

PWII - Mini Dimming Inverter

Available in 125W and 250W sizes

The Pure Wave II (PWII) was built upon our industry proven PW-Series to engineer a new Dimmable Class of Lighting Inverters with serviceability and flexibility at the forefront of design. Equipped with Pure Sine Wave output, 10X crest factors to punch through the most demanding inrush requirements, 3 configurable lighting zones for seamless system integration, field-selectable Input/Output AC voltages, and ultra-low standby power consumption to meet the California Energy Commission requirements. The PWII offers an industry-leading option of a 3 channel DALI / 0-10V transfer circuit with independent selectable preset dimming levels for each output.

Quick Specs

Input Voltage	120/277 VAC Field Selectable
Max Connected Load.....	Up To 375 Watts
Output Voltage	120/277 VAC Field Selectable
Output Power	125W (PWII-12), 250W (PWII-25)
Load Type	LED, Fluorescent, Incandescent
Transfer Time.....	50mS / 1S / 2S User Selectable
Operating Time.....	90 Minutes
Overload Capability	Up To 110%
Frequency Regulation.....	60Hz +/- 0.02 Hz crystal controlled
Crest Factor	10X (125W), 5X (250W)
Load Power Factor.....	0.5 lead to 0.5 lag
Operating Temperature	20—30 °C
Battery Type	Valve Regulated Lead Acid (VRLA)
Approval	UL924 Listed



Features

- Field-selectable 120 or 277 VAC Input/Output
- User adjustable transfer time for application flexibility
- Optional Dimming Interface (option FD): 3 x DALI / 0-10V w/5 preset levels of 100%, 80%, 60%, 40%, & 20%
- 1x Normally-On, 3x configurable (Normally-On/Normally-Off or Switched) types for ultimate load flexibility
- Advanced Startup, Charger, and Inverter Diagnostics for prevention of field failures, overloads and miswires
- Self-Testing and Self-Diagnostics a standard feature
- High purity premium maintenance-free Valve Regulated Lead Acid (VRLA) batteries with lead calcium plates for long life and durability
- T-Bar Mount available in 125 watt model



ORDERING GUIDE – PWII

Example: PWII-25-LC-FD

Model	Wattage/VA	Battery Type	Options
PWII	12 125 Watts/VA 25 250 Watts/VA	LC Lead Calcium	FD 3 Independent Dimming Zones (via 0-10V / DALI) / 1 x Fire Alarm Interface AA Audible Alarm DT 2 Second Delayed Transfer RT Remote Test Switch and Monitor (includes Audible Alarm IR receiver, Test Switch and SD indicator) TLRT Infrared Remote Hand Held Transmitter to suit RT option (ordered separately) TB T-Bar Mount Housing (125 watt only) 2H Hour Run Time (capacity reduced to 100 watts and 200 watts respectively) CL Canadian Listed to CSA C22.2 No. 141-10 Z4 Seismic Zone 4 Restraints UP Pre-Shipped Less Battery
PWII			

Fill in fields from categories above and complete type and part

Type Number:

Full Part Number:

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Input

- Voltage: 120 or 277 VAC – field configurable
- Current: 2.7A (120V), 1.2A (277V) for 250 Watt Model 1.4A (120V), 0.6A (277V) for 125 Watt Model
- Frequency: 60Hz +/- 2 Hz
- Protection: Easy access 8A fast acting 5x20 mm fuse.
- Power Factor: 0.5 lead to 0.5 lag

Output

- Voltage: 120 or 277 VAC (follows Input Voltage selection)
- Current: 2.08A (120V), 0.9A (277V) for 250 Watt Model 1.04A (120V), 0.45A (277V) for 125 Watt Model
- Frequency: 60Hz +/- 0.02 Hz crystal controlled (EM mode)
- Overload Capability: Up to 110%
- Configurable Transfer Times: 50ms, 1s (default), 2s
- Output Distortion: Less than 3% THD
- Crest Factor: 10X for 125W and 5X for 250W model
- Load Power Factor: 0.5 lead to 0.5 lag
- Output Types: 1x Normally-On, 3x configurable Normally-Off/Switched
- Max Connected Load w/ Dimmer option: 375W (Non-EM Mode)

