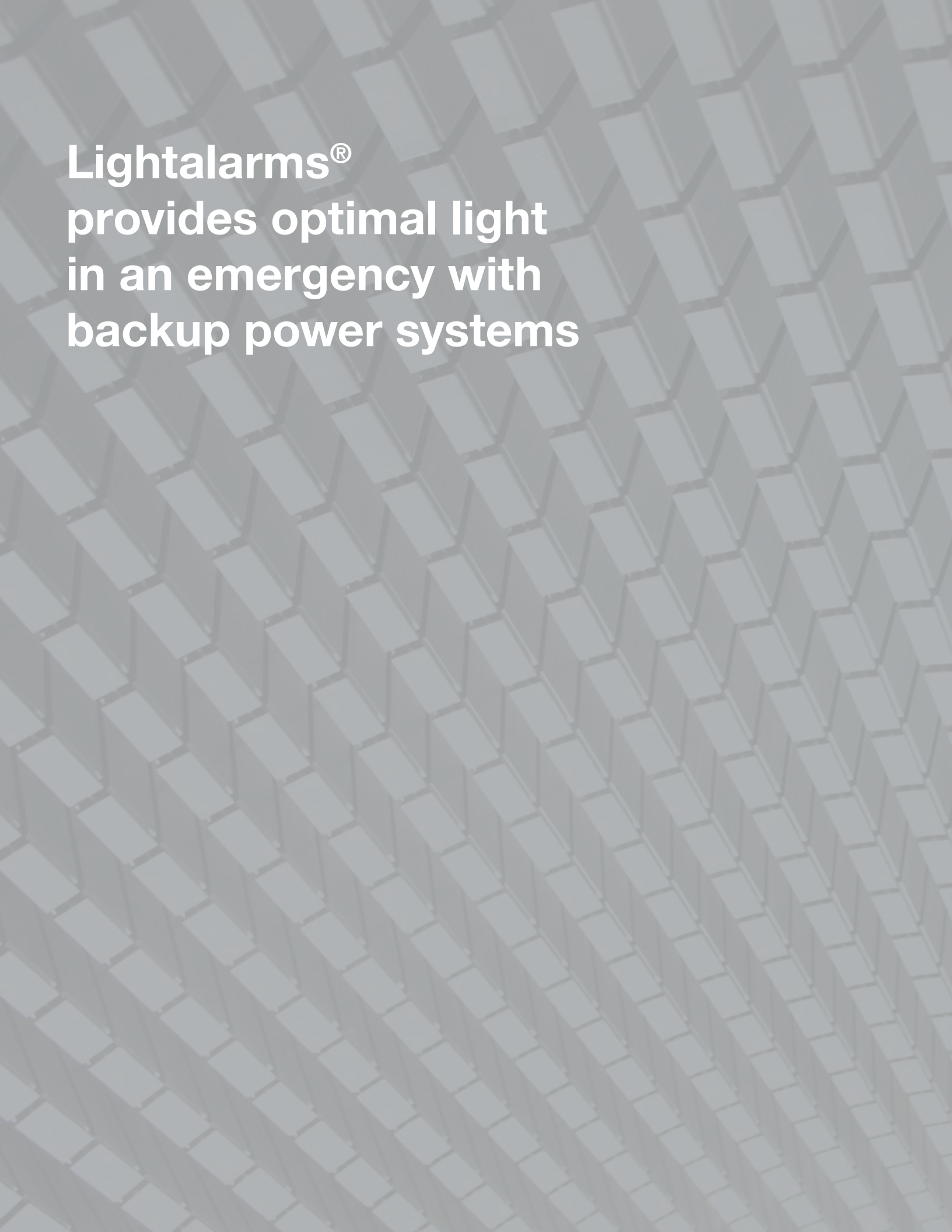*Lightalarms*

Emergency Power for Lighting

A complete guide on how to using inverters and central systems to power emergency lights

by ABB

Lightalarms®
provides optimal light in an emergency with backup power systems

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Benefits of using existing lights as your emergency lights

We all know the feeling of walking into a building and having no idea where to go. Roaming through hallways, taking wrong turns or trying to find your way out of a building can be difficult, especially in the event of an emergency.

