



### Description

6 and 12 volt NEC Class I, Division 2 emergency lighting units designed for use in dusty or dirty areas. Units feature rugged fiberglass enclosure and gasketed construction.

### Features

- Suitable for use in Class I, Division 2, Groups A,B,C & D, Zone 2, Groups IIA, IIB + H<sub>2</sub> and IIC areas as well as NEMA 3, 4X and 12 applications
- 6 and 12 volt models
- Sealed and gasketed construction
- Impact resistant, fiberglass reinforced polyester enclosure in industrial gray finish
- Built in viewing window in front cover for monitoring the AC indicator light and any optional metering devices
- Fully adjustable thermoplastic lighting heads with locking swivel assemblies
- Choice of maintenance-free lead calcium, or nickel cadmium battery models
- 90 Minutes of emergency illumination
- Universal 120/277VAC input
- Fully automatic battery charger standard
- Automatic low voltage battery disconnect protects battery from deep discharge
- Automatic brownout protection
- AC lockout feature reduces installation time
- Optional self-diagnostics available
- Momentary test switch and AC ready indicator
- Meets NFPA Life Safety Code 101, NEC, BOCA, OSHA, State and local Codes
- UL924 listed

### Product Selector

| Model No.             | Volts | Watts<br>1 1/2 Hrs. | Watts<br>2 Hrs. | Watts<br>4 Hrs. | Watts<br>8 Hrs. | Battery<br>Type | Standard<br>Lamp* | Weight<br>(Lbs.) |
|-----------------------|-------|---------------------|-----------------|-----------------|-----------------|-----------------|-------------------|------------------|
| 601 <sup>(1)(2)</sup> | 6     | 25                  | 19              | 12              | --              | nickel cadmium  | -11               | 17               |
| 602 <sup>(1)(2)</sup> | 6     | 50                  | 37.5            | 24              | 8.5             | nickel cadmium  | -11               | 20               |
| 603 <sup>(1)</sup>    | 6     | 25                  | 19              | 12              | --              | lead calcium    | -11               | 17               |
| 604 <sup>(1)</sup>    | 6     | 50                  | 37.5            | 24              | 8.5             | lead calcium    | -11               | 20               |
| 608 <sup>(1)(2)</sup> | 12    | 25                  | 19              | 12              | --              | nickel cadmium  | -59               | 22               |
| 609 <sup>(1)(2)</sup> | 12    | 50                  | 37.5            | 24              | 8.5             | nickel cadmium  | -59               | 24               |
| 610 <sup>(1)(2)</sup> | 12    | 75                  | 56.5            | 28.5            | 18              | nickel cadmium  | -60               | 24               |
| 611 <sup>(1)(2)</sup> | 12    | 100                 | 75              | 48              | 17              | nickel cadmium  | -61               | 24               |
| 612 <sup>(1)(2)</sup> | 12    | 125                 | 94              | 60              | 21.5            | nickel cadmium  | -61               | 24               |
| 613 <sup>(1)</sup>    | 12    | 25                  | 22              | 17              | 13              | lead calcium    | -59               | 22               |
| 614 <sup>(1)</sup>    | 12    | 50                  | 40              | 30              | 24              | lead calcium    | -59               | 24               |

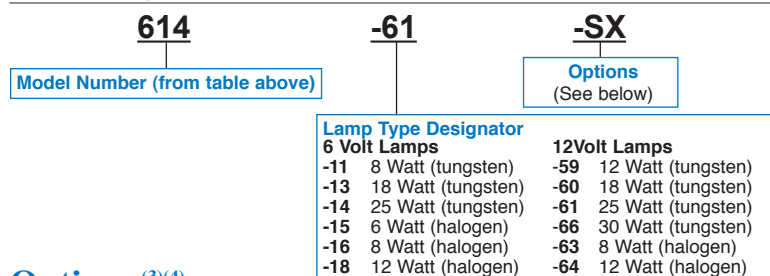
\* Refer to Lamp Type Designator in Ordering Guide.

(1) Additionally listed to UL844 and UL1604

(2) Meets Class II, Div. 2, groups F & G requirements

NOTE: All product specifications shown are subject to change without notice.

