Emergency lighting solutions overview brochure

Emergency lighting solutions from Eaton

Powering Business Worldwide

Emergency lighting

Emergency lighting requirements and related building codes, such as the Life Safety Code (NFPA 101), are vital in the construction of commercial structures to facilitate safe occupant exit during a building fire or other emergency situation. Eaton's emergency lighting UPS systems are UL 924-tested and certified, providing you with the industry's highest capacity and efficiency while helping you reduce risk and effectively navigate any emergencies that may arise in your facility. With a full backup power and lighting portfolio and industry-leading service for emergency lighting applications, Eaton can provide you with a complete, end-to-end solution to support your emergency lighting needs in a wide range of environments.

Eaton's emergency lighting solutions are perfect for:

Commercial buildings

- **Commercial buildings must comply** with emergency lighting requirements before being occupied.
- **Commercial building customers have a choice in how to comply** with applicable regulations. Eaton offers flexibility in meeting your needs by providing you with a full solution, featuring emergency lighting and power-listed equipment and companion solutions for use with generators in our auxiliary lighting and power-listed equipment, as well as a full lighting portfolio to enable you to select the combination that will best suit your needs.
- **Eaton products can support a variety of commercial building projects**—from constructing a new building to replacing equipment within an existing commercial facility—while helping to avoid building or safety code inspection delays and providing a centralized location to manage your system.
- **Eaton's products integrate into your existing facility lighting**, providing a clean and effective solution.

Exit lighting

- **In the event of a building fire, power outage or other emergency situation,** facilities of all kinds require exit lighting to ensure occupants are able to exit the building promptly and safely.
- **With a full emergency lighting portfolio**—including backup power UPS systems and lighting equipment such as lighted exit signs—Eaton can help you meet emergency exit lighting requirements, eliminating the need to rely on multiple vendors.

Healthcare facilities

- **Healthcare facilities like hospitals and clinics simply cannot afford to be in the dark during an emergency situation**.
- **Eaton's portfolio of emergency lighting equipment supports emergency systems** and legally-required standby systems as required by sections 700 and 701 of the National Electric Code.
- **Eaton's award-winning service team is there to support your operations 24/7, 365 days a year.** We understand that your business, and taking care of your patients, can't afford to wait.

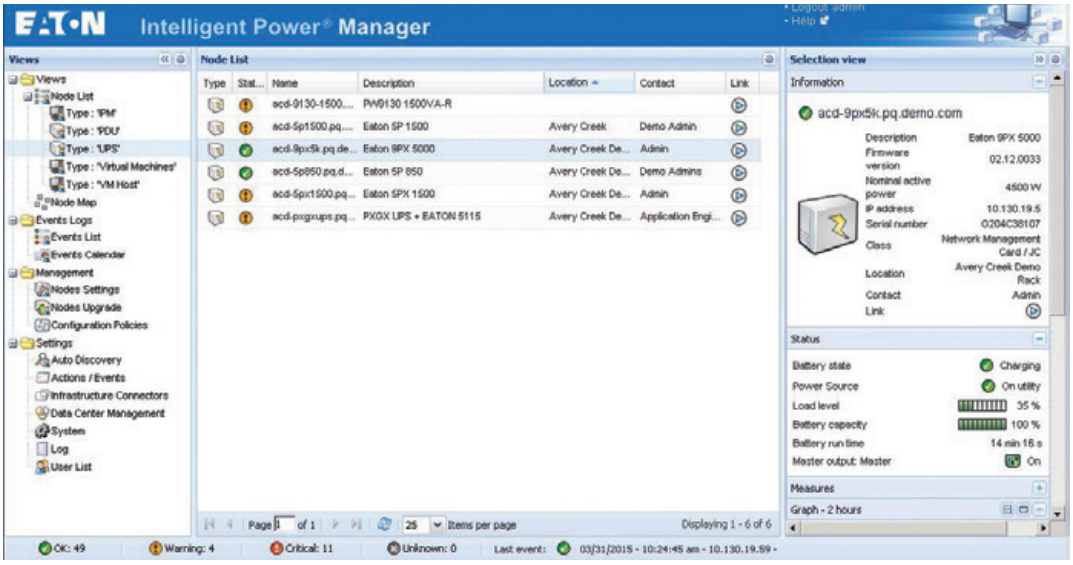
Eaton's emergency lighting UPSs are UL 924-compliant. The entire Eaton UL 924 UPS portfolio has undergone strict UL 924 testing to ensure our backup power solutions are fit to provide you with lighting continuity when you need it most.

