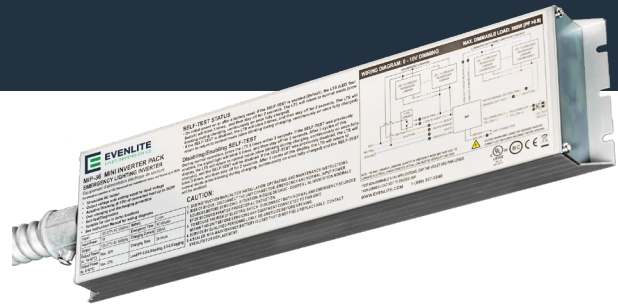


MIP

Mini Inverter Pack

The MIP is a refined, fully featured Emergency Lighting Inverter in a traditional compact power pack format for installation versatility—suitable for mounting within, on, or remotely. Available in both 36W and 100W models, the MIP can be wired for Switched, Normally-On, Normally-Off, or the groundbreaking Adaptive Dimming feature. This patented adaptive technology intelligently apportions the pack rating via 0–10V dimming of connected luminaires during emergency mode, ensuring optimal performance. Equipped with field-selectable Self-Test/Self-Diagnostics and automatic voltage select capabilities, the MIP is the ultimate choice for multi-luminaire setups or applications demanding high lumen outputs.



ELECTRICAL

- Pure Sine Wave AC pulse width modulated (PWM) output
- Automatic Voltage Input/Output select 120–277VAC 50/60Hz
- Adaptive 0 – 10V dimming of connected loads
- Universal 120/277 VAC, 60Hz. Input/output
- Field Selectable Self-Test/Self-Diagnostics. Preprogrammed Scheduled Self-Test will occur after 24 hours and up to 7 days after initial power on. Monthly tests will occur every 30 days after initial power on
- Annual tests will occur every 52 weeks after initial power on
- Supports Switched, Normally-ON, Normally-OFF or Adaptive Dimming input wiring
- Remote Mounting Distance of up to 1,000 ft
- Long Life, high capacity, maintenance-free Lithium-ion battery provides required 90 minutes of emergency duration and environmentally friendly end of life recycling
- Over voltage, over current, inrush current limiting, over temperature, short circuit, and open circuit protections
- Zero current LVCO ensures positive charge acceptance following extended battery discharge
- Brownout sensing assures emergency illumination during periods of low line voltage
- Can be derated for FEMA 2 Hours emergency duration
- Efficiency Rating: 80% (MIP-36) & 84% (MIP-100)
- Rated current: 0.1A (MIP-36) & 0.48A @ 120V (MIP-100)
- Rated power: 7W (MIP-36) & 35W (MIP-100)
- Output Power: 36W (MIP-36) & 100W (MIP-100)
- Maximum Pass through: 360W (MIP-36) & 900W (MIP-100)
- Charging time: 24 hours (MIP-36) & 12 hours (MIP-100)
- Charging current: 0.34A (Max) (MIP-36) & 0.6A (MIP-100)
- Operating Temperature: 0–50C (32 – 122F)

CONSTRUCTION

- Slim and versatile extruded aluminum housing
- 21" lead wires with ½" flexible metallic conduit
- Suitable for use in plenum, damp and dry locations or grounded damp location rated luminaires
- Multi-function LED and Test Switch

STATUS INDICATOR

- Single color (GREEN) LED lamp indicator shows the following status:
 - **LTS Slow Blinking:** Normal Charging
 - **LTS ON:** Battery Fully Charged
 - **LTS OFF:** Power Failure
 - **LTS Gradual Change:** In Testing Mode
 - **LTS Quickly Blinking:** Abnormal Condition – Corrective Action Required

CERTIFICATION

- Tested and Listed by Underwriters Laboratories in compliance with UL924 and Canadian CSA–C22.2 No. 141-15
- UL924 listed for field installation
- California Title 20 Certified
- Meets or exceeds NFPA101 Life Safety Code, NFPA 70-NEC and OSHA requirements

WARRANTY

- 5 year limited warranty – view complete warranty terms online at www.evenlite.com/terms-warranty.

ORDERING GUIDE

MIP-36

MODEL	VA RATING	ACCESSORY <i>ORDER SEPARATELY</i>
MIP	36 36 Watts/VA	MINV-ACCY-TSP Remote LTS Test Switch Mounting Plate
	100 100 Watts/VA	MINV-ACCY-LTS Replacement LTS Test Switch
MIP		

Fill in fields from categories above and complete type and part number.