### Ordering Guide



### Options<sup>(3)(4)</sup>

| Add Suffix | Description  |
|------------|--|
| -V         | DC Voltmeter (not available in conjunction with -SX, -SXAL or -SXTD options) |
| -A         | DC Ammeter (not available in conjunction with -SX, -SXAL or -SXTD options)   |
| -L1Z       | Unit With One Lighting Head Mounted  |
| -L2Z       | Unit Without Lighting Heads  |
| -A1Z       | Unit With Three Lighting Heads Mounted                                       |
| -SX        | Self-Diagnostics   |
| -SXAL      | Self-Diagnostics w/Alarm   |
| -SXTD      | Self-Diagnostics w/15-Min. Time Delay  |
| -EX        | Special Input Transformer (consult factory)                                  |
| -S         | Shatter Containment Lighting Head Lens                                       |
| -TD120     | 15-Minute Retransfer Time Delay (120VAC)                                     |
| -TD277     | 15-Minute Retransfer Time Delay (277VAC)                                     |

(3) Other options available. Consult factory.

(4) Some options may impact product UL listing. Consult factory.

### Accessories

| Order Model | Description                                  |
|-------------|--|
| 940-G-**    | Matching Remote Lighting Head <sup>(5)</sup> |
| MP1         | Mounting Plate (single)                      |
| MP3         | Mounting Plate (double)                      |

(5) Add lamp type designator from table in Ordering Guide above. Ex.: 940-G-59

### Specifier Reference

Project: \_\_\_\_\_

Fixture Type: \_\_\_\_\_

Model No.: \_\_\_\_\_

Comments: \_\_\_\_\_

## Construction

Impact resistant, industrial gray fiberglass reinforced polyester enclosure with stainless steel hardware is completely sealed and gasketed. The enclosure includes a built in window in the front cover for viewing the AC indicator light and any optional metering devices.

**Lighting Heads:** Impact resistant, UV stable, flame rated thermoplastic lamp housing and swivel assemblies in gray finish to match unit housing. Heads and swivels are sealed and gasketed. Lighting heads are fully adjustable and feature lockable swivels.

## Installation

**Mounting:** Units are designed for installation to wall surfaces by means of internal knockouts or four external mounting feet provided with the enclosure.

**Wiring:** A wiring hub is provided on the right hand side of the enclosure for attachment of surface wiring conduit.

## Illumination

High output sealed beam lamps provide glare-free light distribution.

**Lamp Type:** Par 36 sealed beam type

**6 Volt Lamp Ratings:** 8 to 30 watt tungsten, 8 or 12 watt halogen

**12 Volt Lamp Ratings:** 12 to 30 watt tungsten, 8 or 12 watt halogen

**Lamp Life:** 100 hours (expected average)

## Code Information

All models are UL924 Listed and meet NFPA 101 Life Safety Code, NEC, OSHA, BOCA, state and local Codes

## Charger and Electronics

**Charger Type:** Fully automatic and temperature compensating

**Nickel Cadmium Models:** Constant Current Type

**Lead Calcium Models:** Variable Rate Float Type

**Utility Input:** 120/277VAC, 60 Hz.

**Power Consumption:** 68 watts (maximum)

**Temperature Range:** 68°F to 86°F (20°C to 30°C) for lead calcium models and 20°F to 95°F (-7°C to 35°C) for nickel cadmium models

**Recharge Duty Cycle:** 24 hours

**Load Transfer:** All models utilize a solid state transfer circuit for load connection.

**Controls:** Momentary test switch and LED AC-On indicator light  
**Safety Circuitry:**

**AC Lockout:** Prevents battery discharge prior to initial unit power-up saving installation time.

**Low Voltage Battery Disconnect:** Protects the battery from being severely damaged by deep discharge during prolonged power failures.

