

# Eaton 5130 UPS



**High-density power protection for critical loads from 1250 to 3000 VA—delivering more performance in less space at a value price**

## Product snapshot

<b>Power rating:</b>	1250 VA/1150W 1750 VA/1600W 2500 VA/2250W 3000 VA (2880 VA)/2700W
<b>Voltage</b>	120 and 230 Vac, user-selectable voltages
<b>Frequency:</b>	50/60 Hz (auto-sensing)
<b>Topology:</b>	Line interactive, 0.9 power factor
<b>Configuration:</b>	Rack or tower; pedestal and/or rail kit provided

## Features

- Protects connected equipment from five of the most common power anomalies: failures, surges, sags, under-voltage and over-voltage
- Provides more real wattage in less space with a 0.9 power factor—to protect more equipment and leave more room to expand IT systems
- Offers the choice of rackmount or tower installation—with space-saving 2U or 3U reduced-depth packages, including internal batteries
- Enables prioritized shutdown of non-essential equipment during outages to maximize battery runtime for critical devices—with load segmentation
- Maximizes availability with extended battery runtime options, hot-swappable batteries, optional maintenance bypass, remote monitoring and power management software
- \$150,000 load protection guarantee (US and Canada)

## Investment protection

- Two-year limited factory warranty
- Extended warranty coverage to 3 years (warranty+1) or 5 years (warranty+3) with advanced exchange to expedite depot repair
- Eaton Flex™ service plan includes on-site service for the start-up and corrective maintenance of your UPS and batteries
- Eaton PowerTrust™ service plan includes all of the benefits of the Eaton Flex plan with the added security of annual preventive maintenance for your UPS and batteries



*Powering Business Worldwide*

## Maximum availability

- Load segments allow for selective load shedding during outages
- External battery modules for long battery backup runtimes
- Hot-swappable batteries
- UPS start-up on battery power
- Hot-swap maintenance bypass to disconnect the UPS without disrupting loads

A one-stop solution provider, Eaton® provides world-class power protection, power management and distribution products including uninterruptible power systems (UPSs), DC power systems, software and services. Our Powerware® series has been recognized by end-users and industry experts for delivering the highest customer value and satisfaction, as well as for demonstrating insight into customer needs.

The newest Powerware series addition, the **Eaton 5130 UPS**, combines new resources from our November 2007 acquisition of MGE Office Protection Systems™ with the strength of Powerware. This new UPS offers more power in the same or smaller footprint than previous-generation equivalents, plus new performance features.

## Valued protection at a value price—when you need manageability on a budget

The 5130 resolves outages, sags, surges, under-voltage and over-voltage conditions—and supplies clean, conditioned power to all connected equipment. This UPS is particularly well suited for protecting:

- **IT and networking equipment**, such as routers, switches, servers, wireless devices, storage systems, security systems and PC/workstation clusters
- **Telecom equipment**, such as PBXs, VoIP components and EDGE/3G/WiMAX wireless networking equipment

The 5130 is value-priced, but it delivers features you would normally expect to find in much higher-priced systems, such as: load segment control, hot-swappable battery modules, long battery runtime options, multiple communication options, high output power factor and high power density—all in a sleek, modern package.

## More power in less space



3U rackmount

**High power density.** Compared to earlier generation technologies, the 5130 powers more servers in less space, delivering up to 3000 VA in only 2U—including internal batteries. A 3U model is available for short-depth racks, commonly used for telecom equipment. High power density frees up rack space for more IT equipment, future expansion, or simply to have more room for airflow and heat dissipation.

**High 0.9 power factor.** Even though it occupies minimal rack space, the 5130 delivers significantly more real output wattage—more real power to your protected load. The difference is a very high 0.9 power factor, a measure of apparent power versus real power. By delivering more real output power, the 5130 powers more servers than another UPS of equivalent VA rating with a lower power factor.