Type No: _____ Full Part No: _____

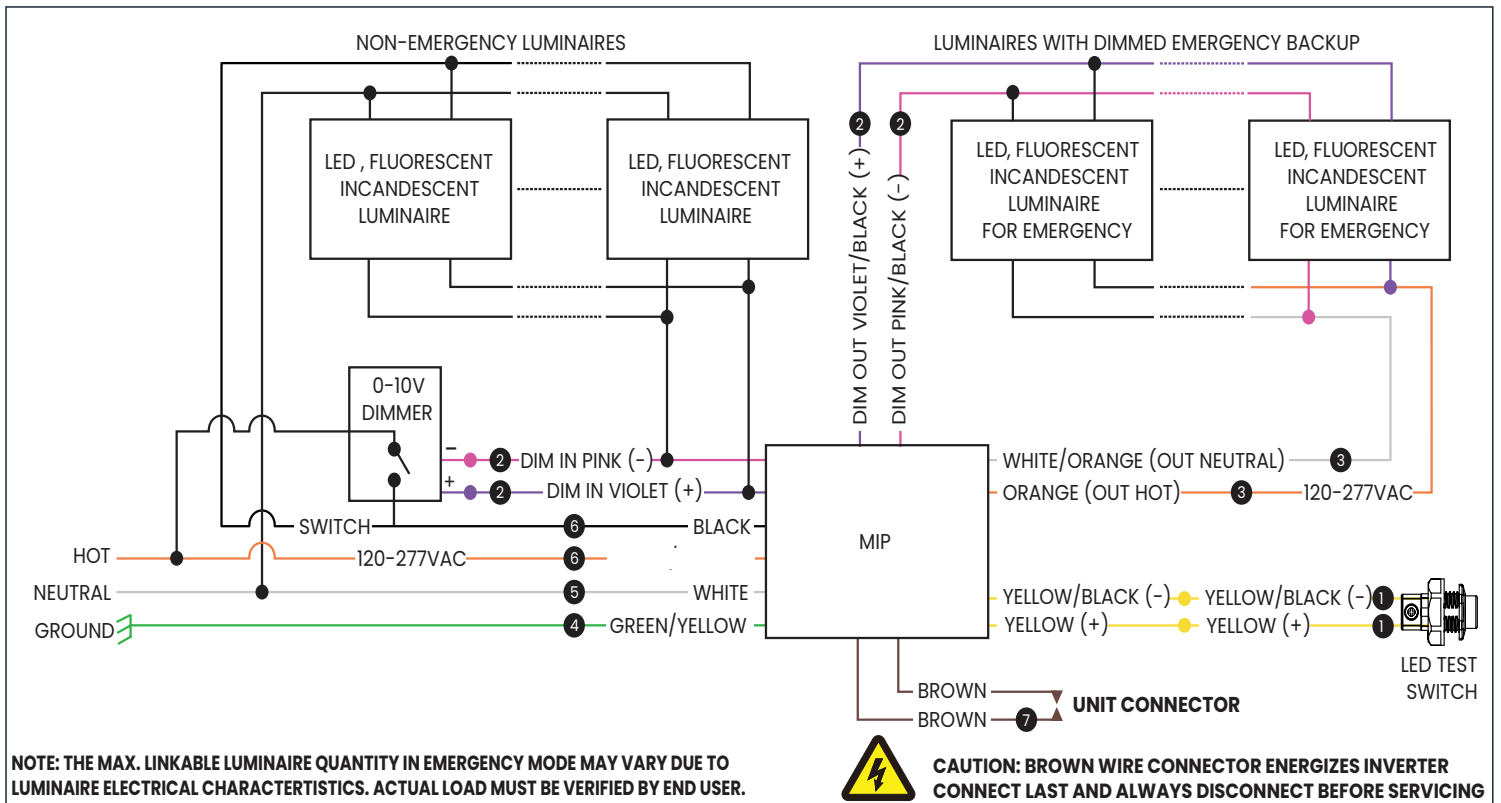
DIMENSIONS

MODEL	LENGTH	WIDTH	HEIGHT	MOUNTING CENTER	WEIGHT
MIP-36	13.54"	3.23"	1.18"	13.31"	3.0 lb.
MIP-100	13.63"	4.53"	1.63"	13.31"	5.6 lb.

