YHI ENERGY

UPS

UNINTERRUPTIBLE POWER SUPPLY

ENTRY LEVEL UPS CATALOGUE

9 Common Power Problems

THAT CAN HARM YOUR COMPUTERS AND CORRUPT YOUR DATA

1
Power Failure
A total loss of utility power

2
Power Sag
Short- term low voltage

3
Power Surge
(Spike) short-term high voltage above 110% of nominal power

4
Under-voltage
(Brownout) reduced line voltage for extended periods of a few minutes to a few days

5
Over-voltage
Increased line voltage for extended period of a few minutes to a few days

6
Line Noise High
High frequency waveform caused by RFI or EMI interference

7
Frequency Variation
A change in frequency stability

8
Switching Transient
Instantaneous undervoltage (notch) in the range of nano-seconds

9
Harmonic Distortion
Distortion of the normal waveform generally transmitted by nonlinear loads

Series 3

Essential Solutions: Protection from three problems

Series 5

Intermediate Solutions: Protection from five problems

Series 9

Complete Solutions: Protection from all nine problems

Eaton Series 3
Single-phase UPS

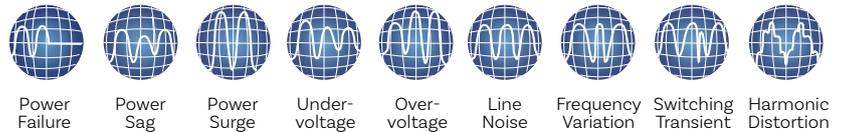Power Failure · Power Sag · Power Surge

Series 3 UPSs primarily protect against three of the nine most common power problems. This basic, cost-effective protection is necessary in order to prevent damage such as data loss, file corruption, flickering lights, hardware damage, and equipment shutoff. For example, if your utility fails, you could lose all of your work-in-progress. Series 3 UPSs offer a degree of protection against the remaining power problems and are most commonly used to protect single workstations and point-of-sale (POS) equipment.

Eaton Series 5
Single-phase UPS

Power Failure · Power Sag · Power Surge · Under-voltage · Over-voltage

Series 5 UPSs are most effective against five of the nine most common power problems and offer a degree of protection against other power problems. Some of the damages you risk by not using a Series 5 UPS include premature hardware failure, data loss and corruption, data error, keyboard lockup, storage loss, and system lockup. Series 5 UPSs are recommended for small network systems – all the way up to enterprise networking environments.

Eaton Series 9
Single-phase UPS

Power Failure · Power Sag · Power Surge · Under-voltage · Over-voltage · Line Noise · Frequency Variation · Switching Transient · Harmonic Distortion

Series 9 UPSs protect against all nine of the most common power problems. Our comprehensive protection minimizes the opportunity for component stress, burned circuit boards, data crashes and program failures. Series 9 UPSs offer the highest level of power protection available and are always recommended for mission-critical applications like high-end servers, hospitals and voice over IP applications.

93PM · 93PS · 5S · 5P · 9PX · 9SX · 5SX · ENV · 3S

3S UPS
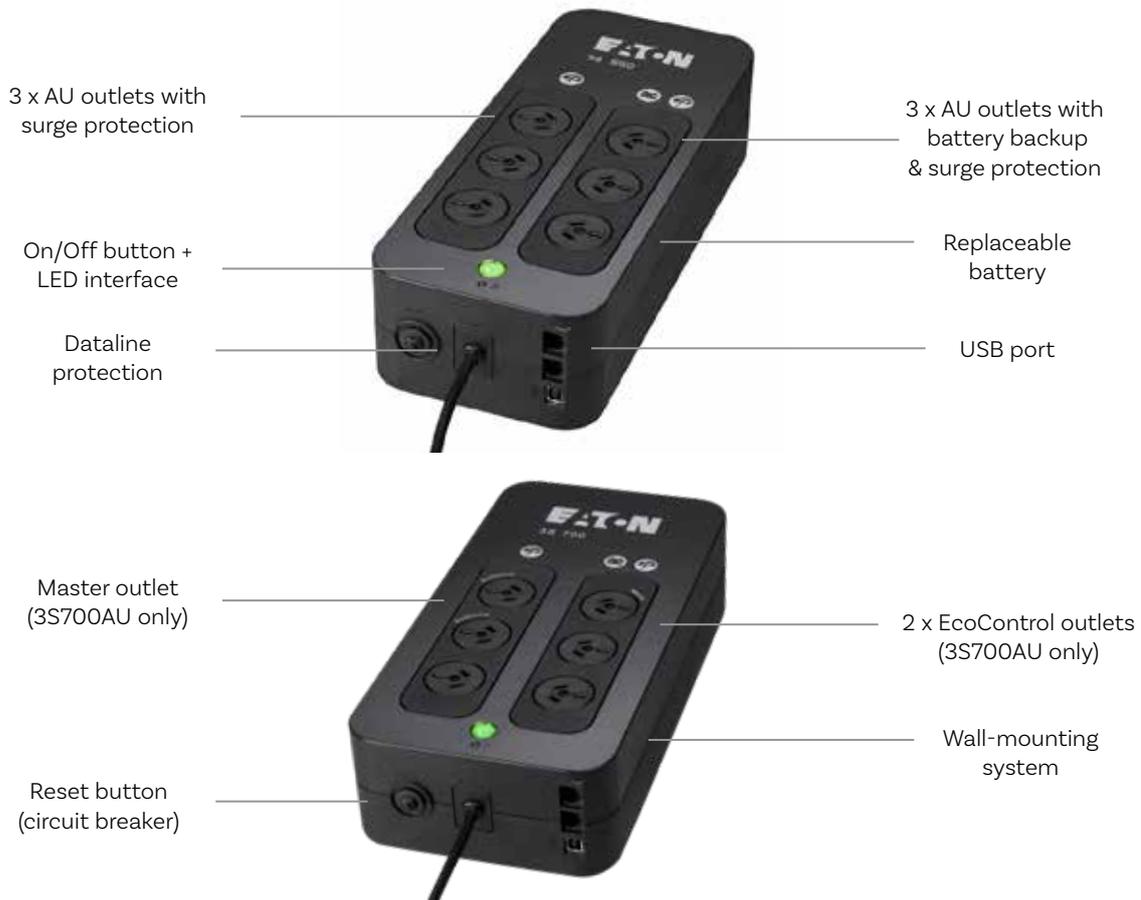## Power Protection for Office & Home Computer Equipment

