Eaton Product Handbook

CHOOSING THE RIGHT UPS

When it comes to backup power there are some basic questions to ask your customer.
Getting the right information is the first step to providing them with a tailored power solution.
The only remaining step is getting in touch with UPS Power Solutions industry leading UPS experts!

1. Application and Load

a. What is the UPS going to support e.g. Communication equipment, Point of Sale, or CCTV, if LED lighting ask for inrush current specification

b. What size is the load that you need to protect in kVA or Watts?

2. UPS Specifics

a. How long do you need battery backup to last in minutes?

b. What form factor is required? Rack or Tower and note any physical space restraints

c. What type and number of output receptacles are required. ANZ 3 pin or IEC?

3. Accessories

a. Is a maintenance bypass switch required for uninterrupted servicing and replacement?

b. Do you want to remotely monitor the UPS? Via the network (SNMP) or via the building management system dry contact alarms

HOW TO BUY

Option #1
Visit our website
www.upspower.co.nz

Option #2
Email us
sales@upspower.co.nz

Option #3
Call our knowledgeable sales team on 0800 UPS Power (0800 877 769)

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UPS SELECTOR GUIDE

3 SERIES STANDBY UPS - BACK UP POWER

3S		Part Number	VA/Watts	Input	Outlet	EBM	Comms	Bypass Switch	Warranty	Applications
Plugboard		3S600AU	600/360	Aus 10 Amp	x 4 surge / x 4 battery		USB		2 Years	
		3S850AU	850/510							

5 SERIES LINE-INTERACTIVE UPS - KEEPING IT SMOOTH

5E Gen 2		Part Number	VA/Watts	Input	Outlet	EBM	Comms	Bypass Switch	Warranty	Applications
Tower		5E700UiAU	700/360		2 x					
		5E900UiAU	900/480	Aus 10 Fixed Input Lead	2 x		USB		2 Years	
		5E1200UiAU	1200/660		3 x					
		5E1600UiAU	1600/900		3 x					
		5E2200UiAU	2200/1200		3 x					

5S		Part Number	VA/Watts	Input	Outlet	EBM	Comms	Bypass Switch	Warranty	Applications
Tower		5S550AU	550/330							
		5S700AU	700/420		3 x battery + surge					
		5S850AU	850/510	Aus 10 Amp	3 x surge only		USB		2 Years	
		5S1200AU	1200/750							
		5S1600AU	1600/1000							

5SC		Part Number	VA/Watts	Input	Outlet	EBM	Comms	Bypass Switch	Warranty	Applications
Tower		5SC500i	500/350		4 x					
		5SC750i	750/525	IEC C14	6 x		USB/RS232 serial port and relay contacts		2 Years	
		5SC1000i	1000/700		8 x					
		5SC1500i	1500/1050		8 x					

5SC		Part Number	VA/Watts	Input	Outlet	EBM	Comms	Bypass Switch	Warranty	Applications
Rack		5SC1500IR-AU	1500/1050	IEC C14	8 x		USB/RS232 and 1 communication slot for either Network-M3 or RELAY-MS	PDUBHV101U	2 Years	

5SX		Part Number	VA/Watts	Input	Outlet	EBM	Comms	Bypass Switch	Warranty	Applications
Rack / Tower		5SX1250AU	1250/1125	IEC C14	8 x	5SXEBM48R2U (can have maximum of 4)	USB/RS232 and 1 communication slot for either Network-M3 or RELAY-MS	PDUBHV101U	2 Years	
		5SX1750AU	1750/1575		8 x	5SXEBM48R2U (max 4)				
		5SX3000AU	3000/2700	IEC C20	6 x , 1 x	5SXEBM72R2U (max 4)		MBP3KI		
		5SXRACKKIT2U	If Rackmounting add							

5P Gen 2		Part Number	VA/Watts	Input	Outlet	EBM	Comms	Bypass Switch	Warranty	Applications
Rack		5P650IRG2	650/420		4 x					
		5P850IRG2	850/600	IEC C14	4 x		USB/RS232 and 1 communication slot for either Network-M3 or RELAY-MS	PDUBHV101U	3 Years	
		5P1150IRG2	1150/770		6 x					
		5P1550IRG2	1550/1100		6 x					

5P Gen 2		Part Number	VA/Watts	Input	Outlet	EBM	Comms	Bypass Switch	Warranty	Applications
Tower		5P650AUG2	650/420		4 x					
		5P850AUG2	850/600	IEC C14	6 x		USB/RS232 and 1 communication slot for either Network-M3 or RELAY-MS		3 Years	
		5P1150AUG2	1150/770		8 x					
		5P1550AUG2	1550/1100		8 x					

APPLICATIONS

- CCTV
- Communications
- Storage
- Switch board & controls
- Desktops
- Servers
- Motors
- Point of sale
- Home
- Emergency lighting

INPUT / OUTLET

- Aus 10 Amp
- IEC C13/14
- IEC C19/20

5P Lithium Ion		Part Number	VA/Watts	Input	Outlet	EBM	Comms	Bypass Switch	Warranty	Applications
Rack		5P1550GR-L	1550/1100	IEC C14	6 x		USB/RS232 and 1 communication slot for either Network-M3 or RELAY-MS	PDUBHV101U	5 Years	

5PX Gen 2		Part Number	VA/Watts	Input	Outlet	EBM	Comms	Bypass Switch	Warranty	Applications
Rack / Tower		5PX1500IRT2UAUG2	1500	IEC C14	8 x	5PXEBM48RT (max 4)	USB/RS232 and 1 communication slot for either Network-M3 or RELAY-MS	PDUBHV101U	3 years	
		5PX2000IRT2UAUG2	2000					PDUBHV101U		
		5PX2200IRT2UAUG2	2200			5PXEBM72RT3U (max 4)		MBP3KI		
		5PX3000IRT2UAUG2	3000	IEC C20	8 x , 1 x			MBP3KI		
		5PX3000IRT3UAUG2						MBP3KI		

9 SERIES ONLINE UPS - TOTAL PROTECTION

9E		Part Number	VA/Watts	Input	Outlet	EBM	Comms	Bypass Switch	Warranty	Applications
Tower		9E1000IAU	1000/800	IEC C14	4 x	NA	USB/RS232 and 1 communication slot for either Network-M3 or RELAY-MS	PDUBHV101U	1 year	
		9E2000IAU	2000/1600		6 x	9EEBM72 (max 4)		PDUBHV101U		
		9E3000IAU	3000/2400		6 x			MBP3KI		
		9E6KI	6000/4800	Hard Wired	Terminal block	9EEBM180 (max 4)		6000MBS1-MT		

9SX		Part Number	VA/Watts	Input	Outlet	EBM	Comms	Bypass Switch	Warranty	Applications
Tower		9SX700I-AU	700/630	IEC C14	4 x	NA	USB/RS232 and 1 communication slot for either Network-M3 or RELAY-MS	PDUBHV101U	2 years	
		9SX1000I-AU	1000/900		4 x	9SXEBM36T (max 4)		PDUBHV101U		
		9SX1500I-AU	1500/1350		4 x	9SXEBM48T (max 4)		PDUBHV101U		
		9SX2000I-AU	2000/1800		5 x , 1 x	9SXEBM96T (max 4)		PDUBHV101U		
		9SX3000I-AU	3000/2700	IEC C20	5 x , 1 x	9SXEBM96T (max 4)		MBP3KI		
		9SX6KI-AU	6000/5400	Hard Wired	Ph = N = E Terminal block	9SXEBM240T (max 4)		6000MBS1-BFP		

9PX 1-3KVA		Part Number	VA/Watts	Input	Outlet	EBM	Comms	Bypass Switch	Warranty	Applications
Rack / Tower		9PX1000IRT2U	1000	IEC C14	8 x	9PXEBM48RT2U (max 4)	USB/RS232 and 1 communication slot for either Network-M3 or RELAY-MS Output Relay	PDUBHV101U	3 Years	
		9PX1500IRT2U	1500		8 x			PDUBHV101U		
		9PX2000iRTAU	2000/1800		4 x , 2 x	9PXEBM72RT2U (max 4)		PDUBHV101U		
		9PX2200IRT2U	2200		8 x , 2 x			MBP3KI		
		9PX2200IRT3U	2200	IEC C20	8 x , 2 x	9PXEBM72RT3U (max 4)		MBP3KI		
		9PX3000IRT2U	3000		8 x , 2 x	9PXEBM72RT2U (max 4)		MBP3KI		
		9PX3000IRT3U	3000		8 x , 2 x	9PXEBM72RT3U (max 4)		MBP3KI		

9PX 5-11KVA		Part Number	VA/Watts	Input	Outlet	EBM	Comms	Bypass Switch	Warranty	Applications
Rack/Tower		9PX5Ki	5000/4500	Hard Wired	HW, 2 x , 8 x	9PXEBM180 (max 4)	USB/RS232 and 1 communication slot for either Network-M3 or RELAY-MS DB9 (4) Dry Contacts/ DB15 Parallel	MBP6KI	3 Years	
		9PX6Ki	6000/5400		HW, 2 x , 8 x	9PXEBM180 (max 4)		MBP6KI		
		9PX8KiPM + 9PXEBM240	8000/7200		HW, 4 x	9PXEBM240 (max 4 or 12 with supercharger SC240RT module)		MBP11Ki		
		9PX11KiPM + 9PXEBM240	11000/10000		HW, 4 x			MBP11Ki		

9PX Lithium Ion		Part Number	VA/Watts	Input	Outlet	EBM	Comms	Bypass Switch	Warranty	Applications
Rack		9PX1500IRTANZ-L	1500/1500	IEC C14	8 x	9PXEBM48RT1U-L (max 4)	USB/RS232, mini-terminal block and 1 communication slot for either Network-M3 or RELAY-MS.	PDUBHV101U	5 Years	
		9PX2000IRTAU-L	2000/1800		6 x , 2 x					
		9PX3000IRTANZ-L	3000/2400	IEC C20	8 x , 2 x	9PXEBM72RT1U-L (max 4)		MBP3KI		
		9PX6KIRTN-L	6000/5400	Hard wired	Terminal Block	9PXEBM192RT2U-L (max 4)		MBP6KI		

THE NINE POWER PROBLEMS

In an ideal world, your wall socket would provide an infinite stream of perfect power, at constant voltage and cycling exactly the same number of times per second. Don't count on it.
The nine power problems listed below are potentially harmful to both your data and your equipment.

POWER PROBLEM DEFINITION

1. Power failure
When a superhero loses his ability to fly or a total loss of utility power.

2. Power sag
Post-lunch sleepiness or short-term low voltage.
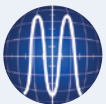
3. Power surge (spike)
Rush of energy following a double shot of espresso or short-term high voltage more than 110 percent of normal.

