



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
- Unit capacities of 20W - 55W
- "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
- Surface, recessed, or T-Grid mount available
- 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
- Momentary test switch
- AC-ON, Charge-ON and Inverter-ON LED indicators

OPERATION

Upon failure of the normal utility power the PSM 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. PSM models also provide knockouts in the back of the housing for rear wiring from standard electrical boxes when surface mounting.

LOAD COMPATIBILITY

PS model's clean, sinusoidal AC output will operate incandescent lamps as well as all common fluorescent, induction and LED 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.

CATALOG #	Capacity	Battery	Current	AC Input (120V/277V)	BTUs
PSM-20*	20W/VA	12V NiCad	2.1A	0.25 / 0.11	7 On-Line
PSM-32*	32W/VA	12V Lead Calcium	3.4A	0.34 / 0.15	31 On-Line
PSM-35-*	35W/VA	12V NiCad	3.8A	0.37 / 1.16	31 On-Line
PSM-55-*	55W/VA	12V Lead Calcium	5.7A	0.54 / 1.23	7 On-Line

*Specify Surface, Recessed, TGrid

OPTIONS (Factory Installed)

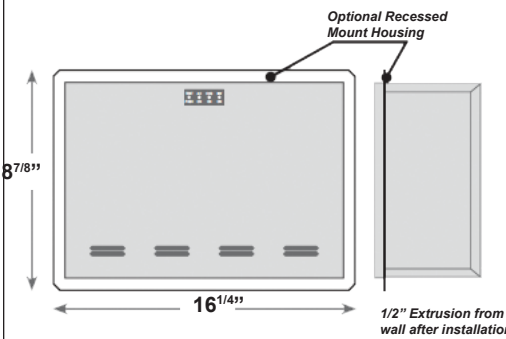
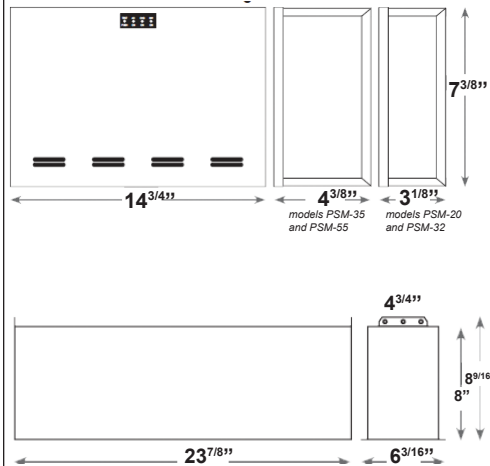
- SD - Self -Testing/Self-Diagnostics
- CC - Custom Housing Color
- RTP - Remote Test Panel
- T20 - Title 20 Compliant

Model#	Weight
PSM-20	11lbs
PSM-32	14lbs
PSM-35	12lbs
PSM-55	18lbs

*Weight includes installed batteries



**PSM
20W, 32W, 35W, 55W
Inverter**



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: Recess models provide recess mounting holes on both sides of the enclosure.

T-Grid Mount: 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: Provided by Service Panel, Rated 20A max

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: Inverter fuse

BATTERIES AND CHARGER

BATTERY

Battery: Sealed Lead Calcium (10 year life) or Sealed Nickel-Cadmium (15 year life)

Battery Voltage: 12VDC for all 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. 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: 9W max. on all models

Recharge Duty Cycle: Meets UL924 requirements

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: Lead-Calcium: 68°F to 86°F (20°C to 30°C); NiCad Models: 32°F to 122°F (0°C to 50°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

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 (20W/32W) / (35W/55W) For a minimum duration of 90-minutes.

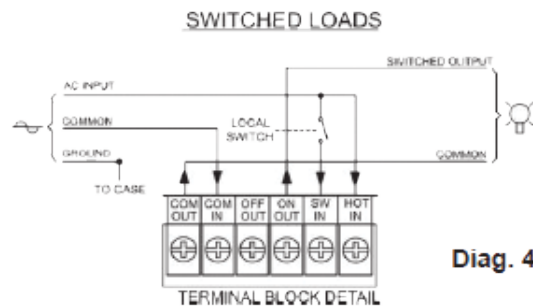
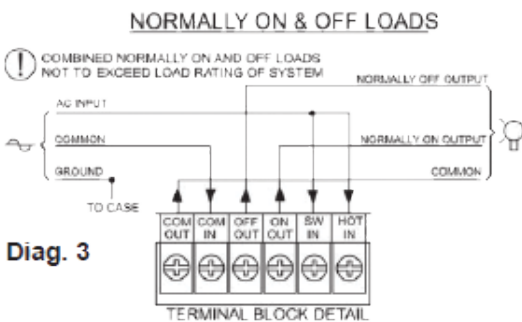
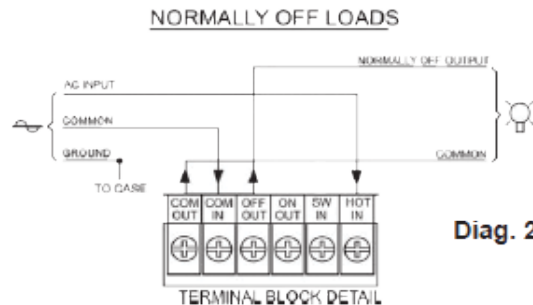
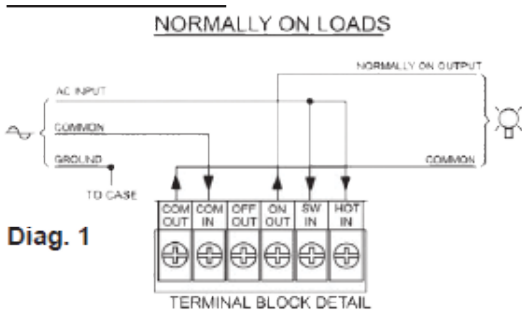
The design shall be a standby, off-line inverter with on-line efficiency of 98%; on-line double conversion UPS systems shall not be considered acceptable alternatives. PS System output shall be a PWM generated sine wave with less than 3% total harmonic distortion with "Soft Start" design reduces fixture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

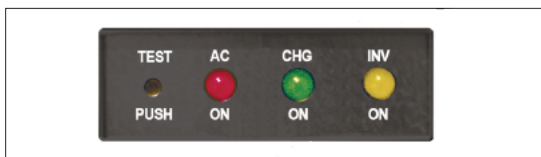
Protective devices shall include AC Line fuses, DC input breaker and a DC input fuse. The entire PS system, including batteries, shall be incorporated into compact cabinetry which shall have provisions for surface mounting.

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 or a sealed Nickel-Cadmium battery with a 15 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. T-Grid models will be plenum rated.



⚡ INPUT SUPPLY FROM UNSWITCHED UTILITY (RATED 30 AMPS MAXIMUM)
💡 OUTPUT(S) TO LIGHTING LOADS



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.

