

Product Catalog

# ATEN NRGence™ Energy Intelligence PDU for Data Centers

2015 ▶ 2016





## Our Vision

"Simply Better Connections" has always been at the heart of the ATEN brand. It means providing innovative solutions for you to make better connections, efficiently and seamlessly, to the information and people that you value. As a result, ATEN connects you to the world, anytime and anywhere, by providing technologies that enable you to share and to care. ATEN makes professional and personal life easier, simpler and better connected.

## About ATEN

ATEN, established in 1979, specializes in connectivity management solutions for accessing and sharing technologies. ATEN consolidates all of its products under the ATEN brand to provide a standard of consistent service under one name. The ATEN brand consists of innovative solutions applied to IT infrastructure access management, professional audio/video, and green energy products for consumers, small/home offices (SOHO), small to medium sized business (SMB) and enterprise customers.

ATEN's Altusen™ IT infrastructure access management solutions offer connectivity and control capabilities for SMB and Enterprise customers that allow people to effectively manage IT equipment from anywhere in the world. ATEN's VanCryst™ professional audio/video solutions offer signal management and system control for home and professional audio/video installations with a variety of applications in corporate, education, government, hospitality and home theater environments. ATEN's NRGence™ Green Energy line offers sensor-enabled energy-saving hardware and software solutions for the data center with a range of intelligent power and cooling distribution units that provide real-time energy management and performance indicators locally and remotely.

ATEN specializes in connectivity and management solutions. We distribute our products through a global sales network to meet a broad range of customer needs. ATEN delivers with quality and we care about our customers. We are committed to the best customer support in the industry.

## ATEN NRGence™ Energy Intelligence PDUs for Data Centers

At ATEN we are committed to offering real solutions for data centers, to this end, ATEN's NRGence™ Green Energy solutions offer the latest in energy intelligence. Our solutions for data centers begin with a wide range of eco PDUs, developed to support ISO50001, that take intelligence to the next level by providing real-time energy management, control and energy-saving efficiency by allowing you to easily upgrade current IT resources quickly and cost effectively.

As PDU experts we have developed a variety of standardized and modularized rack PDUs in both 1U and 0U types to suit most data centers. As PDU experts we understand that some data centers have requirements that can't be met effectively with "off the shelf models", therefore we also offer customers a BTC "Build to Configuration" service to construct PDUs according to their individual requirements, effectively providing the ideal power solution.

ATEN's dedicated PDU team offers professional solutions in developing energy efficiency. Only with accurate measurements and data can data centers develop effective strategies and employ effective technologies for energy reduction.

ATEN delivers and we care about our customers. We are committed to the best customer support in the industry.

## PDU Comparison

Features	PE5	PE6	PE7	PE8	PE1/PE2	PE5	PE6	PE7	PE8	PE9
Model	PE5108 PE5208	PE6108 PE6208	PE7108 PE7208	PE8108 PE8208	PE1216/PE2220 PE1324/PE2340	PE5216/PE5220s PE5324/PE5340s PE5324L/PE5340SL	PE6216/PE6324 PE6324L	PE7214/PE7216 PE7324/PE7328	PE8216 PE8324	PE9216/PE9222 PE9324/PE9330
Rack Space	1U	1U	1U	1U	0U	0U	0U	0U	0U	0U
Outlet	8	8	8	8	16/20, 24/40	16/20, 24/40	16/24	14/16, 24/28	16/24	16/22, 24/30
Remote Power Control		•		•			•		•	•
Metering Capability	PDU Level	PDU Level	Outlet, PDU Level	Outlet, PDU Level	Bank Via EC1000/ EC2004	Bank, PDU Level	Bank, PDU Level	Outlet, Bank, PDU Level	Outlet, Bank, PDU Level	Outlet, Bank, PDU Level
Environment Monitoring	•	•	•	•	Via EC1000/ EC2004	•	•	•	•	•
eco Sensors Support	•	•	•	•	Via EC1000/ EC2004	•	•	•	•	•
Proactive Overload Protection		•		•			•		•	•
Critical Load Outlet										•
Door Sensor					Via EC2004			•	•	•

# 4 Powerful Reasons to use ATEN's Green Energy Solutions

In the last decade, data center infrastructure management (DCIM) has grown to become a hot issue all over the world. No matter what market you are in, the need for energy saving and optimizing power has hit your sector. It's the goods everyone needs to run a smart business. But not everyone has the tools or know-how to rein in this over-tolling expense. The first thing you need is a good measurement of power consumption. ATEN's Green Energy Solutions provide just that with the latest energy intelligence software and hardware to supply the power and take perfect measurements of the consumption. ATEN energy saving PDU's can measure power at the PDU, bank and outlet level, plus provide accurate readings of the room's temperature, humidity and differential pressure. All data is maintained by our eco Sensors software which provides real-time information and detailed reports of energy usage and the environment. ATEN PDUs give you the tools and know-how to make better decisions for power allocation in any data center.

Since ATEN begun producing green energy PDUs a diverse range of industries including Education, Government, Transportation, Enterprise and medium size businesses around the world have successfully adopted NRGence™ Green Energy solutions. Below we highlight some of the reasons why.

## Remote Power Outlet Control

ATEN PE6/PE8/PE9 eco PDUs allow administrators to remotely control the power of all servers in a data center. Administrators can remotely access any individual outlet and outlet groups to manage power (On/Off, PowerCycle) through an easy-to-use web interface.



## Real-Time Monitoring

Using ATEN eco Sensors Energy Management Software, administrators can remotely monitor the current, voltage, kWh, power consumption and circuit breaker status of all connected devices in real-time. In addition, the software can track the temperature and humidity via sensors connected to the PDU and provide a complete comprehensive report of all the data being monitored.



## Proactive Overload Protection (POP)

ATEN's exclusive POP feature automatically powers off outlets in the event of a current overload to protect the other connected devices from being shut down unexpectedly.

