

# Eaton 9135 UPS



## Product snapshot

**Power rating:** 5 kVA/3.5 kW; 6 kVA/4.2 kW

**Voltage:** 208V or 230V nominal, 200–250 Vac range

**Frequency:** 50/60 Hz (auto-sensing)

**Configuration:** Rackmount (3U) or tower

## Features

- Provides clean, continuous power to protect critical equipment and applications from power-related downtime, data loss and corruption, and process interruption
- Saves valuable rack space by delivering up to 6000 VA/4200W in only 3U
- Provides deployment versatility by offering rack and tower installation options with rail kits and pedestal provided
- Increases availability with hot-swappable batteries and power module and an optional external maintenance bypass
- Offers extended battery runtime options to power essential systems for more than an hour during an outage
- Simplifies UPS monitoring and management with a bright LCD user interface, intuitive LanSafe® software and optional eNotify service from Eaton®
- Provides investment protection with a two-year limited warranty, an extended warranty, Flex™ and PowerTrust™ service contracts, and a \$250,000 load protection guarantee (US and Canada)

If you operate a facility or data center, you know the reality well: utility power voltages can vary significantly from their specified value. Electricity from local utilities is typically plagued with surges, sags, electrical noise, harmonics, load fluctuations, outages and other interferences. These anomalies can corrupt data, cause process interruptions, and damage or destroy connected equipment.

The new **Eaton 9135 UPS** from our Powerware® series resolves these power problems and supplies continuous, conditioned power. You get clean power for valuable IT and networking equipment, battery backup to gracefully handle utility outages, and on-demand visibility into UPS status from anywhere.

The 9135 delivers superior power protection for medium-density data centers, banking and security systems, manufacturing process control, retail point-of-sale systems and telecommunications/VoIP equipment. Combining premium performance with innovative features, the 9135 is an exceptional UPS in its class.

## Get more usable power for every utility dollar.

The 9135 provides exactly the level of power protection needed under the conditions of the moment—optimizing for both efficiency and performance. When this optional feature is activated, the UPS monitors incoming power and operates in high-efficiency mode unless power conditions warrant an automatic switch to double-conversion mode.

With this technology, the UPS can operate at up to 97 percent efficiency under normal conditions—and up to 91 percent when poor power conditions require the UPS to work harder to deliver clean power. High efficiency leads to a greener IT infrastructure—one that uses less energy and dissipates less heat, which in turn reduces power and cooling costs.

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### Double conversion design offers superior reliability and protection.

The 9135 continuously conditions and controls AC output during normal operating conditions—regulating both voltage and frequency. Even when presented with the most severe power problems, UPS output remains within two percent of nominal voltage.

Unlike other commercially-available UPS topologies, a double conversion design fully protects connected equipment from all nine of the most common power problems: outages, sags, surges, spikes, brown-outs, line noise, frequency variation, switching transients and harmonic distortion.

With a wide range of acceptable input voltages, this UPS does not depend on batteries to smooth out power fluctuations. Batteries are conserved for those times when utility power is highly unstable or completely out. If an outage occurs, the 9135 transfers to battery with no break in power, making this an ideal UPS for equipment sensitive to voltage fluctuations.

### High-density packaging provides space-saving flexibility.

The 9135 increases power density, delivering up to 6000 VA/4200W in only 3U of rack space. Rail kits and tower stands are included with every 9135 for flexible installation.

This UPS is even more user-friendly than the Eaton 9125 UPS—and offers greater distribution capabilities, with four L6-30 outlets (and IEC options) to power multiple pieces of equipment without a PDU.

You can combine the 9135 with an Eaton enclosure PDU (ePDU™) to power an entire rack of equipment from a single power cord input. ePDU outlets can be monitored, switched, sequenced and managed individually, providing maximum flexibility in distributing power from the 9135.

### Service the UPS without interrupting power to downstream systems.

The 9135 features hot-swappable components and an automatic internal bypass. The UPS automatically switches to an alternate power path within the unit if it senses a trouble condition with an internal component. Users can even remove and replace the battery and power modules without powering down the UPS or interrupting power to loads.

