



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

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

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



Listed to  
UL 924 and  
UL 924  
Auxiliary  
Equipment

# Centaurus LGT Series

## 3.0 kVA Single Phase Uninterruptible Power Supply (UPS) for Emergency Lighting Applications

### Electronics

#### Overall

- 90% throughput efficiency, 85% emergency efficiency
- Operating temperature range 32°F (0°C) to 104°F (40°C)\*
- Fault current rating 42 kAIC
- Audible noise less than 50 dB at 3 ft on “A” weighted scale
- Automatic low battery voltage disconnect

#### Output

- Sine wave output
- Voltage regulation  $\pm 2\%$
- Frequency regulation - Synchronized to utility  
Free running 60 Hz,  $\pm 0.5\%$
- Output voltage distortion maximum 3% THD with linear load
- Load power factor capability 0.7 lead to 0.7 lag
- Overload capability 125% for 10 seconds

#### Charger

- Input power factor correcting to 0.99
- Frequency range 60 Hz,  $\pm 2.5$  Hz
- Input harmonic current distortion < 5% THD
- UL1449, ANSI/IEEE C62.41 surge suppression

\*Optimum operating temperature of batteries is 77°F (25°C).  
Temperatures above 85°F (30°C) adversely impact battery life.

### Warranty

- Requires execution of factory start-up within 120 days of shipment
- LightGuard will provide parts and on-site labor for the first 12 months following start-up of the product and parts only for an additional 12 months
- If factory start-up is not executed within 120 days of shipment, LightGuard will provide a parts only warranty for 12 months from date of shipment

### Features

- Double conversion - no interruption
- Solid state Pulse Width Modulated inverter
- Internal, make before break maintenance by-pass
- Standard UL 924 compliant, 90 minute battery back up
- UL 924 auxiliary equipment 10 and 20 minute back up available
- Microprocessor control and diagnostic system
- LED array system status panel
- Fault annunciating audible alarm
- Current limiting start sequence
- Optional output circuit breakers (OCB) and circuit breakers with trip alarm (OCBA)
- Optional normally off load (NOL) energizes only during power outage, normally off load with time delay (TDT) also available
- Free standing NEMA1 enclosure
- Lockable control access panel
- Seismic anchoring compatible

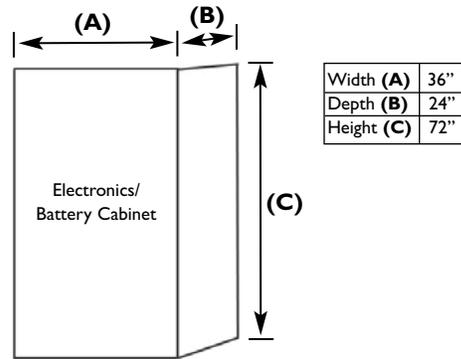
### Application

- The solid state Pulse Width Modulated (PWM) inverter offers enhanced load compatibility
- It operates incandescent, magnetic and electronic ballast fluorescent, high power factor compact fluorescent and high intensity discharge (HID) luminaires
- Provides conditioned, uninterruptible power for other types of critical loads, consult factory for non-lighting load applications

## System Input/Output Ratings

System Rating (kW/kVA)	<b>3.0</b>
Input Voltage (V) : Input Current (A)	120 : 39.4
	120/240 : 19.1
	277 : 17.1
	120/208 : 22.1
Output Voltage : Output Current*	120 : 25.0
	120/240 : 25.0/12.5
	277 : 10.8
	120/208 : 25.0/14.4
120/277 : 25.0/10.8	
OCB Pole Spaces Available	without trip alarm
	with trip alarm
Heat Rejection (Btu/hr)	1432
Weights (Lbs)	Electronics
	90 min battery
	20 min battery
	10 min battery