## Power Analysis Report

ATEN's eco Sensors software provides power analysis report for optimizing data center energy management – including power usage, power load, power cost, CO2 cost, power capacity and trends. In addition it offers essential data center indices including Rack Intake Temperature, Rack Exhaust Temperature, Rack Equipment Temperature Difference, RCI (Rack Cooling Index), RTI (Return Temperature Index), RHI (Rack Humidity Index), RPI (Rack Pressure Index), and RAI (Rack Airflow Index).





# ATEN's Exclusive POP Provides the Most Secure and Reliable Power Distribution

ATEN's Proactive Overload Protection (POP) empowers users to prioritize their data center's power distribution. When the current overloads, POP will automatically power off outlets to protect IT servers from shutting down unexpectedly. There are 2 POP options available for selection - LIFO Mode and Priority Mode.

### LIFO Mode :

The last powered on outlet will automatically power off.



### POP Settings

- ☒ Enable POP LIFO Mode
- ☐ Enable POP Priority Mode



### Priority Mode :

Outlets will power off following a pre-defined order. Administrators can set the shutdown priority of each outlet via web browser.


Bank 1 Priority Mode	
Priority 1	Outlet 18
Priority 2	Outlet 22
Priority 3	Outlet 19
Priority 4	Outlet 21
Priority 5	Outlet 20
Priority 6	Outlet 23
Priority 7	Outlet 17
Priority 8	Outlet 24

Bank 2 Priority Mode	
Priority 1	Outlet 18
Priority 2	Outlet 22
Priority 3	Outlet 19
Priority 4	Outlet 21
Priority 5	Outlet 20
Priority 6	Outlet 23
Priority 7	Outlet 17
Priority 8	Outlet 24

## When a power overloading condition is detected....




With POP Protection



ATEN POP PDU  
(PE6, PE8 and PE9 Series)

Without POP Protection



Other PDUs

Without ATEN's POP, PDUs will cut off the entire circuit when the power is overloaded, resulting in a sudden shut down of all equipment – which can include lighting, air conditioning and servers.

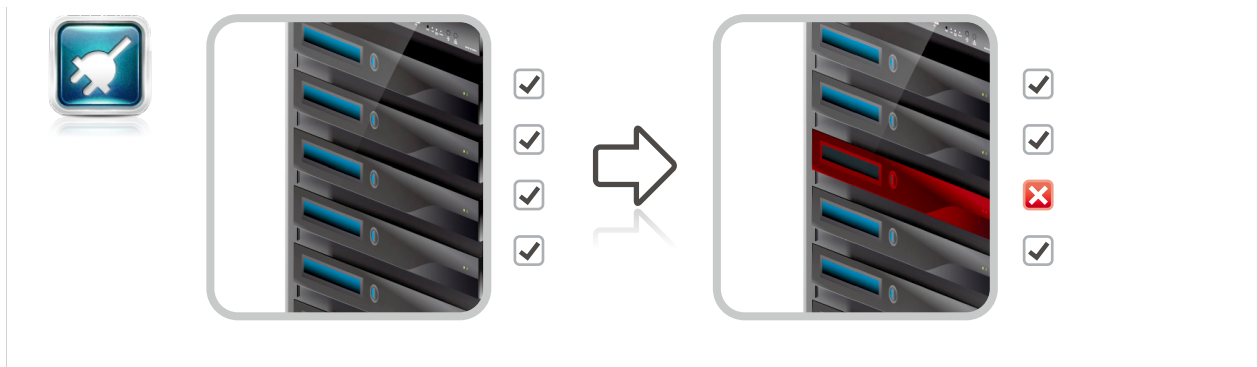
Note: ATEN's PE8/PE9 series support full POP functionality, while the PE6 series only provides Priority Mode.





# How can POP protect your IT equipment ?

## Scenario : Power Consumption Suddenly Rises and Causes Power Overload



### Setting A

- ☒ Enable POP LIFO Mode
- ☒ Enable POP Priority Mode

The POP feature will automatically cut off the power to the newly inserted server (LIFO Mode), and then switch off servers according to a preselected order (Priority Mode). This ensures other servers continue to work safely and are uninterrupted.



### Setting B

- ☐ Enable POP LIFO Mode
- ☒ Enable POP Priority Mode

The POP feature will instantly cut off power to servers according to the user's predefined order.



### Setting C

- ☒ Enable POP LIFO Mode
- ☐ Enable POP Priority Mode

The POP feature will automatically cut off the newly inserted server, this ensures the whole PDU won't shutdown and critical servers are protected. And if there is not any newly inserted server, then POP will only trip the alarm but won't shut down any outlet.

Scan here to view a video demonstrating ATEN's Energy Intelligence PDUs & exclusive POP feature.



# Energy BOX

## EC1000 / EC2004



EC1000

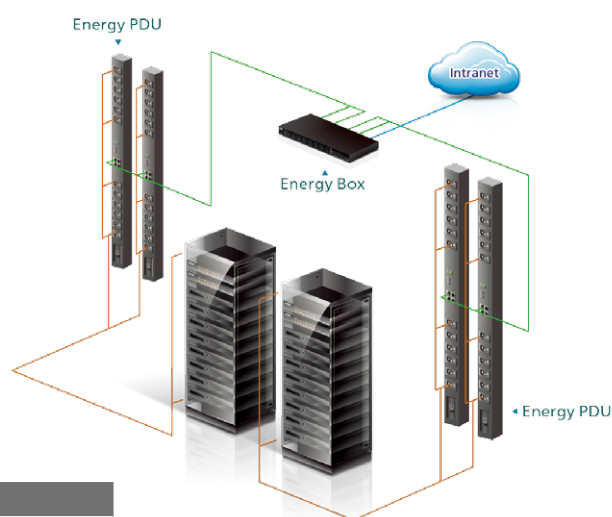
EC2004

### Energy Box EC1000/EC2004

NRGence™ Energy Box is an intelligent 1U (0U vertical hook also available) power monitor unit which can monitor the current from 4 Energy PDUs and 4 temperature, humidity, or differential pressure sensors. It is a standalone Over IP monitor box that can be controlled by Web UI or eco Sensors software. Conveniently deploying Energy Boxes in your rack, connected to Energy PDUs, allows all power information from the PDUs to be collated and displayed on the Energy Box for easy viewing and monitoring.