With an optional external maintenance bypass—a PowerPass® power distribution module (PPDM) that occupies only 3U of rack space—you can even remove and upgrade or replace the entire UPS without disrupting power to critical equipment.

The 9135 PPDM integrates a step-down transformer that enables the UPS to be connected to energy-saving 208V or 240V input voltage, while providing appropriate output voltages for connected equipment.

With the growth in servers with dual or triple cords, users will also appreciate the extra receptacles that come with the PPDM for added plug-and-play flexibility.

### Extend runtime for hours during power outages.

During a power outage, internal batteries in the 9135 keep loads running long enough to gracefully shut down systems. Add up to four external battery modules (EBMs) to deliver more than an hour of extended runtime at full load—or hours under lighter loads. Each EBM occupies only 3U of rack space. These battery modules are hot-swappable and can be replaced at any time without interrupting UPS operation and load protection.

### Maximize battery backup time for critical systems.

For IEC versions of the 9135, LanSafe power management software enables independent control of load segments. With this feature, you can manage scheduled shutdowns and sequential startups of protected loads. During a power outage, you could shut down power to less essential loads to extend battery backup time for more critical devices.

When the load segments feature is used with optional ConnectUPS connectivity cards, users can remotely re-boot locked-up network equipment. Simply access the ConnectUPS card over the network, and toggle the password-protected load segment controller to get your network back online.

### LanSafe answers administrators' key questions with an intuitive visual display.

Is input voltage within the acceptable range?

If the power went out right now, how long could the UPS run on battery power?

Is the UPS running on battery power right now?

Are there any active events I need to know about?

Is the UPS online or in bypass mode?

Is output voltage within acceptable limits?

What percent of UPS capacity is being used right now?

Is the battery being charged or discharged?



The 9135 fits easily into a rack, using only 3U of space and leaving plenty of room for other equipment, such as EBMs or PPDMs.

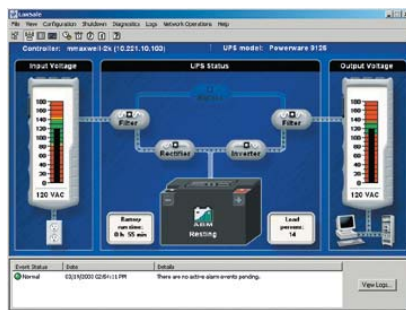


Even non-technical users can easily replace the hot-swappable batteries or power modules without interrupting power to loads.



Independently control groups of output receptacles.

(IEC versions only)



### See UPS status at a glance.

An intuitive LCD interface provides detailed information and menu-driven functions for UPS management. The entire display rotates for the best orientation, whether the UPS is used vertically as a tower unit or horizontally in a rack.



The blue, backlit LCD screen displays four lines of alphanumeric information.

LEDs clearly display UPS status:

- Load Protected
- Downgraded Operation
- Load Not Protected

Navigate the display with buttons to scroll up, scroll down, select or escape.

UPS ON/OFF button

### Monitor and manage the UPS from anywhere.

Connectivity options are available to suit nearly any communication requirement. The standard unit is equipped with native USB and RS-232 serial communication ports and a DB-9 dry contact port. You can customize your UPS by adding X-Slot® interface options for other types of communications, such as:



- A direct connection to the Ethernet network and the Internet, with the ability to monitor and manage the UPS from a standard Web browser
- Serial connection for monitoring and graceful shutdown of up to five servers running various operations systems
- Serial connection for simple alarm notification via isolated contacts to signal a change of state in UPS operation (typical in IBM® eServer® iSeries applications)

1. Optional communication card slot for Web/SNMP interface
2. USB port
3. DB 9 serial port
4. DB 9 with five dry output contacts
5. Remote power off



9135 Ethernet cards

The 9135 offers the high-end features you need—such as double conversion design, extended battery runtime options and remote monitoring—yet it is easy for even non-technical users to manage.

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### **Unify the management of UPS functions and connections.**

The 9135 comes complete with the Eaton Software Suite CD, including SNMP-compatible LanSafe power management software. LanSafe provides control and visibility over multiple UPSs, using an intuitive, graphical interface.

