



**INTRODUCING  
THE NEW  
MINI INVERTERS  
BY EMERGI-LITE**

**RELIABILITY THROUGH TECHNOLOGY**

# WITH TODAY'S HIGHLY EFFICIENT LED TECHNOLOGY, MINI INVERTERS ARE A RELIABLE, ECONOMICAL, HIGH-PERFORMANCE CHOICE FOR EMERGENCY POWER.

**Mini Inverters offer many advantages.** Provides a broad range of capacity for system flexibility. The Mini Inverter provides 125W to 720W of emergency power for 90 minutes to exit signs and emergency lighting equipment. Each Mini Inverter can power many remote fixtures for a streamlined system with a small footprint. Ideal for locations with limited space to house power systems, Mini Inverters can be installed unobtrusively in a small area and added as needed to provide emergency power on each floor of larger buildings.

**Allows existing fixtures to be used as emergency lighting.** To preserve the aesthetics of high-visibility areas, the Mini Inverter can run existing normally-on light fixtures in a power failure, as an alternative to separate dedicated emergency lighting.

**Powers LED fixtures and most light sources at 100%.** When power fails, the Mini Inverter supplies 100% power/lumen output with less than 1 second of transfer, and is ideal for use with LED fixtures and most light sources except HID. Fixtures can be on, off, switched or dimmed triac dimmable ballast.