4. Under-voltage (brownout)
When your amp's too wimpy to handle the bass line or reduced line voltage for an extended period of a few minutes to a few days. Often happens during the summer months when everyone is cranking up their air conditioners.

5. Over-voltage
Inhumane cheerfulness exuded by aerobics instructors or increased line voltage for an extended period of a few minutes to a few days.

6. Electrical line noise
Excuse you use to get off the phone quickly or a high power frequency power wave caused by radio frequency interference (RFI) or electromagnetic interference (EMI).

7. Frequency variation
Fluctuation in how often you do laundry from week to week or a loss of stability in the power supply's normal frequency of 50 or 60 Hz.

8. Switching transient
Breaking up with your significant other only to get back together every six months or instantaneous under-voltage in the range of nanoseconds.

9. Harmonic distortion
"Music" blaring from your nephew's headphones or the distortion of the normal power wave, generally transmitted by unequal loads.

SELECTING THE RIGHT UPS

Eaton's power management solutions are based on protecting the connected load from the nine most common power problems present in any environment. There are three different UPS topologies that provide varying degrees of protection. Selecting the best fit depends on several factors, including the level of reliability and availability desired, the type of equipment being protected and the application/environment.

Eaton's products are grouped into three levels of power protection: Series 3, Series 5 and Series 9. This unique approach makes your product selection much simpler. Within both Series 5 and 9 Eaton has created 3 classes of products to provide "Good (E), Better (S) and Best (P)" levels of features and performance. This enables the best product fit for any application and budget.

SERIES 3 | STANDBY UPS: BACKUP POWER

Power Failure — Power Sag — Power Surge

The Eaton's series 3 UPS primarily protects against three of the nine power problems including power failures, power sags and power surges. Standby UPSs allow equipment to run off utility power until the UPS detects a problem, at which point it switches to battery power to protect against sags, surges or outages. This topology is best suited for applications requiring simple backup such as small office/home office and point-of-sale equipment.
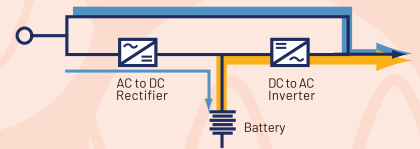
SERIES 5 | LINE INTERACTIVE UPS: KEEPING IT SMOOTH

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

Eaton's series 5 UPS are most effective against five power problems (power failures, power sags, power surges, under-voltage and over-voltage) and offer protection against other power problems.

Line-interactive UPSs regulate voltage either by boosting or decreasing utility power before allowing it to pass to the protected equipment or by resorting to battery power. Line-interactive models are ideal for protection against power anomalies where the utility power is relatively clean. MDF and IDF communication closets, non-centralised server and network rooms, and general IT enclosures are ideally suited for this topology.
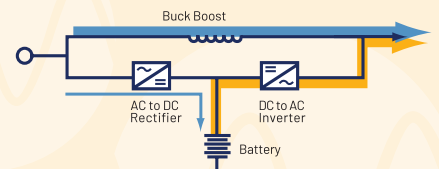
SERIES 9 | ONLINE DOUBLE CONVERSION UPS: TOTAL PROTECTION

Power Failure — Power Sag — Power Surge — Under-voltage — Over-voltage — Line Noise — Frequency Variation — Switching Transient — Harmonic Distortion
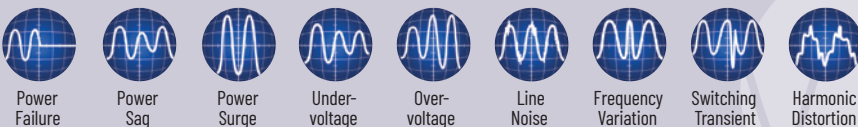
Eaton's series 9 UPSs protect against all nine power problems: power failures, power sags, power surges, under-voltage, over-voltage, line noise, frequency variation, switching transients and harmonic distortion.

Online UPSs provide the highest level of protection by isolating equipment from raw utility power— converting power from AC to DC and back to AC. Unlike other topologies, double conversion provides zero transfer time to battery for sensitive equipment. This topology is best applied to mission-critical equipment and locations where power generally is poor.
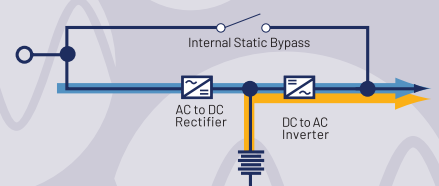
EATON 3S UPS

POWER RATING

650 - 850 VA

FORM FACTOR

Plugboard

COMMUNICATIONS

USB

WARRANTY

2 Years

IDEAL FOR PROTECTING

Desktop

Point of Sale

Home

EATON 3S 850 AU

1	4 AU outlets with surge protection	6	Replaceable battery
2	4 AU outlets with battery backup & surge protection	7	Reset button (circuit breaker)
3	On / Off button	8	Wall-mounting system
4	LED interface	9	USB Charge (850 only)
5	USB Communication	10	Phone/xDSL line protection (850 only)

The Eaton 3S UPS helps to protect your computer equipment in case of everyday events such as lightning strikes, storms, over-demand on the utility grid, accidents, and natural disasters knocking out power without warning. It also protects telephone, broadband and ethernet lines from 'back door' power surges.

The compact units fit easily on or under your desk or can be wall mounted, providing power and surge protection for desktop computers, wireless networks, gaming consoles, and other critical equipment in your home or business. The 850VA models have USB powered outlets for charging devices such as cellphones and tablets.

EATON 3S TECHNICAL SPECIFICATIONS

Rating (VA/W)	600VA/360W	850VA/510W
Connection		
Output connection	4 outlets with battery backup and surge protection + 4 outlets with surge protection only	
Electrical characteristics		
Nominal input voltage	220 - 240 V	
Input voltage range	Up to 168 - 295 V (adjustable)	
Output voltage	240V (adjustable to 220V/230V/240V)	
Input frequency range	50 / 60 Hz (46 - 65 Hz working range)	
Input protection	10A resettable circuit breaker	
Battery		
Battery type	Compact, sealed lead acid battery (replaceable)	
Battery test	Yes	
Cold start (no mains power)	Yes	
Deep-discharge protection	Yes	
Battery replacement indicator	LED	
Desktop PC*	16 Min	20 Min
Gaming PC / Workstation*	6 Min	9 Min
Features		
Communication	USB port (HID-compliant) for automatic integration with most common operating systems (Windows & Mac OS)	
USB charge	-	2 USB ports (2A max)
Phone/xDSL line Protection	-	Yes
Operating conditions, Standards and Approvals		
Operating temperature	0 to 40o C	
Operating elevation	0 to 3000m	
Compliances	IEC 62040-1; IEC 62040-2 C2; IEC 62040-3; IEC 62040-4; IEC 61643-11	
Conformity	CE/ RCM	
Dimensions W x H x D / Weight		
UPS Dimensions (mm) / (kg)	325x86x140 / 3.2	335x86x170 / 3.2
Part Numbers	35600AU	35850AU

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

EATON 5E GEN 2 UPS

POWER RATING

700 - 2200 VA

FORM FACTOR

Tower

COMMUNICATIONS

USB

WARRANTY

2 Years

IDEAL FOR PROTECTING

Desktop

Point of Sale

Home

CCTV

The Eaton 5E line interactive uninterruptible power system (UPS) provides affordable power protection for your personal computer and peripherals. It's compact size is ideal for limited office and home working spaces.

Even in disturbed electrical environments, voltage fluctuations are automatically corrected using an AVR device (booster/fader), without needing the batteries. 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). The 700, 900 and 1200 models have no fan so are perfect for deployment at an operators workstation, where fan noise can be an issue.

1. *LED user interface - On/Off button*
2. *USB port*
3. *Fixed input cord*
4. *ANZ outlets*

EATON 5E UPS TECHNICAL SPECIFICATIONS

Technical Specifications	700	900	1200	1600	2200
Rating (VA/ W)	700VA/360W	900VA/480W	1200VA/660W	1600VA/900W	2200VA/1200W
Electrical Characteristics					
Technology	Line-Interactive				
Input nominal voltage	220-240V				
Input voltage windows without using battery	140-300V				
Output voltage	230V				
Input frequency range	50-60 Hz (45-65 Hz working range)				
Connections					
Number of AUS outlets	2		3		
Batteries					
Typical backup times for 1 PC*	14 min	24 min	40 min	42 min	52 min
Typical backup times for 2 PC*	5 min	8 min	15 min	19 min	32 min
Typical backup times for 3 PC*	-	-	6 min	8 min	17 min
Typical backup times for 4 PC*	-	-	-	-	10 min
Battery management	Permanent battery charge, cold start				
Communication					
Communication port	1 USB port				
Eaton UPS Companion software	Available on eaton.com/downloads				
Standards					
Safety & EMC	IEC/EN 62040-1, IEC/EN 62040 -2, C-Tick				
Dimensions & Weight					
Dimensions H x W x D	148 x 100 x 288 mm		180 x 133 x 330 mm		
Weight	4.4kg	5.3kg	8.5kg	9.3kg	9.8kg
Customer Service & Support					
Warranty	2 Years				
Part Numbers	**700 USB**	**900 USB**	**1200 USB**	**1600 USB**	**2200 USB**
5E Gen 2	5E700iUSB-AU	5E900iUSB-AU	5E1200iUSB-AU	5E1600iUSB-AU	5E2200iUSB-AU

EATON 5SC (TOWER) UPS

POWER RATING
500 - 1500 VA

FORM FACTOR
Tower

COMMUNICATIONS
USB

WARRANTY
2 Years

IDEAL FOR PROTECTING

Communications

CCTV

Storage

When operating in battery mode the 5SC provides a high quality output signal for any sensitive equipment connected and offers a HID-compliant USB port, for automatic integration with common operating systems.

Buck and Boost operation corrects grid fluctuations (under and overvoltage) through continuous regulation and ensures consistent input voltage to the loads protected.