From a central vantage point, you can perform all requisite management processes for power protection, such as establishing a prioritized shutdown of network devices and client/server applications, testing all networked UPSs from one node, analyzing trends and network conditions, and staying informed of power problems via email broadcasts to mobile phones or pagers.

The Software Suite CD also includes multimedia demonstrations of various other software packages that Eaton offers—and a free 30-day trial for you to explore PowerVision® software for UPS performance monitoring and analysis as well as facility and data center management.

### **Versatility for your power protection strategy**

The 9135 offers the versatility you need for resilient, adaptable power protection. For example, its high-density design frees more rack space for IT equipment. A single chassis can be used as a rack or tower unit; the display rotates to match. A choice of operating modes offers maximum protection or maximum energy efficiency. With a choice of output receptacle combinations, it powers more equipment without requiring a PDU. And it enables you to swap out batteries and the power module—even the whole UPS—without disrupting power to loads. *That's versatility.*

### **From Eaton, your trusted ally for power quality**

Eaton is a technology leader in power protection, power distribution and infrastructure solutions, with the award-winning Powerware series of products, 350+ customer support engineers in North America and one of the largest patent portfolios in the industry.

For more than 40 years—from the first commercial UPS to the latest high-efficiency, high-density models—our power protection systems have set the standard and earned industry acclaim. Tens of thousands of Eaton UPSs are in use around the globe, protecting critical systems in every imaginable market, from medical to military, financial to aerospace, industrial to telecom.



# Technical specifications

## General

User interface	Graphical LCD with blue backlight and text in English, French, German, Portuguese, Italian and Spanish
LEDs	Four status-indicating LEDs
Topology	Double-conversion
Diagnostics	Full system self-test
UPS bypass	Automatic bypass
Dimensions	See model selection guide
Rail kit	Included with all units

## Electrical input

Nominal voltage	208V, 230V 200V, 208V, 220V, 230V, 240V and 250V user-selectable
Voltage range	156–280 Vac (output PF 0.7)
Power draw of UPS (full load)	5000 VA: 24.0A @208V 6000 VA: 28.8A @208V
Recommended input breaker rating	35A
Frequency	50/60 Hz autoselect
Frequency range	40–70 Hz

## Electrical output

Power factor	0.7
On utility voltage regulation	±2% of nominal
On battery voltage regulation	±2% of nominal
Efficiency	>97% in high-efficiency mode; 91% in normal mode
Frequency regulation	±3% Hz online
Load crest factor	3 to 1

## Battery

Internal battery type	5.5 Ah, sealed, lead-acid; maintenance free
External battery modules	Up to four per 9135, rail kits included for rack mounting
EBM battery type	5.5 Ah, sealed, lead-acid; maintenance free
Battery runtime	Four (4) minutes with internal batteries @100% load (0.7 PF) For additional details, see battery runtime chart
Battery recharge time	Six (6) hours to recover 90 percent of nominal backup time after 100 percent RCD load discharge
Battery replacement	Hot-swappable internal and external batteries
Start-on-battery	Allows start of UPS without utility input

## Communications

Serial port	RS-232 as standard, RS-232 cable provided
USB port	As standard (HID)
Relay output	DB-9 Dry Contact—common alarm as standard
Communications slot	Optional communication slots (Mini X-Slot)
Software	LanSafe UPS monitoring and management software

## Environmental

Safety markings	208V: UL, NOM, NYCE 230V: CE, C-Tick, UL, GS
EMC markings	208/230V: FCC-A, VCCI-A, BSMI-A, C-Tick, CE Compliance
Audible noise	Max 46 dB
Ambient operating	0°C (32°F) to +40°C (104°F)
Storage temperature	-20°C (-4°F) to +40°C (104°F) with batteries and -25°C (-13°F) to +55°C (131°F) without batteries
Relative humidity	5–90% non-condensing

## Heat dissipation (BTUs/hour)

Operating mode	Efficiency	5 kVA	6 kVA
Normal	91%	1150	1350
Battery	86%	1650	1960
High efficiency	97%	370	450

## Back panel configurations

Choose from a variety of output receptacle combinations.



Hardwired models—230V



Hardwired models—208V



Power-corded models—208V

Back panel configurations vary by model type.