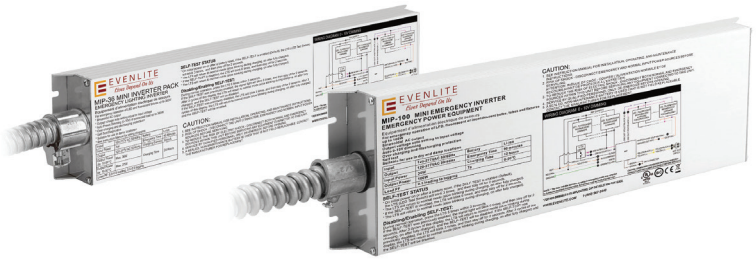
shat·r·shield lighting inc.

PROJECT NAME:	APPROVED BY:
CATALOG NO:	TYPE NO:

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 to the desired emergency luminaries. Available in 100W model, the MIP caters to various lighting needs, from LED to Incandescent or Fluorescent loads. 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 luminaries during emergency mode, ensuring optimal performance tailored to your specific requirements. With the Adaptive Dimming, the MIP can seamlessly handle a total pass-through load of 900W for the 100W model, providing unparalleled efficiency. Equipped with field-selectable Self-Test/Self-Diagnostics and automatic voltage select capabilities, the MIP is the ultimate choice for multi-luminance setups or applications demanding high lumen outputs, such as high bays, wall packs, and floodlights.



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

Electrical

- Pure Sine Wave AC pulse width modulated (PWM) output
- Automatic Voltage Input/Output select 120-277VA 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
- 84% (MIP-100)
- 0.48A @ 120V (MIP-100)
- 35W (MIP-100)
- 100W (MIP-100)
- Maximum Pass through: 900W (MIP-100)
- Charging time: 12 hours (MIP-100)
- Charging current: 0.6A (MIP-100)
- Operating Temperature: 0-50C (32 – 122F)

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

ORDERING GUIDE – MIP

Example: MIP-36

Model	VA Rating
MIP – Mini Inverter Pack	**100** 100 Watts/VA
MIP	

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

Type Number:	*Full Part Number:*

MIP - MINI INVERTER PACK

DIMENSIONS

Model	Length	Width	Height	Mounting Center	Weight
MIP-100	13.63”	4.53”	1.63”	13.31”	5.6 lb.

Single Color (GREEN) LED Lamp Indicator shows the following status:

LTS Slow Blinking: Normal Charging
LTS ON: Battery Fully Charged (Normal Condition)
LTS OFF: Power Failure
LTS Gradual Change: In Testing Mode
LTS Quickly Blinking: Abnormal Condition – Corrective Action Required

LOAD/CAPACITY RATING IN WATTS

Model	90 Minute (1.5H)	120 Minute (2H)	150 Minute (2.5H)	180 Minute (3H)	240 Minute (4H)
MIP-100	100W	75W	60W	50W	37.5W

Adaptive Automatic Dimming Wiring for loads larger than MIP’s Output Rating

- 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.

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).