

LLMPS Series Inverters

Micro electrical inverter systems provides 20W to 55W of emergency power for a minimum of 90 minutes. Pulse width modulated (PWM) output design provides clean, 60 Hz. sinusoidal emergency power to loads.

Features:

- Compatible with incandescent, fluorescent, induction and LED fixtures
- Sinusoidal output eliminates compatibility problems
- "Soft Start" design reduces fixture inrush current
- Unit may be installed up to 1,000 feet from controlled fixture(s)
- Lighting loads are driven at 100% output for the entire emergency power cycle.
- Lumen output from fixture is 100% of nominal
- 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
- Brownout sensing circuit insures proper operation during "low line" conditions.
- Long life, maintenance-free lead-calcium battery
- Control panel with momentary test switch, AC-ON, Charge-ON and Inverter-ON LED indicators. (Optional remote test Switch)

Housing & Mounting

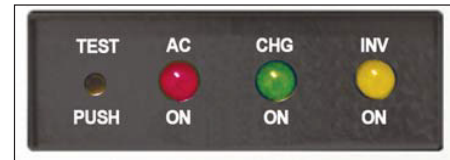
- Heavy duty steel cabinet in white powder paint provides scratch and corrosion resistance.
- Optional special color paint (SP) finishes are available, consult factory.
- Wiring access is provided for by conduit knockouts in the unit housing.
- Surface Mount (Standard): Surface mount models are designed for mounting to walls by means of keyhole slots provided in the back of the unit housing.
- Optional Recess and T-Grid Mounting

Electrical Specifications:

- Input Voltages: 120 or 277VAC $\pm 10\%$
- Input Frequencies: 60Hz $\pm 2\%$
- Input Protection: Provided by Service Panel, Rated 20A max.
- Output Voltages: 120 or 277VAC (60Hz)
- 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. ± 0.3 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
- Minimum Loading: 0% of rated system capacity
- Output Protection: Inverter fuse
- Connection to an unswitched AC circuit is required by the NEC.



SYSTEM STATUS MONITORING PANEL



All MPS 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.

Battery & Charger:

- Sealed Lead Calcium Battery. (Optional Sealed Nickel-Cadium)
- Battery Voltage: 12VDC for all LLMP Models
- Runtime: 90-minutes standard - based on battery performance at (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.
- Fully automatic, temperature compensated, dual-mode charger
- Power Consumption (Charger Only):
- Power Consumption: 9W Max (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.

Warranty/Certifications:

- Unit: Full coverage against defects in materials and workmanship for 3 years from date of shipment.
- Battery: 3 years Lead-Acid, 5 yrs NiCd full warranty plus an additional 7 years of prorated coverage.
- All models are UL924 Listed and meet NFPA 101 Life Safety Code, NEC, OSHA, Local and State Codes. Optional T-Grid models are plenum rated, to UL2043 and meets city of Chicago CCEA Requirements.
- UL Listed for damp locations
- Operating Temperature: 0°– 50°C for NiCad models and 20°- 30°C for lead-calcium models.
- Optional -CEC models are Certified to CEC Under Title 20 regulations
- FCC Part 15 Class B Compliant.



General Specifications:

MODEL NUMBER	HOUSING SIZE	INPUT / OUTPUT VOLTS	90 min. CAPACITY (Watts/VA)	SYSTEM WEIGHT*		BATTERY TYPE	TEMP. RANGE (°C)	POWER CONSUM. (Max.)	BATTERY VOLTAGE (VDC)	DC INPUT CURRENT (A dc)	INPUT CURRENT		THERMAL OUTPUT in BTUs	
				Lbs.	Kg.						120VAC (max)	277VAC (max)	STANDBY	EMERGENCY
LLMPS-32	Small	120/277	32/32	14.0	6.4	Lead-Calc	20-30°	9W	12	3.4	0.34A	0.15A	7	32
LLMPS-55	Large	120/277	55/55	18.0	8.2	Lead-Calc	20-30°	9W	12	5.7	0.54A	0.23A	7	47
LLMPS-20	Small	120/277	20/20	11.0	5.0	NiCad	0-50°	9W	12	2.1	0.25A	0.11A	31	22
LLMPS-35	Large	120/277	35/35	12.0	5.4	NiCad	0-50°	9W	12	3.8	0.37A	0.16A	31	35

* System weights shown include installed batteries

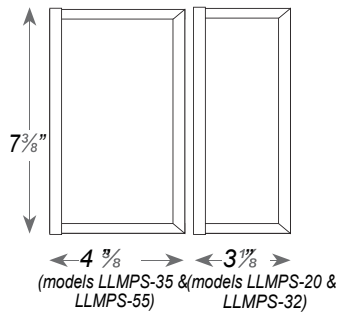
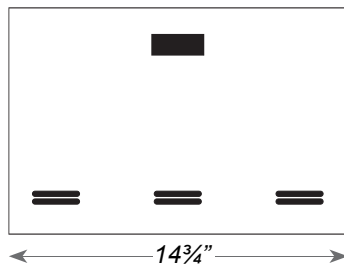
Ordering Information:

PART #	MOUNTING	OPTIONS
LLMPS-32 LLMPS-55 LLMPS-20 LLMPS-35	S: Surface Mount Housing R; Recess Mount Housing T: Plenum Rated Ceiling T-Grid Mount Housing	SP- Special Housing Color (specify) RTS- Remote Test Switch Panel SDT- Self-Testing / Self-Diagnostics CEC- Title 20 Compliant

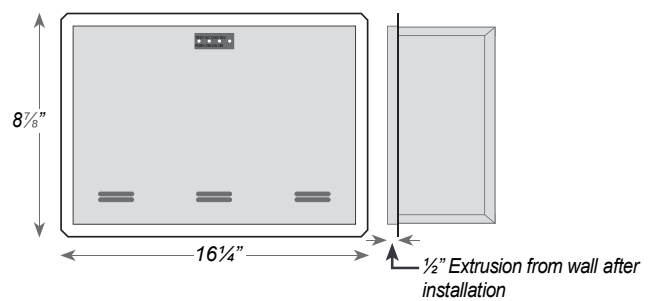
*See product specification notes and compatibility listings on page 3

Dimensions:

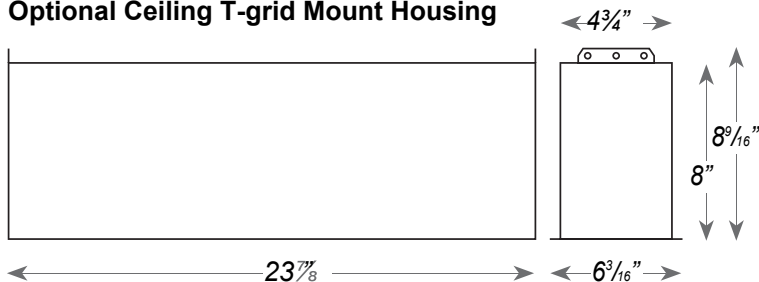
Standard Surface Mount Housings



Recessed Mount Housings



Optional Ceiling T-grid Mount Housing



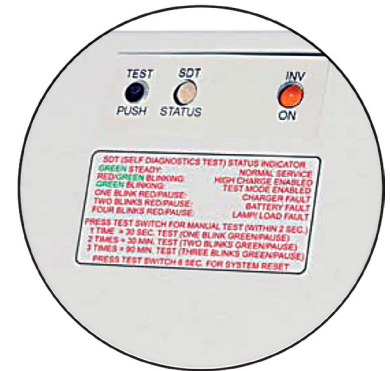
SDT Option Self-Testing/Self-Diagnostic

The self-diagnostic function is factory preset and performs the following:

- Monitoring of battery, battery charger and conneted loads
- Self-testing and a 30-second battery discharge on e every 30 day after normal utility power has been supplied for a minimum of 48 hours.
- Self-testing and a 30-minute battery discharge on e every 180 day after normal utility power has a been supplied for a minimum of 48 hours.
- Self-testing and a 90-minute battery discharge on e every 365 day after normal utility power has been supplied for a minimum of 48 hours.

Certifications:

- UL Listed for Damp Locations
- UL Listed to meet NFPA 101 for self-testing and self-diagnostic requirements.



Self-Diagnostic Panel

Service Indication:

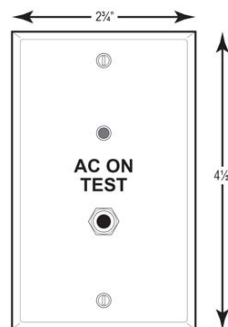
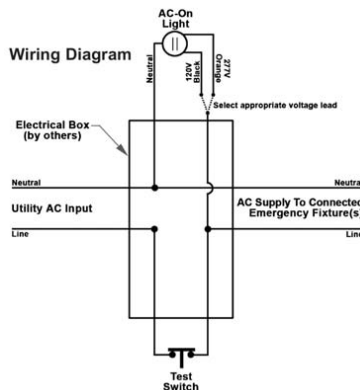
LED INDICATOR	STATUS
GREEN Steady	Normal Service
RED/GREEN Blinking	High Charge Enabled
GREEN Blinking	Test mode Enabled
One Blink RED / Pause	Battery Charger Fault
Two Blinks RED / Pause	Battery Fault
Four Blinks RED / Pause	Lamp / Load Fault