Eaton's portfolio of emergency lighting UPSs

UL 924-tested and certified, Eaton's emergency lighting UPSs—like the 93PM pictured above—provide you with an avenue for meeting regulatory requirements.

Eaton emergency lighting UPS systems meet the strict standards for UL 924 compliance

- **90 minutes of backup:** The UL 924 standard for emergency lighting UPS systems requires 90 minutes of backup runtime in case of an outage. All Eaton UL 924 emergency UPS solutions are configured to meet this requirement, and Eaton offers solutions for both emergency lighting and power equipment and auxiliary lighting and power equipment applications.
- **Manually-operated test switch:** Eaton's emergency lighting UPS product line features manually-operated test switches for conducting the mandated, standard equipment tests for UL 924 certification.
- **Protected test switch and interface:** In accordance with the standard, the manually-operated test switch and interface are protected from accidental operation and non-authorized users.



Eaton's IPM software ensures system uptime and data integrity by allowing for remote monitoring, management and control of the devices in a network.

Centralized control and visibility with Intelligent Power Manager (IPM) software

- **IPM allows you to easily consolidate** the monitoring and management of your emergency lighting UPS systems.
- **Access the status and power conditions** of Eaton's emergency lighting UPS systems across town or across the country, providing you the comfort that your systems are operating correctly at all times.
- **With increased features based on license type** (basic, silver or gold), Eaton's IPM software provides the tools you need to monitor, manage and control your emergency lighting UPS equipment in your physical or virtual environment.

For more information or to download IPM, visit Eaton.com/IntelligentPower

Ease of maintenance and use

- **Simplify the process, save time and save money** while complying with emergency lighting codes when you build a new facility or replace old equipment by taking advantage of Eaton's centralized approach to emergency lighting.
- **Reduce safety risks** by easily activating and testing lighting components from a centralized location.
- **Simplify environmental regulatory compliance** by utilizing auxiliary lighting and power solutions to prevent generators from starting each month.

Eaton's Energy Saver System (ESS)

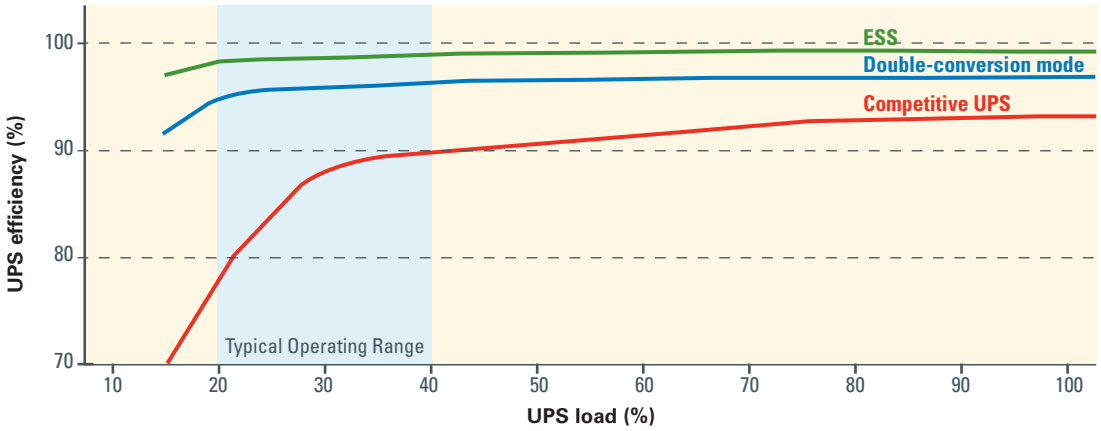
- **Eaton's emergency lighting UPSs lead the industry in efficiency**, achieving 99% efficiency with ESS—even at low load levels—and up to 97% in double-conversion mode.
- **You can enjoy real, visible energy savings** when operating emergency lighting UPS equipment in ESS.

Visit Eaton.com/EAA for more information

Saves both time and money

Risk management to avoid downtime and control costs

Simple and centralized approach to code compliance



As displayed in the graph above, Eaton's emergency lighting UPSs achieve unparalleled levels of efficiency with ESS and in double-conversion mode to help customers realize real energy savings.

