

Mini Inverter Series

Interruptible unit equipment standard with non-audible improved self-diagnostics circuitry – 400W



Construction

- 14-gauge steel
- White semi-gloss powder-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

- 400W
- 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 charger output fuse protection
- Low battery voltage disconnect
- Unit comes standard with electronic lockout and brownout circuits

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

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

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 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



Load shedding

Mini-Inverter load	Voltage	Load shedding	Mini-Inverter @ 80% capacity (W) in standby mode	Maximum capacity (W) per circuit in standby mode	Minimum number of circuits to load Inverter to full capacity
LMIU-400-4-LD	120	25%	1280	800	2
LMIU-400-4-LD	120	50%	640	640	1
LMIU-400-4-LD	120	75%	427	427	1
LMIU-400-4-LD	120	100%	320	320	1
Mini-Inverter load	Voltage	Load shedding	Mini-Inverter @ 70% capacity (W) in standby mode	Maximum capacity (W) per circuit in standby mode	Minimum number of circuits to load Inverter to full capacity
LMIU-400-4-LD	277	25%	1120	700	2
LMIU-400-4-LD	277	50%	560	560	1
LMIU-400-4-LD	277	75%	373	373	1
LMIU-400-4-LD	277	100%	280	280	1

Example

Mini-Inverter load	Load shedding	Fixture wattage (W)	Fixture power factor	Equipment safety factor	Voltage	Fixture quantity
LMIU-400-4-LD	25%	57	0.96	20%	120	22
LMIU-400-4-LD	50%	57	0.96	20%	120	11
LMIU-400-4-LD	75%	57	0.96	20%	120	7
LMIU-400-4-LD	100%	57	0.96	20%	120	5

Specifications

Transfer time	Voltage regulation on emergency	Frequency regulation on emergency	Inverter power factor range		Operating temperature
			120V	277V	
Less than 1 second	+/- 5%	60 Hz +/- 1%	400W model .8 leading to .8 lagging	400W model .9 leading to .9 lagging	68°F to 86°F (20° to 30°C)

Replacement battery

Series	Part number
LMIU-400	2X 860.0043-L

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
400W	Pure	Wall	24"	20"	10.5"	2	150 lbs	65 lbs

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

Power consumption and unit rating - Non-CEC models

Model number	AC specs	Emergency power available for load				
		90 minutes	2H	3H	4H	
LMIU-400	120 / 277VAC	4.60 / 2.00 Amps	400W	300W	200W	150W

Power consumption and unit rating - CEC models

Model number	AC specs	Power consumed in standby mode	Emergency power available for load			
			90 minutes	2H	3H	4H
LMIU-400	120 / 277VAC	3.73 / 1.62 Amps	400W	300W	200W	150W

Ordering format

Series	Capacity	Voltage in/out	Diagnostic feature	Options	Approval
LMIU	-400= 400W	Blank= 120/120VAC or 277/277VAC	Blank= Includes improved self-diagnostics (non-audible) ¹ -ID= Improved self-diagnostics (audible) ¹ -NID= No self-diagnostics ² -NEXRF= Nexus® wireless ¹ -NEXP= Nexus® Pro IoT ¹	-D3= Time delay (15 minutes) -SAC= Service alarm contact ³ -4= 4 output circuits -4-LD= 4 output circuits with load shedding for 0-10V fixtures	-CEC= CEC Title 20 for California

Example: LMIU-400

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 provide a 24V signal, the charger board will indicate a fault by choosing a contact.