



Project

Type

Catalog Number

SPECIFICATIONS

POWER

FEATURES

- For powering incandescent, fluorescent, induction and LED fixtures
Consult factory for compatibility for other lamp types
- Sinusoidal AC pulse width modulated (PWM) output eliminates compatibility problems
- Universal 120/277VAC, 60Hz. input/output
- "Soft Start" design reduces fixture inrush current
- Surface, recessed, or T-Grid mounting options
- Unit may be installed up to 1,000 feet from controlled fixture(s)
- Lumen output from fixture is 100% of nominal
- Unique design eliminates compatibility problems with LED drivers as well as fluorescent and induction ballasts
- Compatible with dimming ballasts
- Normally-ON and/or Normally-OFF load output
- Provisions for local switching capability - Always on during emergency conditions regardless of local switch position
- Emergency fixtures can be ON, OFF, or SWITCHED
- Solid-state, line latched low voltage disconnect provides protection against battery deep discharge
- Long life, maintenance-free lead-calcium battery
- Control panel with momentary test switch, AC-ON, Charge-ON and Inverter-ON LED indicators
- Momentary test switch

OPERATION

Upon failure of the normal utility power the PS unit is automatically turned on by a solid state switching circuit and provides a minimum of 90 minutes of emergency power to the connected load. Lumen output will be maintained at 100% of the lamp's rating throughout the entire duration.

A solid state low voltage disconnect circuit is used to protect the battery from being severely damaged by a deep discharge. When normal utility power is restored, the unit switches the load back to normal utility operation and the fully automatic, temperature compensated, dual mode charger begins to restore the battery; bringing it to full charge within UL 924 specified parameters. A brownout sensing circuit insures proper operation during "low line" conditions.

WIRING

Connection to an unswitched AC circuit is required by the NEC. Wiring access is provided for by conduit knockouts in the unit housing. PS-55-LP and PS-110-LP models also provide knockouts in the back of the housing for rear wiring from standard electrical boxes when surface mounting.

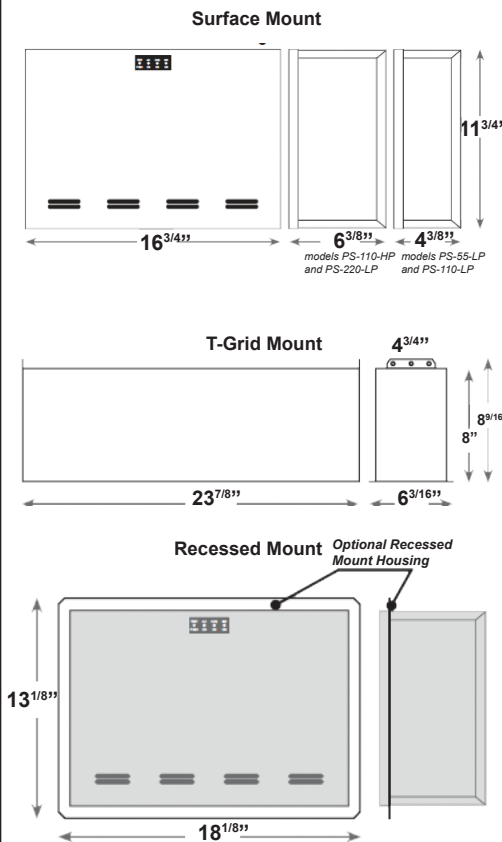
LOAD COMPATIBILITY

PS models' clean, sinusoidal AC output will operate incandescent lamps as well as all common fluorescent, induction, and LED lamp types. Consult factory for compatibility with all other lamp types.

Lighting loads are driven at 100% output for the entire emergency power cycle. This outstanding feature translates into greater occupant egress vision and safety.



**PS
55W, 110W, 220W Inverter**



CATALOG #	Capacity	Battery VDC	DC Input	AC Input (120V/277V)	System Weight	Batteries
PS-55-LP-*	55W/125VA	24VDC	3.4	1.2 / 0.52	30.0 Lbs	2
PS-110-LP-*	110W/125VA	24VDC	5.7	1.2 / 0.52	42.0 Lbs	2
PS-110-HP-S	110W/250VA	48VDC	3.3	2.4 / 1.10	45.2 Lbs	4
PS-220-HP-S	220W/250VA	48VDC	5.6	2.4 / 1.10	60.0 Lbs	4

*Specify Mounting: **S**-Surface, **R**-Recess, **T**-T-Grid

Options (Factory Installed)

- SD - Self -Testing/Self-Diagnostics
- T20 - CEC Title20 Compliant (32W and 55W models only)
- CC - Custom Housing Color
- 4C - 4-Output Circuit Switching (not available with AO option)
- AO - Adjustable Output/Dimmer Bypass (not available with 4C option)

Accessories (Ships on the Side)

- PS-RTS - Remote Test Switch Panel



HOUSING

- Heavy duty steel cabinet is finished in white baked-on powder paint providing scratch and corrosion resistance.
- Optional special color paint (-CC) finishes are available, consult factory.

MOUNTING

Surface Mount: Surface mount models are designed for mounting to walls by means of keyhole slots provided in the back of the unit housing

Recess Mount (PS-55-HP, PS-110-LP Only): Recess models provide recess mounting holes on both sides of the enclosure.

