



# SEVERE™ V SERIES

NEMA-4X, NSF, Vandal-Resistant Housing  
6V-18W & 12V up to 60W Capacities  
Lead-Calcium, Nickel-Cadmium or Nickel-Metal Hydride battery



## FEATURES

### Housing

- NEMA 4X; suited for industrial, hose down, food processing and harsh environments
- Die-cast aluminum back plate with internal Thermoplastic housing
- Vandal-resistant UV stabilized polycarbonate cover
- Fully gasketed between die-cast back plate and polycarbonate cover
- Phillips head or Tamper-proof screws
- Available in three colors: white, black or gray

### Mounting

- Wall Mount on a 4" junction box
- Universal bracket accessory available for beams or superstrut mounting

### Choice of Lamp Type

- Two 6V or 12V-6W, 12W or 20W each MR16 Halogen lamps
- Two 6V or 12V-4W, 12V-5W or 12V-6W each MR16 LED lamps

### Electronics

- Standard, fully automatic Improved Diagnostic Micro-controller based circuitry detects and indicates any malfunction or failure of the battery, charger circuitry, or lamps
- External LED signals a service alarm, four internal diagnostic LED's
- Incorporates battery lockout and brownout circuits, and low voltage disconnection, protects the unit from over-current, short-circuit, and reverse polarity

### Improved Diagnostics

- Units equipped with Improved Diagnostics shall self-test, by simulating a power failure, in accordance with NFPA101, Life Safety Code one minute monthly, 30 minutes every six months and 90 minutes annually. For complete information refer to page 8.

### NEXUS® option

- Units equipped with NEXUS® self-testing monitoring system circuitry shall self-test, in accordance with NFPA101 Life Safety Code for a minimum of 30 seconds monthly, 30 minutes every six months and 90 minutes annually as well as keep a history of all testing logs, plus feature real-time diagnoses, and provide the exact fixture location while notifying service personnel of the status of the fixture via email. For complete information refer to page 4-5.

### Controls

- Red LED indicates if unit requires service
- Green AC-ON LED indicates AC power is on
- Magnetic test switch allows for quick operational check of entire system

### Choice of Sealed Maintenance-Free Battery

- 6V or 12V Lead-Calcium battery
- 12V Nickel-Cadmium battery listed for Damp and wet locations (+10°C to +40°C/+50°F to +104°F)
- 12V Nickel-Metal Hydride battery

### Approvals

- UL 924 Standard
- UL listed for wet and Damp locations
- UL listed for cold weather (-40°C to +40°C/-40°F to +104°F) option
- NSF certified for use in food processing plants
- NEMA 4X Rated

### Warranty (subject to proper installation and maintenance)

- Unit has a three year full warranty (excluding LED lamps and fuses)<sup>1</sup>
- Lead-Calcium battery, three year full, plus three year pro-rata warranty
- Nickel-Cadmium battery, five year full, plus five year pro-rata warranty
- Nickel-Metal Hydride battery, five year full, plus five year pro-rata warranty

<sup>1</sup> For LED lamps warranty, refer to page 168 paragraph 3.2

## ACCESSORIES (Order as a separate item)

Bit for Tamper-proof Screws	690.0454-L
Universal Mounting Bracket	PMK-L

## SPECIFICATIONS

Supply and install Lightalarms® Severe™ V Series Emergency Battery Unit.

The unit shall be a self-contained fixture including a sealed maintenance-free 6V or 12V, Lead-Calcium or Nickel-Cadmium, or 12V, Nickel-Metal Hydride battery with wattage as specified on the unit rating chart. The unit shall be supplied with an Improved Diagnostic Micro-controller board rated wattage load for a minimum of 90 minutes to 87-1/2% of rated battery voltage. The unit shall be rated 120/277VAC, 60Hz and be UL 924 listed.