- 4 Energy Sensor ports for Energy PDU power monitoring (0A to 32A per port)
- 4 Environment Sensor ports for temperature, humidity and differential pressure monitoring
- 1 Door Sensor port (EC2004 only)
- Space saving 0U/1U rack mount design
- Remote real-time current management and monitoring
  - Current threshold level setting provision
  - Name assignment to individual PDU
- Wide Management Option Range
  - Remote management via IP network with Web Browser, eco Sensors software or 3rd party SNMP manager
- Exceed threshold alert through
  - Local: audible alarm and LED light blinking
  - Remote: SMTP/SNMP trap/Syslog

### Setup



Function	EC1000	EC2004
Inlet	Power Adapter DC 5V (1.8m)	Power Adapter DC 5V (1.8m)
Power Monitor	4xCurrent Energy Sensor Ports	2xCurrent + 2xCurrent&Voltage Energy Sensor Ports
Sensor	4xEnvironment Sensor ports	4xEnvironment Sensor Ports + 1xDoor Sensor Port
LAN	1xRJ-45 Female with LED	1xRJ-45 Female with LED
Monitoring Range	100-240V; 50/60Hz; 0A to 32A(per port) LED Display Resolution 0.1A Accuracy: +-0.1A@0~1A, +-1%@>1A	100-240V; 50/60Hz; 0A to 32A(per port) LED Display Resolution 0.1A Accuracy: +-0.1A@0~1A, +-1%@>1A 100VAC~250VAC, +-1% 100W~Maximum Capacity, +-2%

# Energy PDU

## PE1216 / PE1324 PE2220 / PE2340



**PE1216**  
• 16 Outlets  
• 0U

**PE2220**  
• 20 Outlets  
• 0U

**PE1324**  
• 24 Outlets  
• 0U

**PE2340**  
• 40 Outlets  
• 0U

### Energy PDU PE1216/PE1324/PE2220/PE2340

The Energy PDU contains 16/24/20/40 AC outlets and is available in various IEC or NEMA socket configurations. It features a space-saving 0U design that allows it to be mounted vertically on the outside of the rack, resulting in a more efficient use of server room space.

- Space saving 0U rack mount design
- IEC or NEMA outlet models

#### IEC System

Model	Rack Space	Input Voltage	Derated AMP	Max AMP	Input Plug	# of Banks	Outlets	Outlet Control	Meter	Certification
PE1216G	0U	100-240V	16A	16A	IEC C20	1x16A	16xIEC320 C13	None	Bank x 1	CE, C-Tick, TUV-CB, GOST, Others by Request
PE1324G	0U	100-240V	32A	32A	IEC60309 32A	2x16A	24xIEC320 C13	None	Bank x 2	CE, C-Tick, GOST, Others by Request
PE2220G	0U	100-240V	16A	16A	IEC C20	1x16A	20xIEC320 C13	None	Bank x 1	CE, CE-LVD, TUV-CB, Others by Request
PE2340G	0U	100-240V	32A	32A	IEC60309 32A	2x16A	40xIEC320 C13	None	Bank x 2	CE, CE-LVD, TUV-CB, Others by Request

#### NEMA System

Model	Rack Space	Input Voltage	Derated AMP	Max AMP	Input Plug	# of Banks	Outlets	Outlet Control	Meter	Certification
PE1216A	0U	100-120V	16A	20A	NEMA5-20P	1x20A	16xNEMA5-15R	None	Bank x 1	FCC, cTUVus, TUV-PSE, Others by Request
PE1216B	0U	100-240V	16A	20A	NEMA6-20P	1x20A	16xIEC320 C13	None	Bank x 1	FCC, cTUVus, TUV-PSE, Others by Request
PE1324B	0U	100-240V	24A	30A	NEMAL6-30P	2x15A	24xIEC320 C13	None	Bank x 2	FCC, cTUVus, TUV-PSE, Others by Request
PE2220A	0U	100-120V	16A	20A	NEMA5-20P	1x20A	20xNEMA5-15R	None	Bank x 1	FCC, TUV-CB, Others by Request
PE2220B	0U	100-240V	16A	20A	NEMA6-20P	1x20A	20xIEC320 C13	None	Bank x 1	FCC, TUV-CB, Others by Request
PE2340B	0U	100-240V	24A	30A	NEMAL6-30P	2x15A	40xIEC320 C13	None	Bank x 2	FCC, TUV-CB, Others by Request



# ECO PDU

**PE5108 / PE5208**  
**PE6108 / PE6208**  
**PE7108 / PE7208**  
**PE8108 / PE8208**



**PE5108/PE5208**  
• 8 Outlets  
• 1U

**PE7108/PE7208**  
• 8 Outlets  
• 1U

**PE6108/PE6208**  
• 8 Outlets  
• 1U

**PE8108/PE8208**  
• 8 Outlets  
• 1U

## Power Distribution

- Space saving rack mount design with rear mounting
- IEC or NEMA outlet models
- 3 x 7 segment front panel LED shows Current / IP Address
- Remote users can monitor outlet status via web pages on their browsers
- Safe shutdown support
- Separate power for the unit's own power and its power outlets – the user interface is still accessible even when an overload condition trips the devices' circuit breakers

## Remote Access

- Remote power control via TCP/IP and a built in 10/100 Ethernet port (PE6/PE8 Only)
- Network Protocols: TCP/IP, PPP, UDP, HTTP, HTTPS, SSL, SMTP, DHCP, NTP, DNS, auto sense, Ping
- eco PDU Power Management software – eco Sensors
- Supports SNMP Manager V1, V2 & V3