**MINI  
INVERTERS:  
EFFICIENT &  
RELIABLE  
POWER  
IN AN  
EMERGENCY**

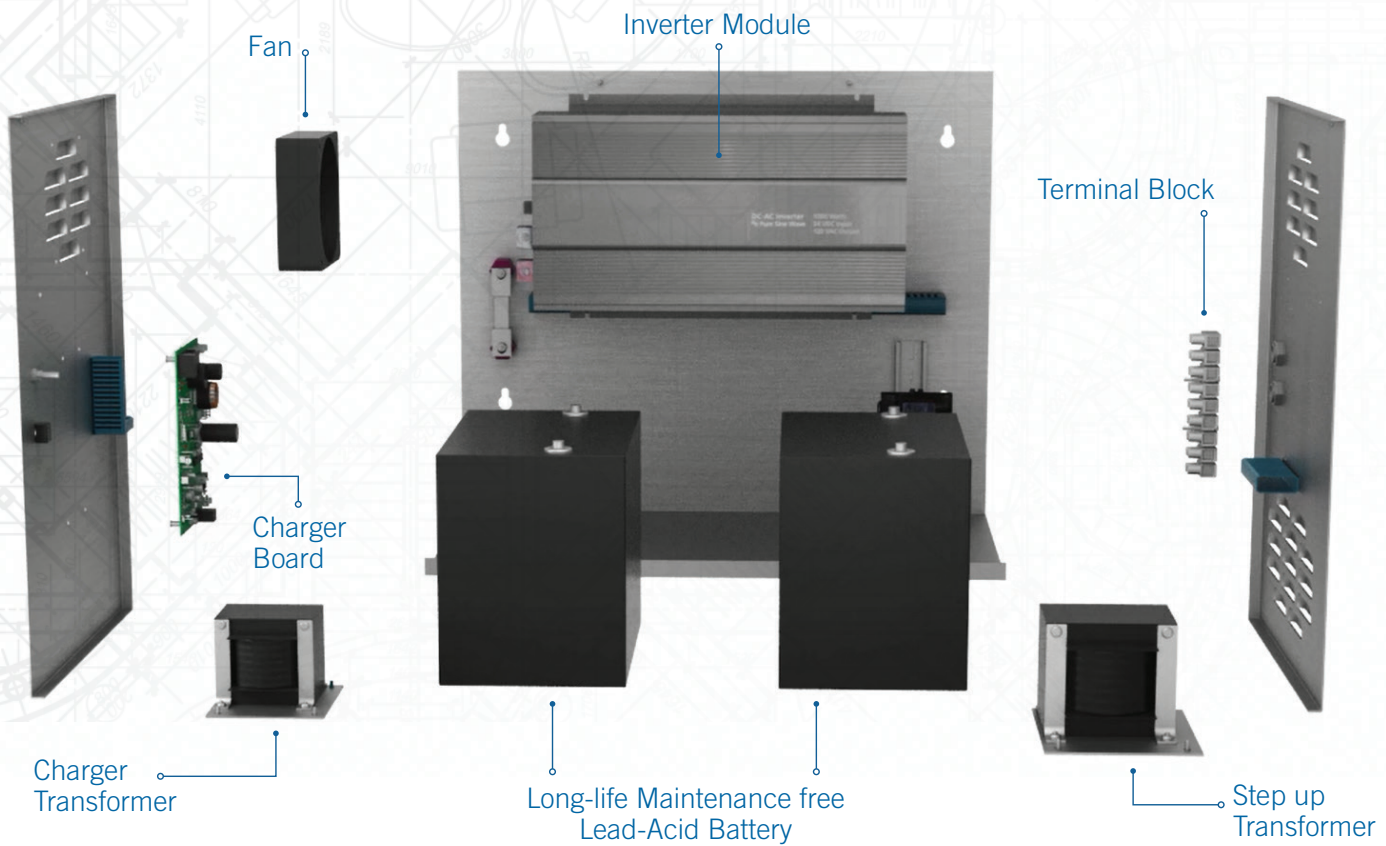




**Compatibility with Nexus® real-time monitoring system provides even higher levels of system reliability.** With the Mini Inverter, all the advantages of Nexus® real-time monitoring system are now available for inverter-powered systems. Nexus® manages the status of the total load on the Mini Inverter from a central control unit. Through wireless communication and building automation, Nexus runs diagnostics, performs required monthly and annual functional tests according to Life Safety Code, generates maintenance logs, and runs compliance reports. A Nexus® system can contribute to LEED certification and support green building initiatives.

**Reliability is built into the Mini Inverter.** The UL924 listed Mini Inverter uses a long-life, maintenance-free Lead-Acid battery. Fully-featured self-diagnostics test the batteries and lamps connected to the Mini Inverter so you can rest assured that your emergency lighting system will be on when the main power fails.

# RELIABILITY THROUGH TECHNOLOGY



## CHOOSING THE RIGHT BACKUP POWER SYSTEM

Back-up power can be provided in many ways. However, even though certain methods are suitable for critical applications, they may not be suitable for Emergency Lighting. This is because an Emergency Lighting system has unique load characteristics. Since Emergency Lighting is a critical life safety installation, it must be designed with its specific load characteristics in mind. Mini Inverter systems are specifically designed to provide emergency power for Emergency Lighting systems in a power failure.

# MINI INVERTER FEATURES & BENEFITS

## FEATURES

### Self-Diagnostics/Self-Testing

The diagnostic/charger is a fully self-contained, fully automatic microcontroller-based system. Any fault condition causes a status LED indicator to blink, identifying the nature of the fault. Every 30 days, the sequence generator will generate a command to force a transfer in emergency mode for a variable test period based on code requirements (30 seconds each month, and 90 minutes after 12 months).

### System Design

Inverter and charger modules utilize highly reliable solid state electronics. The modules feature input and output protection, and they measure and limit their own current.

### Capacity

Capacity is available starting at 125W up to 720W, 120V and 277V

### True Sine Waveform (250W and up)

Using a solid-state, pulse width modulation (PWM) inverter, Mini Inverter systems produce pure sinusoidal output waveform with less than 5% Total Harmonic Distortion (THD) for linear loads.

### Nexus Monitoring System

The Mini Inverter is compatible with Nexus®, a real-time monitoring system that manages the status of the total load on the Mini Inverter from a central control unit. Nexus® runs diagnostics, performs required monthly and annual functional tests as per Life Safety Code, generates maintenance logs and runs compliance reports.

## BENEFITS

### Code Compliance

Reduces testing/service time for a minimal maintenance cost, while ensuring that local safety codes are met, and provides system reliability in a power failure condition.

### High Performance

The Mini Inverter is a rugged, easy-to-maintain system with exceptional performance for emergency lighting use. It offers exceptional overload performance without the need to over-specify the rating.