① LCD Interface : Clear information on UPS status and measurements

② Panel for batteries replacement

③ 1 USB port + 1 serial port

④ IEC 10A sockets

EATON 5SC (TOWER) TECHNICAL SPECIFICATIONS

Technical Specifications	500	750	1000	1500
Rating (VA/W)	500VA/350W	750VA/525W	1000VA/700W	1500VA/1050W
Electrical Characteristics				
Technology	Line-Interactive High Frequency (Sinewave, Booster + Fader)			
Input voltage and frequency ranges without using batteries	184V-276V, 45-55Hz (50Hz system), 55-65Hz (60Hz system)			
Output voltage and frequency	230V (+6/-10 %) (Adjustable to 220V/230V/240V), 50/60Hz +/-0.1 % (autosensing)			
Connections				
Input	1 IEC C14			
Outputs	4 IEC C13 (10A)	6 IEC C13 (10A)	8 IEC C13 (10A)	8 IEC C13 (10A)
Batteries				
Typical backup times at 50 and 70% load*	13/9 min	13/9 min	13/9 min	13/9 min
Battery Management	ABM®, Automatic battery test, deep discharge protection			
Communication				
Communication Port	1 USB port + 1 RS232 serial port and relay contects (USB and RS232 ports cannot be used simultaneously)			
Operating conditions, Standards and Approvals				
Operating temperature	0-35°C			
Noise level	<40dB			
Safety & EMC	IEC/EN 62040-1, IEC/EN 62040-2, CB Report (TUV), CE mark C-Tick			
Dimensions and Weight				
Dimensions W x D x H	150 x 240 x 210 mm	150 x 340 x 210 mm	150 x 340 x 210 mm	150 x 410 x 210 mm
Weight	6.6kg	10.4kg	11.1kg	15.2kg
Customer Service and Support				
Warranty	2 years warranty including batteries			
Part Numbers	500	750	1000	1500
5SC	5SC500i	5SC750i	5SC1000i	5SC1500i

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

EATON 5SC (RACK) UPS

POWER RATING

1500 VA

FORM FACTOR

Rack/Tower

COMMUNICATIONS

USB/RS232 and 1 communication slot for either Network-M3 or Relay-MS

WARRANTY

2 Years

IDEAL FOR PROTECTING

Communications

CCTV

Storage

The Eaton 5SC (Rack) delivers affordable protection for CCTV and networking systems. It is designed to fit into short depth wall enclosures down to 500mm, 2 post racks or to be wall mounted.

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.

A slot for an optional communication card (including SNMP/ Web card or relay contact card) is available on rack and R/T models. 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.

1	*LCD interface*	4	*8 IEC 10A*
2	*Panel for batteries replacement*	5	*Communication card slot*
3	*USB port + Serial port*	6	*ROO/RPO terminal*

EATON 5SC (RACK) TECHNICAL SPECIFICATIONS

Technical Specifications	1500
Rating (VA/W)	1500VA/1050W
Format	Rack 2U
Electrical characteristics	
Technology	Line interactive High Frequency (Sinewave, 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
Outputs for Rack or R/T models	8 IEC C13 (10A)
Batteries	
Typical backup times @50 and 70% load*	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 for Network-M3 card or Relay-MS card
Operating conditions, standards and approvals	
Operating temperature	0 to 40°C
Noise level	<45dB
Safety	IEC/EN 62040-1, UL1778
EMC	IEC/EN 62040-2
Approvals	CE /CB report (TUV), cTUVus ,RCM
Dimensions H x W x D in mm/ Weight	
Dimensions	86.2 x 440 x 405 mm
Weight	17.8kg
Customer service and support	
Warranty	2 years
Part Number	5SC1500IR-AU

EATON 5S UPS

POWER RATING

550 - 1600 VA

FORM FACTOR

Tower

COMMUNICATIONS

USB

WARRANTY

2 Years

IDEAL FOR PROTECTING

Desktop

Point of Sale

Home

The Eaton 5S UPS provides effective power protection, even in disturbed electrical environments. 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.

The compact, slimline form factor even allows it to be easily integrated into environments with space constraints, over or under a desk, or horizontally under a screen. The 5S features an HID-compliant USB port, for automatic integration with common operating systems.

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.

1. LED user interface on 500 & 700 VA models
2. LCD interface on 850, 1200 & 1600 VA models
3. Battery replacement panel
4. USB port
5. Data line protection
6. 3x Battery backup & surge protected AU outlets, 3 x surge protected AU only outlets
7. Circuit breaker reset button

EATON 5S TECHNICAL SPECIFICATIONS

Technical Specifications	500	700	850	1200	1600
Rating (VA/W)	500VA/300W	700VA/420W	850VA/510W	1200VA/750W	1600VA/1000W
Electrical Characteristics					
Technology	Technology Line-Interactive (AVR with Booster + Fader)				
Input voltage range	175V-275V				
Output voltage	240V				
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	9/5 min	9/5 min	9/5 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 operating systems (Windows & Mac OS), cable supplied				
Data line protection	Tel/Fax/Modem/Internet and Ethernet				
Standards					
Safety & EMC	IEC/EN 62040-1, IEC/EN 62040-2, CB Report, CE mark C-Tick				
Dimensions and Weight					
Dimensions H x W x D	250 x 87 x 260 mm			250 x 87 x 382 mm	
Weight	4.96kg	5.98kg	6.50kg	9.48kg	11.08kg
Customer Service and Support					
Warranty	2 years				
Part Numbers	550	700	850	1200	1600
5S	5S550AU	5S700AU	5S850AU	5S1200AU	5S1600AU

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

EATON 5SX UPS

POWER RATING

1250 - 3000 VA

FORM FACTOR

Rack/Tower

COMMUNICATIONS

USB/RS232 and 1 communication slot for either Network-M3 (for SNMP connectivity) or RELAY-MS (dry contact relays)

IDEAL FOR PROTECTING

Communications

CCTV

Storage

The Eaton 5SX range provides exceptional efficiency, manageability and energy metering capabilities for IT managers. It is ideal for protecting servers, switches, routers and storage devices.

With an optimised electrical design, the 5SX can provide up to 99% efficiency, reducing cooling and utility costs. The 5SX significantly extends battery service life with ABM technology and provides a high-quality output waveform for any sensitive equipment connected, such as active PFC (power factor corrected) servers.

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.

WARRANTY

2 Years

1. *LCD interface*
2. *Panel for batteries replacement*
3. *USB port + Serial port*
4. *8 IEC 10A (+1 IEC 16A outlets for 3000VA models)*
5. *Communication card slot (Rack and R/T models only)*
6. *ROO/RPO terminal (Rack and R/T models only)*

EATON 5SX TECHNICAL SPECIFICATIONS

Technical Specifications	5SX1250AU	5SX1750AU	5SX3000AU
Rating (VA/W)	1250VA/1125W	1750VA/1575W	3000VA/2700W
Format	Tower selectable, Rack (5SXRACKKIT2U)		
Electrical Characteristics			
Technology/output	Line interactive, pure sine wave output		
Input voltage ranges without using batteries	160V - 290V		
Output voltage	240V		
Output Frequency	Auto sensing, 50Hz default		
Connections			
Input	IEC C14-AU 10A	IEC C14-AU 10A	IEC C20-AU 16A
Outputs	8*IEC C13 outlets	8*IEC C13 outlets	8*IEC C13 outlets + 1*IEC C19 outlets
Batteries**			
EBM	5SXEBM48R2U	5SXEBM48R2U	5SXEBM72R2U
1UPS	5min	3.7min	2.4min
1UPS+1EBM	23min	19.4min	16.8min
1UPS+2EBM	47min	35min	33.7min
Battery management	ABM		
Power management			
Communications Ports	1 USB port +1 RS232+ 1 communication slot		
Connectivity cards	NETWORK-M3, RELAY-MS		
Software	IPSS		
Operating conditions, standards and approvals			
Operating temperature	0-40oC		
Noise level	<40db		
Regulations	EN62040-2, EN61000-4		
Dimensions D x H x W / Weight			
Dimensions (mm)	522*441.2*86.2(2U)		647*441.2*86.2(2U)
Weight (kg)	25.4	26.6	35.3
Customer Service & Support			
Warranty	2 years		
Part Numbers	5SX1250AU	5SX1750AU	5SX3000AU

* Backup times are approximaate and may vary with equipment, configuration, battery age, temperature, etc.

** Based on 100% load

EATON 5P GEN 2 UPS

POWER RATING (Tower / Rack)

650 - 1550 VA

FORM FACTOR

Rack/Tower

COMMUNICATIONS

USB/RS232 and 1 communication slot for either Network-M3 or RELAY-MS

WARRANTY

3 Years (2 for battery)

IDEAL FOR PROTECTING

Communications

Desktop

Storage

CCTV

Servers

The Eaton 5P Gen 2 UPS provides all the information at your fingertips with its graphical LCD display for local management and monitoring of the full UPS status, power consumption information and load segment switched outlet control.

The Eaton 5P Gen 2 comes in either Tower or 1U Rackmount configurations and has onboard USB and serial for remote monitoring with a MS-Slot for optional Network, ModBUS or Relay card.

Available as a tower or rack form factor to cater for varied form factor applications, the Eaton 5P Gen 2 comes with a standard 3 year warranty on electronics and 2 years on batteries.

1 Communications cards slot

2 Remotely switchable outlet groups

3 Remote On/Off, Remote Power Off terminal

4 USB Port

5 Serial Port

6 Primary outlet group

EATON 5P GEN 2 TECHNICAL SPECIFICATIONS

Rating (VA/W)	650VA / 420W	850VA / 600W	1150VA / 770W	1550VA / 1100W
Format	Tower or 1U Rack			
Electrical Characteristics				
Technology	Line-Interactive High Frequency (Pure Sinewave, Booster + Fader)			
Input voltage and frequency 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				
Inputs	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			
Batteries Typical backup times for 50 and 70% load*				
5P	9/5.5 mins	12/7.5 mins	12/7.5 mins	13/8.5 mins
Battery Management	Eaton ABM + or constant voltage charging method (user selectable), enhanced battery life time prediction based on usage conditions, battery exchange wizard, automatic battery test, deep discharge protection			
Interfaces				
Communication ports	1 USB port + RS232 serial port and relay contacts (USB and RS232 ports cannot be used simultaneously) + 1 mini terminal black for remote ON/OFF or Remote Power Off			
Communications card slots	1 slot for Network-M3, INDGW-M2 or Relay-MS cards			
Operating conditions, standards and approvals				
Operating temperature	0 to 40ºC			
Noise Level	< 40dBA			
Performance - Safety - EMC	IEC/EN 62040-1-1 (Safety), IEC/EN 62040-2 (EMC), IEC/EN 62040-3 (Performance), C-Tick			
Approvals	CE, CB Report(TUV), C-Tick			
Dimensions W x D x H / Weight				
UPS Dimensions (mm) & weight (kg)-Tower	150 x 345 x 233mm / 7.9kg	150 x 345 x 233mm / 10.2kg	150 x 345 x 233mm / 11kg	150 x 445 x 233mm / 15.1kg
UPS Dimensions (mm) & weight (kg)-Rack	438 x 361 x 43.2mm / 8.6kg	438 x 509 x 43.2mm / 13.7kg	438 x 509 x 43.2mm / 14.2kg	438 x 555 x 43.2mm / 18.7kg
Customer Service & Support				
Warranty	3 years			
Part Numbers				
5P Gen 2 Tower	5P650AUG2	5P850AUG2	5P1150AUG2	5P1550AUG2
5P Gen 2 Rack	5P650IRG2	5P850IRG2	5P1150IRG2	5P1550IRG2

EATON 5P LITHIUM-ION UPS

POWER RATING

1550 VA

FORM FACTOR

Rack

COMMUNICATIONS

USB/RS232 and 1 communication slot for either Network-M3 or RELAY-MS

WARRANTY

5 Years

IDEAL FOR PROTECTING

Communications

Storage

CCTV

Servers

Progression in battery technology and remote management come together to make the 5P lithium-ion rackmount UPS a necessity for edge computing environments. Now, you can simply set it and forget it by deploying the 5P without the maintenance and refresh challenges of a UPS utilising lead-acid batteries.