T-Grid Mount (PS-55-HP, PS-110-LP Only): Housing design allows simple drop-in installation between T-grid runs. Safety wires (supplied by others) are required for attachment to building structure.

ELECTRICAL SPECIFICATION

INPUT

Input Voltages: 120 or 277VAC $\pm 10\%$

Input Frequencies: 60Hz $\pm 2\%$

Input Protection: AC Line Fuses

OUTPUT

Output Voltages: (60Hz) 120 or 277VAC

Efficiency Rating: 98% at full rated load (line)

Waveform: Sinusoidal (digitally controlled)

Static Voltage: $\pm 5\%$ during battery discharge. 0-100% linear load.

Output Frequencies: 60Hz. $\pm 0.3\text{Hz}$ during emergency cycle

Output Distortion: Less than 3% THD (linear load)

Transfer Time: Less than 1.0 second

Load Power Factor Range: 0.44 Lead to 0.44 Lag

Minimum Loading: 0% of rated system capacity

Output Protection: Line and inverter fuses

BATTERIES AND CHARGER

BATTERY

Battery: Sealed Lead Calcium (10 year life)

Battery Voltage: 24VDC for PS-55-LP, PS-110-LP models and 48VDC for PS-110-HP, PS-220-HP models

Runtime: 90 minutes standard - based on battery performance at 77°F (25°C). Other run-times available, consult factory.

Battery Protection: Low Voltage Battery Disconnect protects the battery from being severely damaged by deep discharge during prolonged power failures
DC Overload and Short Circuit Protection provided by a DC input breaker and fuse.

CHARGER

Charger Type: Fully automatic, temperature compensated, dual-mode charger

Power Consumption (Charger Only):

15W maximum (2.5W in standby) for PS-55-LP, PS-110-LP models

30W maximum (5.0W in standby) for PS-110-HP, PS-220-HP models

Recharge Duty Cycle: Meets UL924 requirements

Battery Circuit Breaker: Also used as battery isolator

Controls: Momentary test switch, AC-On, Charge-On and Inverter-On LED indicator lights

Safety Circuitry: AC Lockout prevents battery discharge prior to initial unit power-up. Brownout Protection automatically switches the unit to emergency mode when utility voltage is significantly reduced.

ENVIRONMENTAL

High Altitude Operation: < 10,000 feet (3,000m) above sea level without derating.

Operating Temperature Range: 68°F to 86°F (20°C to 30°C)

NOTE: Optimum system performance between 20°C (68°F) and 30°C (86°F); temperatures outside of this range will affect battery performance and life.

Relative Humidity: 95% non-condensing

CODE COMPLIANCE

- UL924 Listed for Damp Locations
- Meets NFPA101, NEC, OSHA, Local and State Codes
- CEC Title20 Certified
- FCC Part 15 Class A Compliant

WARRANTY

- 5 Year Warranty

SUGGESTED SPECIFICATIONS

An inverter system with sinusoidal output shall be supplied capable of powering any combination of lighting fixtures, including incandescent, fluorescent, induction and/or LED light sources without compatibility problems.

The system shall transfer in less than 1.0 second to reliably back up lighting fixtures without loss of illumination and operate any and all connected lighting fixtures at full lumen output during the complete 90-minute discharge cycle.

The input voltage shall be the same as the output voltage and shall be single phase 120/277 volts, 60 Hz. Output capacity will be (55W/125VA) / (110 Watts/125VA) / (110 Watts/250VA) / (220 Watts/250VA) for a minimum duration of 90-minutes.

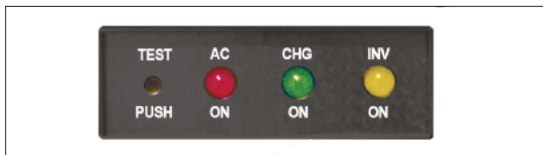
The design shall be a standby, off-line inverter with on-line efficiency of 98%; on-line double conversion UPS systems shall not be considered acceptable alternatives. PS System output shall be a PWM generated sine wave with less than 3% total harmonic distortion with "Soft Start" design reduces fixture inrush current. The system shall also provide short circuit and overload protection as standard.

An intuitive three LED display shall provide system operational information at a glance and alert user to any malfunction in system performance. Authorized maintenance personnel shall have access to the system's controls while being protected from any live exposed connections.

Protective devices shall include AC Line fuses, DC input breaker and a DC input fuse. The entire PS system, including batteries, shall be incorporated into compact cabinetry which shall have provisions for surface mounting.

System shall be capable of providing up to 4 switch bypass circuits, adjustable output or 0 to 10 volt dimmer bypass and self-test/self-diagnostics, were necessary

System shall utilize a sealed lead calcium battery with a 10 year design life. The charger shall be temperature compensated, dual mode type, and recharge the batteries as per UL924 guidelines. Entire system shall be tested, approved, and labeled to UL924 Emergency Lighting and Power Systems standards.



SYSTEM STATUS MONITORING PANEL

All PS systems provide a monitoring panel on the front of the unit to show operating status at all times. The panel provides a test switch for user initiated system tests and a 3-LED array that provides an intuitive visual indication of unit readiness.