

Mini Inverter Series

Interruptible unit equipment 400W



Housing

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

Mounting

- Surface mount

Lamp types operated

- LED
- Incandescent
- Fluorescent
- Operating switched, normally-on or normally-off fixture types
- 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 microcontroller-based system
- Optional audible auto diagnostic available
- Standard lighting control override for 0-10V dimming systems

¹When using Hi-Bay fixtures or screw in type lamps, please 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 (excluding lamps and fuses)
- Detailed warranty terms located on page 202 or online at:
www.emergi-lite.com/usa/files/EL_Warranty.pdf

All Emergi-Lite® inverter products receive 100% quality inspection before shipment to ensure proper and satisfactory operation.



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 |
|--------------------|---------|---------------|--|--|--|
| EMIU-400-4-LD | 120 | 25% | 1280 | 800 | 2 |
| EMIU-400-4-LD | 120 | 50% | 640 | 640 | 1 |
| EMIU-400-4-LD | 120 | 75% | 427 | 427 | 1 |
| EMIU-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 |
| EMIU-400-4-LD | 277 | 25% | 1120 | 700 | 2 |
| EMIU-400-4-LD | 277 | 50% | 560 | 560 | 1 |
| EMIU-400-4-LD | 277 | 75% | 373 | 373 | 1 |
| EMIU-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 |
|--------------------|---------------|---------------------|----------------------|-------------------------|---------|------------------|
| EMIU-400-4-LD | 25% | 57 | 0.96 | 20% | 120 | 22 |
| EMIU-400-4-LD | 50% | 57 | 0.96 | 20% | 120 | 11 |
| EMIU-400-4-LD | 75% | 57 | 0.96 | 20% | 120 | 7 |
| EMIU-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° to 86°F (20° to 30°C) |

Replacement battery

| Description | Suffix |
|-------------|---------------|
| EMIU-400 | 2X 860.0043-E |

Electrical characteristics and dimensions

| Power rating | Sine wave | Installation | Cabinet dimensions | | | No. of batteries | Total weight | Weight w/o battery |
|--------------|-----------|--------------|--------------------|--------|-------|------------------|--------------|--------------------|
| | | | Width | Height | Depth | | 120V & 277V | 120V & 277V |
| 400W | Pure | Wall | 24" | 20" | 10.5" | 2 | 150 lbs | 65 lbs |

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

Power consumption and unit rating - non-CEC models

| Model number | AC specs | Emergency power available for load | | | |
|--------------|-----------------------------|------------------------------------|------|------|------|
| | | 90 Min | 2H | 3H | 4H |
| EMIU-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 Min | 2H | 3H | 4H |
| EMIU-400 | 120/277VAC 3.73 / 1.62 Amps | 3.21W | 400W | 300W | 200W | 150W |

How to order

| Series | Capacity | Voltage | Diagnostic feature | Options | Approval |
|--------|------------|---------------------------------|---|---|-----------------------------------|
| EMIU | -400= 400W | Blank= 120/120VAC or 277/277VAC | -Blank= Advanced Diagnostic, non-audible ¹ -AD= Advanced Diagnostic, audible ¹ -NAD= No Advanced Diagnostics ² -NEX= Nexus® wired ¹ -NEXP= Nexus®Pro IoT ¹ -NEXRF= Nexus® wireless 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: EMIU-400

¹Minimum load required: 10% of unit capacity

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

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