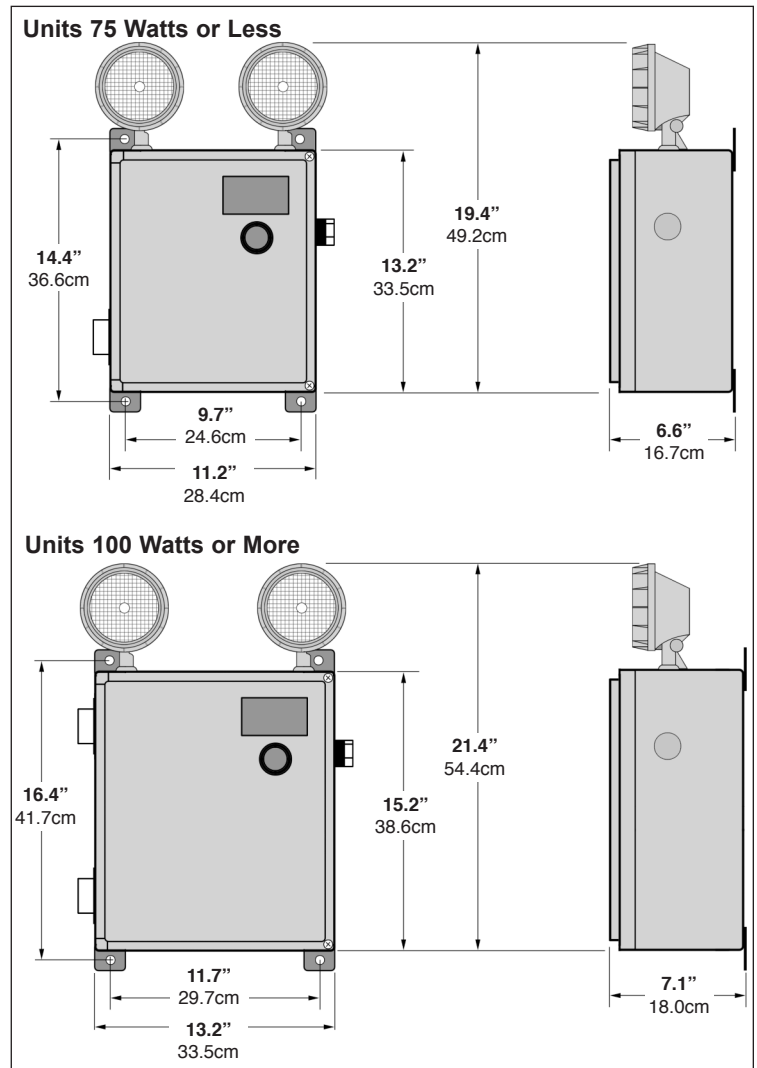
**Short Circuit Protection:** On units with solid state transfer, output protection is provided by a disconnect circuit that automatically resets itself when the fault condition is corrected.

**Brownout Protection:** Automatically switches the unit to emergency mode when AC voltage sags below 80% of nominal.

## Emergency Operation

Upon failure of the normal utility power, a solid-state transfer switch automatically connects the unit's battery to the emergency lamp. Emergency illumination will be supplied for a minimum of 90 minutes. During emergency operation, the unit battery is protected from severe discharge damage by an automatic low voltage disconnect circuit that discontinues unit operation when battery voltage reaches 87.5% of nominal. When normal utility power is restored, the battery is automatically disconnected from the load and a recharging cycle begins that will return the battery to full capacity within 24 hours.

## Dimensions



## Optional Self-Diagnostic Circuit

Optional self-diagnostic (-SX) circuitry checks LED array, charger, battery and transformer operation every 10 seconds. A bi-color LED interface provides unit status and operational readiness information. Coded LED flash signals identify fault type if detected. Automatic diagnostic/discharge cycling includes a three-minute monthly test and a 30-minute test every six months. Manual test cycles from 1 to 90 minutes can be initiated at any time using the test switch. Self-diagnostic options are available in standard (-SX), alarm (-SXAL) and time delay (-SXTD) configurations. The -SXAL alarm configuration provides an audible alarm signal in the event of a detected fault condition. The -SXTD time delay configuration provides a 15 minute re-transfer delay after the return of AC power following a utility failure to allow voltage stabilization and HID lighting to reach full illumination output before extinguishing the emergency lamps and returning the unit to the normal AC operating mode.

## Battery

Sealed lead calcium or longest life sealed nickel cadmium maintenance free battery (depending on model) designed to provide many years of dependable service.

## Warranty

**Unit:** (excluding lamps) 3-years full coverage against defects in materials and workmanship from date of shipment

**Battery:** 3 years full warranty plus an additional 7 years of pro-rata coverage