## Operation

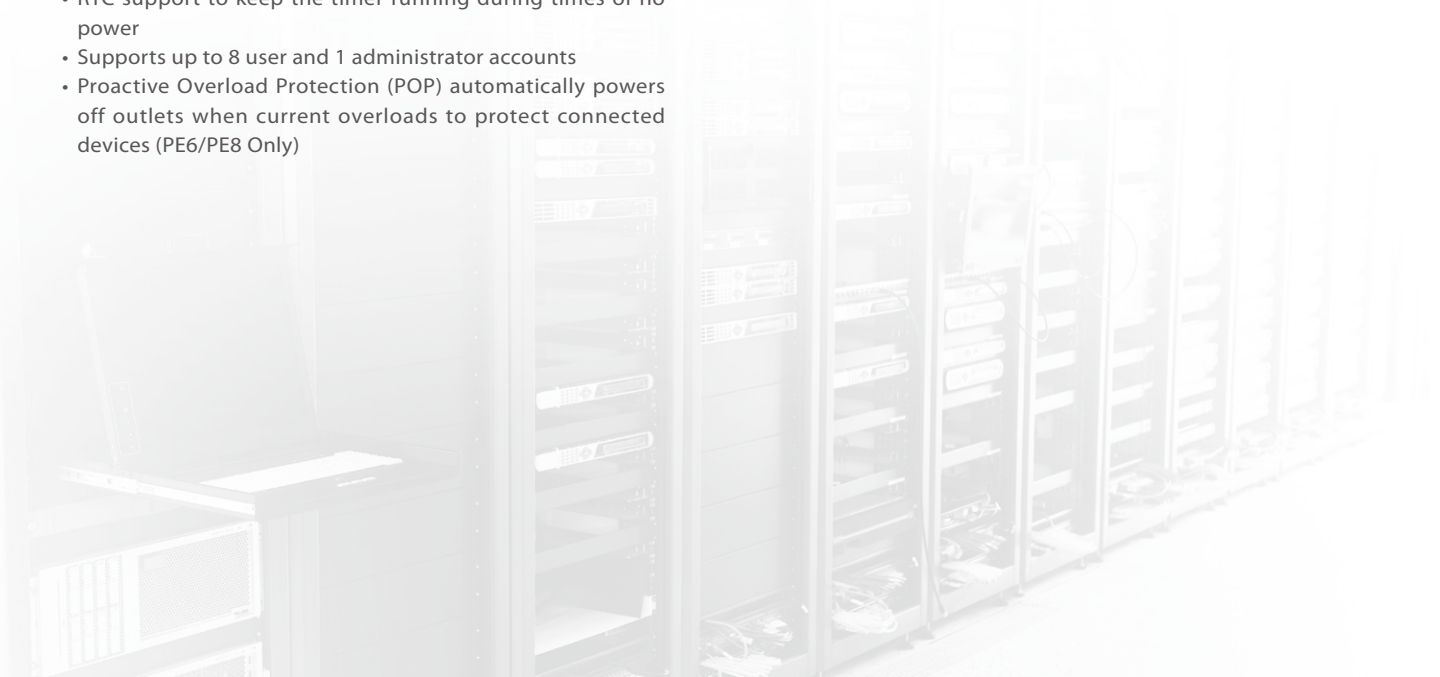
- Remote power outlet control (On, Off, Power Cycle) by individual outlets (PE6/PE8 Only)
- Supports multiple power control methods – Wake on LAN, System After AC Back, Kill the Power (PE6/PE8 Only)
- Power-on sequencing – users can set the power-on sequence and delay time for each outlet to allow equipment to be powered on in the correct order (PE6/PE8 Only)
- Easy setup and operation via browser-based user interface
- Multibrowser support (IE, Firefox, Chrome, Safari)
- RTC support to keep the timer running during times of no power
- Supports up to 8 user and 1 administrator accounts
- Proactive Overload Protection (POP) automatically powers off outlets when current overloads to protect connected devices (PE6/PE8 Only)

## Management

- Power status measurement at PDU level or outlet level (PE7/PE8 Only)
- LED indicators for current and IP address at the PDU device level
- Real-time current, voltage, and kWh displayed in a better browser-based UI for monitoring at the PDU level
- Environment monitoring via external sensors for rack temperature and humidity readings and alerts
- Current, voltage, power dissipation, energy consumption, temperature and humidity threshold level setting
- Naming support for outlets
- User outlet access assignment on an outlet-by-outlet basis
- Event logging and syslog support
- Supports Management Information Base (MIB) files for SNMP
- Upgradeable firmware
- Multilanguage support

## Security

- Two-level password security
- Strong security features include strong password protection and advanced encryption technologies – 128 bit SSL
- Remote authentication support: RADIUS





### IEC System

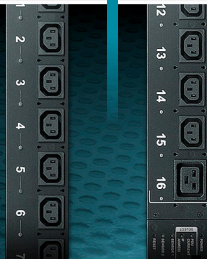
Model	Rack Space	Input Voltage	Derated AMP	Max AMP	Input Plug	# of Banks	Outlets	Outlet Control	Meter	Certification
PE5108G	1U	100-240V	10A	10A	IEC C14	1x10A	8xIEC320 C13	None	Bank x 1	CE, TUV-CB, CE-LVD, Others by Request
PE5208G	1U	100-240V	16A	16A	IEC C20	1x16A	7xIEC320 C13+1xIEC320 C19	None	Bank x 1	CE, TUV-CB, CE-LVD, Others by Request
PE6108G	1U	100-240V	10A	10A	IEC C14	1x10A	8xIEC320 C13	Yes	Bank x 1	CE, TUV-CB, CE-LVD, GOST, Others by Request
PE6208G	1U	100-240V	16A	16A	IEC C20	1x16A	7xIEC320 C13+1xIEC320 C19	Yes	Bank x 1	CE, TUV-CB, CE-LVD, GOST, Others by Request
PE7108G	1U	100-240V	10A	10A	IEC C14	1x10A	8xIEC320 C13	None	Outlet	CE, TUV-CB, CE-LVD, Others by Request
PE7208G	1U	100-240V	16A	16A	IEC C20	1x16A	7xIEC320 C13+1xIEC320 C19	None	Outlet	CE, TUV-CB, CE-LVD, Others by Request
PE8108G	1U	100-240V	10A	10A	IEC C14	1x10A	8xIEC320 C13	Yes	Outlet	CE, TUV-CB, CE-LVD, GOST, Others by Request
PE8208G	1U	100-240V	16A	16A	IEC C20	1x16A	7xIEC320 C13+1xIEC320 C19	Yes	Outlet	CE, TUV-CB, CE-LVD, GOST, Others by Request