Emergency lighting UPS portfolio

With state-of-the-art features and a wide range of power ratings, Eaton's UL 924 UPS portfolio contains a solution for any emergency lighting application or environment. Covering both emergency and auxiliary lighting and power applications, all of our UL 924 backup power solutions are supported by our award-winning service organization. You can be confident that your emergency lighting equipment is supported and reliable–no matter what Eaton UPS solution you choose.

Feature (value)	9155 UPS (8–15 kVA)	9355 UPS (10–30 kVA)	93PM UPS (20–200 kVA)
Suitable for single-phase applications	✓	✓*	✓*
Suitable for three-phase applications		✓	✓
Supports any type of lighting load	✓	✓	✓
Supported by Eaton's award-winning service team	✓	✓	✓
Ease of management and deployment	✓	✓	✓
Time-tested reliability and efficient double-conversion technology	✓	✓	✓
Energy Saver System (ESS)			✓
LCD touchscreen			✓
Inherent redundancy			✓
Small footprint	✓	✓	✓
Vertical scalability			✓
Backup power for emergency lighting and power applications	✓	✓	✓
Backup power for auxiliary lighting and power applications			✓
Seismic-certified	✓	✓	✓

*Single-phase applications utilize a single-phase and neutral of the device

For more information on Eaton's emergency lighting UPS solutions, visit **Eaton.com/UL924UPS**

Eaton's portfolio of lighting solutions for emergency applications

With Eaton, you can rely on much more than backup power protection.

We also offer a full lighting portfolio, delivering a range of innovative and reliable indoor and outdoor lighting and controls solutions specifically designed to maximize performance, energy efficiency and cost savings. Eaton's Lighting Division successfully serves customers in the commercial, industrial, retail, institutional, residential and utility—as well as many other —markets around the world.

Eaton LED light fixtures and UPS solutions work together in libraries and other public spaces to keep patrons safe.

What does this mean for you?

It means that, when it comes to emergency lighting, you can work with one vendor for a complete, end-to-end solution.

Eaton can provide a full range of UL 924-listed options for your backup power protection and emergency lighting needs. In addition to centralized systems, we also offer dedicated LED emergency lights, retrofitable LED and fluorescent emergency battery packs and a complete package of exit signs for commercial, industrial or architectural applications. Enjoy the peace of mind provided by the industry leader in the emergency space.

Eaton lighting fixtures illuminate the Business Leadership Building at the University of North Texas.

At the Denver Airport, Eaton lighting equipment ensures the parking facilities are illuminated and safe at all times.

For more information on Eaton's lighting solutions, visit **Eaton.com/Lighting**

Proven warranty and support services

Customers consistently rank Eaton number one in providing quality service. Our comprehensive, world-class solutions are designed to improve costs, uptime, reliability, power quality and safety. With 240 field service technicians in North America and 1,200 international authorized service providers, Eaton has more service personnel than any other UPS manufacturer, coverage that ensures your emergency lighting and egress solutions are addressed in a timely fashion.

Extensive service options for enhanced reliability

For support beyond the warranty period, Eaton offers enhanced service options including onsite startup, corrective and preventive maintenance, battery solutions, training, remote monitoring and factory spare parts and upgrades. Customizable three-phase UPS services packages allow you to select the plan that provides the right combination of system uptime, convenience and value.

For more information, visit Eaton.com/UPSServices

PredictPulse remote monitoring service

PredictPulse™ is Eaton's next-generation monitoring and management service that provides you with a second set of eyes to keep tabs on your equipment and notify you of any issues in your emergency lighting application. PredictPulse collects and analyzes data from connected power infrastructure devices, providing us with the insight we need to make recommendations and take action on your behalf. With alarms and notifications, a user-friendly dashboard and a mobile application for on-the-go updates, PredictPulse can help you reduce risk, spend less time managing your IT equipment, access real-time status information, expedite repairs by Eaton service technicians and provide you with the peace of mind that your critical equipment is being monitored at all times.

For more information, visit Eaton.com/PredictPulse

When you're on-the-go, the PredictPulse mobile app keeps you connected to your emergency lighting devices by providing an overview of open alarms.

Power management solutions involve complex, electronic devices that can fail for any number of reasons. Eaton knows these devices inside and out, making us the best source for keeping them running so you can achieve 100 percent uptime.