Emergency lighting and exit signs are essential for commercial buildings, when individuals need to evacuate quickly and safely.

Imagine if your electrical supply is interrupted by an emergency, but instead of just emergency and exit signs, your existing lights worked in conjunction with your emergency lights to illuminate and direct occupants to the nearest exit. Using your existing lights as emergency lights could provide dual support, allowing individuals in the building to see clearly, avoid obstacles and confidently find to the nearest exit during a power failure.

Use your existing lights as an emergency lighting solution

- **Maintain building aesthetics**
  Maintain the look of existing lights without adding separate emergency lighting units. Ideal for rooms with specific architectural designs, reception areas and lobbies, as well as in commercial, and retail spaces.

- **Comply with life safety codes**
  As emergency lighting is linked to life safety, codes and regulations demand strict compliance in the design, installation and maintenance of a fixture, and other emergency lighting equipment.

- **Reduce initial and ongoing costs**
  Eliminate the need for separate emergency lighting units and significantly reduce installation costs. Using inverters instead of self-powered emergency lights, simplifies maintenance and testing.

Lightalarms

EXIT

Lightalarms®
Your complete emergency lighting solution

Lightalarms® is a leading provider of high-performance life safety equipment.

Made in North America
• Our products are designed, manufactured and tested at our state-of-the-art North American Manufacturing Center of Excellence. Through our warehousing and distribution networks across North America, we offer expedited shipping options for quick delivery.

High-quality and performance standards
• Rely on Lightalarms® for expert advice on planning systems, ease of installation, safety and long-term reliability. We provide outstanding quality levels, easy ordering capabilities and knowledgeable customer service.

Our technical design experts will
• Calculate the distance between lighting units needed for emergency lighting at floor level. These calculations consider lamp power, installation height, exit path width, and surface reflectivity.
• Show how different configurations affect installation and ongoing maintenance and testing.
• Analyze your requirements and provide a certified technical drawing displaying how your emergency lighting plan meets code requirements.
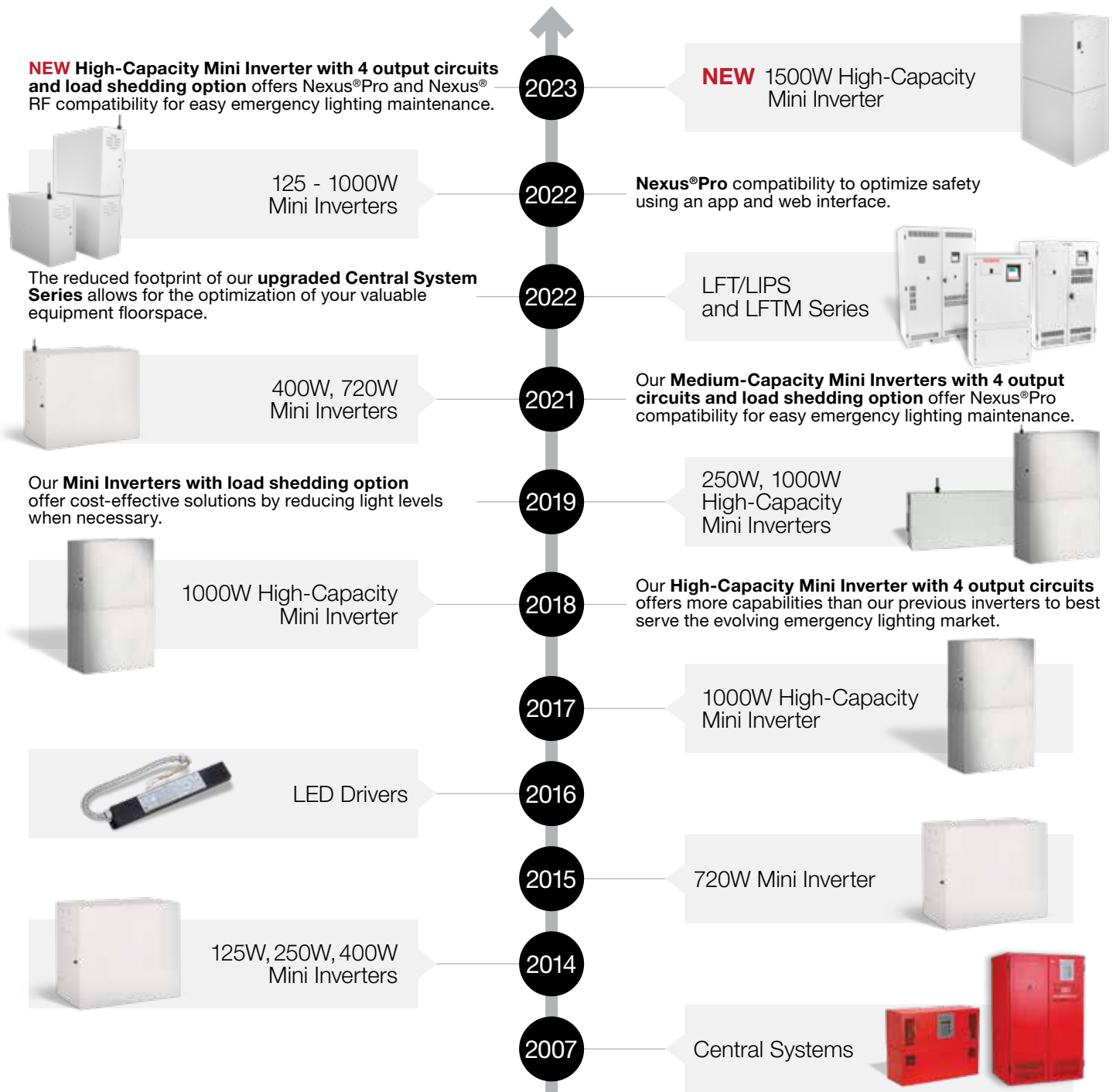

