



Project

Type

Catalog Number

SPECIFICATIONS

POWER

FEATURES

- For powering incandescent, fluorescent, induction and LED fixtures
Consult factory for compatibility for other lamp types
- Sinusoidal output eliminates compatibility problems
- Universal 120/277VAC, 60Hz. input/output
- "Soft Start" design reduces fixture inrush current
- 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
- Momentary test switch
- AC-ON, Charge-ON and Inverter-ON LED indicators

OPERATION

Upon failure of the normal utility power the LPS 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.

WIRING

Connection to an unswitched AC circuit is required by the NEC. Wiring access is provided for by conduit knockouts in the unit housing.

LOAD COMPATIBILITY

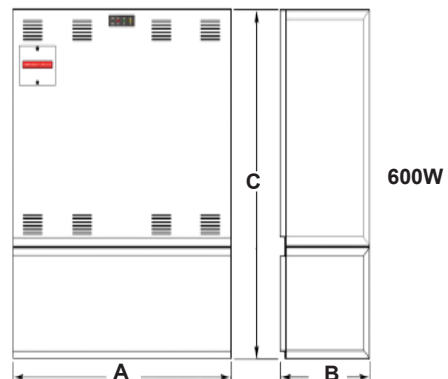
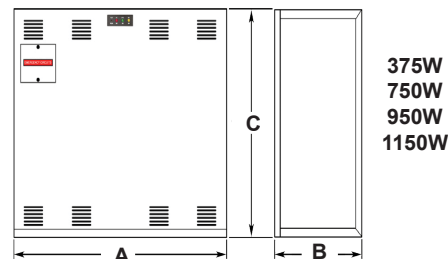
PSL model's clean, sinusoidal AC output will operate incandescent lamps as well as all common fluorescent, induction and LED lamp types. Consult factory for compatibility with all other lamp types.

Lighting loads are driven at 100% output for the entire emergency power cycle.

This outstanding feature translates into greater occupant egress vision and safety.



**PSL
375-1150W Inverter**



CATALOG #	Capacity	Battery VDC	Current	AC Input (120V/277V)	System Weight	Batteries
PSL-375-S	375W/375VA	60VDC	7.3A	3.43 / 1.49	113 Lbs	5
PSL-600-S	600W/600VA	96VDC	7.1A	5.50 / 2.38	172 Lbs	8
PSL-750-S	750W/750VA	48VDC	18.2A	7.53 / 3.26	190 Lbs	8
PSL-950-S	950W/950VA	60VDC	18.2A	8.45 / 3.66	222 Lbs	10
PSL-1150-S	1150W/1150VA	72VDC	18.2A	10.2 / 4.42	254 Lbs	12

OPTIONS (Factory Installed)

#CB	- Output Breaker (#Specify amount - 375/600W unit can have up to 2, 750/950/1150W units can have up to 6)
ICB	- Input Breaker
4AO	- Adjustable Output/Dimmer Bypass Up to 4-Circuits (not available with 4C option)
4C	- Four Output Circuit Switching (not available with 4AO option)
SD	- Self -Testing/Self-Diagnostics
CC	- Custom Housing Color

Accessories (Ships on the Side)

RLSD2	- Additional 0-10V Dimming Relay Bypass
-------	---

Model	A	B	C
375W	18.0"	8.25"	16.625"
600W	18.0"	8.25"	25.25"
750W	22.4"	9.2"	25.1"
950W	22.4"	9.2"	25.1"
1150W	22.4"	9.2"	25.1"



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
- Inverter can be remote mounted up to 1,000ft away from the controlled fixture(s)

ELECTRICAL SPECIFICATION

Input

- **Input Voltages:** Universal 120 or 277VAC, 60Hz (User selectable with (2) wire jumpers provided)
- **Input Frequencies:** 60Hz $\pm 2\%$
- **Input Surge Protection:** Meets UL924
- **Input Protection:** Provided by Service Panel rated at 20 amps maximum

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:** 0.88 Lead to 0.88 Lag
- **Minimum Loading:** 0% of rated system capacity
- **Output Protection:** Circuit breaker and overload shut down protection

BATTERIES AND CHARGER

Battery

- **Battery:** Sealed Lead Calcium (10 year life)
- **Battery Voltage:** 48VDC (PSL-750-S), 60VDC (PSL-375-S and LPS-950), 72VDC (LPS-1150-S), and 96VDC (PSL-600-S)
- **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. Reverse Polarity, 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):**
 - 37W maximum (2.5W in standby) for PSL-375 model
 - 53W maximum (4.3W in standby) for PSL-750 model
 - 56W maximum (5.0W in standby) for PSL-600 model
 - 63W maximum (5.4W in standby) for PSL-950 model
 - 73W maximum (6.7W in standby) for PSL-1150 model
- **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:**
 - 375W and 600W Models: Maximum operating temperature drops 1°C per 300 meters (2°F per 1000 feet) above sea level.
 - 750W/950W/1150W Models: <10,000 ft (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 (750W/950W/1150W models)

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 (375W/375VA), (600W/600VA), (750W/750VA), (950W/950VA), (1150W/1150VA) for a minimum duration of 90-minutes.

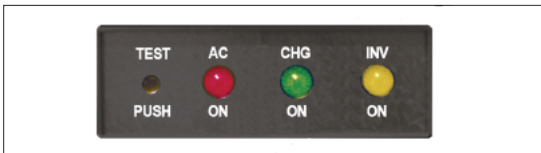
The design shall be a standby, off-line inverter with on-line efficiency of 98%; on-line double conversion UPS systems shall not be considered acceptable alternatives. PSL System output shall be a PWM generated sine wave with less than 3% total harmonic distortion with "Soft Start" design reduces fixture 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 PSL 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 2.5 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 PSL 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.