**Maximum deployment flexibility.** The 5130 can be deployed as a tower unit or in a rack; pedestal and rail kits are included at no extra charge. This UPS also works with a FlexPDU (power distribution unit) from our MGE Office Protection Systems series to flexibly distribute power. The PDU enables quick and easy connection of varied load types without help from an electrician—great for responding to frequent moves, adds and changes.

Tower or 2U rackmount



## Maximum availability for critical systems

**More battery runtime for important systems.** If the power goes out, you want to reserve available battery runtime for the most essential loads. With the 5130's load segmentation feature, you can independently control output receptacles. You can shut down power to less essential loads to extend available runtime for more critical devices.



Load segmentation

The load segmentation feature can also be used to remotely re-boot locked-up network equipment or manage scheduled shutdowns and sequential startups of connected equipment.

**Battery runtime for minutes or hours.** During a power outage, internal batteries in the 5130 keep loads running for up to 16 minutes (depending on load), long enough to gracefully shut down systems. You can add more runtime with up to four external battery modules to run systems for hours if necessary. Each external battery module occupies only 2U for most models (3U for reduced depth, 3000 VA models)—and provides more than an hour of runtime for a fully loaded UPS.

**Service without downtime.** With hot-swappable batteries, one person working alone can replace a battery module without disrupting data center operations or power to protected equipment. With an optional, multi-mount hot-swap maintenance bypass module from our MGE Office Protection Systems series, you can even remove and replace the entire UPS without powering down connected loads.

## Visibility and control from anywhere

**Local UPS status at a glance.** LEDs on the front panel of the 5130 give you a quick read of UPS status. Audible indicators alert you to abnormal conditions.

Are internal batteries weak or low? Is there a site wiring fault? How much load is the UPS supporting, relative to its capacity? Is it at risk of overload? You get up-to-the-minute answers to these and more critical questions.

**Choice of communication options.** You would expect UPSs in this class to have one slot for a serial communications card, but the new 5130 has two built-in serial ports (one USB and one RS-232) plus an extra slot for another communication card to support Web or SNMP. Connectivity options are available to suit nearly any communication requirement.

**Enhanced monitoring.** With new card options, the UPS can communicate directly with network/building management systems, environmental monitors, relay contact devices, multiple servers and other UPSs—in a variety of networking environments, including the Web.



Front panel LEDs

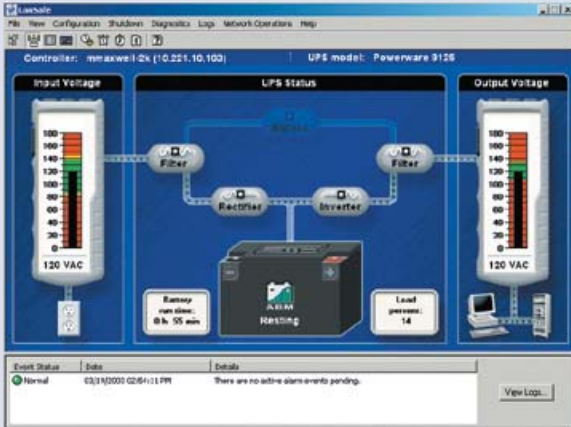


Communication cards

### Control and visibility over UPS status and operation

- LEDs and audible alarms for up-to-the-minute status
- Multiple options for industry-standard communications
- LanSafe software included free of charge
- Direct monitoring via existing management systems and LANs

## Unified management for power protection and more



**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 output voltage within acceptable limits?

What percent of UPS capacity is being used right now?

Is the battery being charged or discharged?