### NEMA System

Model	Rack Space	Input Voltage	Derated AMP	Max AMP	Input Plug	# of Banks	Outlets	Outlet Control	Meter	Certification
PE5108A	1U	100-120V	12A	15A	NEMA5-15P	1x15A	8xNEMA5-15R	None	Bank x 1	FCC, cTUVus, TUV-CB, Others by Request
PE5108B	1U	100-240V	12A	15A	NEMA6-15P	1x15A	8xNEMA6-15R	None	Bank x 1	FCC, cTUVus, TUV-CB, Others by Request
PE5208A	1U	100-120V	16A	20A	NEMA5-20P	1x20A	8xNEMA5-20R	None	Bank x 1	FCC, cTUVus, TUV-CB, Others by Request
PE5208B	1U	100-240V	16A	20A	NEMA6-20P	1x20A	7xIEC320 C13+1xIEC320 C19	None	Bank x 1	FCC, cTUVus, TUV-CB, Others by Request
PE6108A	1U	100-120V	12A	15A	NEMA5-15P	1x15A	8xNEMA5-15R	Yes	Bank x 1	FCC, cTUVus, TUV-CB, Others by Request
PE6108B	1U	100-240V	12A	15A	NEMA6-15P	1x15A	8xNEMA6-15R	Yes	Bank x 1	FCC, cTUVus, TUV-CB, Others by Request
PE6208A	1U	100-120V	16A	20A	NEMA5-20P	1x20A	8xNEMA5-20R	Yes	Bank x 1	FCC, cTUVus, TUV-CB, Others by Request
PE6208B	1U	100-240V	16A	20A	NEMA6-20P	1x20A	7xIEC320 C13+1xIEC320 C19	Yes	Bank x 1	FCC, cTUVus, TUV-CB, Others by Request
PE7108A	1U	100-120V	12A	15A	NEMA5-15P	1x15A	8xNEMA5-15R	None	Outlet	FCC, cTUVus, TUV-CB, Others by Request
PE7108B	1U	100-240V	12A	15A	NEMA6-15P	1x15A	8xNEMA6-15R	None	Outlet	FCC, cTUVus, TUV-CB, Others by Request
PE7208A	1U	100-120V	16A	20A	NEMA5-20P	1x20A	8xNEMA5-20R	None	Outlet	FCC, cTUVus, TUV-CB, Others by Request
PE7208B	1U	100-240V	16A	20A	NEMA6-20P	1x20A	7xIEC320 C13+1xIEC320 C19	None	Outlet	FCC, cTUVus, TUV-CB, Others by Request
PE8108A	1U	100-120V	12A	15A	NEMA5-15P	1x15A	8xNEMA5-15R	Yes	Outlet	FCC, cTUVus, TUV-CB, Others by Request
PE8108B	1U	100-240V	12A	15A	NEMA6-15P	1x15A	8xNEMA6-15R	Yes	Outlet	FCC, cTUVus, TUV-CB, Others by Request
PE8208A	1U	100-120V	16A	20A	NEMA5-20P	1x20A	8xNEMA5-20R	Yes	Outlet	FCC, cTUVus, TUV-CB, Others by Request
PE8208B	1U	100-240V	16A	20A	NEMA6-20P	1x20A	7xIEC320 C13+1xIEC320 C19	Yes	Outlet	FCC, cTUVus, TUV-CB, Others by Request

# ECO PDU

**PE5216 / PE5220s / PE5324 / PE5340s**  
**PE6216 / PE6324**  
**PE5324L / PE5340SL / PE6324L**



**PE5216/PE5220s**  
• 16/20 Outlets  
• 0U

**PE6216/PE6324**  
• 16/24 Outlets  
• 0U

**PE5324/PE5340s**  
• 24/40 Outlets  
• 0U

**PE5324L/PE5340SL/PE6324L**  
• 24/40 Outlets  
• 0U  
• Low profile dimension

## Power Distribution

- Space saving rack mount design with rear mounting
- IEC or NEMA outlet models
- 3 x 7-segment front panel LED shows Current / IP Address for PDU / Bank
- Remote users can monitor PDU/Bank status via web browser
- Safe shutdown support
- Separate power for the unit's own power and its power outlets – the user interface is still accessible even when an overload condition trips the devices' circuit breaker

## Remote Access

- \* Remote power control via TCP/IP and a built in 10/100 Ethernet port (PE6 Only)
- Network Protocols: TCP/IP, UDP, HTTP, HTTPS, SSL, SMTP, DHCP, NTP, DNS, auto sense, Ping
- eco PDU Power Management software – eco Sensors
- Supports SNMP Manager V1, V2 & V3

## Operation

- \* Remote power outlet control (On, Off, Power Cycle) by individual outlets (PE6 Only)
- \* Supports multiple power control methods – Wake on LAN, System After AC Back, Kill the Power (PE6 Only)
- \* Power-on sequencing – users can set the power-on sequence and delay time for each outlet to allow equipment to be powered on in the correct order (PE6 Only)
- \* Proactive Overload Protection (POP) automatically powers off outlets when current overloads to protect connected devices (PE6 Only)
- Easy setup and operation via browser-based user interface
- Multibrowser support (IE, Mozilla, Firefox, Chrome, Safari, Opera, Netscape)
- RTC support to keep the timer running during times of no power.
- Up to 8 user accounts and 1 administrator account.