The Lightalarms® state-of-the-art North American manufacturing facility is a center of excellence thanks to the commitment, expertise, and creativity of every employee.

Innovative Mini Inverter improvements

Lightalarms® is at the forefront of new, innovative lighting design applications. From the introduction of our first Mini Inverter in 2014 to the latest High-Capacity Mini Inverter Series, our product teams continue to transform the emergency lighting landscape.

Get a glimpse of our product launches:

2023

NEW High-Capacity Mini Inverter with 4 output circuits and load shedding option offers Nexus®Pro and Nexus® RF compatibility for easy emergency lighting maintenance.

NEW 1500W High-Capacity Mini Inverter

2022

125 - 1000W Mini Inverters

Nexus®Pro compatibility to optimize safety using an app and web interface.

2022

The reduced footprint of our **upgraded Central System Series** allows for the optimization of your valuable equipment floorspace.

LFT/LIPS and LFTM Series

2021

400W, 720W Mini Inverters

Our **Medium-Capacity Mini Inverters with 4 output circuits and load shedding option** offer Nexus®Pro compatibility for easy emergency lighting maintenance.

2019

Our **Mini Inverters with load shedding option** offer cost-effective solutions by reducing light levels when necessary.

250W, 1000W High-Capacity Mini Inverters

2018

1000W High-Capacity Mini Inverter

Our **High-Capacity Mini Inverter with 4 output circuits** offers more capabilities than our previous inverters to best serve the evolving emergency lighting market.

2017

1000W High-Capacity Mini Inverter

2016

LED Drivers

2015

720W Mini Inverter

2014

125W, 250W, 400W Mini Inverters

2007

Central Systems

Lightalarms

Lightalarms®
Product matrix

	LED Drivers	Mini Inverter Series		
	LALDR Series	Low-Capacity	Medium-Capacity	High-Capacity
Load capacity/ wattage output	5W, 7W, 11W, 14W, 17W	32W, 55W	125W, 250W, 400W, 720W	1000W and NEW 1500W
Certification	UL	UL	UL	UL
Housing	High impact thermoplastic	Heavy-duty steel cabinet	Heavy-duty 14 gauge steel cabinet	Heavy-duty 14 gauge steel cabinet
Application	NEMA 1 Damp Location	NEMA 1	NEMA 1	NEMA 1
Testing	Manual remote test switch 90 Minutes Emergency Operation	Manual test switch 90 Minutes Emergency Operation	**Non-Audible** self-diagnostics (Standard) **Improved Diagnostics**, **audible** (optional) Manual test switch (optional) **nexus**® (optional) **Nexus®Pro** (optional)	**Non-Audible** self-diagnostics (Standard) **Improved Diagnostics**, **audible** (optional) Manual test switch (optional) **nexus**® (optional) **Nexus®Pro** (optional)
Battery	Nickel-cadmium	Lead-calcium	Lead-calcium	Lead-calcium
Mounting	Suitable for installation on top or remotely (up to 50 feet)	Surface mount Plenum rated recessed T-bar Remote mounting maximum (up to 1,000 feet)	Surface mount Optional recessed T-bar (125W unit only)	Surface mount
Voltage	120/277 VAC, 50/60Hz input	120/277 VAC, 60Hz input	120/120VAC or 277/277VAC, 60Hz input	120/120VAC or 277/277VAC, 60Hz input
Lumen output	Lumen output depends on LED light source efficacy (Lumens/watts)	Full brightness output	Full brightness output or % with load shedding option (250W, 400W and 720W)	Full brightness output or % with load shedding option
Options	–	*Control panel with momentary test switch, AC-on, Charger-on *Inverter-on LED indicators	*Load shedding (250W, 400W and 720W) *15min time delay *Service alarm contact *4 output circuits (400W and 720W)	*Load shedding *15min time delay *Service alarm contact *4 output circuits
Compatibility	LED lamps with 20VDC to 50VDC operating voltage	Lamps: LED, incandescent and fluorescent	Lamps: LED, incandescent and fluorescent	Lamps LED, incandescent and fluorescent
Warranty	5 years	Unit has a three year warranty Battery has a 3 year full, plus 7 year pro-rata warranty	Unit has a three year warranty Battery has a 3 year full, plus 7 year pro-rata warranty	Unit has a three year warranty Battery has a 3 year full, plus 7 year pro-rata warranty
Operation	Normally-on, normally-off or switched loads	Normally-on, normally-off or switched loads	Normally-on, normally-off or switched loads	Normally-on, normally-off or switched loads
Electronics	–	Pure sine wave inverter	Pure sine wave inverter (250W and up)	Pure sine wave inverter

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	Central systems			
	FTEM Series 1000-2800VA	**FTE/FTEI Single Phase Series**	**3FTC Three Phase Series**	**FTC3R, 3FTC3R Series Outdoor**
Load capacity/ wattage output	2800W	16700W	50000W	8000W
Certification	(UL)	(UL)	(UL)	(UL)
Housing	Heavy-duty steel	Heavy-duty steel	Heavy-duty steel	Heavy-duty steel
Application	NEMA 1	NEMA 1	NEMA 1	NEMA 3R
Testing	Manual test Self-test / diagnostics	Manual test Self-test / diagnostics	Manual test Self-test / diagnostics	Manual test Self-test / diagnostics
Battery	Lead-calcium	Lead-calcium	Lead-calcium	Lead-calcium
Mounting	Wall mount Floor mount (optional) Seismic mount (optional)	Seismic mount (optional)	Floor mount	Floor mount
Voltage	120, 208, 240, 277 VAC, 60Hz input	120, 208, 240, 277, 347 VAC	120/208 VAC, 60Hz or 277/480 VAC, 60Hz input	120, 208, 240, 277, 120/208, 277/480 VAC, 60Hz input
Lumen output	Full brightness output	Full brightness output	Full brightness output	Full brightness output
Options	*Output circuit breakers *Alarm contacts *BYPass relays	*Output circuit breakers *Alarm contacts *BYPass relays *And more...	*Output circuit breakers *Alarm contacts *BYPass relays *And more...	*Output circuit breakers *Alarm contacts *BYPass relays *And more...
Compatibility	Lamps: LED, fluorescent, incandescent, HID	Lamps: LED, fluorescent, incandescent, HID	Lamps: LED, fluorescent, incandescent, HID	Lamps: LED, fluorescent, incandescent, HID
Warranty	1 year	1 year	2 years	2 years
Operation	Normally-on, normally-off or switched loads	Normally-on, normally-off or switched loads	Normally-on, normally-off or switched loads	Normally-on, normally-off or switched loads
Electronics	Pure sine wave inverter	Pure sine wave inverter	Pure sine wave inverter	Pure sine wave inverter

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4 ways to transform your lights to emergency lights

1 EPC Series
Emergency power control for generator and mini inverters

Supplies power to switched lighting fixtures
- Ideal for locations with limited space to house power systems
- Automatically connects generator or inverter circuit to an emergency fixture
- Allows switching control of emergency fixtures during normal operation
- Compatible with LED, fluorescent and incandescent lamp types

2 LED Drivers
For individual LED lights

Ideal for retrofit installations
- Space-saving design mounts directly on or in a fixture
- Compact power source operates one or two lamps in a fixture
- Units do not interfere with the look of existing lights

③ Mini Inverters
For multiple luminaires up to 1500W at a distance of up to 1,000 feet.

The most versatile, flexible emergency power option
- Delivers 100% power/lumen output of the fixture
- Ideal for locations with limited space to house power systems

④ Central Power Systems
For multiple luminaires and additional equipment

Ideal for indoor and outdoor industrial applications requiring high wattage supplemental power
- Works with any type of lighting load to provide full light output for a minimum of 90 minutes
- Front access connections for easy installation
- Full system protection increases electronic and battery lifetime

LED Drivers
5-17W
Use existing wiring on individual LED lights

LED Drivers are an ideal emergency power solution for retrofit applications.

• Flexible mounting options: can be installed on top of, or up to 150 feet away from the light fixture
• Operates normally-on, normally-off or switched loads
• Lumen output depends on LED light source efficacy (lumens/watts)
• Meets or exceeds all National Electrical Code and Life Safety Code Emergency Lighting Requirements; UL 924 Approved
• 5 year full warranty

High impact thermoplastic enclosure, 5VA flame retardant in black finish

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Low-Capacity Mini Inverters
32W, 55W
Power one or two lighting units

Low-capacity mini inverters are ideal for single room applications such as convenience stores.

- Accommodates plenum rated surface mount or T-grid installations
- Allows remote mounting up to 1,000 feet from emergency lighting fixtures to support ease when testing
- Provides pure sine wave output to meet the specific requirements for emergency lighting
- Operates incandescent, LED, fluorescent and ballast combinations, including 0-10V dimmers
- Meets or exceeds all National Electrical Code and Life Safety Code Emergency Lighting Requirements; UL 924 Listed
- 3 year warranty and 7 year pro-rata battery warranty

Heavy-duty steel cabinet; scratch and corrosion resistant white powder paint finish

Lightalarms
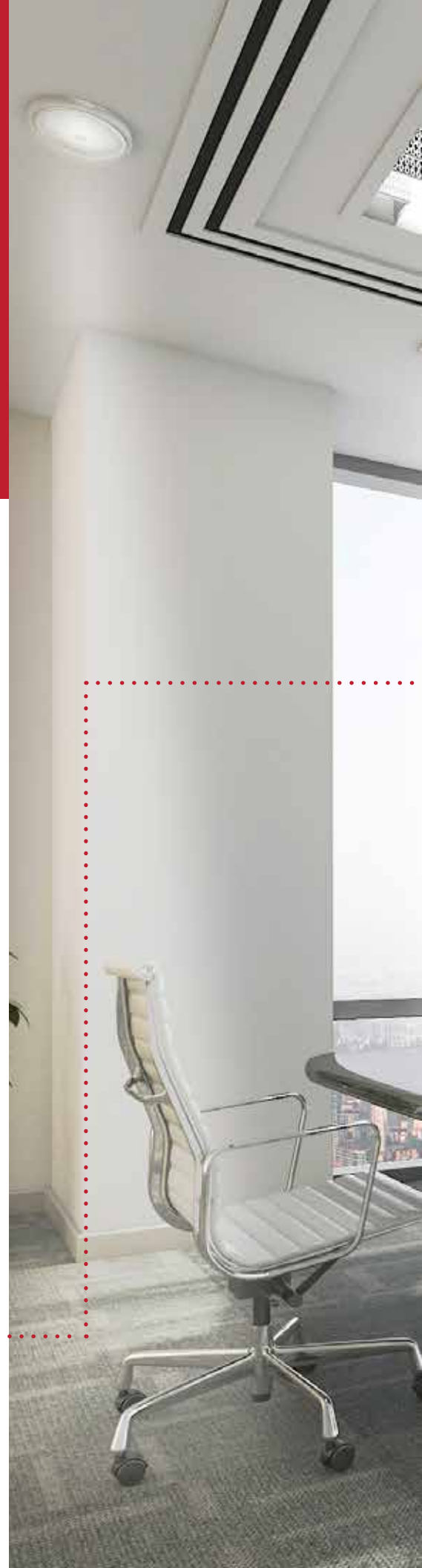
Medium-Capacity & High-Capacity Mini Inverters
125W, 250W, 400W, 720W, 1000W & 1500W
Power multiple lighting units

Medium- & high-capacity mini inverters offer single-point maintenance, **Improved Diagnostics** and Nexus® compatibility.

- Accommodates surface/wall mounting or recessed T-bar mounting (125W unit only)
- Allows remote mounting up to 1,000 feet from emergency lighting fixtures; ideal for powering an entire floor in a building
- Provides pure sine wave output (250W and up) to meet the specific requirements for emergency lighting
- Operates incandescent, LED, fluorescent and ballast combinations, including 0-10V dimmers
- Supplies 100% lumen output with less than 1-second transfer time
- Runs switched, normally-on, or normally-off fixtures
- Minimizes maintenance with standard self-diagnostics, and optional Nexus® compatibility
- Meets or exceeds all National Electrical Code and Life Safety Code Emergency Lighting Requirements; UL 924 Listed
    - 250W, 400W, 720W, 1000W and 1500W mini inverters have load shedding option
- 3 year warranty and 7 year pro-rata battery warranty

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Load shedding
4 output circuits
& 0-10V dimming capability
in emergency
400W, 720W, 1000W & 1500W
for mixed loads of multiple lighting units

Mini inverters include a 4 output circuits to offer an extremely versatile solution for many applications.

- During a power outage, the emergency fixtures are dimmed to field selectable levels of 25%, 50% or 75% brightness output. Reducing wattage draw from the fixture will allow for more fixtures to be connected to the Mini Inverter, offering an extremely versatile solution for many applications
- Includes a 4 output circuits, each with a fuse breaker and 0-10V dimming control capability to easily connect multiple circuits of mixed loads
- Runs switched, normally-on, and normally-off fixtures
- Operates incandescent, LED, fluorescent and ballast combinations, including 0-10V dimmers
- Allows remote mounting up to 1,000 feet from emergency lighting fixtures; ideal for powering an entire floor in a building

Heavy-duty 14 gauge steel cabinet in white semi-gloss powder-coat paint finish

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Central Power Systems
Power ratings up to 16.7kVA for industrial loads

High-capacity central power systems provide emergency power to lighting and additional equipment.

- Accommodates many applications with multiple features and options on indoor and outdoor models
- Available in single phase and three phase models with a range of power ratings
- Provides pure sine wave output to meet the specific requirements for emergency lighting
- Resists corrosion and scratching with durable cabinets; NEMA Type 1 and Type 3R cabinets available
- Minimizes maintenance with single-point testing, self-testing, and auto-diagnostics
- Meets or exceeds all National Electrical Code and Life Safety Code Emergency Lighting Requirements; UL 924 Listed

Single cabinet design with easy-access front cabinets
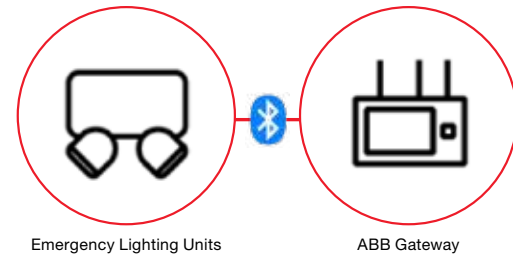
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Nexus®Pro
Intelligent Emergency Lighting Management System
Brings the power of connected IoT emergency lighting to any infrastructure

Mini Inverters
Now compatible with Nexus®Pro
125W, 250W, 400W, 720W, 1000W
and NEW 1500W