EATON 550 – 700VA

Protection against power problems

- The Eaton 3S UPS helps to protect your computer equipment from everyday events such as lightening strikes, storms, over-demand on the utility grid, accidents, and natural disasters knocking out power without warning.

- In the event of a total blackout, the unit provides sufficient battery backup time to last through most power outages.

- The 700VA model saves up to 30% energy through its EcoControl function which automatically disables peripherals when the master device, such as a computer, is turned off.

- The shutdown software makes it possible to automatically save your work and shut down your application without losing any data. Once the power is restored, you can continue working exactly where you left off.

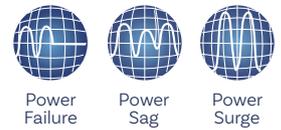## Easy integration and installation

- Attractive design and glossy finish make the 3S a perfect fit for the modern office environment.

- The 3S comes with 6 Australian outlets for easy connection of typical computer configurations with peripherals.

- The 3S features a HID-compliant USB port (cable supplied), for automatic integration with common operating systems (Windows/Mac OS/Linux).

- Compact unit fits on or under your desk or can be mounted on a wall.

- Easy-to-replace battery helps to extend UPS service life.

3 x AU outlets with surge protection

On/Off button + LED interface

Dataline protection

3 x AU outlets with battery backup & surge protection

Replaceable battery

USB port

Master outlet (3S700AU only)

Reset button (circuit breaker)

2 x EcoControl outlets (3S700AU only)

Wall-mounting system

3S UPS
Technical Specifications

Power Failure | Power Sag | Power Surge

Specifications	3S550AU	3S700AU
Application		
Output connection	3 outlets with battery backup and surge protection + 3 outlets with surge protection	
Characteristics		
Input voltage	Up to 161-284 V (adjustable)	
Output voltage	240 V (settable to 220 V, 230 V or 240 V)	
Frequency	50-60 Hz autoselect	
Input protection	Resettable circuit breaker	
Battery		
Battery type	Compact, sealed lead-acid (replaceable)	
Battery test	Yes	Yes
Cold start (no mains power)	Yes	Yes
Deep-discharge protection	Yes	Yes
Battery replacement indicators	LED	LED
50% load backup	10min	9min
70% load backup	6min	6min
Communication		
Communication types	Communications port HID-compliant USB port for automatic integration with most common operating systems (Windows, Linux, Mac OS X), cable supplied	
Line protection		
Line protection types	Tel/fax/modem/internet/Ethernet	
Dimensions, weight and colour		
Dimensions H x W x D	86 x 140 x 335mm	86 x 170 x 335mm
Weight	2.9 kg	3.8kg
Colour	Black	Black
Customer service and support		
Warranty	3-year warranty on electronics, 2-year warranty on battery - extended warranty options available	

3S APPLICATIONS

PHONE   DESKTOP   POS   AV

3S OPTIONS

EXTENDED WARRANTY   ADDITIONAL SURGE PROTECTION

E Series NV UPS
Entry Level Protection for Critical Equipment

EATON 600 – 1400VA

Introducing the E Series NV UPS

The E Series® NV line interactive uninterruptible power supply (UPS) provides affordable power protection for your personal computers, home, office and other electronic devices. While packed with valuable features such as plentiful power receptacles and USB communications, the compact size is ideal for limited office and home working spaces.