Building on the success of the 5P UPS platform, Eaton has reduced the weight, improved battery life and lengthened the warranty. These added benefits, in combination with the extended life of the product, provide you with the opportunity to align your UPS refresh cycles with the rest of the IT stack, saving time and money spent on labour and replacement batteries.

1 5-15P input

2 C14 input

3 RS-232 serial communications port and USB port

4 Remote power off (RPO) and remote on/off (ROO) port

5 Ground bonding screw

6 Primary outlets

7 Load segment group 1

8 Load segment group 2

9 Network card slot

EATON 5P LITHIUM-ION RACKMOUNT SELECTION GUIDE

5P lithium Technical specifications	5P1550GR-L
Rating (VA/W)	1550/1100
Connections	
Inputs	IEC C14
Outputs	(6) C13
Dimensions (H x W x D)	
Dimensions (in)	1.7 (1U) x 17.2 x 21.9
Weight (lb)	36

*Due to continuous product improvement programs, all specifications are subject to change without notice. Please visit Eaton.com/5Prm to view complete and updated product specifications, including complete battery runtimes

EATON 5P LITHIUM-ION OPTIONS

Catalog number	Description
INDGW-M2	Gigabit SNMP / MODBUS (TCP/RTU) Card
EMPDT1H1C2	Environmental Monitoring Probe (EMP) Gen 2 for use with NETWORK-M3
NETWORK-M3	NETWORK-M3 Card
RELAY-MS	Relay / Serial Interface Card
Mounting hardware	
RK2PA	1U two-post rail kit (optional)

LITHIUM-ION VS LEAD-ACID

Characteristic	VRLA battery	Lithium-ion battery	Lithium-ion benefit
Average battery lifespan	3–4 years	8 years	2–3X longer life
Recharge time to full capacity	24 hours	6–8 hours	3X faster recovery
Battery weight	19 kg	11 kg	40% lighter weight
Battery replacement cost	$520*	$0	N/A OpEx expenditure
Warranty	3 years	5 years	1.7X warranty coverage

*Battery and labor cost for one replacement

EATON 5PX GEN 2 UPS

The Eaton 5PX Gen 2 range provides exceptional efficiency, manageability, and energy metering capabilities for IT managers.

With an optimised electrical design, the 5PX Gen 2 is Energy Star 2.0 certified and delivers best-in-class efficiency, reducing cooling and utility costs. Improved energy consumption monitoring provides insight, right down to the managed outlet groups and the innovative graphical LCD display delivers more control over configuration and commissioning.

The 5PX Gen 2 significantly extends battery service life with ABM technology and provides a high-quality output waveform for any sensitive equipment connected, such as active PFC (power factor corrected) servers.

Eaton's 5PX Gen 2 delivers premier efficient & manageable protection for high-end IT applications and is ideal for protecting servers, switches, routers and storage devices. It comes in a rack/tower convertible cabinet - pedestal and rail kits are included with all models at no extra charge.

POWER RATING

1500 - 3000 VA

FORM FACTOR

Rack/Tower

COMMUNICATIONS

USB/RS232 and 1 communication slot for either Network-M3 or RELAY-MS

WARRANTY

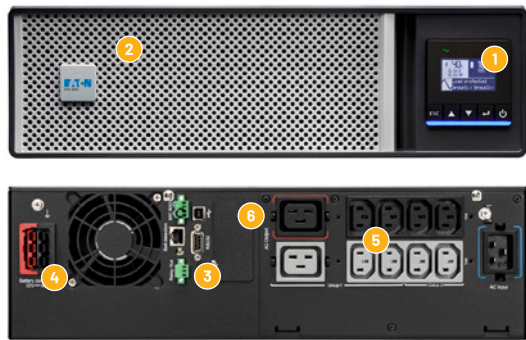3 Years (2 for battery)

IDEAL FOR PROTECTING

Communications

Storage

Emergency Lighting

Servers

1. **Graphical LCD Display**

   - Clear information UPS status and measurements
   - Enhanced configuration capabilities
   - Available in 9 languages

2. **Panel for batteries replacement** (Hot swappable)

3. **1 USB port + 1 serial port + remote ON/OFF and remote power OFF inputs + output relay**

4. **External battery (EBM) connector**

5. **8 IEC 10A + 2 IEC 16A sockets with energy metering (including 5 remote controlled sockets)**

6. **Communication card slot**

3RU model shown

EATON 5PX GEN 2 TECHNICAL SPECIFICATIONS

Eaton 5PX Gen 2 Specifications	1500	2000	2200	3000
Rating (VA/W)	1500VA	2000VA	2200VA	3000VA
Format	RT2U (rack / tower 2U)	RT2U (rack / tower 2U)	RT2U & RT3U	RT2U & RT3U
Electrical characteristics				
Technology	Line-Interactive High Frequency (Pure Sinewave, Booster + Fader)			
Input voltage range without batteries	160V-294V (adjustable to 150V-294V)			
Input frequency range without batteries	47 to 70 Hz (50Hz system)			
Output voltage	230 V (+6/-10 %) (Adjustable to 200V / 208V / 220V / 230V / 240V), 50/60 Hz +/- 0.1 % (autosensing)			
Connections				
Input	1 IEC C14 (10 A) socket	1 IEC C14 (10 A) socket	1 IEC C20 (16 A) socket	1 IEC C20 (16 A) socket
Outputs	8 IEC C13 (10 A)	8 IEC C13 (10 A) sockets	8 IEC C13 (10 A) sockets, 2 IEC C19 (16 A) socket	8 IEC C13 (10 A) sockets, 2 IEC C19 (16 A) socket
Remotely controlled sockets	2 groups of 2 x IEC C13 (10 A)		1 group of 2 x IEC C13 (10A) & 1 group of 2 x IEC C13 (10A) + 1 x IEC C19 (16A)	
Additional outputs with Hot Swap MBP	4 AUS 10A + 1 IEC 16A sockets or 6 IEC 10 A sockets or terminal blocks (HW version)			
Additional outputs with FlexPDU	6 AUS 10A + 1 IEC 16A sockets or 12 IEC 10 A sockets			
Batteries - Typical backup times for 50 and 70% load*				
5PX	14/8.5 mins	11/7 mins	10/5 mins	9/5.5 mins
5PX + 1 EBM	57/38 mins	61/41 mins	54/36 mins	41/27 mins
5PX + 4 EBM	215/145 mins	245/165 mins	219/147 mins	154/103 mins
Battery management	ABM® & Temperature compensated charging method (user selectable), Automatic battery test, deep discharge protection, automatic recognition of external battery units			
Interfaces				
Communication ports	1 USB port + 1 serial RS232 port + 1 mini-terminal block for Remote ON/OFF + 1 mini-terminal block for Remote Power OFF + 1 mini-terminal block for output relay			
Communications card slots	1 slot for Network-M3, INDGW-M2, or RELAY-MS cards			
Operating conditions, standards and approvals				
Operating temperature	0 to 40°C			
Noise Level	<40 dB @ typical load			
Performance - Safety - EMC	IEC/EN 62040-1, UL1778, CSA22.2, IEC/EN 62040-2, FCC Class B, CISPR22 Class B			
Approvals	CE / CB report (TUV) / cTUVus / EAC / UKCA / Ukr / Cm / RCM			
Dimensions W x D x H / Weight				
UPS Dimensions (mm)	438x448x85.5	438x603x85.5	438x603x85.5 (RT2U) 438x483x129 (RT3U)	438x603x85.5 (RT2U) 438x483x129 (RT3U)
UPS Weight (kg)	22.4 kg	28 kg	28.2 kg (RT2U) / 27.5 kg (RT3U)	31.7 kg (RT2U) / 31.1 kg (RT3U)
Dimensions of EBM	same as UPS			
Weight of the EBM	27.8 kg	40.4 kg (RT2U) / 39.7 kg (RT3U)	40.4 kg (RT2U) / 39.7 kg (RT3U)	40.4 kg (RT2U) / 39.7 kg (RT3U)
Customer Service & Support				
Warranty	3 years			
* Backup times are approximaate and may vary with equipment, configuration, battery age, temperature, etc.				

Part Numbers	1500	2000	2200	3000 (RT2U)	3000 (RT3U)
UPS	5PX1500IRT2UAUG2	5PX2000IRT2UAUG2	5PX2200IRT2UAUG2	5PX3000IRT2UAUG2	5PX3000IRT3UAUG2
EBM	5PXEBM48RT2UG2	5PXEBM72RT2UG2	5PXEBM72RT2UG2	5PXEBM72RT2UAUG2	5PXEBM72RT3UG2

EATON 9SX TOWER UPS

The Eaton 9SX tower UPS consistently delivers reliable performance, with robust online double-conversion power protection, zero transfer time to battery, continuous filtering of power, and an internal, automatic static bypass.

Compatible, line-and-match battery packs allow you to tailor the runtime of the 9SX UPS to meet your requirements. The 9SX easy-to-read LCD display gives you access to UPS alarm history, energy logs, unit serial numbers and firmware versions to enable first-time issue resolution right at the source.

The MS-Slot fitted to the unit allows for MS-Slot connectivity cards to be installed for remote monitoring and control (if enabled via UPS front display).