Technical specifications — emergency

Ratings (kVA/kW)	UPS part number	Battery part number	Actual runtime	Dimensions H x W x D (in)
20 kVA/kW	9PA02C0020A00L2	9PZTCBE39010020	104	74 x 56.2 x 42
30 kVA/kW	9PA03C0020A00L2	9PZTCBE54010020	97	74 x 56.2 x 42
40 kVA/kW	9PA04C0020A00L2	9PZTCBE39020020	106	74 x 90.4 x 42
50 kVA/kW	9PK05C0020A00L2	9PZTCBE54020020	123	74 x 90.4 x 42
60 kVA/kW	9PK06C0020A00L2	9PZTCBE54020020	97	74 x 90.4 x 42
70 kVA/kW	9PK07C0020A00L2	9PZTCBE54030020	131	74 x 124.6 x 42
80 kVA/kW	9PK08C0020A00L2	9PZTCBE54030020	110	74 x 124.6 x 42
90 kVA/kW	9PL09C0020A00L2	9PZTCBE54030020	97	74 x 124.6 x 42
100 kVA/kW	9PL10C0020A00L2	9PZTCBE54040020	122	74 x 158.8 x 42
110 kVA/kW	9PL11C0020A00L2	9PZTCBE54040020	110	74 x 158.8 x 42
120 kVA/kW	9PL12C0020A00L2	9PZTCBE54040020	98	74 x 158.8 x 42
Topology	Double-conversion online w/ ESS			
Operating frequency	50/60 Hz (40-72 Hz)			
Input power factor	>0.99 typical			
Input current distortion	3%THD			
Output voltage	480/277 VAC			
Input voltage	480/277 VAC			
Output voltage regulation	±1% Static			
Overload	150% 10 sec, 125% 1 min, 110% 10 min			
Communication ports	1 RS-232, 1 USB, 4 MiniSlot communication bays			
Safety certifications	UL 924 Emergency			
EMC compliance	FCC Part 15			
Quality	ISO 9001, 14001			
Markings	UL			

Technical specifications – auxiliary

Ratings (kVA/kW)	UPS part number	Battery part number	Actual runtime	Dimensions H x W x D (in)
20 kVA/kW	9PA02C2020A00A2	–	19	74 x 22 x 42
30 kVA/kW	9PA03C4020A00A2	–	16	74 x 22 x 42
40 kVA/kW	9PA04C0020A00A2	9PZTCBE28010020	30	74 x 56.2 x 42
50 kVA/kW	9PA05C0020A00A2	9PZTCBE28010020	23	74 x 56.2 x 42
60 kVA/kW	9PG06C0020A00A2	9PZTCBE39010020	18	74 x 56.2 x 42
70 kVA/kW	9PG07C0020A00A2	9PZTCBE39010020	25	74 x 56.2 x 42
80 kVA/kW	9PG08C0020A00A2	9PZTCBE54010020	21	74 x 56.2 x 42
90 kVA/kW	9PG09C0020A00A2	9PZTCBE54010020	15.8	74 x 56.2 x 42
100 kVA/kW	9PG10C0020A00A2	9PZTCBE54010020	23	74 x 56.2 x 42
110 kVA/kW	9PL11C0020A00A2	9PZTCBE54010020	20	74 x 56.2 x 42
120 kVA/kW	9PL12C0020A00A2	9PZTCBE54010020	17	74 x 56.2 x 42
130 kVA/kW	9PL13C0020A00A2	9PZTCBE28020020	16	74 x 90.4 x 42
140 kVA/kW	9PL14C0020A00A2	9PZTCBE39020020	25	74 x 90.4 x 42
150 kVA/kW	9PL15C0020A00A2	9PZTCBE39020020	23	74 x 90.4 x 42
160 kVA/kW	9PV16C0020A00A2	9PZTCBE39020020	21	74 x 90.4 x 42
170 kVA/kW	9PV17C0020A00A2	9PZTCBE39020020	17	74 x 90.4 x 42
180 kVA/kW	9PV18C0020A00A2	9PZTCBE39020020	15	74 x 90.4 x 42
190 kVA/kW	9PV19C0020A00A2	9PZTCBE54020020	25	74 x 90.4 x 42
200 kVA/kW	9PV20C0020A00A2	9PZTCBE54020020	23	74 x 90.4 x 42
Topology	Double-conversion online w/ ESS			
Operating frequency	50/60 Hz (40-72 Hz)			
Input power Factor	>0.99 typical			
Input current distortion	3%THD			
Output voltage	480/277 VAC			
Input voltage	480/277 VAC			
Output voltage regulation	±1% Static			
Overload	150% 10 sec, 125% 1 min, 110% 10 min			
Communication ports	1 RS-232, 1 USB, 4 MiniSlot Communication bays			
Safety certifications	UL 924 Auxiliary			
EMC compliance	FCC Part 15			
Quality	ISO 9001, 14001			
Markings	UL			

