

## 720W Medium-Capacity Mini Inverter Series

Interruptible unit equipment



### Housing

- 16 gauge steel (standard) and 14 gauge steel (4 output circuits)
- 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, LED, fluorescent lamps and ballast combinations, including triac dimmable ballasts (**consult factory if DALI dimming**)<sup>1</sup>

### Load capacity

- 720W
- 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

<sup>1</sup>When using high bay fixtures or screw in type lamps, please consult the factory.

### Controls

- Standard with a **non-audible Advanced Diagnostics & self-testing** microcontroller-based system
- Optional **audible Advanced Diagnostics** available
- Optional **Non-Advanced Diagnostics** for applications with emergency power controls
- Standard lighting control override for 0-10V dimming systems

### 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

### 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 fuses)

Detailed warranty terms located on page 202 or online at:  
[www.emergi-lite.com/usa/files/EL\\_Warranty.pdf](http://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 (V)	80% capacity of 720W <sup>1</sup>	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
EMIU-720-4-LD	120	576W <sup>1</sup> 20% derating is standard load safety factor	100%	576	576	1
			75%	768	768	1
			50%	1152	800	2
			25%	2304	800	3

  

Mini Inverter load	Voltage (V)	70% capacity of 720W <sup>2</sup>	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
EMIU-720-4-LD	277	504W <sup>2</sup> 30% derating is standard load safety factor	100%	504	504	1
			75%	672	672	1
			50%	1008	700	2
			25%	2016	700	3

**EMIU-720-4-LD fixture quantity calculation example:**

- 120V Operation 80% capacity of 720W= 576W
- 576W at 100% brightness in emergency= 576W (ex. 48W x 12 fixtures= 576W, on min. of 1 circuit)
- 576W dimmed in emergency to 75% brightness= 768W (ex. 48W x 16 fixtures= 768W, on min. of 1 circuit)
- 576W dimmed in emergency to 50% brightness= 1152W (ex. 48W x 24 fixtures= 1152W, split across 2 circuits)
- 576W dimmed in emergency to 25% brightness= 2304W (ex. 48W x 48 fixtures= 2304W, split across 3 circuits) (800W maximum capacity per circuit in standby mode)

Specifications

Transfer time	Voltage regulation in emergency	Frequency regulation in emergency	Inverter power factor range		Operating temperature
			120V	277V	
Less than 1 second	+/- 5%	60 Hz +/- 1%	720W model .8 leading to .8 lagging	720W model .9 leading to .9 lagging	68° to 86°F (20° to 30°C)

Replacement battery

Description	Suffix
EMIU-720	2X 860.0096-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
EMIU-720	Pure	Wall	25.6"	20"	7.5"	2	180 lbs	65 lbs
EMIU-720-4	Pure	Wall	24"	20"	14.5"	2	230 lbs	116 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 Min	2H	3H	4H	
EMIU-720	120/277VAC	9.60 / 4.00 Amps	720W	480W	360W	270W

How to order

Series	Capacity	Voltage	Diagnostic feature	Circuit	Options
EMIU	-720= 720W	Blank= 120/120VAC or 277/277VAC	-Blank= Advanced Diagnostics, non-audible <sup>1</sup> -AD= Advanced Diagnostics, audible <sup>1</sup> -NAD= No Advanced Diagnostics <sup>2</sup> -NEXP= Nexus®Pro IoT <sup>1</sup> -NEXRF= Nexus® wireless <sup>1</sup>	-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 <sup>3</sup>

Example: EMIU-720

<sup>1</sup>Minimum load required: 10% of unit capacity

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

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