LOAD/CAPACITY RATING

MODEL	90 MIN	120 MIN	150 MIN	180 MIN	240 MIN
MIP-36	36W	27W	21.6W	18W	13.5W
MIP-100	100W	75W	60W	50W	37.5W

TYPICAL WIRING DIAGRAM



WIRING INFORMATION

ADAPTIVE AUTOMATIC DIMMING WIRING FOR LOADS LARGER THAN MIP'S OUTPUT RATING

- The MIP inverter series features patented Adaptive Automatic dimming that allows for dimming of loads greater than the MIP's rated output (36W or 100W) up to 360W (MIP-36) and 900W (MIP-100).
- All fixtures that exceed the MIP's output rating (36W or 100W) must have 0-10VDC dimming capable drivers. Connection of the MIP's output dimming wires (Purple/Black, Gray/Black wires) to the fixture is mandatory in all cases whether local dimming is required or not. Failure to connect the MIP's output dimming wires (Purple/Black, Gray/Black) will result in a fault during emergency mode and the fixtures will not illuminate. For loads equal to or less than the output rating of the MIP (36W or 100W) 0-10VDC dimming is not required for proper function.
- If the MIP is being used for multiple fixtures, all output wires including dimming of the MIP must be connected in series across all fixtures.
- In the event of an emergency the MIP will automatically bypass any local switching or dimming and illuminate the loads to the packs maximum rated output of either 36W or 100W.

WIRING FOR LOADS EQUAL OR LESS THAN MIP'S OUTPUT RATING

- All loads that are equal to or less than the MIP's rated output (36W or 100W) do not require connection of the dimming output wires (Purple/Black, Gray/Black) for proper function. Cap dimming wires if not used.
- The MIP's dimming output wires (Purple/Black, Gray/Black) can be connected to the fixture if local dimming is required during utility mode.
- In the event of an emergency the MIP will automatically bypass any local switching or dimming and illuminate the connected load to full illumination not exceeding 36W or 100W.

SWITCHED OPERATION WIRING

- Connect all wires from the inverter to the fixture following the diagram printed on the label. In this mode the fixture can be controlled by local switching/dimming during utility mode (On/Off), in the event of an emergency the inverter will bypass local switching/dimming and the fixture will illuminate at the inverters rated capacity (36W or 100W).

NORMALLY-ON OPERATION

- Connect the Black and Black/Orange wires of the pack to line Hot, all remaining wires from the inverter shall be connected to the fixture following the diagram printed on the inverter. In this mode the fixture will be in the "On" state during utility power, in the event of an emergency the fixture will continue to illuminate at the inverters rated capacity (36W or 100W).

NORMALLY-OFF OPERATION

- Cap the Black wire of the pack, all remaining wires from the inverter shall be connected to the fixture following the diagram printed on the inverter. In this mode the fixture will be in the "Off" state during utility power, in the event of an emergency the fixture will illuminate at the inverters rated capacity (36W or 100W).

SPECIFICATION NOTES

ADAPTIVE DIMMING EMERGENCY LOAD CALCULATION

When calculating the maximum number of luminaires for use with adaptive dimming, the following factors must be considered:

- **Exact Power Consumption in Emergency Mode**
 - Determine each luminaire's actual emergency-mode wattage, including power factor, driver efficiency, and any other system losses.
- **Dimming Level**
 - Identify the dimming driver's lowest achievable output level.
 - Note: In 0-10 V control systems, "percent" is relative to the control voltage range. For example, 1% on the control scale often equates to approximately 10% light output.
 - Example: If the dimming driver can only dim to 1.5 V (15% of control range), a 30 W luminaire will draw a minimum emergency load of: $30\text{ W} \times 15\% = 4.5\text{ W}$.
 - For an MIP-36 (36 W emergency pack rating), the maximum number of such luminaires is: $36\text{ W} \div 4.5\text{ W} = 8$ luminaires.
- **Load Adjustment Recommendations**
 - If the dimming driver's efficiency and minimum output level are unknown, increase the calculated adaptive dimming load by 30%.
 - If the luminaires utilize fade dimming, increase the calculated adaptive dimming load by 50%.

LTS TEST SWITCH WALL PLATE