Product Snapshot

- Power Rating: 400, 600, 800, 1000, 1400VA tower models
- Voltage: 162 to 290Vac
- Frequency: 50/60 Hz (auto-sensing)
- Technology: Line Interactive with Automatic Voltage Regulation

Intuitive LED indicators display UPS status

User replaceable batteries allow easy maintenance

Automotive Voltage Regulation (AVR) stabilises fluctuating power sources

Up to four receptables, allowing easy equipment maintenance

Start-on-battery provides portable power capability

Microprocessor control design ensures high reliability

WINPOWER software monitors power conditions and gracefully shuts down computer applications prior to battery depletion

E Series NV UPS
Technical Specifications

Power Failure · Power Sag · Power Surge

Specifications	ENV600HA	ENV1000HA	ENV1400HA
Rating (VA/W)	600/360	1000/600	1400/840
Technology	Line Interactive with Automatic Voltage Regulation		
Input/Output			
Input Voltage Window	170~280	160~280	166~280
Output Voltage on Battery	230V		
Frequency	50/60Hz, auto-detection		
Output Receptacles	2 ea, 3 pin Aust sockets	4 ea, IEC style (1 output cable included	
Input Connection	1.8M IEC input cable included		
Battery Load			
100W	18	35	45
120W	14	-	-
200W	-	14	25
400W	-	6	10
600W	-	-	4
Start-On-Battery	Unit can be started without being connected to AC utility power - allows for portable power source		
User Interface			
Visual	1 ON/OFF button, 1 indicator LED	1 ON/OFF button, six indicator LEDs, including load level	
Audible	Five audible alarms indicate operating modes		
Communications/Management			
Power Management Software	WINPOWER power management software, downloadable via internet		
Connection Type	USB port, with included USB cable		
Dimensions and weights			
Dimensions (high voltage models)	140 x 100 x 330mm	205 x 145 x 385mm	
Weight (high voltage models)	6kg	9.6kg	10.5kg

NV APPLICATIONS

PHONE · DESKTOP · POS · AV

NV OPTIONS

EXTENDED WARRANTY · ADDITIONAL SURGE PROTECTION

5E UPS
Essential Power Protection for Workstations & POS Equipment

EATON 650 – 2000VA

Performance

- The Eaton 5E UPS provides effective power protection, even in disturbed electrical environments. Voltage fluctuations are automatically corrected using an AVR device (booster/ fader), without needing the batteries.

Reliability

- Trust a leading manufacturer with decades of experience dedicated to developing reliable power quality equipment.

- Rely on batteries anytime: 5E batteries are permanently recharged (even when the UPS is turned off but mains is present). 5E can start without mains (cold-start).

Versatility

- 5E's compact form factor allows it to be easily integrated into environments with space constraints.

- The 5E features an HID-compliant USB port, for automatic integration with common operating systems (Windows/ Mac OS/Linux). 5E is compatible with Eaton UPS Companion power management software.

- 650 & 850VA models have no fan so are perfect for deployment at an operators workstation, where fan noise can be an issue.

LED user interface (on/off button)

USB port

Battery replacement panel

Fixed input cord

Fan

ANZ outlets

5E UPS
Technical Specifications

Power Failure Power Sag Power Surge Under-voltage Over-voltage

Specifications	5E650IUSB-AU	5E850IUSB-AU	5E1100IUSB-AU	5E1500IUSB-AU	5E2000IUSB-AU
Rating (VA/W)	650VA/360W	850VA/480W	1100VA/660W	1500VA/900W	2000VA/1200W
Electrical Characteristics					
Technology	Line-Interactive (AVR with Booster + Fader)				
Input voltage range	170-280V				
Output voltage	230V				
Frequency	50-60 Hz autoselect				
Connections					
Number of AUS outlets	2		3		
Batteries					
Typical backup times for 1 PC*	16 min	20 min	45 min	50 min	50 min
Typical backup times for 2 PC*	6 min	8 min	20 min	26 min	26 min
Typical backup times for 3 PC*	-	-	7 min	10 min	10 min
Typical backup times for 4 PC*	-	-	-	-	5 min
Battery management	Permanent battery charge, cold start				
Communication					
User Interface	LED				
Communication	Port HID-compliant USB port for automatic integration with most common operating systems (Windows, Linux, Mac OS X)				
Dimensions & Weight					
Dimensions H x W x D	148 x 100 x 288 mm		180 x 133 x 330 mm		
Weight	4.6kg	5.1kg	9.3kg	10.5kg	10.5kg
Customer Service & Support					
Warranty	12 months				

5E APPLICATIONS

PHONE   DESKTOP   POS   AV

5E OPTIONS

EXTENDED WARRANTY   ADDITIONAL SURGE PROTECTION

EATON 550 – 1600VA

Performance

- The Eaton 5S UPS provides effective power protection, even in disturbed electrical environments. Voltage fluctuations are automatically corrected using an AVR device (booster/fader), without needing the batteries.

- The 5S not only provides a supply with battery backup to keep equipment operating during power cuts, but also provides effective protection against damaging surges.