### Versatile Applications

Mini Inverter systems can be used in almost every type of building, and are ideal for architecturally sensitive applications or when maintenance costs and testing of individual unit equipment becomes significant. The smaller unit size of the Mini Inverter allows more flexibility and minimizes testing. The Mini Inverter can be installed at a distance, offering the opportunity to hide the unit from view and maintain the architectural design by powering normally-on luminaires.

### Maximum Light Output

The Mini Inverter will deliver 100% power / lumen output of the fixture up to the specified run time. It is compatible with all fluorescent ballast, LED drivers or incandescent light sources.

### Reliability Through Technology

Nexus® allows for maintenance time and cost savings, and ensures that the emergency lighting fixtures will perform when needed. Nexus® can contribute to LEED certification and support sustainability objectives.







TYPE: \_\_\_\_\_  
 CATALOG #: \_\_\_\_\_  
 NOTES: \_\_\_\_\_

# Mini Inverter Series

## Interruptible Unit Equipment

### Highlights

The **Mini Inverter** is a UL Listed stand-alone pure sine wave (250W and up) output inverter designed to provide power to designated emergency lighting fixtures. In a power loss situation, it will supply power from the onboard battery supply.

The **Mini Inverter** works in conjunction with incandescent, LED, and fluorescent fixture types and will automatically run switched, normally-on, or normally-off designated emergency fixtures.

The **Mini Inverter** is ideal for applications requiring an emergency source for lighting arrangements that utilize multiple lamp and fixture types and is available in surface mount and comes with a 3 year warranty and 7 year pro-rata battery warranty.

Detailed warranty terms located at: [www.emergi-lite.com/usa/files/EL\\_Warranty.pdf](http://www.emergi-lite.com/usa/files/EL_Warranty.pdf)

### Features

- Lamps operated: Incandescent, LED, fluorescent lamps and ballast combinations, including triac dimmable ballasts (consult factory if DALI dimming)
- Components: High-efficiency pure sine wave inverter (250W and up), temperature-compensated charger, 12V oversized Valve Regulated Lead-Acid (VRLA) battery
- Construction: 14-gauge (400W & 720W) or 18-Gauge (125W & 250W) steel housing
- Emergency lighting supplied from one convenient source
- Input/Output voltage 120V 60 Hz or 277V 60 Hz
- Replacable output fuse protection
- Line voltage allows for remote mounting of emergency fixtures at distances up to 1000 feet
- Low Voltage Battery Disconnect
- Unit comes standard with electronic lockout and brownout circuits
- Meets or exceeds all National Electrical Code and Life Safety Code Emergency Lighting Requirements UL924 Listed
- Cabinet in factory white semi-gloss powder-coat paint finish
- May accept load to its full capacity when load feature power factor of 0.9 for 250W model and 0.8 for 125, 400 and 720W model
- Standard auto-diagnostic, non-audible, Nexus® system interface optional with an improved minimum load lost detection of 10%
- Standard lighting control override for 0-10V dimming systems

### Replacement Battery

EMIU-125	860.0024-E
EMIU-250	2X 860.0024-E
EMIU-400	2X 860.0043-E
EMIU-720	2X 860.0096-E

### Suggested Specification

Emergency lighting shall be provided by inverter unit equipment designed to operate designated incandescent, fluorescent and LED fixtures on emergency power at their full nominal lumen rating during the full 90 minutes emergency discharge cycle. System output will be rated at \_\_\_\_\_ watts for 90 minutes and provide fused output connections to the load. The system's voltage rating shall be \_\_\_\_\_ VAC input/output. The inverter unit shall allow for connected emergency fixture(s) to be normally-on, normally-off, switched or triac dimmable ballasts without affecting lamp operation during a power failure. Upon utility power loss, the inverter unit shall deliver 100% of its rated output to the emergency fixtures regardless of the local switch or dimmer position, and will provide power to emergency fixtures at distances of up to 1000 feet. The housing shall be manufactured using 14-gauge (400W & 720W) or 18-Gauge (125W & 250W) steel with a white baked-on powder coat paint finish. The unit's electronics shall include a self-contained inverter section with a fully automatic, thermal-compensating variable-rate battery charger, AC lockout feature, low voltage battery disconnect, DC overload, short circuit and brownout protection as standard. The unit shall utilize a sealed Lead-Acid battery with a 10-year design life. The inverter system shall be UL 924 Listed and labeled. The unit shall be covered under a 3-year warranty on the electronics and battery and a 7-year pro-rata warranty on the battery.

