
- ▶ Zero U, 1U and 2U form factors
- ▶ NEMA, IEC, Clipsal® and more plugs and receptacles
- ▶ Mixed outlet and voltage configurations
- ▶ Certifications include FCC Part 15, A, UL and cUL 60950, CE, plus PSE certified for Japan
- ▶ RoHS/WEEE compliant

To view PX screenshots, go to [www.raritan.com/px-screenshots](http://www.raritan.com/px-screenshots)

For SKUs, detailed specifications and mechanical drawings, or to test drive PX and Power IQ, go to [www.raritan.com/PX](http://www.raritan.com/PX)

## Call 1.800.724.8090 or visit [www.raritan.com/PX](http://www.raritan.com/PX)

1. Available on models with part numbers PX2-nnnn.  
2. Branch circuit breakers used in units greater than 20A.

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Raritan is a leading provider of secure IT infrastructure management solutions that provide IT directors, managers and administrators the control they need to optimize data center productivity, enhance branch office operations and increase overall power management efficiency. In over 50,000 locations around the world, our integrated secure in-band and out-of-band server access, control and power management products help companies better monitor and manage server access, utilization and energy consumption. Raritan's OEM division provides advanced embedded hardware and firmware for server and client management, including KVM over IP, IPMI, intelligent power management and other industry standards-based management applications. Based in Somerset, NJ, Raritan has 38 offices worldwide, serving 76 countries. For more information, please visit [Raritan.com](http://Raritan.com)