Reliability

- The 5S protects networked equipment from "back door" power surges coming through Ethernet, internet or telephone lines.

- The 5S's periodic automatic battery testing ensures early detection if a battery needs to be replaced.

- The easy-to-replace battery helps to extend the UPS service life.

Versatility

- The 5S can be installed vertically over or under a desk, or horizontally under a screen. Its compact, slimline form factor even allows it to be easily integrated into environments with space constraints.

- The 5S features an HID-compliant USB port, for automatic integration with common operating systems (Windows/Mac OS/Linux). The 5S is also compatible with Eaton UPS Companion power management software.

- All models come bundled with a USB cable for PC connection.

Energy Saving

- Reduce wasted energy consumption from standby power drain of connected peripheral equipment with ECO Control function (850-1600VA models)

LED user interface on
550 & 700VA models

LCD user interface on
850, 1200 & 1600VA models

Battery
replacement panel

USB port

Data line protection

3 x battery backup &
surge protected AU outlets,
3 x surge protected
AU only outlets

Circuit breaker
reset button

5S UPS
Technical Specifications

Power Failure   Power Sag   Power Surge   Under-voltage   Over-voltage

Specifications	5S550AU	5S700AU	5S850AU	5S1200AU	5S1600AU
Rating (VA/W)	550VA/330W	700VA/420W	850VA/510W	1200VA/750W	1600VA/1000W
Electrical Characteristics					
Technology	Line-Interactive (AVR with Booster + Fader)				
Input voltage range	175-275V				
Output voltage	240 V				
Frequency	50-60 Hz autoselect				
Connections					
Number of AUS outlets	6				
Outlets with surge protection and battery backup/Outlets with surge protection only	3/3				
Batteries					
Typical backup times at 50 and 70% load*	10/6 min	9/5 min	10/6 min	14/8 min	11/8 min
Battery management	Automatic battery test, deep-discharge protection, cold-start capable, replaceable batteries				
Communication					
User interface	LED		LCD		
Communication port	HID-compliant USB port for automatic integration with most common operaring systems (Windows, Linux, Mac OS X) cable supplied				
Data line protection	Tel/Fax/Modem/Internet abd Ethernet				
Dimensions & Weight					
Dimensions H x W x D	250 x 87 x 250 mm			250 x 87 x 382 mm	
Weight	4.96kg	5.98kg	6.50kg	9.48kg	11.08kg
Customer Service & Support					
Warranty	2 year warranty including batteries				

5S APPLICATIONS

PHONE   DESKTOP   POS   AV

SERVERS

5S OPTIONS

EXTENDED WARRANTY   ADDITIONAL SURGE PROTECTION

5SC UPS
Affordable Power Protection for Servers & Networking Systems

EATON 500 – 1500VA

Manageability

- The LCD interface provides clear status of the UPS key parameters such as input and output voltage, load and battery level, and estimated runtime. Essential configuration capabilities are also offered for output voltage, audible alarm and sensitivity.

- The 5SC offers USB and serial connectivity. USB port is HID compliant for automatic integration into Windows, Mac OS and Linux.

- A slot for an optional communication card (including SNMP/ Web card or relay contact card) is available on rack and R/T models. Eaton's Intelligent Power® Software Suite ensures compatibility with all major OS including virtualization software.

Reliability

- Pure sinewave output: When operating in battery mode the 5SC provides a high quality output signal for any sensitive equipment connected, such as active PFC (power factor corrected) servers.

- Buck and Boost operation corrects a wide range of input voltage variations through continuous regulation, without the use of batteries.

- Stronger, longer battery life: Eaton ABM® battery management technology uses an innovative three-stage charging system that extends battery life by up to 50%.

Flexibility

- Rack models are designed to fit into short depth wall enclosures down to 500mm, 2 post racks or to be wall mounted.

- R/T models authorizes either tower or rack installation pedestals and rail kits are included with all models at no extra charge.

- Tower models small size for easy integration even with space constraints (kiosks, cash machines, ticket machines etc.) and up to nine outlets for better flexibility!

- Easy battery replacement from front panel to extend UPS life.

5SC APPLICATIONS

| PHONE | DESKTOP | POS | SERVERS |

5SC OPTIONS

| NETWORK MANAGEMENT CARD | EXTENDED WARRANTY | ADDITIONAL SURGE PROTECTION |

LCD interface - clear information on UPS status and measure

Panel for replacement of batteries

1 USB port + serial port

IEC 10A (+1 IEC 16A socket for 2200/3000VA models)