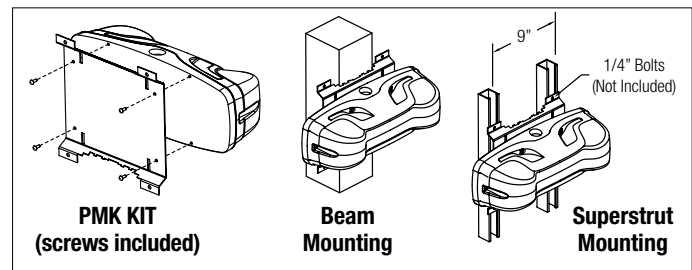
The charger shall continuously recharge the battery. When the battery is at full capacity, the charger will periodically pulse-charge the battery in stand-by mode. This pulse-type charger promotes long battery life and reduces the potential for grid corrosions. Its charge voltage is factory set to +/-1% tolerance and temperature compensated. The charger incorporates Lockout and Brownout Circuits, and Low Voltage Disconnection. It protects the unit from over-current, short-circuit, and reverse polarity.

This unit shall self-test for 1 minute monthly, 30 minutes on the 6th month and 90 minutes every 12 months. The unit shall be capable of full recharge in compliance with UL specifications. The unit shall be furnished with a magnetic test switch. A "Service Required" lamp shall be located near the test switch and flash when a fault is detected. A LED-based diagnostic display shall be located inside the equipment and shall identify the source of failure (battery, charger, circuitry, or lamps).

The unit shall include a die-cast aluminum back plate, an internal housing made of industrial grade Thermoplastic, a neoprene gasket and a UV stabilized polycarbonate lens. The front of the unit shall be protected with a clear cover constructed of heavy-duty vandal-resistant, UV stabilized polycarbonate lens, with a gasket between the lens and back plate, attached with Phillips head or tamper-proof screws. Emergency lights shall be fully adjustable and equipped with high efficiency MR16 Halogen or MR16 LED lamps as specified. The unit shall be NEMA-4X rated and designed specifically for high abuse areas, wet and Damp locations.

Unit shall be Lightalarms® catalog number \_\_\_\_\_.

## UNIVERSAL MOUNTING BRACKETS



The Severe™ XV Series Battery Unit is part of the Severe™ family of NEMA-4X rated emergency lighting products. The Severe™ family offers complete emergency lighting solutions for commercial and industrial environments where protecting against humidity, dust, water infiltration and the risk of vandalism are specification criteria.



Severe™ XV Exit Series  
p.40



Severe™ XV Combo Series  
p.42



Severe™ ELF650 Remote Series  
p.111

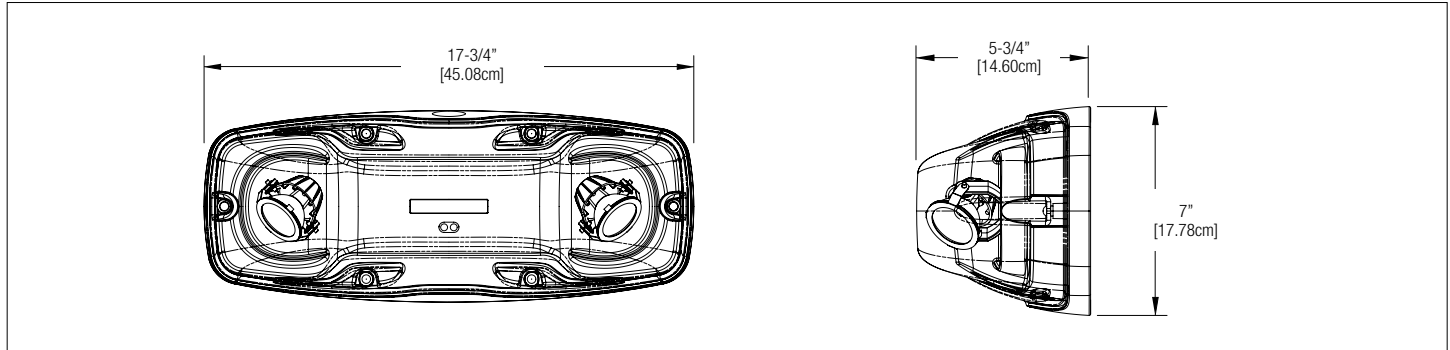
TYPE \_\_\_\_\_  
 CATALOG # \_\_\_\_\_  
 \_\_\_\_\_  
 NOTES \_\_\_\_\_  
 \_\_\_\_\_

For heavy-duty industrial environments, such as hose-down, food processing, or vandal-prone areas.