## Management

- Power status measurement at the PDU/Bank level
- LED indicators for current and IP address at the PDU device and/or Bank levels
- Real-time aggregate current, voltage and power, and power dissipation displayed in a browser-based UI for monitoring at the PDU level (PE5216/PE5220s/PE6216) and at the bank level (PE5324/PE5324L/PE5340s/PE5340SL/PE6324/PE6324L)
- Environment monitoring – supports external temperature / humidity / differential pressure sensors for rack environment monitoring
- Current and voltage threshold setting
- Naming support for outlets
- \* User outlet access assignment on an outlet-by-outlet basis (PE6 Only)
- Event logging and syslog support
- Upgradeable firmware
- Multilanguage support: English, French, German, Italian, Japanese, Simplified Chinese, Spanish, Russian, Traditional Chinese

## Security

- Two-level password security
- Strong security features include strong password protection and advanced encryption technologies – 128 bit SSL
- Remote authentication support: RADIUS

## IEC System

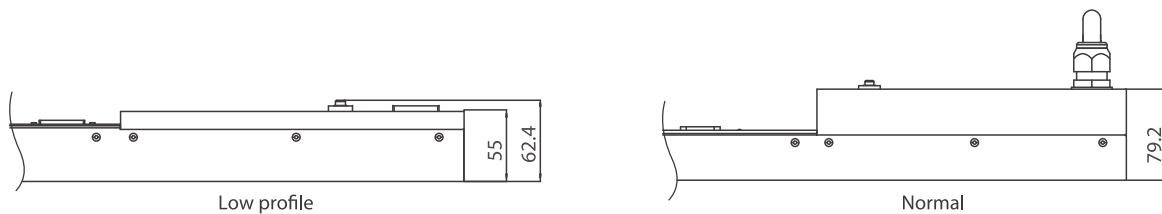
Model	Rack Space	Input Voltage	Derated AMP	Max AMP	Input Plug	# of Banks	Outlets	Outlet Control	Meter	Certification
PE5216G	0U	100-240V	16A	16A	IEC C20	1x16A	14xIEC320 C13+2xIEC320 C19	None	Bank x 1	CE, C-Tick, TUV-CB, GOST, Others by Request
PE5220sG	0U	100-240V	16A	16A	IEC C20	1x16A	20xIEC320 C13	None	Bank x 1	CE, TUV-CB, CE-LVD, Others by Request
PE5324G	0U	100-240V	32A	32A	IEC60309 32A	2x16A	21xIEC320 C13+3xIEC320 C19	None	Bank x 2	CE, C-Tick, GOST, Others by Request
PE5324LG*	0U	100-240V	32A	32A	IEC60309 32A	2x16A	21xIEC320 C13+3xIEC320 C19	None	Bank x 2	CE, CE-LVD, Others by Request
PE5340sG	0U	100-240V	32A	32A	IEC60309 32A	2x16A	40xIEC320 C13	None	Bank x 2	CE, TUV-CB, CE-LVD, Others by Request
PE5340SLG*	0U	100-240V	32A	32A	IEC60309 32A	2x16A	40xIEC320 C13	None	Bank x 2	CE, CE-LVD, Others by Request
PE6216G	0U	100-240V	16A	16A	IEC C20	1x16A	14xIEC320 C13+2xIEC320 C19	Yes	Bank x 1	CE, C-Tick, TUV-CB, GOST, Others by Request
PE6324G	0U	100-240V	32A	32A	IEC60309 32A	2x16A	21xIEC320 C13+3xIEC320 C19	Yes	Bank x 2	CE, CE-LVD, Others by Request
PE6324LG*	0U	100-240V	32A	32A	IEC60309 32A	2x16A	21xIEC320 C13+3xIEC320 C19	Yes	Bank x 2	CE, CE-LVD, Others by Request

\* Low profile dimension

## NEMA System

Model	Rack Space	Input Voltage	Derated AMP	Max AMP	Input Plug	# of Banks	Outlets	Outlet Control	Meter	Certification
PE5216A	0U	100-240V	16A	20A	NEMA5-20P	1x20A	14xNEMA5-15R+2xNEMA5-20R	None	Bank x 1	FCC, cTUVus, PSE, Others by Request
PE5216B	0U	100-240V	16A	20A	NEMA6-20P	1x20A	14xIEC320 C13+2xIEC320 C19	None	Bank x 1	FCC, cTUVus, PSE, Others by Request
PE5220sA	0U	100-120V	16A	20A	NEMA5-20P	1x20A	20xNEMA5-15R	None	Bank x 1	FCC, TUV-CB, Others by Request
PE5220sB	0U	100-240V	16A	20A	NEMA6-20P	1x20A	20xIEC320 C13	None	Bank x 1	FCC, TUV-CB, Others by Request
PE5324B	0U	100-240V	24A	30A	NEMA6-30P	2x15A	21xIEC320 C13+3xIEC320 C19	None	Bank x 2	FCC, cTUVus, PSE, Others by Request
PE5324LB*	0U	100-240V	24A	30A	NEMA6-30P	2x15A	21xIEC320 C13+3xIEC320 C19	None	Bank x 2	FCC, Others by Request
PE5340sB	0U	100-240V	24A	30A	NEMA6-30P	2x15A	40xIEC320 C13	None	Bank x 2	FCC, TUV-CB, Others by Request
PE5340SLB*	0U	100-240V	24A	30A	NEMA6-30P	2x15A	40xIEC320 C13	None	Bank x 2	FCC, Others by Request
PE6216A	0U	100-240V	16A	20A	NEMA5-20P	1x20A	14xNEMA5-15R+2xNEMA5-20R	Yes	Bank x 1	FCC, cTUVus, PSE, Others by Request
PE6216B	0U	100-240V	16A	20A	NEMA6-20P	1x20A	14xIEC320 C13+2xIEC320 C19	Yes	Bank x 1	FCC, cTUVus, PSE, Others by Request
PE6324B	0U	100-240V	24A	30A	NEMA6-30P	2x15A	21xIEC320 C13+3xIEC320 C19	Yes	Bank x 2	FCC, cTUVus, PSE, Others by Request
PE6324LB*	0U	100-240V	24A	30A	NEMA6-30P	2x15A	21xIEC320 C13+3xIEC320 C19	Yes	Bank x 2	FCC, Others by Request

\* Low profile dimension



# ECO PDU

**PE7214 / PE7216 / PE7324 / PE7328**  
**PE8216 / PE8324**  
**PE9216 / PE9222 / PE9324 / PE9330**



PE7214 • 14 Outlets • 0U	PE7328 • 28 Outlets • 0U	PE9216 • 16 Outlets • 0U	PE9330 • 30 Outlets • 0U
PE7216 • 16 Outlets • 0U	PE8216 • 16 Outlets • 0U	PE9222 • 22 Outlets • 0U	
PE7324 • 24 Outlets • 0U	PE8324 • 24 Outlets • 0U	PE9324 • 24 Outlets • 0U	