The 5130 comes complete with the Eaton Software Suite CD, including SNMP-compatible power management software. LanSafe® provides control and visibility over multiple UPSs, using an intuitive, graphical interface. From a central vantage point anywhere within the reach of a network connection, you can:

- Establish prioritized shutdown of network devices and client/server applications
- Test all network-connected UPSs from one node
- Analyze trends and power infrastructure conditions
- Stay informed of power problems via email broadcasts to mobile phones or pagers
- Power off an entire UPS and its loads in an emergency

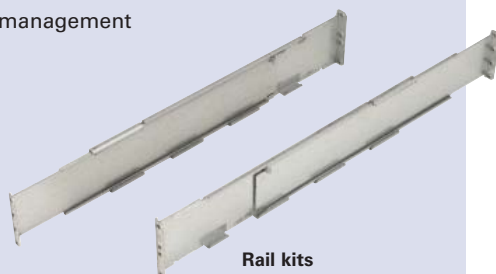
The software suite CD also includes multimedia demonstrations of various other software packages Eaton offers—and a free 30-day trial for you to explore PowerVision® software for UPS performance monitoring/analysis and facility/data center management.

### Low total cost of ownership

- Line-interactive topology for best price to performance ratio
- More real output power for dollar spent
- Pedestal and rail kits included at no extra charge
- UPS monitoring and management software included



Tower pedestals



Rail kits

## From Eaton, your trusted ally for power quality

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The 5130 is an excellent choice for any application that calls for full-featured power protection in a small package at a budget-conscious price.

Representing more than 40 years of R&D excellence, the new 5130 delivers flexibility—flexibility to meet your unique needs so you can power through any disruption. Eaton will be there with you for the long term with premium warranty coverage and expert technical support.

To find out more, visit our Web site at [www.powerware.com/5130](http://www.powerware.com/5130), or contact us at 1.800.753.9433.



## Features

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- The 2U model is optimized for rack mounting but is easily deployed as a tower with a provided pedestal. The 3U unit is optimized for tower deployment or short-depth racks.
- With the standard load segmentation, you can independently control groups of output receptacles to selectively shed loads during an outage, remotely reboot systems or manage sequential start-ups.
- An optional maintenance bypass module enables the entire UPS to be serviced or replaced without interrupting power to loads.
- Optional external battery modules extend backup runtime up to hours during power outages.
- The FlexPDU adds more plug-and-play flexibility to free-standing or rack mounted UPSs—the right connections just where you need them.

## Communications

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- A standard communication slot accepts your choice of interfaces for Web, SNMP, Modbus or serial connectivity—to satisfy most any communications need.
- Connect directly to the Ethernet network and the Internet to monitor and manage the UPS with a standard Web browser.
- Monitor power conditions in real time through your existing facilities or building management system.
- Monitor and gracefully shut down up to five servers running various operating systems.
- Receive alarm notifications from the UPS, environmental monitoring devices or security systems.

# Technical specifications

## General

LEDs	13 status-indicating LEDs
Topology	Line interactive
Diagnostics	Full system self-test at power up
Transfer time	1–4 ms typical
ROO/RPO	Rear deck emergency stop connector (for remote on/off and power off)
Rail kit/tower stand	Included with all units

## Electrical input

Nominal voltage	120/230 Vac
Voltage range*	120V: 89–151 Vac 230V: 160–294V
Frequency	50/60 Hz
Frequency range	47–70 Hz for 50 Hz operation 56.5–70 Hz for 60 Hz operation
Power draw of UPS (full load)	1250: 10.4A @120V, 5.4A @230V 1750: 14.6A @120V, 7.6A @230V 2500: 20.8A @120V, 10.9A @230V 3000: 25.4A @120V, 14.4 @ 208, 13.0A @230V

## Electrical output

Power factor	0.9
On utility voltage regulation	120V: 102–132 Vac 230V: 184–265 Vac
On battery voltage regulation	-10%, +6% of nominal
Efficiency	Normal or line mode: >94% On battery: 70% (1250–1750 VA), 75% (2500–3000 VA)
Frequency regulation	0.1 Hz
Over current protection	Electronic current limit
Load crest factor	3:1
Load segments	Two individually controlled output receptacles