Construction

- NEMA Type 1 enclosure, 18 AWG epoxy powder coated Cold Rolled Steel (CRS)
- Cooling by natural convection – no internal fans
- Electrical Knock Outs (EKO's) for ½' and ¾" conduit provided on three surfaces

Battery

- Long-Life Valve-Regulated Lead Acid (VRLA)
- Ultra efficient 3-rate, temperature-compensation Charger meets CEC Title 20 requirements
- Automatic Low Voltage Disconnect (LVD) set at 1.67 VPC
- Runtime: 90 Minutes at 25C°
- DC Voltage: 24 VDC Nominal, 2.27 VPC float, temperature compensated
- DC Current: 6.2/12.4 ADC Nominal (125W/250 Watt model)

Environmental

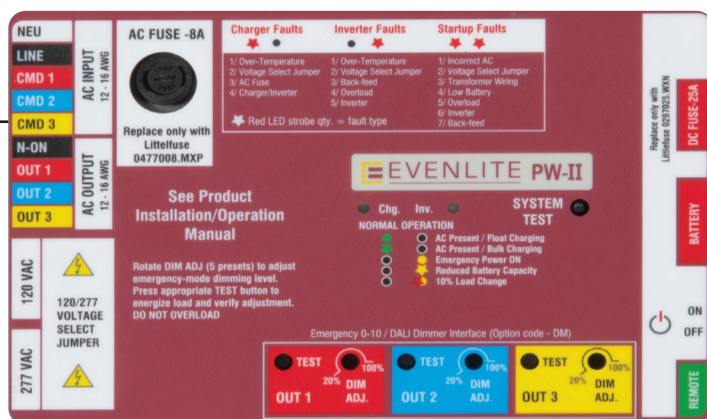
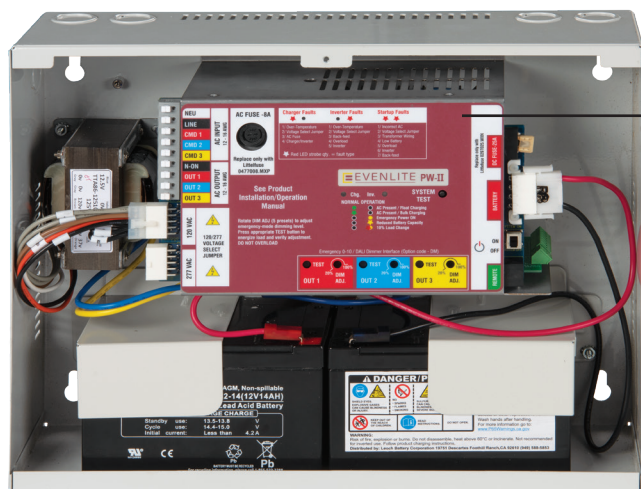
- Operating Temp: 20C° to 30C°
- Storage Temp: Electronics - 20C° to 70C° Batteries - 0C° to 40C°
- Relative Humidity: <95 % (non-condensing)

Approvals & Certifications

- UL924
- NFPA 101 Life Safety Code
- NFPA 70 - NEC
- NEMA Type 1 Enclosure
- NEMA 410 load tested up to 375W