## Power Distribution

- Space saving rack mount design
- IEC or NEMA outlet models
- Remote users can monitor outlet status via web browser
- Safe shutdown support
- Separate power for the unit's own power and its power outlets – the user interface is still accessible even when an overload condition trips the devices' circuit breakers

## Remote Access

- Remote power control via TCP/IP and a built in 10/100 Ethernet port (PE8/PE9 Only)
- Network Interfaces: TCP/IP, PPP, UDP, HTTP, HTTPS, SSL, SMTP, DHCP, NTP, DNS, auto sense, Ping
- eco PDU Power Management software – eco Sensors
- Supports SNMP Manager V1, V2 & V3

## Operation

- Remote power outlet control (On, Off, Power Cycle) by individual outlets and outlet groups (PE7 non-switching) (PE8/PE9 Only)
- Supports multiple power control methods – Wake on LAN, System After AC Back, Kill the Power (PE8/PE9 Only)
- Power-on sequencing – users can set the power-on sequence and delay time for each outlet to allow equipment to be powered on in the correct order (PE8/PE9 Only)
- Easy setup and operation via browser-based user interface
- Multibrowser support (IE, Firefox, Chrome, Safari)
- RTC support to keep the timer running during times of no power
- Supports up to 8 user and 1 administrator accounts
- Critical load outlet – keeps power always on for critical load devices (PE9 only)

## Management

- Power status measurement at PDU and outlet levels
- Current, voltage, power dissipation and energy consumption displayed in a browser-based UI for monitoring at the outlet, group, PDU levels
- Environment monitoring – supports external temperature / temperature & humidity sensors for rack temperature and humidity monitoring
- Current, voltage, power dissipation, energy consumption, temperature and humidity threshold level setting
- Naming support for outlets and outlet groups
- User outlet access assignment on an outlet-by-outlet basis
- Event logging and syslog support
- Supports Management Information Base (MIB) files for SNMP
- Upgradeable firmware
- Multi-language support
- Proactive Overload Protection (POP) – automatically powers off outlets when current overloads to protect operating devices (PE8/PE9 only)
- *Supports Door Sensor*

## Security

- Two-level / Three-level password security
- Strong security features include strong password protection and advanced encryption technologies – 128 bit SSL
- Remote authentication support: RADIUS

**Note :** PE7 Outlet is always on.



## IEC System

Model	Rack Space	Input Voltage	Derated AMP	Max AMP	Input Plug	# of Banks	Outlets	Outlet Control	Meter	Certification
PE7214G	0U	100-240V	16A	16A	IEC C20	1x16A	12xIEC320 C13+2xIEC320 C19	None	Outlet	CE, CE-LVD, Others by Request
PE7216G	0U	100-240V	16A	16A	IEC C20	1x16A	14xIEC320 C13+2xIEC320 C19	None	Outlet	CE, CE-LVD, TUV-CB, Others by Request
PE7216G	0U	100-240V	16A	16A	IEC C20	1x16A	14xIEC320 C13+2xIEC320 C19	None	Outlet	CE, CE-LVD, TUV-CB, Others by Request
PE7328G	0U	100-240V	32A	32A	IEC60309 32A	2x16A	24xIEC320 C13+4xIEC320 C19	None	Outlet	CE, CE-LVD, TUV-CB, Others by Request
PE8216G	0U	100-240V	16A	16A	IEC C20	1x16A	14xIEC320 C13+2xIEC320 C19	Yes	Outlet	CE, CE-LVD, TUV-CB, Others by Request
PE8324G	0U	100-240V	32A	32A	IEC60309 32A	2x16A	21xIEC320 C13+3xIEC320 C19	Yes	Outlet	CE, CE-LVD, TUV-CB, Others by Request
PE9216G	0U	100-240V	16A	16A	IEC C20	1x16A	14xIEC320 C13+2xIEC320 C19	Mix	Outlet	CE, CE-LVD, TUV-CB, Others by Request
PE9222G	0U	100-240V	16A	16A	IEC C20	1x16A	19xIEC320 C13+3xIEC320 C19	Mix	Outlet	CE, CE-LVD, Others by Request
PE9324G	0U	100-240V	32A	32A	IEC60309 32A	2x16A	21xIEC320 C13+3xIEC320 C19	Mix	Outlet	CE, CE-LVD, TUV-CB, Others by Request
PE9330G	0U	100-240V	32A	32A	IEC60309 32A	2x16A	26xIEC320 C13+4xIEC320 C19	Mix	Outlet	CE, CE-LVD, TUV-CB, Others by Request