POWER RATING
700 - 6000 VA

FORM FACTOR
Tower

COMMUNICATIONS
USB/RS232 and 1 communication slot for either Network-M3 or RELAY-MS

WARRANTY
2 Years

IDEAL FOR PROTECTING

Switchboards & Controls

Emergency Lighting

Motors

Storage

Servers

1. LED indicators
2. LCD panel
3. Hot swappable batteries
4. Slot for management card
5. RS-232 port and USB port
6. EBM connector
7. Standard relay output connector
8. Battery detection port
9. Remote Power Off (RPO)/Signal Input Connector
10. Switchable load groups
11. Input

EATON 9SX TOWER TECHNICAL SPECIFICATIONS

Technical specifications	700 VA	1000 VA	1500 VA	2000 VA	3000 VA	6000 VA
Rating (VA/W)	700 VA/ 630 W	1000 VA/900 W	1500 VA/1350 W	2000 VA/1800 W	3000 VA/2700 W	6000 VA/5400 W
Format	Tower					
Electrical characteristics						
Technology	ON-LINE double conversion with automatic bypass and Power factor correction system					
Nominal voltage	200/208/220/230/240V					
Input voltage range	190-276V without derating (up to 120-276V with derating)			200-276V without derating (up to 140-276V with derating)		180-276V without derating (up to 120-276V with derating)
Input frequency range	40-70Hz, 50/60Hz autoselection, frequency converter mode					
Connections						
Input	1 IEC C14 (10A)	1 IEC C14 (10A)	1 IEC C14 (10A)	1 IEC C14 (10A)	1 IEC C20 (16A)	Ph+N+E Terminal block
Output	4 AU (10A) sockets	4 AU (10A) sockets	4 AU (10A) sockets	5 AU (10A) sockets, 1 IEC C19 (16A) socket	5 AU (16A) sockets, 1 IEC C19 (16A) socket	Ph+N+E Terminal block
Switched outlet group	2 outlet groups					
Batteries						
Typical backup times*	300W	500W	800W	1200W	1800W	2500W
9SX700I-AU	14	7.5				
9SX1000I-AU	24	14	7			
9SX1000I-AU + 1 EBM/+4 EBM	90/320	56/200	33/120			
9SX1500I-AU	39	23	12	7		
9SX1500I-AU + 1 EBM/+4 EBM	142/520	85/310	50/179	31/115		
9SX2000I-AU	62	36	22	13	7	
9SX2000I-AU + 1 EBM/+4 EBM	280/1050	165/620	100/390	65/250	40/160	
9SX3000I-AU	78	45	29	17	10	6
9SX3000I-AU + 1 EBM/+4 EBM	290/1100	175/630	108/421	68/255	45/168	30/112
	900W	1800W	2700W	3600W	4500W	5400W
9SX6KI-AU	66	28	18	11.5	8	6
9SX6KI-AU + 1 EBM/+4 EBM	250/1016	111/478	67/250	46/180	35/143	28/112
Battery management	ABM® and Temperature compensated charging method (user selectable), automatic battery test, deep discharge protection, automatic recognition of external battery units					
Communication						
Communication ports	1 USB port + 1 serial RS232 port + 1 mini-terminal block for Remote Power Off + 1 mini-terminal block for Output relay					
Communication slot	1 slot for Network-M3, INDGW-M2 or Relay-MS cards					
Operating conditions, standards and approvals						
Operating temeprature	0 to 40°C					
Typical noise level	40dB	41dB	43dB	45dB	45dB	46dB
Safety	IEC/EN 62040-1					IEC/EN 62040-1
EMC	IEC/EN 62040-2 (Emissions, Category C1)					IEC/EN 62040-2 (Emissions, Category C2)
Approvals & markings	CE / CB report (TUV) / RCM					CE / CB report (TUV) / RCM
Dimensions H x W x D in mm/ Weight						
UPS	252x160x357/11.5kg	252x160x387/14.8k	252x160x437/18.5kg	3 46x214x412/33.3kg	346x214x412/33.4kg	5 75x244x542/65.5kg
EBM		252x160x387/19kg	252x160x387/24.5kg	346x214x412/48.7kg	346x214x412/48.7kg	7 5x244x542/104.9kg
Customer service and support						
Warranty	2 years					
Part Number	9SX700I-AU	9SX1000I-AU	9SX1500I-AU	9SX2000I-AU	9SX3000I-AU	9SX6000I-AU

* Backup times are approximaate and may vary with equipment, configuration, battery age, temperature, etc.

EATON 9PX UPS (1-3kVA)

The Eaton 9PX UPS provides energy-efficient power protection for small & medium Datacentres, IT rooms and Infrastructure. Delivering double conversion protection with 40% less energy usage and 28% more power the 9PX is the perfect UPS for IT and Facility managers that are concerned by energy cost and are looking for next generation power protection solutions.

With a versatile Rack/Tower form factor, the 9PX is the most compact solution delivering up to 3000W in only 2U. 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.

POWER RATING
1000 - 3000 VA

FORM FACTOR
Rack/Tower

COMMUNICATIONS
USB/RS232 and 1 communication slot for either Network-M3 or RELAY-M3

WARRANTY
3 Years

IDEAL FOR PROTECTING

Communications

Storage

CCTV

Servers

Emergency Lighting

Motors

1. Graphical LCD Display
2. Panel for batteries replacement (hot swappable)
3. Slot for management card
4. Outputs: 8 x IEC 10A + 2 x IEC 16A with energy metering (including 2 programmable groups)
5. USB port, 1 serial port, Remote ON/OFF, Remote power OFF and Relay output
6. External battery (EBM) connector

EATON 9PX 1-3kVA TECHNICAL SPECIFICATIONS

Technical Specifications	1000	1500	2200	3000VA		
Rating (VA/W)	1000VA/1000W	1500VA/1500W	2200VA/2200W	3000VA/3000W		
Format RT2U	RT2U (tower/rack 2U)		RT2U (tower/rack 2U) and RT3U (tower/rack 3U)			
Electrical characteristics						
Technology	On-line double conversion with Power Factor Correction (PFC) system					
Nominal voltage	200 / 208 / 220 / 230 / 240V					
Input voltage range	176-276V without derating (up to 100-276V with derating)					
Input frequency range	40-70Hz, 50/60Hz autoselection, frequency converter mode					
Efficiency	up to 91.5% in online mode (up to 97.5% in Hi-efficiency mode)	up to 92.5% in online mode (up to 97.5% in Hi-efficiency mode)	up to 93.5% in online mode (up to 98% in Hi-efficiency mode)	up to 94% in online mode (up to 98% in Hi-efficiency mode)		
Connections						
Input	1 IEC C14 (10A)		1 IEC C20 (16A) or terminal block on HotSwap MBP HW (Hard-Wired)			
Outputs	8 IEC C13 (10A) sockets		8 IEC C13 (10A) sockets + 2 IEC C19 (16A) sockets			
Outputs on HotSwap models	-		4 FR/Schuko sockets or 3 BS sockets or 6 IEC 10A sockets or terminal blocks (HW version)			
Switched outlet group	2 outlet groups		-			
Communication						
Communication ports	1 USB port + 1 serial RS232 port + 1 mini-terminal block for remote ON/OFF + 1 mini-terminal block for remote power off + 1 mini-terminal block for output relay					
Communication slot	1 slot for NETWORK-M3 card, INDGW-M2 or Relay-MS cards					
Operating conditions, standards and approvals						
Operating temeprature	0 to 40°C					
Typical noise level	35dB		40dB			
Safety	IEC/EN 62040-1, UL 1778, CSA 22.2					
EMC	IEC/EN 62040 -2, FCC Class B, CISPR22 Class B					
Approvals & markings	CE /CB report (TUV) / cULus / EAC /RCM / KC / Energy Star					
Dimensions H x W x D in mm/ Weight						
UPS	86.5*440*450/17.4kg	86.5*440*450/18.9kg	2U version: 86.5*440*605/25kg 3U version: 130*440*485/24.5kg	2U version: 86.5*440*605/27.6kg 3U version: 130*440*485/27.4kg		
EBM	86.5*440*450/29.8kg		2U version: 86.5*440*605/39.2kg 3U version: 130*440*485/38.2kg			
Customer service and support						
Warranty	3 years on electronics					
Batteries						
Typical backup times*	300W	500W	800W	1200W	1800W	2500W
9PX 1000	28	16	9			
9PX 1000 + 1 EBM/+4 EBM	134/530	79/316	47/188			
9PX 1500	38	23	13	7		
9PX 1500 + 1 EBM/+4 EBM	143/536	86/319	52/192	32/120		
9PX 2200	43	25	15	9	5	
9PX 2200 + 1 EBM/+4 EBM	206/818	123/491	74/297	47/189	29/118	
9PX 3000	60	36	22	13	7	4
9PX 3000 + 1 EBM/+4 EBM	221/824	135/504	83/307	52/194	33/122	22/82
Battery management	ABM® & temperature compensated charging method (user selectable), automatic battery test, deep discharge protection, automatic recognition of external battery units					

* Backup times are approximate and may vary with equipment, configuratino, battery age, temperature, etc.

Parts numbers*	9PX 1kVA	9PX 1.5kVA	9PX 2.2kVA	9PX 3kVA
UPS RT3U			9PX2200IRT3UANZ	9PX3000IRT3UANZ
UPS RT2U	9PX1000IRT2UANZ	9PX1500IRT2UANZ	9PX2200IRT2UANZ	9PX3000IRT2UANZ
EBM	9PXEBM48RT2U	9PXEBM48RT2U	"2U: 9PXEBM72RT2U	
3U: 9PXEBM72RT3U*	"2U: 9PXEBM72RT2U			
3U: 9PXEBM72RT3U*				
2m battery connection cable	EBMCBL48	EBMCBL48	EBMCBL72	EBMCBL72
Battery integration system	BINTSYS			

*All 9PX UPS and EBM are delivered with rack kit

EATON 9PX UPS (5-11kVA)

The Eaton 9PX UPS delivers power protection for medium to high density rack environments, constantly monitoring power conditions and regulating voltage and frequency. With up to 95% efficiency in online double conversion mode and 98% in high efficiency mode, the 9PX provides the highest efficiency level in its class to reduce energy and cooling costs.

With a RT (Rack/Tower) versatile form factor, the 9PX is the most compact solution in its class delivering up to 5400W in only 3U and 10kW in only 6U. The 9PX delivers 28% more power than other UPSs in its class, powering more servers than other UPSs with equivalent VA ratings and lower power factors.