**DIMENSIONS**

Dimensions are approximate and subject to change.



**POWER CONSUMPTION / UNIT RATING CHART**

SERIES	DC SPECS						AC SPECS		
	BATTERY TYPE	DC VOLTAGE	87.5% BATTERY CAPACITY (IN WATTS) <sup>1</sup>				UNITS DUAL VOLTAGE <sup>2</sup>	CURRENT MAXIMUM	POWER MAXIMUM
			90 MIN.	2 HRS.	3 HRS.	4 HRS.			
<b>VG1</b>	Lead-Calcium	6V	18	12	-	-	120VAC 277VAC	.2A .11A	20W 20W
<b>V12G1</b>		12V	24	16	12	-			
<b>V12G2</b>		12V	36	24	20	14			
<b>V12G3</b>		12V	54	36	27	20			
<b>V12G1-CW4</b>	With cold weather option	12V	24	NOTE 3	-	-	120/227VAC	.4A/.3A .7A/4A	60W 100W
<b>V12G2-CW4</b>		12V	36	NOTE 3	-	-			
<b>V12N1</b>	Nickel-Cadmium	12V	24	16	12	-	120VAC 277VAC	.2A .11A	20W 20W
<b>V12N2</b>		12V	40	30	20	15			
<b>V12H1</b>	Nickel Metal Hydride	12V	60	40	30	20			

<sup>1</sup> National Electrical Code Specification  
<sup>2</sup> All units 120/277 dual voltage, information based on wiring to specific voltage type  
<sup>3</sup> Dependent on lower ambient temperatures

**ORDERING FORMAT**

# OF HEADS	SERIES	LAMP TYPE <sup>1</sup>	HOUSING COLOR	STANDARD DIAGNOSTICS	OPTIONS
2= Two heads	<b>Lead-Calcium battery</b> VG1= 6V-18W V12G1= 12V-24W V12G2= 12V-36W V12G3= 12V-54W  <b>Nickel-Cadmium battery</b> V12N1= 12V-24W V12N2= 12V-40W  <b>Nickel-Metal Hydride battery</b> V12H1= 12V-60W	<b>MR16 Halogen Lamp</b> M6= 6V-6W M10= 12V-10W M12= 12V-12W MH20= 12V-20W High Output  <b>MR16 LED Lamp</b> LD1= 6V-4W LD7= 12V-4W LD9= 12V-5W LD10= 12V-6W  <b>Lamp Type MUST:</b> 1) Match Battery Voltage 2) Total of all lamps wattage must not exceed battery watt capacity for 90 min.	-B= Black -G= Gray -M= White	-D= Improved Diagnostics (non audible) <sup>1</sup>	<b>Blank=</b> No Options -DA= Improved Diagnostics (audible) <sup>1</sup> -NEX= Nexus® Wired Compatible <sup>2</sup> -NEXRF= Nexus® Wireless Compatible <sup>2</sup> -T1= Time Delay (5 minute) -T2= Time Delay (10 minute) -T3= Time Delay (15 minute) -CW4= Cold Weather -40°F to 104°F (-40°C to 40°C) <sup>3</sup>

<sup>1</sup> No other lamp types available for this Series, for complete information on these lamp types refer to page 153.

<sup>1</sup> -D includes a time delay feature that can be enabled/disabled in the field or set by the factory by including -D-TD\*

<sup>1</sup> -DA includes a time delay feature that can be enabled/disabled in the field or set by the factory by including -D-TD\*  
<sup>2</sup> -NEX & -NEXRF is CSA-US approved only. Consult your sales representative  
<sup>3</sup> -CW4 option only available with V12G1 & V12G2 models

EXAMPLE: 2V12G2/M12-B-D-CW4