5SC UPS
Technical Specifications

Power Failure · Power Sag · Power Surge · Under-voltage · Over-voltage

Specifications	5SC500i	5SC750i	5SC1000i	5SC1500i
Rating (VA/W)	500VA/350W	750VA/525W	1000VA/700W	1500VA/1050W
Format	Tower	Tower	Tower	Tower
Electrical Characteristics				
Technology	Line-Interactive (AVR with Booster + Fader)			
Input voltage range without using batteries	184 to 276 V			
Output voltage and frequency	230V (-10/+6 %) (Adjustable to 220/230/240 V), 50/60 Hz ± 1Hz (Autosensing)			
Connections				
Input	1 IEC C14 (10A)			
Output for tower models	4 IEC C13 (10A)	6 IEC C13 (10A)	8 IEC C13 (10A)	
Batteries				
Typical backup times @ 50% and 70% load*	13/9	13/9	12/8	13/8
Battery management	ABM, automatic battery test, deep discharge protection			
Communication				
Communication Ports	1 USB port + RS232 serial port (USB and RS232 cannot be used simultaneously) ROO/RPO + card slot (Rack and R/T models) for Network-MS card or Relay-MS card			
Operating conditions, standards and approvals				
Operating temperature	0 to 35°C (tower models), 0 to 40°C (Rack and R/T models)			
Noise level	<40dB (tower models), <45dB (Rack and R/T models)			
Dimensions & Weight				
Dimensions for Tower models	210 x 150 x 240 mm	210 x 150 x 340 mm		210 x 150 x 410 mm
Weight for Tower models	6.6kg	10.4kg	11.1kg	15.2kg
Customer service and support				
Warranty	2 years			

* Runtimes are shown @ 0.7 power factor. Backup duration is approximate and may vary with equipment, configuration, battery age, temperature, etc.

Battery Runtimes (in minutes)				
Load	5SC500i	5SC750i	5SC1000i	5SC1500i
200VA/140W	16.5	25	37	85
300VA/210W	10.5	16.5	23	41
500VA/350W	5	10	13	22
750VA/525W		5	7.5	13
900VA/630W			6	10.5
1000VA/700W			5	9
1200VA/840W				7
1500VA/1000W				5

EATON 650 – 1500VA

Manageability

- The graphical LCD display provides clear information on the UPS's status and measurements on a single screen (in seven languages). Enhanced configuration capabilities are also available with easy-to-use navigation keys.

- Load segment control enables prioritised shutdowns of nonessential equipment to maximise battery runtime for critical devices. Load segment control can also be used to remotely reboot locked-up network equipment or to manage scheduled shutdowns and sequential start-ups.

- The 5P offers Serial and USB connectivity, plus an extra slot for an optional communication card (including SNMP/Web card or relay contact card). Eaton's Intelligent Power @ Software Suite compatible with all major OS including virtualization software such as VMware and Hyper-Vis included with each UPS.

Availability and Flexibility

- 5P is available as a tower or rack form factor to cater for varied deployment applications.

- Stronger, longer battery life: Eaton AB M® battery management technology uses an innovative three-stage charging technique that only recharges the battery when necessary, so the battery experiences less corrosion and service life is prolonged by up to 50%.

- Batteries can be hot-swapped without ever having to shut down connected equipment. With an optional, hot-swap maintenance bypass module, you can even replace the entire UPS.

Features

- Remotely switchable outlet groups
- Remote on/off, remote power terminal
- Primary outlet group
- Communications card slot
- Serial port
- USB Port

5P UPS
Technical Specifications

Power Failure · Power Sag · Power Surge · Under-voltage · Over-voltage

Specifications (tower/rack)	5P650AU/ 5P650IR	5P850AU/ 5P850IR	5P1150AU/ 5P1150IR	5P1500AU/ 5P1150IR
Rating (VA/W)	650VA/420W	850VA/600W	1150VA/770W	1550VA/1100W
Format	Tower or 1RU Rack			
Electrical Characteristics				
Technology	Line-Interactive High Frequency (Pure Sinewave, Booster + Fader)			
Input voltage range without using batteries	160V-294V (adjustable to 150V-294V) 47 to 70 Hz (50 Hz system), 56.5 to 70 Hz (60 Hz system), 40 Hz in low-sensitivity mode			
Output voltage and frequency	230 V (+6/-10 %) (Adjustable to 200V / 208V / 220V / 230V / 240V), 50/60 Hz+/- 0.1 % (autosensing)			
Connections				
Input	Tower: Fixed line cord 10A AU 1.8mtr Rack: IEC C14 (10A) socket			
Outputs	Tower: 2 x AU 10A, 3 x IEC C13 (10A) Rack: 4 x IEC C13 (10A)		Tower: 2 x AU 10A, 3 x IEC C13 (10A) Rack: 6 x IEC C13 (10A)	
Remotely controlled sockets	Tower: 2 x 10A AU individually switched Rack: 2 x IEC C13 (10A) individually switched		Tower: 2 x 10A AU individually switched Rack: 3 x IEC C13 (10A), grouped 2+1 switched	
Batteries				
(Typical backup times for 50 & 70% load*)	9/5.5 mins	12/7.5 mins	12/7.5 mins	13/8.5 mins
Battery management	ABM® & Temperature compensated charging method (user selectable), automatic battery test, deep discharge protection, to automatic recognition of external battery units.			
Interfaces				
Communication Ports	1 USB port + 1 RS232 serial port and relay contacts (USB and RS232 ports cannot be used simultaneously) + 1 mini terminal block for remote ON/OFF or Remote Power Off			
Communications card slots	1 slot for NETWORK-MS, MODBUS-MS or RELAY-MS cards			
Operating conditions, standards and approvals				
Operating temperature	Models 650,850 & 1550 = "0-35'C", Model 1550 = "0-40'C"			
Noise Level	< 40dBA			
Dimensions & Weight				
UPS Dimensions (mm) & weight (kg) - Tower	150 x 345 x 230mm 7.8kg	150 x 345 x 230mm 10.4kg	150 x 345 x 230mm 11.1kg	150 x 445 x 230mm 15.6kg
UPS Dimensions (mm) & weight (kg) - Rack	438 x 364 x 43.2mm(1 RU) 8.6kg	438 x 509 x 43.2mm(1 RU) 13.8kg	438 x 509 x 43.2mm(1 RU) 13.8kg	438 x 554 x 43.2mm(1RU) 19.4kg
Customer Service & Support				
Warranty	3 years			