## Battery

Internal battery type	1250/2500 VA: 12V/7.2 Ah; sealed, lead-acid; maintenance free 1750/3000 VA: 12V/9 Ah; sealed, lead-acid; maintenance free
EBM battery type	12V/9 Ah
Battery runtime	1250 VA: 5 min w/internal batteries @100% load (0.9 PF) 1750 VA: 3.5 min w/internal batteries @100% load (0.9 PF) 2500–3000 VA: 3 min w/internal batteries @100% load (0.9 PF)
Battery replacement	Hot-swappable internal batteries
Start-on-battery	Allows start of UPS without utility input

## Communications

Serial port	RS-232 (RJ45) ports
USB port	As standard (HID)
Optional communications slots	ConnectUPS-MS network management card and ModBus
Cables	RS-232 and USB 6-foot communications cables included
Power management software	Eaton Software Suite CD-ROM (bundled with UPS)

## Environmental

Safety markings	120V: UL; cUL 230V: C-Tick; CE, TUV, cUL, UL
Safety conformance	120V: UL 1778; UL497A; cUL (CAN/CSA C22.2, No. 107.1) 230V: UL1778, UL 497A (data line only); cUL (CAN/CSA C22.2, No. 107.1); EN 50091-1-1 and IEC 60950
EMC compliance	120V: FCC Part 15 subpart B Class A 230V: EN 50091-2. FCC Part 15 subpart J Class A
Operating temperature	1250 VA: 0°C (32°F) to +40°C (104°F) 1750–3000 VA: 0°C (32°F) to +35°C (95°F)
Storage temperature	-15°C (5°F) to +50°C (122°F)
Relative humidity	20–95% non-condensing
Surge suppression	ANSI C62.41 Category A (formerly IEEE 587)
Audible noise	Max 45 dBA
Altitude	Up to 10,000 ft (3000M) without de-rating

## Heat dissipation table (battery fully charged)

5130 model	Line mode, BTUs/hr	Battery mode, BTUs/hr
1250 VA	250	1,682
1750 VA	348	2,340
2500 VA	490	2,559
3000 VA	588	3,071

\* The high and low thresholds can be user adjusted using the downloadable UPS Configuration tool.