## Dimensions/Weights

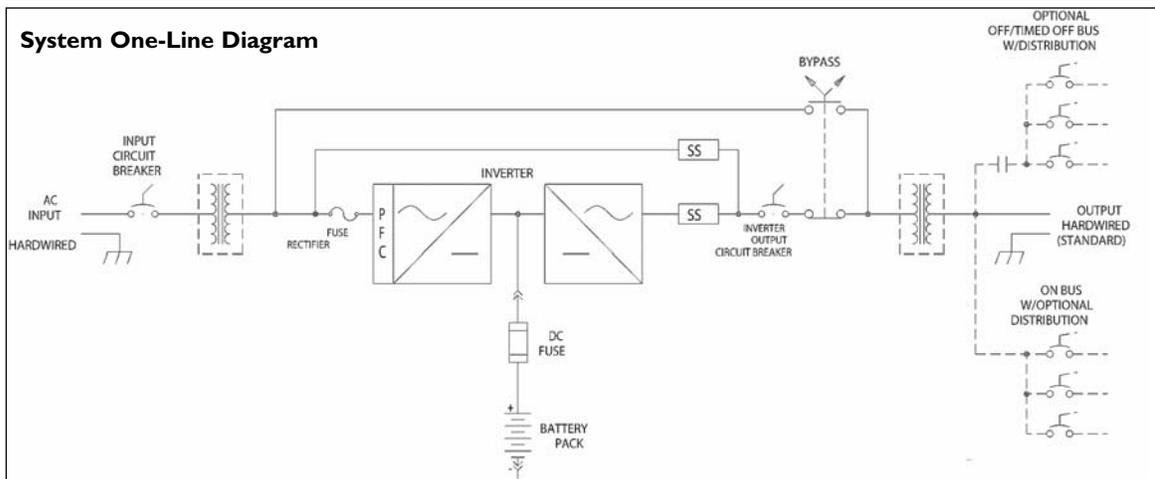


## Ordering Information

\*Multi-voltage total loads not to exceed system rating.

SERIES	INPUT VOLTAGE	OUTPUT VOLTAGE	UNIT SIZE	BATTERY TIME	NOL	QTY CKT BREAKERS	BREAKERS ON 2nd VOLTAGE	QTY NOL CKT BREAKERS	NOL VOLTAGE	QTY NOL 2nd VOLTAGE
<b>LGT</b> = LightGuard Centaurus LGT UPS System For Emergency Lighting Applications	<b>A</b> = 120 V	<b>A</b> = 120 V	<b>3.0</b> = 3.0 kVA	<b>S</b> = 90 min	<b>0</b> = None	<b>00X</b> = Hardwire	<b>00</b> = 2nd Voltage Hardwire or no 2nd Voltage <b>01</b> <b>02</b> <b>03</b> : <b>19</b>	<b>A</b> = 1 <b>B</b> = 2 <b>C</b> = 3 <b>D</b> = 4 <b>E</b> = 5 <b>F</b> = 6 <b>G</b> = 7 <b>H</b> = 8 <b>I</b> = 9 <b>J</b> = 10 <b>K</b> = 11 <b>L</b> = 12 <b>M</b> = 13 <b>N</b> = 14 <b>O</b> = 15 <b>P</b> = 16 <b>Q</b> = 17 <b>R</b> = 18 <b>S</b> = 19 <b>T</b> = 20 <b>Z</b> =None	<b>1</b> = 1st <b>2</b> = 2nd <b>3</b> = Both <b>0</b> = No NOL	<b>A</b> = 1 <b>B</b> = 2 <b>C</b> = 3 <b>D</b> = 4 <b>E</b> = 5 <b>F</b> = 6 <b>G</b> = 7 <b>H</b> = 8 <b>I</b> = 9 <b>J</b> = 10 <b>K</b> = 11 <b>L</b> = 12 <b>M</b> = 13 <b>N</b> = 14 <b>O</b> = 15 <b>P</b> = 16 <b>Q</b> = 17 <b>R</b> = 18 <b>S</b> = 19 <b>Z</b> =No NOL
	<b>G</b> = 120/240 V	<b>G</b> = 120/240 V		<b>X</b> = 10 min	<b>1</b> = Yes	<b>01X</b> = 1 OCB				
	<b>J</b> = 277 V	<b>J</b> = 277 V		<b>Y</b> = 20 min	<b>T</b> = NOL	<b>02X</b> = 2 OCB				
	<b>L</b> = 120/208 V	<b>L</b> = 120/208 V			w/ TDT	<b>03X</b> = 3 OCB				
		<b>Y</b> = 120/277 V				<b>04X</b> = 4 OCB				
						:				
						<b>20X</b> = 20 OCB				
						-----				
						<b>01A</b> = 1 OCBA				
						<b>02A</b> = 2 OCBA				
				<b>03A</b> = 3 OCBA						
				:						
				<b>10A</b> = 10 OCBA						
				Maximum Pole Spaces 20						

