

1500W High-Capacity Mini Inverter Series

Interruptible unit equipment



Housing

- 14 gauge steel
- White semi-gloss powder coat paint finish

Mounting

- Surface mount

Compatible loads

- LED
- Incandescent
- Fluorescent
- Operating switched, normally-on or normally-off fixture types
- Triac dimming
- 0-10V dimming
- **DALI dimming - consult factory¹**
- Consult your sales representative for high bay/after market LED lamp applications

Load capacity

- 1500W
- Line voltage allows for remote mounting of the emergency fixtures at distances up to 1,000 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 high bay fixtures or screw-in type LED lamps, consult the factory.

Controls

- Standard with a **non-audible Improved Diagnostics & self-testing** microcontroller-based system
- Optional **audible Improved Diagnostics** available
- Optional **non-Improved Diagnostics** for applications with emergency power controls
- Standard lighting control override for 0-10V dimming systems
- Optional 4 output circuits allow for multiple zone application
- Optional load shedding to dim 0-10V light fixtures connected to an emergency inverter system

Load shedding for 0-10V fixtures

- 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
- Replaceable inverter output fuse protection (two replacement fuses included, when load shedding option is ordered only)
- Maximum 100 emergency fixtures can be daisy chained per circuit

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 valve regulated lead-calcium (VRLA) batteries
- Provides minimum 90 minutes of emergency operation power requirements
- Choice of voltage 120V input/120V output or 277V input/277V output 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 (standard)

Warranty (subject to proper installation and maintenance)

- Battery has a 3 year full, plus 7 year pro-rata warranty
- Unit has a three year limited warranty

Detailed warranty terms located at: www.lightalarms.com



Load shedding

Mini inverter load	Voltage (V)	80% capacity of 1500W ¹	If emergency load shedding illumination is set to:	Maximum standby mode load capacity (W)	Maximum capacity per circuit cannot exceed (W) standby mode	Minimum number of circuits to load Inverter to full capacity
LMIU-1500-4-LD	120	1200W ¹ 20% derating is standard load safety factor	100%	1200	1200	1
			75%	1600	1600	1
			50%	2400	1600	2
			25%	4800	1600	3

Mini inverter load	Voltage (V)	70% capacity of 1500W ²	If emergency load shedding illumination is set to:	Maximum standby mode load capacity (W)	Maximum capacity per circuit cannot exceed (W) standby mode	Minimum number of circuits to load Inverter to full capacity
LMIU-1500-4-LD	277	1050W ² 30% derating is standard load safety factor	100%	1050	1050	1
			75%	1400	1400	1
			50%	2100	1600	2
			25%	4200	1600	3

LMIU-1500-4-LD fixture quantity calculation example:

- 120V operation 80% capacity of 1500W= 1200W
- 1200W @ 100% brightness in emergency= 1200W (ex. 80W x 15 fixtures= 1200W, on min. of 1 circuit)
- 1200W dimmed in emergency to 75% brightness= 1600W (ex. 80W x 20 fixtures= 1600W, on min. of 1 circuit)
- 1200W dimmed in emergency to 50% brightness= 2400W (ex. 80W x 30 fixtures= 2400W, split across 2 circuits)
- 1200W dimmed in emergency to 25% brightness= 4800W (ex. 80W x 60 fixtures= 4800W, split across 3 circuits) (1600W maximum capacity per circuit in standby mode)

Replacement battery

Series	Part number
LMIU-1500	4X 860.0096-L

Specifications

Transfer time	Voltage regulation in emergency	Frequency regulation in emergency	Inverter power factor range	Operating temperature
Less than 1 second	+/- 3%	60 Hz +/- 1%	0.9 leading to 0.9 lagging	68°F to 86°F (20° to 30°C)

Electrical characteristics and dimensions

Power rating	Sine wave	Installation	Cabinet dimensions			Number of batteries	Weight	Weight w/o battery
			W"	H"	D"		120V & 277V	120V & 277V
1500W	Pure	Floor/ Wall	24"	40.75"	14.5"	4	390 lbs	148 lbs
1500W-4	Pure	Floor/ Wall	24"	40.75"	14.5"	4	390 lbs	148 lbs

Note: For wiring diagram, please refer to the specification sheets

Power consumption and unit rating

Model number	AC specs	Emergency power available for load				
		90 minutes	2H	3H	4H	
LMIU-1500	120 / 277VAC	17.6 / 6.3 Amps	1500W	1136W	789W	673W

Ordering format

Series	Capacity	Voltage in/out	Diagnostic features	Circuits	Options
LMIU	-1500=1500W	Blank= 120/120VAC or 277/277VAC	Blank= Includes Improved self-diagnostics (non-audible) ¹ -ID= Improved self-diagnostics (audible) ¹ -NID= No improved self-diagnostics ² -NEXRF= Nexus® wireless ¹ -NEXP= Nexus® Pro IoT ¹	Blank= 1 output circuit -4= 4 output circuits -4-LD= 4 output circuits with load shedding for 0-10V fixtures	-D3= Time delay (15 minutes) -SAC= Service alarm contact ³

Example: LMIU-1500-4

¹Minimum load required: 10% of unit capacity

²When using a transfer device (automatic load control relay) you must choose the NID option

³Service alarm contact (SAC) shall be provided a 24V signal, the charger board will indicate a fault by closing a contact.