## RACK/TOWER MODELS

Catalog number	Style number	Rating (VA/Watts)	Input connection	Output receptacles <sup>3</sup>	Dimensions H x W x D, in (mm)	Weight, lb (kg)
<b>North American Rack/Tower Models<sup>1</sup>: 120V, 50/60 Hz</b>						
PW5130L1250-XL2U	103006582-6591	1250/1150	5-15P	(6) 5-15R	3.4 x 17.4 x 20 (86.2 x 441 x 509)	53.6 (24.3)
PW5130L1750-XL2U	103006583-6591	1750/1600	5-20P	(6) 5-20R	3.4 x 17.4 x 20 (86.2 x 441 x 509)	58.6 (26.6)
PW5130L2500-XL2U	103006584-6591	2500/2250	L5-30P	(1) L5-30R, (6) 5-20R <sup>4</sup>	3.4 x 17.4 x 25 (86.2 x 441 x 634)	74.5 (33.8)
PW5130L3000-XL2U	103006585-6591	2880/2700	L5-30P	(1) L5-30R, (6) 5-20R <sup>4</sup>	3.4 x 17.4 x 25 (86.2 x 441 x 634)	74.5 (33.8)
PW5130L3000-XL3U	103006586-6591	2880/2700	L5-30P	(1) L5-30R, (6) 5-20R <sup>4</sup>	5.1 x 17.4 x 19.1 (130.7 x 441 x 484)	75.6 (34.3)
<b>Global Rack/Tower Models: 208V, 50/60 Hz</b>						
PW5130G3000-XL2U	103006595-6591	3000/2700	L6-20P	(2) L6-20R, (1) L6-30R	3.4 x 17.4 x 25 (86.2 x 441 x 634)	75.6 (34.3)
<b>International Rack/Tower Models<sup>2</sup>: 230V, 50/60 Hz</b>						
PW5130i1250-XL2U	103006590-6591	1250/1150	IEC C14-10A	(8) IEC-C13-10A	3.4 x 17.4 x 20 (86.2 x 441 x 509)	53.6 (24.3)
PW5130i1750-XL2U	103006591-6591	1750/1600	IEC C14-10A	(8) IEC-C13-10A	3.4 x 17.4 x 20 (86.2 x 441 x 509)	58.6 (26.6)
PW5130i2500-XL2U	103006592-6591	2500/2250	IEC C20-16A	(1) IEC-C19 16A, (8) IEC-C13 10A	3.4 x 17.4 x 25 (86.2 x 441 x 634)	74.5 (33.8)
PW5130i3000-XL2U	103006593-6591	3000/2700	IEC C20-16A	(1) IEC-C19 16A, (8) IEC-C13 10A	3.4 x 17.4 x 25 (86.2 x 441 x 634)	74.5 (33.8)
PW5130i3000-XL3U	103006594-6591	3000/2700	IEC C20-16A	(1) IEC-C19 16A, (8) IEC-C13 10A	5.1 x 17.4 x 19.1 (130.7 x 441 x 484)	75.6 (34.3)
<b>Rack/Tower Extended Battery Modules</b>						
PW5130N1750-EBM2U	103006587-6591	NA	NA	NA	3.4 x 17.4 x 20 (86.2 x 441 x 509)	67.0 (30.4)
PW5130N3000-EBM2U	103006589-6591	NA	NA	NA	3.4 x 17.4 x 25 (86.2 x 441 x 634)	91.9 (41.7)
PW5130N3000-EBM3U	103006588-6591	NA	NA	NA	5.1 x 17.4 x 19.1 (130.7 x 441 x 484)	91.9 (41.7)

1. 120V models are user adjustable to 80-153V range user.

2. 230V models are adjustable to 150-294V range.

3. All models are equipped with (2) load segments (programmable outlets).

4. 5-20R can fit both 5-15P and 5-20P.

## BATTERY BACKUP TIMES (IN MINUTES)\*

### Rack/Tower Models

Load (VA/Watts)	Internal batteries	+1 EBM	+2 EBMs	+3 EBMs	+4 EBMs
<b>PW5130L1250-XL2U / PW5130i1250-XL2U</b>					
125/115	119	430	741	1052	1363
313/288	32	150	267	384	502
625/575	15	58	100	143	185
938/863	6	42	77	113	148
1250/1150	5	29	54	79	104
<b>PW5130L1750-XL2U / PW5130i1750-XL2U</b>					
175/160	80	245	410	575	740
438/400	24	96	168	240	312
875/800	9	36	62	89	115
1313/1200	6	24	42	60	79
1750/1600	3	16	28	41	53
<b>PW5130L2500-XL2U / PW5130i2500-XL2U</b>					
250/225	77	300	410	780	1064
625/563	28	122	207	309	412
1250/1125	11	55	100	150	206
2153/1938	6	31	59	90	120
2500/2250	3	23	42	63	85
<b>PW5130L3000-XL2U / XL3U / PW5130i3000-XL2U / XL3U / PW5130G3000-XL2U</b>					
300/270	70	242	448	634	820
750/675	24	105	180	255	330
1500/1350	10	44	73	101	130
2250/2025	5	25	47	69	91
3000/2700	3	17	32	47	62

\*Battery backup times are approximate and may vary with equipment, configuration, battery age, temperature, etc.

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Denmark: 45.3686.7910  
Finland: 358.94.52.661  
France: 33.1.6012.7400  
Germany: 49.0.7841.604.0  
Italy: 39.02.66.04.05.40  
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Sweden: 46.8.598.940.00  
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