## System One-Line Diagram





Type No. \_\_\_\_\_  
 Job Name \_\_\_\_\_  
 Catalog No. \_\_\_\_\_

## Centaurus LGT Series, 3,000 VA

### Suggested Specification

Furnish and install LightGuard's single phase Emergency Lighting System known as Centaurus LGT Series with a VA rating of \_\_\_\_\_. The system shall be UL listed to Underwriters Laboratories standard 924.

Equipment and accessories furnished under the terms of this specification shall be the standard product of a single manufacturer and shall be equal in all respects to those supplied by LightGuard. Catalog numbers and model designations which appear herein indicate design, quality and the type of material as well as required operating characteristics. All equipment shall be in compliance with the applicable UL standards.

The connected load shall be continuously powered by the filtered power of the double conversion Centaurus LGT system and upon failure of the utility input, the load shall automatically continue to be powered via the Centaurus LGT system's battery and inverter for the specified time. Upon restoration of utility power, the system will automatically resume supplying the load with double conversion, filtered power. The system input factor shall be corrected to 0.99 or greater.

The Centaurus LGT Series shall be capable of powering any combination of fluorescent ballasted lamps, incandescent lamps, electronic and high power factor compact fluorescent ballasts, HID lamps or other approved loads up to the total rating of the system. The system shall automatically protect itself against damage from overloads and short circuits while powered from either utility AC or during emergency inverter operation. It shall automatically recover from such overloads and clear short circuits by means of overcurrent protection devices.

Under emergency operations, the microprocessor shall regulate the output voltage within  $\pm 2\%$  of nominal at full load for the specified discharge period; and the frequency shall be within  $\pm 0.5\%$ .

During emergency operation, the system efficiency shall not be less than 85%. The system shall use redundant fans in the cooling of the electronic compartment. The AC output to the load shall be isolated from the utility input during inverter emergency operation.

Under emergency mode conditions, the Centaurus LGT shall be powered by maintenance free, sealed lead calcium batteries. The battery shall operate entirely unattended and require no addition of water for a period of 10 years or longer. Periodic inspection of batteries is recommended.

A low voltage disconnect circuit designed to reduce battery discharge during extended power outages, shall monitor the battery voltage and disconnect the inverter when battery voltage drops to approximately 85% of nominal voltage. Restoration of utility power following a low voltage disconnect event shall automatically re-start the Centaurus LGT.

The Centaurus LGT solid state battery charger shall be completely automatic with a programmed reference, and capable of restoring the battery to capacity within UL 924 requirements. The charger shall have capability to recharge a battery of up to 4 hour discharge capacity and shall automatically maintain the battery in the fully charged condition whenever the utility power is available.

System display shall indicate normal, caution and alarm conditions. Dry contact for remote failure alarm, and a DB9 computer style connector shall provide volt free contacts for remote alarm indication.

### Unit Check List

<b>Catalog No.</b> _____		<b>kVA Rating:</b> <u>3.0</u>	
<b>Battery Type:</b> Sealed Lead Calcium		<b>Operating Time:</b> 90 / 20 / 10 Min.	
<b>Utility Input:</b> _____ VAC; Single Phase			
<b>Output Circuit Breakers:</b>			
Qty: _____	AC Volts: _____	Amps: _____	Normally ON <input type="checkbox"/>
Qty: _____	AC Volts: _____	Amps: _____	Normally OFF <input type="checkbox"/>
Qty: _____	AC Volts: _____	Amps: _____	Trip Alarm YES <input type="checkbox"/> NO <input type="checkbox"/>
Qty: _____	AC Volts: _____	Amps: _____	Trip Alarm YES <input type="checkbox"/> NO <input type="checkbox"/>
Qty: _____	AC Volts: _____	Amps: _____	Trip Alarm YES <input type="checkbox"/> NO <input type="checkbox"/>
<b>REMARKS:</b> _____			