POWER RATING
5000 - 11000 VA

FORM FACTOR
Rack/Tower

COMMUNICATIONS
USB/RS232 and 1 communication slot for either Network-M3 or RELAY-MS

WARRANTY
3 Years (2 for Battery)

IDEAL FOR PROTECTING

Communications

Storage

CCTV
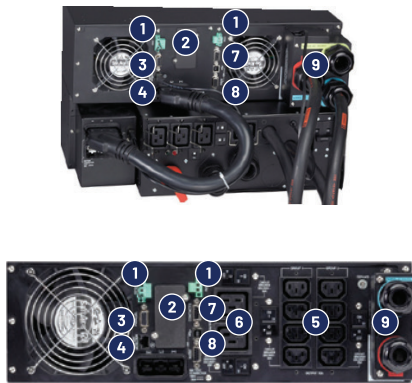
Servers

Emergency Lighting

Motors

1. Remote Off/On and Remote Power Off connectors
2. Slot for Network-MS, ModBus-MS or Relay-MS cards
3. Parallel operation port (DB15)
4. External battery module (EBM) connector with automatic detection (RJ11)
5. 8 IEC 10A sockets (2 groups of manageable sockets) with cable retention system
6. 2 IEC 16A sockets with cable retention system
7. DB 9 with output contacts
8. USB and serial port
9. Input/Output connecion

EATON 9PX 5-11kVA TECHNICAL SPECIFICATIONS

Technical Specifications	5kVA	6kVA	8kVA	11kVA
Rating (kVA/kW)	5kVA/4.5kW	6kVA/5.4kW	8kVA/7.2kW	11kVA/10kW
Electrical Characteristics				
Technology	On-line double conversion with Power Factor Correction (PFC) system			
Nominal voltage	200 / 208 / 220 / 230 / 240V		200 / 208 / 220 / 230 / 240 / 250V	
Input voltage range	176-276V without derating (up to 100-276V with derating)			
Output voltage/THDU	200/208/220/230/240V +/- 1%; THDU <2%		200/208/220/230/240/250V +/- 1%; THDU <2%	
Input frequency range/THDI	40-70Hz, 50/60Hz autoselection, frequency converter as standard, THDI < 5%			
Efficiency	Up to 94% in Online mode, 98% in Hi-Efficiency mode		Up to 95% in Online mode, 98% in Hi-Efficiency mode	
Crest factor/short circuit current	3:1/90A	3:1/90A	3:1/120A	3:1/150A
Overload capacity	102-110% : 120s, 110-125%: 60s, 125-150%: 10s, >150%: 500ms		102-110% : 120s, 110-125%: 60s, 125-150%: 10s, >150%: 900ms	
Connections				
Input	Terminal block (up to 10 mm2)		Terminal block (up to 16mm2)	
Outputs	Terminal block + 2 controlled groups of 4 IEC C13 (10A) + 2 IEC C19 (16A)		Terminal block	
Outputs with HotSwap Maintenance Bypass	Terminal block + 3 IEC C13 (10A) + 2 IEC C19 (16A)		Terminal block + 4 IEC C19 (16A)	
Batteries				
Typical backup times at 50 and 70% load*				
9PX	13/10 min	11/8 min	20/15 min	13/9min
9PX + 1 EBM	60/40 min	48/34 min	48/32 min	32/21 min
9PX + 4 EBM	220/150 min	170/120 min	140/100 min	100/70 min
Battery management	ABM® and temperature compensated charging method (user selectable), automatic battery test, deep discharge protection, automatic recognition of external battery units.			
Communication				
Communication ports	1 USB port, 1 RS232 serial port (USB and RS232 ports cannot be used simultaneously), 4 dry contacts (DB9), 1 minmi teinral block for remote On/Off and 1 for remote power Off, 1 DB15 for parallel operation.			
Communication slot	1 slot for NETWORK-M3 card, INDGW-M2 or Relay-MS cards.			
Operating conditions, standards and approvals				
Operating temperature	0 to 40°C continuous			
Noise level	<45dB	<45dB	<48dB	<50dB
Safety	IEC/EN 62040-1, UL 1778, CSA 22.2			
EMC, performance	IEC/EN 62040 -2 , FCC Class A, IEC/EN 62040-3 (Performance)			
Approvals	CE, CB report (TUV), UL			
Dimensions H x W x D/Weight				
UPS	440(19")*130(3U)*685mm/48kg	440(19")*130(3U)*685mm/48kg	440(19")*260(6U)*700mm/84kg	440(19")*260(6U)*700mm/86kg
EBM	440(19")*130(3U)*645mm/68kg	440(19")*130(3U)*645mm/68kg	440(19")*130(3U)*680mm/65kg	440(19")*130(3U)*680mm/65kg
Power module	-	-	440(19")*130(3U)*700mm/19kg	440(19")*130(3U)*700mm/21kg
Customer Service and Support				
Warranty	3 years			
* Backup times are approximate and may vary with equipment, configuratino, battery age, temperature, etc.				
Part Number UPS	**9PX5Ki**	**9PX6Ki**	**9PX8KiPM**	**9PX11KiPM**
EBM	9PXEBM180	9PXEBM180	9PXEBM240	9PXEBM240

EATON 9PX LITHIUM-ION UPS

The Eaton 9PX Lithium-ion's double conversion topology constantly monitors power conditions and regulates voltage and frequency providing the highest efficiency level to reduce energy and cooling costs.

Internal bypass allows service continuity in case of internal fault, a maintenance bypass is also available for easy replacement of the UPS.

Lithium-ion online double conversion UPS features an expanded battery life of 8-10 years compared to the usual 3-5 years with VRLA batteries. This longer life is backed by a five-year factory warranty including UPS electronics, internal batteries and EBMs.

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

With Lithium batteries reducing the overall UPS weight, this is ideal for installations where weight is a limiting factor and with a high cycle count rating ideal for daily discharge applications such as generator or solar inverter supplied.

POWER RATING
1500 - 6000 VA

FORM FACTOR
Rack

COMMUNICATIONS
USB/RS232 and 1 communication slot for either Network-M3 or RELAY-MS

WARRANTY
5 Years

IDEAL FOR PROTECTING

Communications

Storage

CCTV

Servers

Emergency Lighting

Motors

1 Graphical LCD display:

 - Clear information on UPS status and measurements

 - Enhanced confirguation capabilites

2 Slot for Management card (Network card delivered as standard on netpack version)

3 Outputs: 8 x IEC 10A + 2 x IEC 16A with energy metering (including 2 programmable groups)

4 USB port, 1 serial port, Remote ON/ OFF Remote power OFF and Relay output

5 External battery (EBM) connector

EATON 9PX LITHIUM-ION TECHNICAL SPECIFICATIONS

Technical specifications	1500	2000	3000	6000
Rating (VA/W)	1500VA/1500W	2000VA/1800W	3000VA/2400W (3000VA/3000W with EBM)	6000VA/5400W
Format	RT2U (tower/rack 2U)			RT3U (tower / rack 3U)
Electrical characteristics				
Technology	On-line double conversion with Power Factor Correction (PFC) system			
Nominal voltage	200/208/220/230/240V			
Input voltage range	176-276V without derating (up to 100-276V with derating)			
Input frequency range	40-70Hz, 50/60Hz autoselection, frequency converter mode			
Efficiency	up to 92.5% in online mode	up to 93.5% in online mode	up to 94% in online mode	up to 94% in online mode
	(up to 97.5% in Hi-efficiency mode)	(up to 98% in Hi-efficiency mode)	(up to 98% in Hi-efficiency mode)	(up to 98% in Hi-efficiency mode)
Connections				
Input	1 IEC C14 (10A)	1 IEC C14 (10A)		Terminal Block
Outputs	8 IEC C13 (10A) sockets	6 IEC C13 (10A) + 2 AU GPO (10A) sockets	8 IEC C13 (10A) + 2 IEC C19 (16A) sockets	Terminal block + 8 IEC C13 (10A) sockets + 2 IEC C19 (16A) sockets
Switched outlet group	2 outlet groups			
Communication				
Communication ports	1 USB port + 1 serial RS232 port + 1 mini-terminal block for remote ON/OFF + 1 mini-terminal block for remote power OFF			
	+ 1 mini-terminal block for output relay			
Communication slot	1 slot for NETWORK-M3 Card, Industrial Gateway Card (Modbus TCP/RTU), or Relay card			
Operating Conditions, standards and approvals				
Operating temperature	0 to 40°C			
Typical noise level	35dB	40dB		45dB
Safety	IEC/EN 62040-1, UL 1778, CSA 22.2			
EMC	IEC/EN 62040-2, FCC Class B, CISPR22 Class B			
Approvals & markings	CE/CB report (TUV) / EAC / Energy Star / RCM			
Dimensions H x W x D in mm/weight				
	1.5kVA	2.0kVA	3kVA	6kVA
UPS	86.5x440x450/15.8Kg	86.5x440x605/22.1Kg	86.5x440x605/22.8Kg	130x440x685/36.9kg
EBM	42.9x438x448/12Kg	42.9x438x603/17.4Kg	42.9x438x603/17.4Kg	438x85.3x645/35.8kg
Customer service and support				
Warranty	5 years full warranty (electronics, internal batteries and EBM)			

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

Parts numbers*	1.5kVA	2.0kVA	3kVA	6kVA
UPS RT2U	9PX1500IRTANZ-L	9PX2000IRTAU-L	9PX3000IRTANZ-L	
UPS RT with Gigabit Network card				9PX6KIRTN-L
EBM RT1U	9PXEBM48RT1U-L	9PXEBM72RT1U-L	9PXEBM72RT1U-L	9PXEBM192RT2U-L

* All 9PX Lithium-ion UPS and EBM are delivered with rack kit

Batteries								
Typical backup times*	300W	500W	800W	1200W	1800W	2400W	3500W	4800W
9PX 1500	45	30	20	13				
9PX 1500 + 1 EBM/4EBM	114/321	76/210	52/145	33/92				
9PX 2000	66	45	30	21	14			
9PX 2000 + 1 EBM/4EBM	170/475	112/305	78/205	52/148	35/98			
9PX 3000	68	46	30	21	14	10.5		
9PX 3000 + 1 EBM/4EBM	184/516	120/320	80/215	54/153	37/104	28/78		
9PX 6000	110	72	45	32	22	17.5	12	8.5
9PX 6000 + 1 EBM/4EBM	400/1200	240/720	160/470	110/340	80/230	60/175	41/122	30/89
Battery	Lithium-ion battery (LFP) with 8 to 10 years service life, automatic recognition of external battery modules (EBM)							

EATON 9E UPS

The Eaton 9E is an online double-conversion power protection at an affordable price with compact yet robust construction.

This UPS is an ideal choice for industrial, medical and information technology (IT) applications and telecommunications. It constantly monitors power conditions and regulates voltage and frequency due to the online double conversion topology.

The internal bypass allows service continuity in case of an internal fault. A maintenance bypass is also available at 6kVA and above as standard for easy maintenance of the UPS without powering down critical systems.

Extend runtime as you like by adding up to 4 external battery modules (EBM) for 2kVA and above. For extra-long runtime, XL models with external battery connection and internal supercharger are also available at 3kVA, 10kVA and 20kVA.