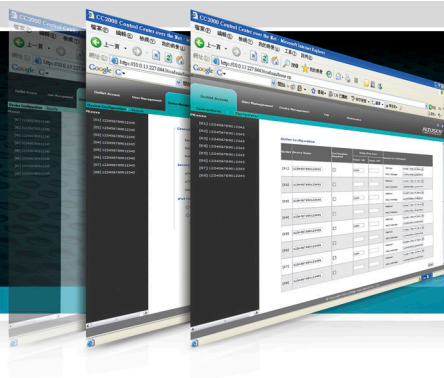
## NEMA System

Model	Rack Space	Input Voltage	Derated AMP	Max AMP	Input Plug	# of Banks	Outlets	Outlet Control	Meter	Certification
PE7214B	0U	100-240V	16A	20A	NEMA6-20P	1x20A	12xIEC320 C13+2xIEC320 C19	None	Outlet	FCC, Others by Request
PE7216B	0U	100-240V	16A	20A	NEMA6-20P	1x20A	14xIEC320 C13+2xIEC320 C19	None	Outlet	FCC, TUV-CB, Others by Request
PE7324B	0U	100-240V	24A	30A	NEMA6-30P	2x15A	21xIEC320 C13+3xIEC320 C19	None	Outlet	FCC, TUV-CB, Others by Request
PE7328B	0U	100-240V	24A	30A	NEMA6-30P	2x15A	24xIEC320 C13+4xIEC320 C19	None	Outlet	FCC, TUV-CB, Others by Request
PE8216B	0U	100-240V	16A	20A	NEMA6-20P	1x20A	14xIEC320 C13+2xIEC320 C19	Yes	Outlet	FCC, TUV-CB, Others by Request
PE8216B	0U	100-240V	16A	20A	NEMA6-20P	1x20A	14xIEC320 C13+2xIEC320 C19	Yes	Outlet	FCC, TUV-CB, Others by Request
PE9216B	0U	100-240V	16A	20A	NEMA6-20P	1x20A	14xIEC320 C13+2xIEC320 C19	Mix	Outlet	FCC, TUV-CB, Others by Request
PE9222B	0U	100-240V	16A	20A	NEMA6-20P	1x20A	19xIEC320 C13+3xIEC320 C19	Mix	Outlet	FCC, Others by Request
PE9324B	0U	100-240V	24A	30A	NEMA6-30P	2x15A	21xIEC320 C13+3xIEC320 C19	Mix	Outlet	FCC, TUV-CB, Others by Request
PE9330B	0U	100-240V	24A	30A	NEMA6-30P	2x15A	26xIEC320 C13+4xIEC320 C19	Mix	Outlet	FCC, TUV-CB, Others by Request



## Energy & DCIM Management Software

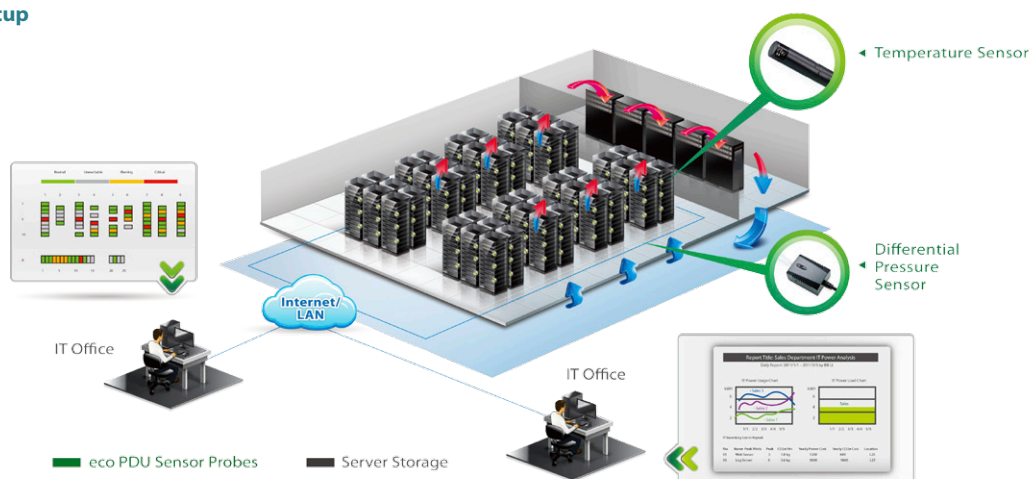
## ECO SENSORS



eco Sensors software has been developed to work with NRGence™ power distribution units (PDUs) to effectively increase the efficiency of data center power usage. With the use of dynamic Rack Cooling Index (RCI) and Return Temperature Index (RTI) by zone, eco Sensors software, in conjunction with sensor-enabled eco PDUs, gives you the means to assess, diagnose and estimate how much energy you can save. Following the suggestions generated by the sensor-enabled system allows you to optimize energy usage to save energy without harming your IT equipment's reliability.

- Automatic discovery of all PE devices within the same intranet
  - Remote real-time power measurement and monitoring
  - PDU level current / voltage / power dissipation / power consumption
  - Outlet ON / OFF / Recycle status
  - Remote real-time power outlet management\*
  - Power outlet ON / OFF / Cycle switching by outlet
  - User-defined outlet level delays for sequential power up
  - Current / Voltage / Power Dissipation / Power Consumption threshold level setting
  - User access assignment for every outlet
  - Name assignment to individual outlets
  - Remote real-time environment sensor monitoring
  - Temperature / Temperature + Humidity readings / Temperature + Differential Pressure
  - Temperature and Humidity threshold level setting
  - Plotting/Monitoring of all PE devices
  - Add data center server racks
  - Add PE devices for each server rack
  - Manage device/device outlet status for each plot
  - Offers essential data center indices including RCI (Rack Cooling Index), RTI (Return Temperature Index), RHI (Rack Humidity Index), RPI (Rack Pressure Index), RAI (Rack Airflow Index)
  - Power analysis report for optimizing data center energy management – including power usage, power load, power cost, CO2 cost, power capacity and trend
  - Exceed threshold alert through SMTP and System log
  - 1024 line event log
  - System log provision
  - Two-level password security
- \* Not all functions are supported by all NRGence™ PDUs. Please visit [www.aten.com](http://www.aten.com) for more details.

### Setup
















### Hardware Requirements

Operating System	Windows XP / Windows Server 2003 and later
CPU	2.0 GHz Dual Core
Display	Larger than 1024x768
Memory	2GB
Disk	500GB
Network	10/100/1000 Mbp Ethernet

### System Parameters

Max PDU number	2000
Data Center Layout	45x30, 72x48, 90x60
Max Rack Number	2000
Max Zone Number	100
Power Report Data	3 years
Real Time Dashboard Data	24 hours

## Optional Accessories

Type	Part No.	Description	Images
Environment Sensors	EA1140	Temperature	
	EA1240	Temperature / Humidity	
	EA1340	Differential Pressure / Temperature	
Door Sensors	EA1440	Photo Door Sensor	
	EA1441	Inductive Proximity Door Sensor	
	EA1442	Reed Door Sensor	
Cable Holders	2X-EA07	Lok-U-Plug Cable Holder (10 pcs per pack)	
	2X-EA08	Lok-U-Plug Installation Tool (4 pcs per pack)	
Mounting Kits	2X-015G	Double Mount Rail	
	2X-016G	Slide Rail Kit	
	2X-017G	Button Mount Kit	
	2X-018G	Side Panel Mount Kit	
	2X-019G	Side Panel Double Mount Kit	



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