



Type No. _____

Job Name _____

Catalog No. _____



Shown: LLP10422

LLP

Uninterruptible Power Supplies (UPS) for Emergency Lighting Applications 104,000 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.¹
- 91% typical efficiency.
- Operating temperature range 32°F (0°C) to 104°F (40°C).²
- 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).²

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	104		
SERIES	WATTAGE RATING	INPUT/OUTPUT	OPTIONS
LLP = Three Phase UPS System	104 = 104,000 W	22 = 208Y/120 Input, 208Y/120 Output 42 = 480 Δ Input, 208Y/120 Output 44 = 480Y/277 Input, 480Y/277 Output	OCB () = Output Circuit Breakers (qty) ³ RAP = Remote Alarm Panel PRB = Programmable Relay Board INMOD = Internal Modem SNMP = SNMP Ethernet Adapter 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).

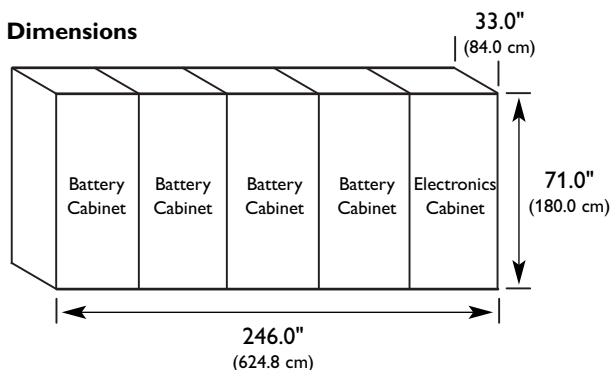
3) Requires separate wall mount enclosure.

System Input/Output

SYSTEM RATING	INPUT VOLTAGE	INPUT AMPS ¹	OUTPUT MAX. LOAD		MAXIMUM HEAT REJECTION
			120 V	277 V	
104,000 W	208 480	339 140	288 A	125 A	33,000 Btu/hr

Note 1) Continuous Duty

Dimensions

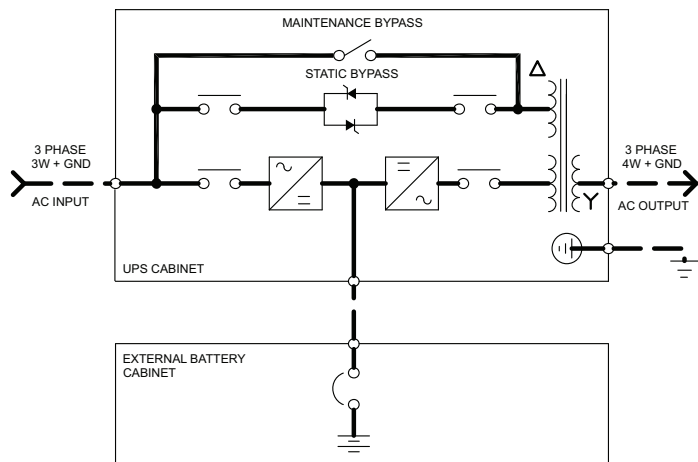


104 kW system	voltage configuration		
	22	42	44
Electronics	3,350 lbs	2,800 lbs	2,800 lbs
Cabinet Weight	(1,519 kg)	(1,270 kg)	(1,270 kg)
Battery Cabinet	21,800 lbs	21,800 lbs	21,800 lbs
Weight*	(9,888 kg)	(9,888 kg)	(9,888 kg)
Total System	25,150 lbs	24,600 lbs	24,600 lbs
	(11,407 kg)	(11,158 kg)	(11,158 kg)

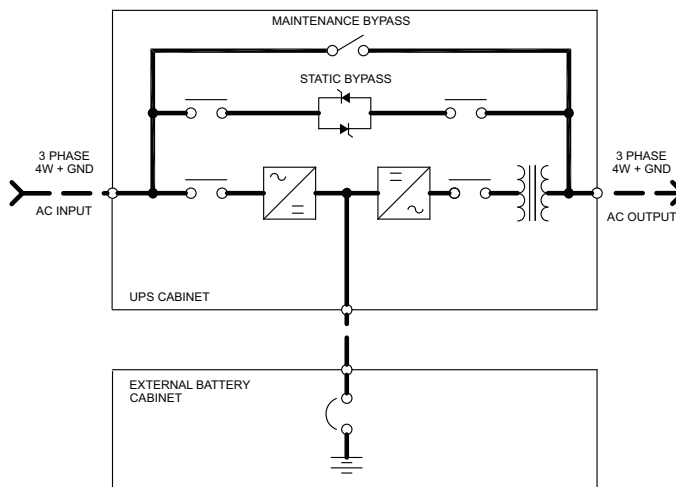
*Net weight of four cabinets with batteries.

System One-Line Diagrams

104 kW (42)



104 kW (22), (44)



Unit Check List

Catalog No: _____

Rating: 104,000 W/130,000 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