POWER RATING

1000 - 10000 VA

FORM FACTOR

Tower

COMMUNICATIONS

USB/RS232 and 1 communication slot for either Network-M3 or RELAY-MS

WARRANTY

1 Year

IDEAL FOR PROTECTING

Communications

Switchboards & Controls

Emergency Lighting

Motors

EATON 9E TECHNICAL SPECIFICATIONS

TECHNICAL SPECIFICATIONS	1000VA	2000VA	3000VA	6KVA 1:1	10KVA 3/1:1
Rating (VA/W)	1000VA/800W	2000VA/1600W	3000VA/2400W	6KVA/4.8KW	10KVA/8KW
Format	Tower				
Electrical Characteristics					
Technology	Online double conversion				
Input Voltage	208/220/230/240V			220/230/240V	1Ph 220-240V or 3Ph 380-415V configurable
Input voltage range without using batteries	176-300V without derating (up to 100-300V with derating)			176-276V without derating (up to 110-276V with derating)	
Output Voltage	208/220/230/240V±1 %			220V/230V/240V ±1 %	
Output THDv	THDv: <2% for 100% linear load, <6% for 100% non-linear load			THDv<3%	
Input frequency range	40Hz-70Hz, 50/60Hz autoselection			45Hz-66Hz, 50/60Hz autoselection	
Efficiency	up to 91% in online mode, up to 97.5% in high efficiency mode (ECO mode)			up to 93% in Online mode, 97% in ECO mode	
Overload capacity (in on-line mode)	105%-130% : 60s, 130%-150% : 10s, >150% : ≥300ms			105%-110% : 5Min, 110%-130% : 1Min, 130%-150% : 10s, >150% : 100ms	
Recharge time to 90% battery capacity	4 hours	4 hours	4 hours		
Extendable backup time	NA	YES	YES	YES	YES
Compatible EBM type	NA	9EEBM72	9EEBM72	9EEBM180	9EEBM240
Connections					
Input	IEC C14	IEC C14	IEC C14	Terminal Block	
Output	4 x IEC C13	6 x IEC C13	6 x IEC C13 + 1 x IEC C19	Terminal Block	
Typical backup times at 50%/100% Load (minutes)					
9E	11/4.5	16/6.4	13.4/4.7	20/12	6/15
9E + 1 EBM	NA	78/35	49/22	75/47	25/58
9E + 4 EBM	NA	243/119	173/83	222/140	77/168
Communication					
Communication ports	1 USB port + 1 RS232 serial port (USB and RS232 ports cannot be used simultaneously)				
Communication slot	1 slot for Network-M3, INDGW-M2 or Relay-MS cards				
Software	Intelligent Power Software				
Operating conditions, Standards and Approvals					
Operating temperature	0 to 40°C				
Noise level	37dB @ typical load	40dB @ typical load	40dB @ typical load	<55dB @ typical load	<55dB @ typical load
Safety	IEC/EN 62040-1				
EMC, Performance	IEC/EN 62040-2				
Approvals	CE, CB report (TUV)				
Dimensions D x H x W / Weight					
UPS Dimensions (mm)	356 x 228 x 144	399 x 330 x 190	399 x 330 x 190	612.9 x 708.5 x 262.4	612.9 x 708.5 x 262.4
UPS Weight (kg)	9.5	22.4	24.2	68	85
Customer service & support					
Standard warranty	1 year				
* Backup times are approximate and may vary with equipment, configuratino, battery age, temperature, etc.					
Part Number	9E1000IAU	9E2000IAU	9E3000IAU	9E6Ki	9E10KI

OPTIONS TO MANAGE & MONITOR YOUR UPS

Eaton's full range of network connectivity devices enables you to remotely monitor and manage your power quality equipment.

From outlet-by-outlet energy consumption reports to temperature and humidity readings, connectivity devices give you full control of your power quality equipment and environment.

This high level of awareness and control helps you ensure business continuity.
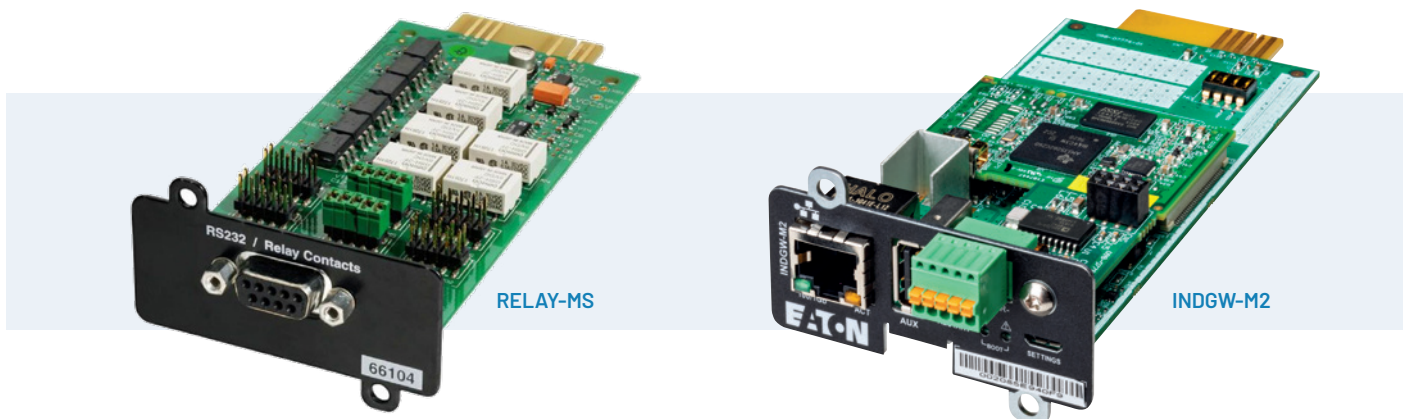
NETWORK-M3

EMPDT1H1C2
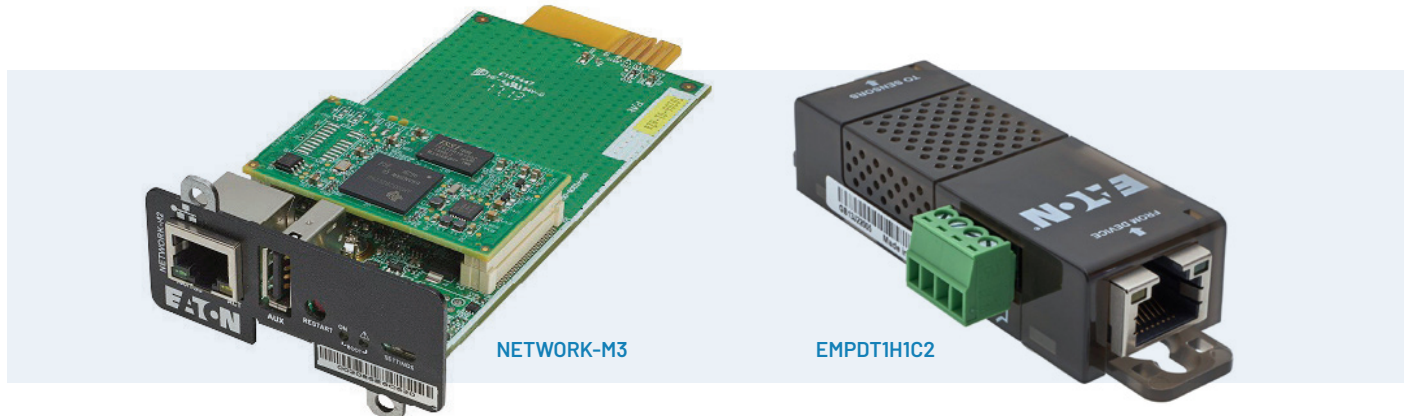
NETWORK-M3

The Eaton Gigabit Network (SNMP) Card improves power system reliability by providing warnings of pending issues to administrators and helps to perform orderly shutdown.

Eaton's Network M3 Cards are compatible with Environmental Monitoring Probe Gen 2 (EMPDT1H1C2) for temperature, humidity and dry-contact monitoring and can be daisy-chained (up to 3 per host) allowing multiple sensor connection to a single host.

- Gigabit speed compatible with better performing, cost effective and widely deployed gigabit network switches.

- Cyber security enhancements for UL 2900-2-2 certification, including stronger encryption, configurable password policy and usage of CA and PKI signed certificates.

- Real-time clock with battery backup and linkage to NTP (Network Time Protocol) server.

- Secure SMTP for email alerts.

- Increased memory for improved operation and larger data storage.

- Modern user experience with latest web technology.

RELAY-MS

INDGW-M2

RELAY MS & INDUSTRIAL GATEWAY CARD

The Eaton Relay-MS enables automatic shutdown and network monitoring of UPS system status through a connected computer with a dedicated adapter. Offering 4 dry-contact volt free alarm outputs (AC fail, on battery, on bypass, low battery) it is compatible with all Eaton UPSs that have a Minislot and are particularly suited to IBM AS/400 series computers as well as industrial and building management systems.

The Eaton Industrial Gateway Card (INDGW-M2) combines the features of an SNMP agent, HTTP/web server and a Modbus TCP/RTU card to facilitate remote monitoring of your UPS system through any building management system. Customise and schedule actions like shutdown protocols or load shedding and receive immediate notifications during power events.

PDU AND MAINTENANCE BYPASS

The no-hassle solution for improving availability and adding flexibility for single phase UPSs.

EATON FLEXPDU

Having the right connectors just where you need them:

- FlexPDUs (Power Distribution Units) are flexible mounting multiway socket blocks for easy connection of multiple loads either as free-standing or on rack-mounted UPSs.

- FlexPDUs have a large number of sockets (3x3 pin ANZ outlets, 12 IEC 10 A sockets) which fit into a very compact unit (1U - 19").

- FlexPDUs are easy to implement into any type of installation: they can be rack mounted horizontally (1U) or vertically or directly onto all Eaton RT format (rack/tower) UPSs.

EATON HOTSWAP MBP

High availability for all UPSs up to 11 kVA.

- HotSwap MBP provides a maintenance bypass for all UPSs. UPSs can be hot swapped or upgraded without interrupting the power supply.

- HotSwap MBP are available with multiple power ratings: 3000 VA, 6000 VA, 11000 VA, 11000 VA (3 ph Input).

- HotSwap MBP provides compatibility with any UPS now and in the future.

- The HotSwap MBP 3000 VA is available with different output connectors: 3x3 pin ANZ outlets, IEC or terminal blocks (Hard-Wired version). When used with a 9PX or 9SX the HotSwap MBP 6000 VA and above are providing information on the Bypass status through the UPS LCD screen.

