



Type No. \_\_\_\_\_

Job Name \_\_\_\_\_

Catalog No. \_\_\_\_\_



Shown: LLP08022

# LLP

## Uninterruptible Power Supplies (UPS) for Emergency Lighting Applications 80,000 W Three Phase

### Overall Characteristics

- ETL listed to UL 924
- Free standing, NEMA 1 enclosure with hinged door and acid-resistant powder coat finish with top and bottom access for conduit entries.
- 208Y/120 VAC or 480Y/277 VAC, 3 phase, 4 wire plus ground input and output.<sup>1</sup>
- 91% typical efficiency.
- Operating temperature range 32°F (0°C) to 104°F (40°C).<sup>2</sup>
- Internal maintenance by-pass and battery cabinet disconnect breaker are standard.
- Double conversion, no interruption with a standard backup time of 90 minutes.
- Output circuit breakers optional.
- Factory installed batteries.

### Application

- Operates incandescent, fluorescent, LED and HID type luminaires.
- Includes factory start up and system check by a certified technician.
- Consult factory for compatibility and performance with non-lighting and switched lighting loads.

### Electronics - Inverter

- Transient response < 5%, recovery time one cycle (100% load step).
- 3:1 crest factor capability.
- Inverter output distortion < 2.5% THD (100% non-linear), inverter output distortion < 1% THD (linear loads).
- Output voltage regulation  $\pm 1\%$  of nominal at full load.
- Frequency: 60 Hz.
- Load power factor capability is 0.7 lagging to 1.0.
- Automatic low battery voltage disconnect (LVD).

### Electronics - Rectifier

- Input voltage range +10%, -20% of nominal.
- Input current walk-in 15 seconds to full rated maximum current.
- Ripple voltage < 1% rms voltage with inverter fully loaded.
- Temperature compensated battery charger.

### Electronics - Static Transfer Switch

- Overload rating 175% for 1 minute.

### Metering/Controls

- A multilingual, alphanumeric display provides convenient user operation and access to a real time clock and alarm history with time and date stamp along with system parameter metering: voltage, current, frequency, power, battery time remaining.
- Battery cycle monitor.
- Battery self-test with user selectable test intervals.

### Communication Options

- The remote alarm panel (RAP) is housed in a surface or flush mount NEMA 1 enclosure with LED indicators and audible alarm. Provides visual and audible indication of: load on UPS, load on bypass, battery discharging, low battery warning and UPS alarm.
- The programmable relay board (PRB) is eight sets of isolated form-C contacts.
- The internal modem (INMOD) provides dial-out event notification.
- The SNMP adapter (SNMP) provides ethernet communication as a managed IP network device.
- The IBM AS/400 relay board (AS4RB) provides isolated normally open contacts for UPS to AS/400 interface.

### Battery

- Maintenance free, sealed lead calcium battery with an expected life up to 10 years, and optimum operating range of 65°F (19°C) to 85°F (30°C).<sup>2</sup>

### Warranty

- If factory start up is conducted within 120 days of shipment, LightGuard will warrant parts and on-site labor for 12 months from date of factory start up.
- If factory start up is not conducted within 120 days of shipment, LightGuard warrants parts for 12 months from date of shipment.
- See LightGuard Limited Warranty for details.

### Ordering Information

| LLP                          | 080            |                                                                                                                          |                                                                                                                                                                                                            |
|------------------------------|----------------|--------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| SERIES                       | WATTAGE RATING | INPUT/OUTPUT                                                                                                             | OPTIONS                                                                                                                                                                                                    |
| LLP = Three Phase UPS System | 080 = 80,000 W | 22 = 208Y/120 Input, 208Y/120 Output<br>42 = 480 $\Delta$ Input, 208Y/120 Output<br>44 = 480Y/277 Input, 480Y/277 Output | OCB ( ) = Output Circuit Breakers (qty) <sup>3</sup><br>RAP = Remote Alarm Panel<br>PRB = Programmable Relay Board<br>INMOD = Internal Modem<br>SNMP = SNMP Ethernet Adapter<br>AS4RB = AS/400 Relay Board |

Note

1) Voltage must be specified when ordering.

2) Increases or decreases in temperature will affect battery performance. Optimum battery performance realized at 77°F (25°C). Batteries are rated at 100% capacity at 77°F (25°C).

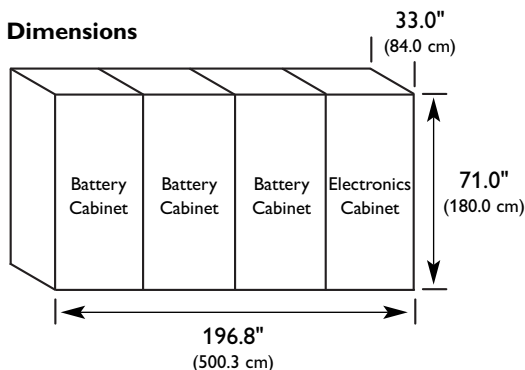
3) Requires separate wall mount enclosure.