Global connectivity platform

Emergency Lighting Units   ABB Gateway

Set up
Easily install and add new devices through your smart device

Maintain
Defective devices are automatically detected and reported on your interface in addition to push notifications

Test
Run tests instantly or program them to ensure that all your devices are working properly

Share
Easily share test results with team members, building managers and owners

Please scan the QR code to download our Nexus®Pro app and to view our complete Nexus®Pro brochure.

iOS   **Android**   **Nexus®Pro brochure**

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Connect mini inverters to Nexus® for a system that monitors itself

- Nexus®Pro is designed to enable building owners and managers to easily maintain and test emergency lighting, without the need to visually verify performance or disrupt the power supply.

- With digital solutions, building owners can now have peace of mind knowing their buildings are safer than ever. Operations can be managed remotely, giving building owners and facility managers complete control wherever they are, whenever they need it most while preventing any human error in the process.

Nexus®Pro intelligent emergency lighting management system uses IoT connectivity to optimize safety using an app and a web-based interface.

Router   ABB Cloud   App or web interface
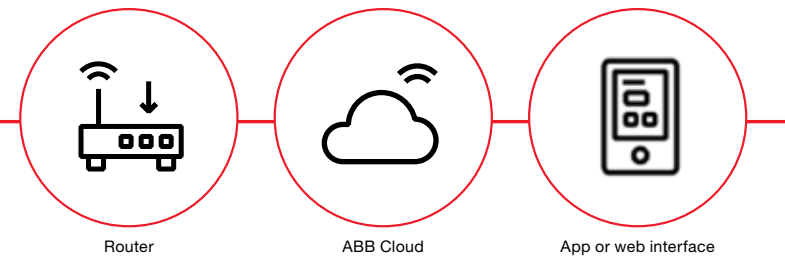
Cost effective
- Reduce labor costs for maintaining emergency lighting
- Saving on cost and labor on manual collection and recording of emergency lighting data
- 200 emergency lighting units on one gateway
- Reduce monitoring costs by simply receiving notification once there is defective device

User friendly
- Remote monitoring anywhere at anytime
- Fast and easy testing with a smart device
- Interactive 2D floor plan layout showcasing emergency lighting positioning
- Software updates automatically applied
- Easily go from one building to many with our scalable system

Enhanced Safety and Protection
- Comply with Building and Life Safety Codes and other North American regulations
- Real-time self-monitoring and maintenance alerts if units stop functioning
- Holds all emergency lighting testing and maintenance data in a secure ABB cloud
- Ownership of maintenance data input, quick testing and device monthly and annual scheduling

Improve installation efficiency
- Quick and flexible commissioning
- Ease of use due to app configuration
- Get diagnostics and part number recommendations during failures

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Nexus® real-time automated monitoring
Eliminate manual maintenance for testing and audit trails

Connect mini inverters to Nexus® for a system that monitors itself

- Manages the status of an entire emergency lighting system from a central control unit
- Reduces testing/service time for minimal maintenance costs
- Ensures code compliance with automated testing and record-keeping
- Provides extremely high levels of system reliability and performance
- Accommodates single buildings or a group of properties with wireless technology and local database
- Protects network integrity with robust software, enhanced cyber security, a strong signal, and superior penetration through building materials

Lightalarms®
Your partner in success

Satisfaction at every step of the process

Our North American team works with you to make sure you have the most efficient solution that meets your specifications. Lightalarms® products are designed for durability, reliability, and ease of use.

With Lightalarms®, our solution is:
• Easy to install and maintain
• Compliant with codes, regulations and standards – certifications available
• High quality and reliable for maximum safety

Expect fast shipping, prompt service, and ongoing support

Not only can we provide extremely short lead times, we also offer product customization at our North American manufacturing center. Our engineering team and product designers work together to create innovative new products and unique solutions that continuously help you become more efficient.

With Lightalarms® you have peace of mind that your life safety equipment will perform when you need it.

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Notes

Lightalarms

Inside Sales | Customer Support
Tel : 1-888-935-3605
Fax: 1-888-867-1566

Technical Support
Tel.: 1-888-552-6467
Fax: 1-800-316-4515

lightalarms.com

by ABB