5P APPLICATIONS

PHONE · DESKTOP · POS · STORAGE · SERVERS

5P OPTIONS

NETWORK MANAGEMENT CARD · EXTENDED WARRANTY · ADDITIONAL SURGE PROTECTION

Liebert PSA UPS
Power Protection for Small Office Computers & Electronic Equipment

LIEBERT 500 - 1500VA

Manageability

Designed with simple controls for easy operation, the Liebert PSA provides up to five minutes of back-up time at full load, more than enough time to save work in process and shut down your system.

Shutdown software and a USB cable are also included, to allow remote alerts and automated graceful shutdown of the connected systems.

Reliability:

- Up to five minutes of battery backup time at full load
- Full sequenced battery testing to ensure batteries are available when needed
- Advance early warning of UPS shutdown
- Lightning and surge protection (TVSS)
- RJ-45 port for data line surge protection

Flexibility:

- Available in four sizes, including 500, 650, 1000 and 1500VA ; 120VAC or 230VAC
- Three to six battery-backed UPS outlets, depending on model size
- One to two surge-only outlets, differentiated by color
- USB communications/shutdown software and cable included
- User replaceable batteries

Ideal for protecting:

- Professional Desktop PCs
- Professional Workstations
- Small Routers, Bridges and Hubs
- Point-of-Sale Terminals
- Other Sensitive Electronics

Liebert PSA UPS
Technical Specifications

Specifications	PSA500MT3-230U	PSA650MT3-230U	PSA1000MT3-230U	PSA1500MT3-230U
Capacity VA/W	500/300	650/390	1000/600	1500/900
Net Weight: kg	5.4	5.9	9.5	11.6
Shipping Weight: kg	6.3	6.8	10.7	12.8
Dimensions: W x D x H, mm	95 x 356 x 171		147 x 360 x 234	
On-Line Mains Voltage	160-287VAC			
On-Line Frequency	50/60Hz ±5Hz			
Output Voltage (Mains Normal)	Typical 185-252VAC			
Output Voltage (Battery Operation)	230VAC ±5%			
On-Battery Wave Form	Stepped Sinewave			
Battery Type - VDC x Ah - Quantity	12V x 7.2Ah x 1		12V x 7.2Ah x 2	12V x 9Ah x 2
Typical Recharge Time	6-8 hours to 90%			
Battery Run Time* (Full load)	3-5 minutes			
Battery Run Time* (Half load)	10-13 minutes			
Audible and Visual	Audible alarm / LED			
Backup Sockets	IEC 320 C13 (3)		IEC 320 C13 (6)	
Surge Sockets	IEC 320 C13 (1)		IEC 320 C13 (2)	
Operating Temperature, °C	0 to 40			
Storage Temperature, °C	-15 to 40			
Operating / Storage Relative Humidity	0%-90%, non-condensing			
Warranty	2 years standard (+ 1 year warranty extension available)			
Packaging	User Manual on CD, Software CD, USB cable, Safety Instruction Sheet, environment protection sheet, (2) IEC output cables for 500/650VA, (3) IEC output cables for 1000/1500 VA			

Liebert GXT MT+ UPS
High Performance Power Protection 1kVA - 3kVA

LIEBERT 1KVA - 3KVA

Manageability

The Liebert® GXT MT+ features best-in-class power protection for critical applications with the use of true on-line double conversion technology. The Liebert® GXT MT+ has a comprehensive specification that provides a higher level of availability to the IT equipment. It satisfies safety criteria and electromagnetic compatibility standards while offering intelligent monitoring and network management functions. This high performance UPS with proven reliability is available in compact tower design.