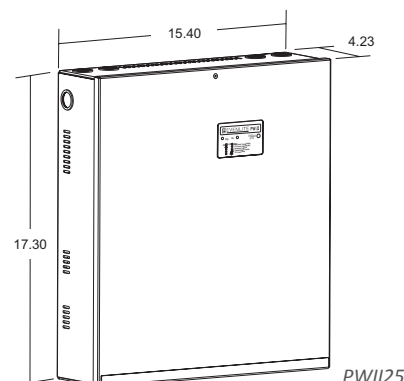
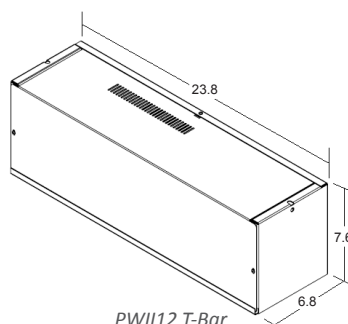
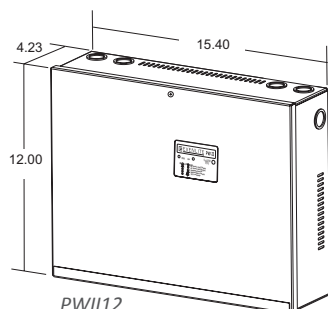
Warranty

- 3 Year Limited Electronics Warranty – view complete terms on-line @ www.evenlite.com/warranty/terms
- 3 Year Full / 7 Year Pro-Rata Battery Warranty



Dimensions

Model	Weight
PWII-12	33 lbs
PWII-12TBar	36 lbs
PWII-25	57 lbs

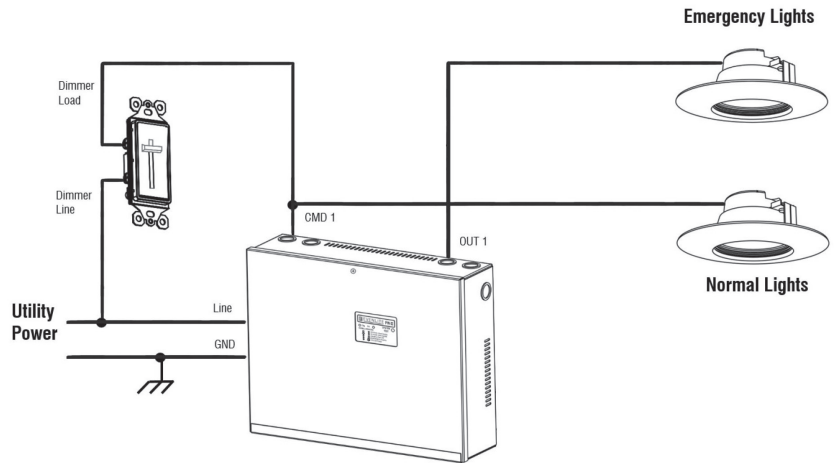


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Dimming Explained

The Diagram to the right is an example of a typical wiring application where a single Area/Room contains both Normal Lights and Emergency Lights. The PWII passes the 0-10V signal through itself until the Inverter switches to Emergency Mode. Once in EM Mode, the PWII bypasses the Area/Room dimmer and supplies the 0-10V Dimming Signal based on the internally adjustable Preset Level for that Zone.

Preset Level Options are as follows: 100%, 80%, 60%, 40% or 20%



3-Zone Dimming Example

The Diagram below is an example of utilization of the PWII-12's three independent Zones in three separate rooms. In each room there are 5 Emergency Fixtures connected to an Inverter Zone Output. Each fixture represents a 25 Watt fixture, with that same fixture used for both Normal and Emergency application. When in Normal Mode, the inverter directly couples the Dimmer Line Output and Dimmer 0-10V signal to the connected Emergency Fixtures; allowing those fixtures to output up to "Full On" for a maximum pass-through load of 375 Watts. When in Emergency Mode, The PWII will output based upon the Internal Preset Level for each zone bypassing the dimmer control for a total Emergency Load of 100 watts.

Normal Mode (Pass Through)

Room 1 - 5 Fixtures X 25W @ Full On = 125W
Room 2 - 5 Fixtures X 25W @ Full On = 125W
Room 3 - 5 Fixtures X 25W @ Full On = 125W
Total Wattage = 375 Watts

Emergency Mode (Internally Dimmed)

Room 1 - 5 Fixtures X 25W @ 20% Preset = 25W
Room 2 - 5 Fixtures X 25W @ 40% Preset = 50W
Room 3 - 5 Fixtures X 25W @ 20% Preset = 25W
Total Wattage = 100 Watts

