Lightalarms

# Mini Inverter Series

## Interruptible unit equipment standard with non-audible improved self-diagnostics circuitry – 250W

### Construction
- 14-gauge steel
- White semi-gloss powered-coat paint finish

### Mounting
- Surface mount

### Lamp types operated
- LED
- Incandescent
- Fluorescent
- Operates switched, normally-on or normally-off fixture types, incandescent
- Incandescent, LED, fluorescent lamps and ballast combinations, including triac dimmable ballasts (consult factory if DALI dimming)[1]

### Load capacity
- 250W
- Line voltage allows for remote mounting of the emergency fixtures at distances up to 1000 feet

### Electronics
- High-efficiency pure sine wave inverter
- Temperature compensated charger
- Replaceable output fuse protection
- Low battery voltage disconnect
- Unit comes standard with electronic lockout and brownout circuits

[1] When using Hi-Bay fixtures or screw-in type LED lamps, consult the factory.

### Controls
- Standard with a non-audible self diagnostic/charger is fully self-contained, fully automatic microcontrollerbased system
- Optional audible auto diagnostic available
- Standard lighting control override for 0-10V dimming systems

### Load shedding for 0-10V fixtures
- During a power outage the emergency fixture is dimmed to 25% or 45% factory set brightness output. Reducing wattage draw from the fixture will allow for more fixture to be connected to the Mini Inverter.
- Maximum 20 Emergency fixtures can be daisy chained per LMIU-250

### Nexus® Option
- Units equipped with Nexus® self-testing monitoring system circuitry shall self-test, in accordance with NFPA101, Life Safety Code minimum 30 seconds every 30 days, and 90 minutes annually as well as keep a history of all testing logs, plus feature a real-time diagnoses, as well as, be able to locate exact fixture location while notifying service personnel to the status of the fixture via email notification. Nexus® system interface with an improved minimum load lost detection of 10%

### Sealed maintenance-free battery
- 12V oversized valve regulated lead-calcium (VRLA) battery
- Provides 90 minutes of emergency operation

### Power requirements
- Choice of voltage 120V in/120V out or 277V in/277V out operation, 60Hz

### Approvals
- UL 924 Standard
- Meets or exceeds all National Electric Code and Life Safety Code Emergency Lighting Requirements
- BC – California Energy Commission Title 20

### Warranty (subject to proper installation and maintenance)
- Battery has a 3-year full, plus 7-year pro-rata warranty
- Unit has a three-year warranty

Detailed warranty terms located on **page 197 or online at: www.lightalarms.com**

nexus UL BC Nexus®Pro

### Load capacity

| Mini-Inverter | Voltage | Mini-Inverter @ 80% capacity (W) in emergency mode |
|---|---|---|
| LMIU-250 | 120 | 200 |

| Mini-Inverter | Voltage | Mini-Inverter @ 70% capacity (W) in emergency mode |
|---|---|---|
| LMIU-250 | 277 | 175 |

Example

| Mini-Inverter load | Fixture wattage (W) | Fixture power factor | Equipment safety factor | Voltage | Fixture quantity |
|---|---|---|---|---|---|
| LMIU-250 | 29 | 0.96 | 20% | 120 | 6 |

### Load shedding

| Mini-Inverter load | Voltage | Load shedding | Mini-Inverter @ 80% capacity (W) in emergency mode |
|---|---|---|---|
| LMIU-250-LDC | 120 | 25% | 800 |
| LMIU-250-LDC | 120 | 45% | 363 |

| Mini-Inverter load | Voltage | Load shedding | Mini-Inverter @ 70% capacity (W) in emergency mode |
|---|---|---|---|
| LMIU-250-LDC | 277 | 25% | 700 |
| LMIU-250-LDC | 277 | 45% | 318 |

Example

| Mini-Inverter load | Load shedding | Fixture wattage (W) | Fixture power factor | Equipment safety factor | Voltage | Fixture quantity |
|---|---|---|---|---|---|---|
| LMIU-250-LDC | 25% | 29 | 0.96 | 20% | 120 | 14 |
| LMIU-250-LDC | 45% | 29 | 0.96 | 20% | 120 | 6 |

### Specifications

| Transfer time | Voltage regulation on emergency | Frequency regulation on emergency | Load power factor range | Operating temperature |
|---|---|---|---|---|
| Less than 1 second | +/- 5% | 60 Hz +/- 1% | 250W model: 0.9 leading to 0.9 lagging | 68°F to 86°F (20° to 30°C) |

### Replacement battery

| Series | Part number |
|---|---|
| LMIU-250 | 2X 860.0024-L |

### Electrical characteristics and dimensions

| | | | Cabinet dimensions | | | | Weight | Weight w/o battery |
|---|---|---|---|---|---|---|---|---|
| Power rating | Sine wave | Installation | W" | H" | D" | Number of batteries | 120V & 277V | 120V & 277V |
| 250W | Pure | Wall | 27" | 12.2" | 7.3" | 2 | 100 lbs | 45 lbs |

Note: For wiring diagram, please refer to instruction sheets.

### Power consumption and unit rating - Non-CEC models

| | | | Emergency power available for load | | | |
|---|---|---|---|---|---|---|
| Model number | | AC specs | 90 minutes | 2H | 3H | 4H |
| LMIU-250 | 120 / 277VAC | 2.75 / 1.20 Amps | 250W | 167W | 125W | 94W |

### Power consumption and unit rating - CEC models

| | | | | Emergency power available for load | | | |
|---|---|---|---|---|---|---|---|
| Model number | | AC specs | AC power stand by | 90 minutes | 2H | 3H | 4H |
| LMIU-250 | 120 / 277VAC | 2.28 / 0.99 Amps | 2.26W | 250W | 167W | 125W | 94W |

### Ordering format

| Series | Capacity | Voltage in/out | Diagnostic feature | Options | Approval |
|---|---|---|---|---|---|
| **LMIU** | **-250**= 250W | **Blank**= 120/120VAC or 277/277VAC | **Blank=** Includes improved self-diagnostics (non-audible)[1]<br>**-ID**= Improved self-diagnostics (audible)[1]<br>**-NID**= No self-diagnostics[2]<br>**-NEX**= Nexus® wired[1]<br>**-NEXP**= Nexus® Pro IoT[1]<br>**-NEXRF**= Nexus® wireless[1] | **-D3**= Time delay (15 minutes)<br>**-LDC25**= Load shedding to 25% brightness<br>**-LDC45**= Load shedding to 45% brightness<br>**-SAC**= Service alarm contact[3] | **-CEC**= CEC Title 20 for California |

**Example: LMIU-250**

[1] Minimum load required: 10% of unit capacity
[2] When using a transfer device (automatic load control relay) you must choose the NID option
[3] Service alarm contact (SAC) shall provide a 24V signal, the charger board will indicate a fault by choosing a contact.