Suitable for

- Small Size Data Center
- Telecommunication Equipment
- VoIP
- Small Office Network
- Computer Rooms
- Process Automation Equipment
- Network Storage Devices

Features

- Double conversion on-line technology
- Compact tower design
- Standard models
- Extended runtime capabilities by building up additional battery resources
- Flexible (site specific) battery configuration
- Standard model comes with internal battery
- Generator-compatible with wide input frequency range (40 to 70 Hz)
- 0.8 output power factor
- Class B electromagnetic interference (EMC)
- Ultra wide input voltage range
- High input power factor and low THDi
- Emergency power off (EPO)
- Configurable to energy saving mode (ECO)
- LCD display for operational convenience and status/fault information
- Multiple AC output interfaces via IEC standard sockets with programmable outputs
- Remote Monitoring is available through USB/RS232, and optional via dry contacts and SNMP

Liebert GXT MT+ UPS
Technical Specifications

Power Failure · Power Sag · Power Surge · Under-voltage · Over-voltage · Line Noise · Frequency Variation · Switching Transient · Harmonic Distortion

Specifications		GXT1KVA	GXT2KVA	GXT3KVA
Capacity VA/W≠		1000 VA / 800 W	2000 VA / 1600 W	3000 VA / 2400 W
Voltage Range	Low Line Transfer	160 VAC / 140 VAC / 120 VAC / 110 VAC ± 5 % (based on load percentage 100% - 80 % / 80 % - 70 % / 70 - 60 % / 60 % - 0)		
	Low Line Comeback	175 VAC ± 5 %		
	High Line Transfer	300 VAC ± 5 %		
	High Line Comeback	290 VAC ± 5 %		
Frequency Range		40Hz ~ 70 Hz		
Phase		Single phase with ground		
Power Factor		≥ 0.99 @ 220-230 VAC (input voltage)		
Output Voltage		208/220/230/240VAC		
AC Voltage Regulation (Batt. Mode)		± 3% (Batt. Mode)		
Frequency Range		47 ~ 53 Hz or 57 ~ 63 Hz (Synchronized Range)		
Frequency Range (Batt. Mode)		50 Hz ± 0.1 Hz or 60 Hz ± 0.1 Hz		
Overload		100%~110%: audible warning 110%-130%: UPS shuts down in 30 seconds at battery mode or transfers to bypass mode when the utility is normal. 130%: UPS shuts down immediately at battery mode or transfer to bypass mode when the utility is normal.		
Current Crest Ratio		3:1 (max.)		
Harmonic Distortion		≤ 3 % THD (Linear Load) ≤ 6 % THD (Non-linear Load)		≤ 4 % THD (Linear Load) ≤ 7 % THD (Non-linear Load)
Transfer Time	AC Mode to Batt. Mode	0		
	Inverter to Bypass	4ms (typical)		
Waveform (Batt. Mode)		Pure Sinewave		
Battery AC Mode		~ 85%	~ 83%	~ 88%
Standard model	Battery Type	12 V / 7 AH	12 V /7 AH	12 V / 9 AH
	Numbers	3	6	6
	Typical Recharge Time	4 hours recover to 90% capacity (typical)		
	Charging Current	1.0A (max.)		
	Charging Voltage	41.0VDC ± 1%		82.1 VDC ±1%
Long back up model	Numbers	3	6	6
	Charging Current	4.0 A or 8.0 A(max.)		
	Charging Voltage	41.0VDC ± 1%		82.1 VDC ±1%
Tower case	Dimension, D X W X H	397 x 145 x 220 (mm)		397 x 145 x 220 (mm)
	Net Weight (kgs)	13	7	26	13	28	13
Operation Humidity		20-90 % RH @ 0- 40°C (non-condensing)		
Noise Level		Less than 45dBA @ 1 Meter		
Smart RS-232 or USB		Supports Windows®, Linux, and MAC		
Optional SNMP		Power management from SNMP manager and web browser		

Model	Battery	25%	50%	75%	100%
GXT-1000MTPLUS230	12V/7AH x 3pcs	38.0	14.0	7.5	4.5
GXT-2000MTPLUS230	12V/7AH x 6pcs	40.0	14.0	7.5	4.5
GXT-3000MTPLUS230	12V/9AH x 6pcs	31.0	12.0	7.0	4.5

EATON 5SX 1250 – 3000VA

Manageability & Flexibilty

- The LCD interface provides clear status of the UPS key parameters such as input and output voltage, load and battery level, and estimated runtime. Essential configuration capabilities are also offered for output voltage, audible alarm and sensitivity.

- The 5SX offers USB and serial connectivity. USB port is HID compliant for automatic integration into Windows, Mac OS and Linux.

- A slot for an optional communication card (including SNMP/ Web card or relay contact card) is available. Eaton's Intelligent Power® Software Suite insures compatibility with all major OS including virtualization software.

- R/T models authorizes either tower or rack installation - pedestals are included, rail kits are an optional extra. (5SXRACKKIT2U).

- Easy battery replacement from front panel to extend UPS life, and up to 4 EBMs can be added for longer runtimes.

EATON 5PX 1000 – 3000VA

Energy Efficient Power Protection

- The 5PX is available in a rack/tower convertible version pedestal and rail kits are included with all models at no extra charge.