Technical specifications

	208/120V Three-phase				
Ratings (kVA/kW)	**8.5 kVA/8.5 kW**	**13.1 kVA/13.1 kW**	**18 kVA/18 kW**	**24 kVA/24 kW**	**27 kVA/27 kW**
UL 924 UPS part number	BH10KEL2083P100	BH15KEL2083P100	BH20KEL2083P100	BH30KEL208SF100	BH30KEL2083P100
UL 924 extended battery module part number	BHEBM96EL600	BHEBM96EL600	BHEBC72EL600	BHEBC72EL600	BHEBC72EL600
# of extended battery modules	2	3	2	2	3
Topology	Double-conversion online UPS				
Operating frequency	50/60 Hz (45 to 65 Hz)				
Input power factor	>0.99 typical, >0.96 frequency converter				
Input current distortion	5% THD				
Output voltage	208 VAC 3-phase				
Input voltage	208 VAC 3-phase				
Output voltage regulation	±1% Static; ±5% dynamic at 100% resistive load change, <1 ms response time				
Actual Runtime (min)	124	113	114	108	90
Overload	150% for 5 sec / 125% for 1 min (online), 110% for 10 min (normal operation)				
Communication ports	(1) RS-232, (1) relay contact, (1) REPO, (2) environmental input				
Communication slot	(2) X-Slot communication bays, 1 gateway factory installed				
Safety certifications	UL 924, UL 1778, IEC62040-1:2008/A1:2013				
Quality	ISO 9001: 2000 and ISO 14001:1996				
Markings	UL, cULus				
Dimensions H x W x D (in)*	47.8 x 36.0 x 33.7	47.8 x 48.0 x 33.7	66.0 x 60.0 x 34.1	66.0 x 60.0 x 34.1	66.0 x 80.0 x 34.1
Weight (lb)*	2,029	2,739	5,280	5,280	7,340

* Dimensions and weights include all battery cabinets and batteries.

	277V Single-phase		480/277V Three-phase		
Ratings (kVA/kW)	**6.8 kVA/6.8 kW**	**9 kVA/9 kW**	**18 kVA/18 kW**	**24 kVA/24 kW**	**27 kVA/27 kW**
UL 924 UPS part number	BH10KEL2081P100	BH15KEL2081P10T	BH20KEL2083P100	BH30KEL208SF100	BH30KEL2083P100
UL 924 extend battery part number	BHEBM96EL600	BHEBM96EL600	BHEBC72EL600	BHEBC72EL600	BHEBC72EL600
# of extended battery modules	2	3	2	2	3
Transformer options cabinet part number	BHKBT001200	BHKBT001200	BHKBT004200	BHKBT004200	BHKBT004200
Topology	Double-conversion online UPS				
Operating frequency	50/60 Hz (45 to 65 Hz)				
Input power factor	>0.99 typical, >0.96 frequency converter				
Input current distortion	5% THD				
Output voltage	277 VAC	277 VAC	480/277 VAC	480/277 VAC	480/277 VAC
Input voltage	277 VAC	277 VAC	480 VAC 3-phase	480 VAC 3-phase	480 VAC 3-phase
Output voltage regulation	±1% Static; ±5% dynamic at 100% resistive load change, <1 ms response time				
Actual Runtime (min)	134	120	114	108	90
Overload	150% for 5 sec / 125% for 1 min (online), 110% for 10 min (normal operation)				
Communication ports	(1) RS-232, (1) relay contact, (1) REPO, (2) environmental input				
Communication slot	(2) X-Slot communication bays, 1 gateway factory installed				
Safety certifications	UL 924, UL 1778, IEC62040-1:2008/A1:2013				
Quality	ISO 9001: 2000 and ISO 14001:1996				
Markings	UL, cULus				
Dimensions H x W x D (in)*	47.8 x 48.0 x 33.7	47.8 x 60.0 x 33.7	66.0 x 80.0 x 34.1	66.0 x 80.0 x 34.1	66.0 x 100.0 x 34.1
Weight (lb)*	2,510	3,220	6,072	6,072	8,132

* Dimensions and weights include all battery cabinets and batteries.

For more information about Eaton's emergency lighting solutions, visit **Eaton.com/UL924UPS**

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