Manual Testing

ACTION	REACTION & LED INDICATION
Push test switch once (within 2 seconds)	30 Second test: One blink GREEN / Pause
Push test switch twice (within 2 seconds)	30 Minute test: Two blinks GREEN / Pause
Push test switch thrice (within 2 seconds)	90 Minute test: Three blinks GREEN / Pause
Push test switch and hold for 3 seconds	Cancels test
Push test switch and hold for 6 seconds	System reset

RTS Remote Test Switch

- RTS provides remote testing capability for LLMPs, unit equipment, and exit signs. Not compatible with emergency ballasts.
- Field selectable 120 voltage or 277 voltage.
- Power "ON" LED indicator light and push-to-test switch for mandated code compliance testing.
- Remote Test Switch can be mounted to any standard switch box.
- Suitable for wall or ceiling mount.
- Injection-molded, engineering grade, V-0 flame retardant mounting plate in white finish.
- Five year warranty.
- Meets UL924, NFPA 101 Life Safety Code, NEC, OSHA, Local and State Codes.



WIRING DIAGRAMS

Diagram 1. NORMALLY ON LOADS

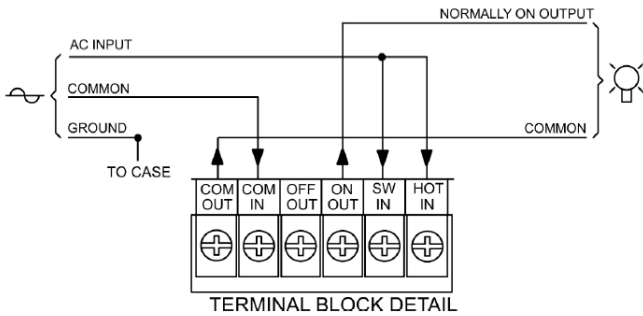


Diagram 2. NORMALLY OFF LOADS

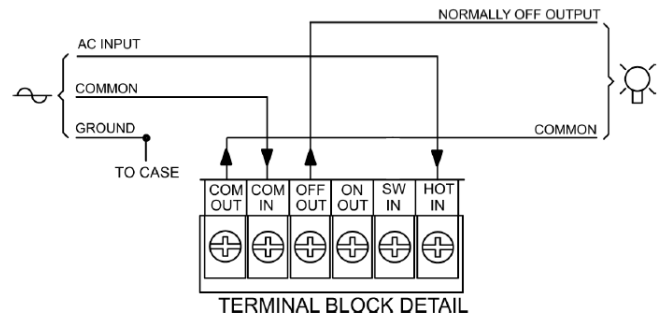


Diagram 3. NORMALLY ON & OFF LOADS

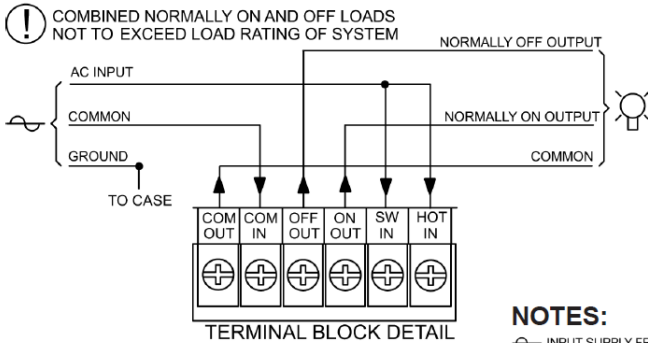
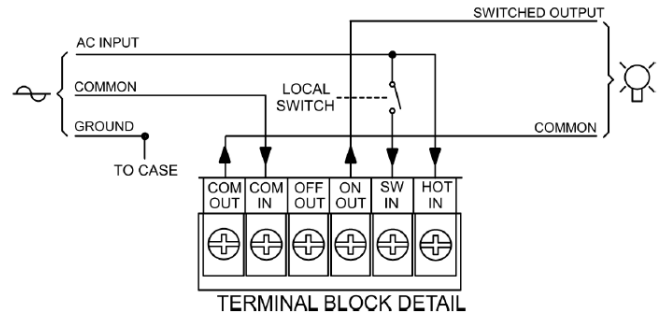


Diagram 4. SWITCHED LOADS

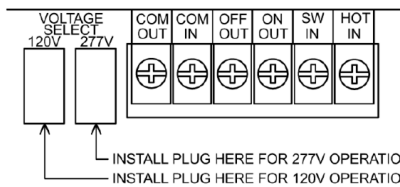


NOTES:

- ⚡ INPUT SUPPLY FROM UNSWITCHED UTILITY RATED 20 AMPS MAXIMUM.
- 💡 OUTPUT(S) TO LIGHTING LOADS

AC INPUT CONNECTION

VOLTAGE SELECT DETAIL



NOTE: Voltage selection plug is shipped loose from factory. User installation required.