- Stronger, longer battery life: Eaton ABM® battery management technology uses an innovative three-stage charging technique that only recharges the battery when necessary, so the battery experiences less corrosion and service life is prolonged by up to 50%.

- Batteries can be hot-swapped without ever having to shut down connected equipment. With an optional, hot-swap maintenance bypass module, you can even replace the entire UPS.

- There is also the possibility to add more runtime with up to four external hot-swappable battery modules, able to run systems for hours if necessary. The additional battery modules are automatically recognised by the UPS.

UPS
Eaton Series 9

| Power Failure | Power Sag | Power Surge | Under-voltage | Over-voltage | Line Noise | Frequency Variation | Switching Transient | Harmonic Distortion |

EATON 9SX TOWER 750 - 3000VA

Performance, Efficiency & Flexibility

- Double conversion topology. The Eaton 9SX constantly monitors power conditions and regulates voltage and frequency.

- With up to 95% efficiency in online double conversion mode the 9SX provides the highest efficiency level in its class to reduce energy & cooling costs.

- With a 0.9 power factor the 9SX delivers 28% more power than any UPS in its class. It powers more servers than other UPSs with equivalent VA ratings and lower power factors.

- More runtime can be added with up to 12 external hotswappable battery modules, able to run systems for hours if necessary. The additional battery modules are automatically recognized by the UPS.

- With its rack/tower versatile form factor the 9SX can be installed in any environment (rack kit provided as standard on RT versions).

EATON 9PX 1000 – 11000VA

Energy Efficient Power Protection

- 9PX 2200 & 3000 are available in RT2U format (optimised for rack mounting) or RT3U (for tower or short-depth racks), pedestal and rail kits are included with all models.

- The internal bypass allows service continuity in case of internal fault, a maintenance bypass is also available (as standard on HotSwap version) for easy replacement of the UPS.

- Stronger, longer battery life: Eaton ABM® battery management technology uses an innovative three-stage charging technique that extends battery life by up to 50%.

- More runtime can be added with up to 4 external hot-swappable battery modules, able to run systems for hours if necessary.

UPS
Eaton Series 9

| Power Failure | Power Sag | Power Surge | Under-voltage | Over-voltage | Line Noise | Frequency Variation | Switching Transient | Harmonic Distortion |

EATON 93PS

Features

The most advanced UPS in its power range, the Eaton 93PS is ideal for small data centres and other mission critical applications where efficiency, reliability, safety and scalability are essential.

The rapid adoption of the cloud, constant evolution of IT technologies, increased focus on environmental footprint and sophistication of mission critical applications is demanding even more efficient, resilient, scalable and safe power protection solutions.

The new levels of efficiency and scalability offered by the 93PS minimise Total Cost of Ownership while the safety and resiliency, both in infrastructure and IT layers, maximise availability and ensure business continuity.

EATON 93PM

The Complete Solution

The Eaton 93PM UPS is designed for the most advanced IT environments, and it comes with interfaces for Web and SNMP as standard. In the event of an alert, the UPS system notifies users and administrators by email. If there's a prolonged power failure, the protected computer systems can be shut down smoothly using the Intelligent Power® Protector software also incorporated with the 93PM.

Your 93PM can be connected directly to your corporate network and the internet. This means you can then monitor and manage your UPS through a standard web browser.

Our Services
Ask us about what we can offer your business

COMMISSIONING

Our factory trained technicians meticulously follow a commissioning process for your particular UPS to get your system up and running.

Prior to powering up your UPS, our technician will inspect the power module and battery connections and verify the input and output wiring. Once the installation is deemed safe, the commissioning process starts. This includes UPS configuration, measuring and setting the batteries and verifying/calibrating the UPS to factory specifications.

The final step consists of testing on mains and often generator (prior notice required). Post-commissioning, full reporting is provided and YHI Energy adds the asset to our service data base, which will enable prompting of preventive maintenance visits as well as hold all history of your UPS service documentation for easy access by both our technicians and you, the customer.

PREVENTATIVE MAINTENANCE

As important, if not more so, than the correct design and commissioning of your system, is preventive maintenance.

Our experienced technicians are often able to pick up on electronic failures before they even happen. By investing in Preventive Maintenance, you give your UPS the best chance of protecting your critical load in the event of mains fluctuation or total loss.

We provide full reporting and recommendations for every Preventive Maintenance visit we perform and often tailor our reporting style to meet the requirements of Facilities Managers and Maintenance Planners.

SERVICE PLANS

YHI Energy has a range of service plans to suit every application and budget. By committing to a UPS service plan, you are ensuring that your investment is kept at optimum health for when you need it most.

Our service plans range from fully comprehensive parts & labour inclusive, to simple onsite resolution SLAs.
Take the stress out of maintenance planning by engaging with YHI Energy - we take care of preventive maintenance scheduling right through to emergency break fix work.

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YHI ENERGY