- HotSwap MBP units can be installed as required; at the back, side, top of the UPSs, or rack-mounted.

EATON FLEXPDU & HOTSWAP MBP TECHNICAL SPECIFICATIONS

Technical Specifications	Eaton FlexPDU	Eaton HotSwap MBP 2000	Eaton HotSwap MBP 3000	Eaton HotSwap MBP 6000	Eaton HotSwap MBP 11000
Maximum power	3000 VA	2000 VA	3000 VA	6000 VA	11000 VA
Nominal Voltage	220 - 240 V	220 - 240 V	220 - 240 V	220 - 240 V	200 - 240 V (350 - 450 V for 3 ph version)
Installation					
Format	1U 19" rack-mounting with multi-position mountings	>1U 19" rack-mounting with multi-position mountings	>1U 19" rack-mounting with multi-position mountings	3U 19" rack	3U 19" rack
Installation	19" rack, wall mounting or on Eaton RT UPSs	19" rack, wall mounting or on Eaton 9PX/SX UPSs	19" rack, wall mounting or on Eaton 9PX/SX UPSs		
Dimensions H x W x D	44 x 483 x 80 mm	52 x 483 x 120 mm	52 x 483 x 120 mm	52 x 483 x 120 mm	89 x 483 x 90 mm
Connection					
Inputs	1 IEC C20 (16 A) connector and 2 cables (1 IEC 16 A - 16 A cable and 1 IEC 10 A - 16 A cable) for connection to any UPS	IEC models: 1 IEC C14 (10A) connector and 1 IEC 10 A - 10 A cable	IEC models: 1 IEC C20 (16A) connector and 1 IEC 16 A - 16 A cable (1) HW (Hard-Wired): terminal block	Hardwired terminal block	Hardwired terminal block
Outputs					
IEC	12 IEC 10 A outlets + 1 IEC 16 A outlet (with 2 circuit breakers)	6 IEC C13 10A outlets	6 IEC outletss + 1 IEC 16 A outlets (with 1 circuit breaker) OR 3 3 pin 10 A ANZ outlets + 1 IEC 16 A outlet	3 IEC 10 A outlets + 2 IEC 16 A outlets (with 3 circuit breakers) + Terminal blocks	4 IEC 16 A outlets (with 4 circuit breakers) + Terminal blocks
HW	N/A	N/A	Terminal block		
Cascading	Yes, IEC 16 A output outlet				
Retaining clips	Retaining clips on the IEC output outlets				
Operating conditions and approvals					
Operating temperature	0ºC to 45ºC continuous			0ºC to 40ºC continuous	
Approvals	CE				
Part Number	EFLX12i	PDUBHV101U	MBP3Ki	MBP6Ki	MBP11Ki

SURGES & SPIKES: THE RISK TO YOUR BUSINESS

Even though New Zealand experiences an average of 50,000 lighting strikes per year, there are many other unexpected events that can cause a damaging power surge or spike.

80% of business-effecting power surges are caused by internal factors such as load switching or the start-up processes of motors or pumps and AC equipment.

While seemingly innocent, these short bursts of excess electrical energy can wreak serious havoc on inadequately protected facilities. Surges pose a huge risk to your critical processes and sensitive electrical equipment as well as interrupt business continuity.

Carefully selected surge protection devices are designed to reduce the amount of harmful energy that flows into a system and are an inexpensive investment particularly when compared to the potential costs incurred by an unprotected system.

Surge protection can also be tailored to your business and the unique way you operate with devices that deliver protection at various points of your power network.

Point of entry: Where power enters your building.

Secondary point of protection: Where power is supplied to critical systems beyond the main distribution board.

Point of use: Where power enters your devices and tools.

Thankfully there are a range of products that can minimise the impacts of power surges and they operate at different stages of your power network.

EATON PPFi

Designed for IEC, Class II, 3 phase. Point of entry and sub circuit applications. An ideal combination, high performance series filter with remote alarm output for critical applications.
- All power circuits including "Point-of-Entry"
- Telecommunications systems & rectifiers
- Process & control systems
- Computer & medical systems
- All sensitive electronic equipment

EATON CSFi

Designed for IEC, Class II, 1 per phase. Din rail mount, dual mode filter with high noise attenuation for critical sub circuits. Remote alarm output.
- Secondary power circuits & sub boards
- Telecommunications systems
- Process & control systems
- Computer & medical systems
- All sensitive electronic equipment

EATON PSFi

Designed for IEC, Class III, plug in surge power board for domestic, SOHO and light industrial environments. 16A IEC in / out, rugged case, dual mode filter and 3 mode surge protection.
- Plug in UPS systems
- Servers
- Portable instrumentation
- POS systems
- Industrial & rural surge-prone sites

EATON DSFI

Dual Staged Surge Filter is designed for IEC, Class II, 1 per phase. Panel mount, 5-32A dual mode filter with high noise attenuation for critical sub circuits. Remote alarm output.
- Surge suppression & filtering in a single package
- Modular design
- Enclosed in IP20 painted steel housing
- Protection Fail Alarm Relay
- 3 mode, 3 Stage Protection
- 5 Year Warranty

EATON 91PS & 93PS

Lowest total cost of ownership and maximum availability – taking scalability, resiliency, safety, and efficiency to the next level.

The most advanced UPSs in their power range, the Eaton 91PS and 93PS are ideal for small data centres and other mission-critical applications where efficiency, reliability, safety and scalability are essential.

Technical Specifications						
Frame (maximum power)		10 kW	Eaton 91PS	15 kW	Eaton 91PS	15 kW
			Eaton 93PS	20 kW	Eaton 93PS	20 kW
Phases in/out	Eaton 91PS	1:1 / 3:1	Eaton 91PS	3:1	Eaton 91PS	3:1
	Eaton 93PS	3:3	Eaton 93PS	3:3	Eaton 93PS	3:3
Power range		8 - 10 kW	Eaton 91PS	8 - 15 kW	Eaton 91PS	8 - 15 kW
			Eaton 93PS	8 - 20 kW	Eaton 93PS	8 - 20 kW
Runtime (internal batteries)		8 - 15 min		5 – 37 min		5 – 37 min
Number of power modules		Monolithic		1		1

Eaton 91PS and 93PS cost you less to own because they are more efficient, thanks to a number of leading technologies.

Double conversion efficiency

High online efficiency significantly lowers operation costs and provides savings in cooling. Replacing an older generation UPS with a Eaton 91PS/93PS will be paid back in 3 years.

96.2% **3 YEARS PAYBACK TIME**

Optimized double conversion
Reduced footprint

Eaton 91PS and 93PS cost you less to own because they are more efficient, thanks to a number of leading technologies. Variable Module Management System (VMMS) helps to achieve high efficiency even when UPS load levels are low – typical for redundant UPS systems.

900000 kVA
of UPS CAPACITY IN ESS MODE
74% Less Losses

Energy Saver System

Energy Saver System (ESS) improves Eaton 91PS and 93PS efficiency levels to 99%. ESS is the most proven and reliable energy saving system in the market with many years of usage within a wide install base. Even when comparing to extremely high double conversion efficiency, ESS mode can further reduce the losses by 74% with a typical UPS load.

25% VMMS **75% ESS** **REDUCTION IN OPERATION EXPENSES**
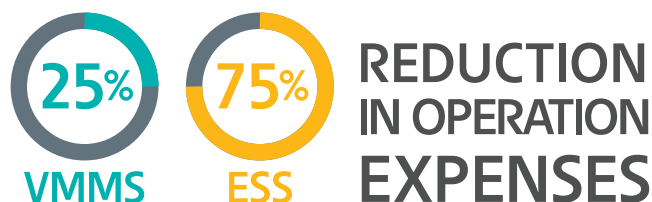
UPS REPLACEMENT BATTERY SELECTOR

Model	Battery	Qty
3S600AU	HR1234	1
3S850AU	HR1234	1
5E650IUSB-AU	HR1234	1
5E850IUSB-AU	HR1234	1
5E1100IUSB-AU	HR1234	2
5E1500IUSB-AU	HR1234	2
5E2000IUSB-AU	HR1234	2
5E700UIAU	HR1234	1
5E900UIAU	HR1234	1
5E1200UIAU	HR1234	2
5E1600UIAU	HR1234	2
5E2200UIAU	HR1234	2
5S550AU	HR1234	1
5S700AU	HR1234	1
5S850AU	HR1234	1
5S1200AU	HR1234	2
5S1600AU	HR1234	2
5SC500I	HR1234	1
5SC750I	HR1234	2
5SC1000I	HR1234	2
5SC1500I	HR1234	3
5SC1500IR-AU	HR1234	3
5P650AU	HR1234	1
5P650IR	HRL634	2
5P850AU	HR1234	2
5P850IR	HRL634	4
5P1150AU	HR1234	2
5P1150IR	HRL634	4
5P1550AU	HR1234	3
5P1550IR	HRL634	6
5P650AUG2	HR1234	1
5P650IRG2	HRL634	2
5P850AUG2	HR1234	2
5P850IRG2	HRL634	4
5P1150AUG2	HR1234	2
5P1150IRG2	HRL634	4
5P1550AUG2	HR1234	3
5P1550IRG2	HRL634	6
5SX1250AU	HR1234	4
5SX1750RAU	HR1234	4
5SX3000RAU	HR1234	6

The role of a UPS system is to eliminate the risk of unpredictable interruptions to your load.

In order to maintain the maximum uptime it is vital that you plan and carry out UPS battery replacements at regular intervals.

Battery replacements are available for all Eaton VRLA models.

Battery replacement and handling must be carried out by a technically competent person.

Model	Battery	Qty
5PX1500IRT	HR1234	4
5PX2000IRT	HR1234	4
5PX2200IRT2UAU	HR1234	4
5PX3000IRT2UAU	HR1234	6
5PX1500IRT2UAUG2	HR1234	4
5PX2000IRT2UAUG2	HR1234	6
5PX2200IRT2UAUG2	HR1234	6
5PX3000IRT*	HR1234	6
9E1000IAU	HR1234	3
9E2000IAU	HR1234	8
9E3000IAU	HR1234	8
9SX700I-AU	HR1234	2
9SX1000I-AU	HR1234	3
9SX1500I-AU	HR1234	4
9SX2000I-AU	HR1234	8
9SX3000I-AU	HR1234	8
9PX1000IRT2UANZ	HR1234	4
9PX1500IRT2UANZ	HR1234	4
9PX2000IRTAU	HR1234	6
9PX2200*	HR1234	6
9PX3000*	HR1234	6

* Both 2U and 3U Models

Your power is safe in our hands