### Specifications

Transfer Time	less than 1 second
Voltage Regulation on Emergency	+/- 3%
Frequency Regulation on Emergency	60 Hz +/- 1%
Load Power Factor Range	<ul style="list-style-type: none"> <li>• 250W model: 0.9 leading to 0.9 lagging</li> <li>• 125, 400 &amp; 720W models: 0.8 leading to 0.8 lagging</li> </ul>
Operating Temperature	68° to 86°F (20° to 30°C)

### Warranty

All **Emergi-Lite®** inverter products receive 100% quality inspection before shipment to insure proper and satisfactory operation. When operated under normal conditions, **Emergi-Lite®** inverter products will provide years of dependable service. The unit is covered by a complete 3-year warranty against defects in material or workmanship, and a 7-year pro-rata battery warranty. The inverter unit shall be **Emergi-Lite®** model: \_\_\_\_\_ .

TYPE: \_\_\_\_\_  
 CATALOG #: \_\_\_\_\_  
 NOTES: \_\_\_\_\_



Interruptible Unit Equipment 125W, 250W, 400W or 720W Standard with Non-Audible Advanced Diagnostics Circuitry & Lighting Control Override



**Electrical Characteristics & Dimensions**

NOTE: For wiring diagram, please refer to the specification sheets.

POWER RATING	SINE WAVE	INSTALLATION	CABINET DIMENSIONS			NO. OF BATTERY	TOTAL WEIGHT	WEIGHT W/O BATTERY
			W"	H"	D"		120V & 277V	120V & 277V
125W	Modified	T-Bar	24"	6.5"	8"	1	50 lbs	22 lbs
125W	Modified	Wall	16.5"	12.2"	7.3"	1	50 lbs	22 lbs
250W	Pure	Wall	27"	12.2"	7.3"	2	100 lbs	45 lbs
400W	Pure	Wall	24"	10.5"	20"	2	150 lbs	65 lbs
720W	Pure	Wall	24"	14.5"	20"	2	220 lbs	95 lbs

**Power Consumption And Unit Rating**

MODEL NUMBER	AC SPECS	EMERGENCY POWER AVAILABLE FOR LOAD				
		90 MIN	2H	3H	4H	
EMIU-125	120/277VAC	1.15 / 0.70 Amps	125W	83W	62W	47W
EMIU-250		2.75 / 1.20 Amps	250W	167W	125W	94W
EMIU-400		4.60 / 2.00 Amps	400W	300W	200W	150W
EMIU-720		9.60 / 4.00 Amps	720W	480W	360W	270W

**How to Order**

SERIES	CAPACITY	VOLTAGE	DIAGNOSTIC FEATURE	OPTIONS
EMIU	-125= 125W -250= 250W -400= 400W -720= 720W	BLANK= 120/120VAC or 277/277VAC	-Blank= Advanced-Diagnostic, non-audible* -AD= Advanced-Diagnostic, audible* -NEX= Nexus® wired -NEXRF= Nexus® wireless	-D1= Time Delay (5 minutes) -D2= Time Delay (10 minutes) -D3= Time Delay (15 minutes) -SAC= Service Alarm Contact* -T= Recessed T-Bar mounting (125W unit only)

\* Minimum load required: 10% of unit capacity

\* Service alarm contact (SAC) shall provide a 24V signal, the charger board will indicate a fault by choosing a contact. Not available with 720 capacity

Example: EMIU-720



ON THE PROJECT, ON THE SHELF, ON THE JOB

[www.emergi-lite.com](http://www.emergi-lite.com)



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