## System Input/Output

| SYSTEM RATING | INPUT VOLTAGE | INPUT AMPS <sup>1</sup> | OUTPUT MAX. LOAD |       | MAXIMUM HEAT REJECTION |
|---------------|---------------|-------------------------|------------------|-------|------------------------|
|               |               |                         | 120 V            | 277 V |                        |
| 80,000 W      | 208<br>480    | 261<br>108              | 222 A            | 96 A  | 26,000 Btu/hr          |

Note 1) Continuous Duty

## Dimensions

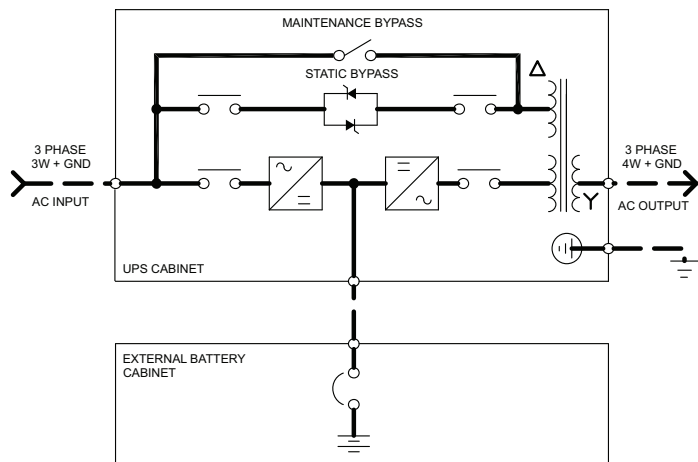


| 80 kW system            | voltage configuration    |                          |                          |
|-------------------------|--------------------------|--------------------------|--------------------------|
|                         | 22                       | 42                       | 44                       |
| Electronics             | 3,350 lbs<br>(1,519 kg)  | 2,800 lbs<br>(1,270 kg)  | 2,800 lbs<br>(1,270 kg)  |
| Cabinet Weight          | 16,350 lbs<br>(7,416 kg) | 16,350 lbs<br>(7,416 kg) | 16,350 lbs<br>(7,416 kg) |
| Battery Cabinet Weight* | 19,700 lbs<br>(8,935 kg) | 19,150 lbs<br>(8,686 kg) | 19,150 lbs<br>(8,686 kg) |
| Total System            | 19,700 lbs<br>(8,935 kg) | 19,150 lbs<br>(8,686 kg) | 19,150 lbs<br>(8,686 kg) |

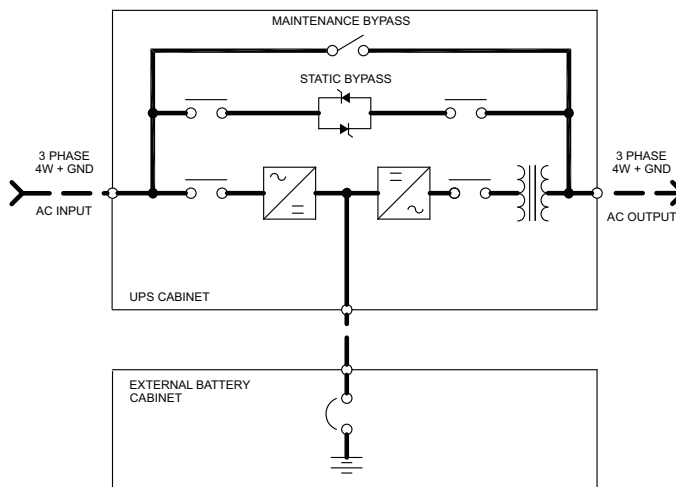
\*Net weight of three cabinets with batteries.

## System One-Line Diagrams

80 kW (42)



80 kW (22), (44)



## Unit Check List

Catalog No: \_\_\_\_\_

Rating: 80,000 W/100,000 VA

Battery Type: VRLA

Operating Time: 90 Min.

### Input

- ☐ 480 V, 3Φ, 4 Wires Plus Ground  
☐ 480 V, 3Φ, 3 Wires Plus Ground  
☐ 208 V, 3Φ, 4 Wires Plus Ground

### Output

- 480 V, 3Φ, 4 Wires Plus Ground  
 208 V, 3Φ, 4 Wires Plus Ground  
 208 V, 3Φ, 4 Wires Plus Ground

Options: ☐ OCB(#) ☐ RAP ☐ PRB ☐ INMOD ☐ SNMP ☐ AS4RB

REMARKS: \_\_\_\_\_

ALL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE