

Industrial & Harsh Environment Battery Units

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■ NEMA Enclosure Definitions

NEMA ENCLOSURES

- Type 1 Enclosures constructed for indoor use to provide a degree of protection to personnel against incidental contact with the enclosed equipment and to provide a degree of protection against falling dirt.
- Type 2 Enclosures constructed for indoor use to provide a degree of protection to personnel against incidental contact with the enclosed equipment, to provide a degree of protection against falling dirt, and to provide a degree of protection against dripping and light splashing of liquids.
- Type 3 Enclosures constructed for either indoor or outdoor use to provide a degree of protection to personnel against incidental contact with the enclosed equipment; to provide a degree of protection against falling dirt, rain, sleet, snow, and windblown dust; and that will be undamaged by the external formation of ice on the enclosure.
- Type 3R Enclosures constructed for either indoor or outdoor use to provide a degree of protection to personnel against incidental contact with the enclosed equipment; to provide a degree of protection against falling dirt, rain, sleet, and snow; and that will be undamaged by the external formation of ice on the enclosure.
- Type 3S Enclosures constructed for either indoor or outdoor use to provide a degree of protection to personnel against incidental contact with the enclosed equipment; to provide a degree of protection against falling dirt, rain, sleet, snow, and windblown dust; and in which the external mechanism(s) remain operable when ice laden.
- Type 4 Enclosures constructed for either indoor or outdoor use to provide a degree of protection to personnel against incidental contact with the enclosed equipment; to provide a degree of protection against falling dirt, rain, sleet, snow, windblown dust, splashing water, and hose-directed water; and that will be undamaged by the external formation of ice on the enclosure.
- Type 4X Enclosures constructed for either indoor or outdoor use to provide a degree of protection to personnel against incidental contact with the enclosed equipment; to provide a degree of protection against falling dirt, rain, sleet, snow, windblown dust, splashing water, and hose-directed water; and corrosion; and that will be undamaged by the external formation of ice on the enclosure.
- Type 5 Enclosures constructed for indoor use to provide a degree of protection to personnel against incidental contact with the enclosed equipment; to provide a degree of protection against falling dirt, against settling airborne dust, lint, fibers and flyings; and to provide a degree of protection against dripping and light splashing of liquids.
- Type 6 Enclosures constructed for either indoor or outdoor use to provide a degree of protection to personnel against incidental contact with the enclosed equipment; to provide a degree of protection against falling dirt, against hose-directed water and the entry of water during occasional temporary submersion at a limited depth; and that will be undamaged by the external formation of ice on the enclosure.
- Type 6P Enclosures constructed for either indoor or outdoor use to provide a degree of protection to personnel against incidental contact with the enclosed equipment; to provide a degree of protection against falling dirt, against hose-directed water and the entry of water during prolonged submersion at a limited depth; and that will be undamaged by the external formation of ice on the enclosure.
- Type 12 Enclosures constructed (without knockouts) for indoor use to provide a degree of protection to personnel against incidental contact with the enclosed equipment; to provide a degree of protection against falling dirt, against circulating dust, lint, fibers, and flyings; and against dripping and light splashing of liquids.
- Type 12K Enclosures constructed (with knockouts) for indoor use to provide a degree of protection to personnel against incidental contact with the enclosed equipment; to provide a degree of protection against falling dirt, against circulating dust, lint, fibers, and flyings; and against dripping and light splashing of liquids.
- Type 13 Enclosures constructed for indoor use to provide a degree of protection to personnel against incidental contact with the enclosed equipment; to provide a degree of protection against falling dirt, against circulating dust, lint, fibers, and flyings; and against the spraying, splashing, and seepage of water, oil, and noncorrosive coolants.









■ S12E Series

12 Volt Commercial/Industrial Emergency Unit Sealed Maintenance-Free, Lead-Calcium Battery UL Listed

The **S12E Series** battery unit is best suited for applications requiring high capacity maintenance-free batteries, multiple remote capabilities or extended operating times. The 12-volt battery allows for longer remote wiring runs.

FEATURES

Reliability

The **S12E Series** has a three-year full warranty (excluding lamps and fuses). **Unit Data**

The battery and all components are housed in a heavy-duty steel cabinet, with a removable front access panel for ease of installation and maintenance. The standard cabinet finish will be gray enamel, but "mist- white" is also available (see options). All cabinets come standard with 7/8" conduit knockouts, rear keyhole mounting slots and provisions for mounting up to 3 heads on the cabinet. Mounting brackets and platforms are also available, see accessories.

Standard with two ELF645 PAR36 high impact mar-resistant thermoplastic heads. Furnished with two 12 volt 25 watt high intensity incandescent lamps*. Other lighting head styles are also available see options. Do not exceed unit battery capacity.

For optional lamps types and wattages refer to the lamp data chart on page 108-109

Pulse Type Charger

- Automatic, temperature compensated, pulse type charger.
- · High capacity, automatic, dust-tight instantaneous transfer relay.
- Low voltage disconnect prevents over discharge of battery. Automatic brownout protection is provided.
- Labor saving AC line latch prevents battery discharge during installation to a non-energized circuit.
- · Fused output circuit.

Controls

- Red charger monitor LED indicates state of charge of the battery.
- Amber AC-ON LED indicates AC power is on.
- Momentary test switch allows for quick operational check of entire system.
 Power Requirements

120/277Vac 60Hz, 0.30/0.15 Amp

Head & Lamp Type Options

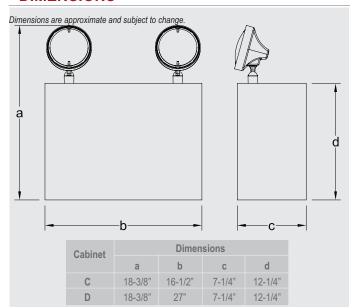
No heads	0
Three heads	3
Double contact bayonet base, Bi-Pin Halogen,	
Wedge base, Sealed Beam Lamps	/ELF 645
Bi-Pin Halogen lamps	/ELF 2
MR16 lamps up to 20 watts	
MR16 lamps	

OPTIONS

or mono	
(Add Suffix to Model No.)	Suffix
Voltmeter (Not available with diagnostics)	V
Ammeter (Not available with diagnostics)	A
Lamp Disconnect Switch	DS**
Time Delay (specify 5, 10 or 15 minutes)	TD_**
Improved Diagnostics (audible)	ID*
Improved Diagnostics(non-audible)	IDNA*
3-Wire Cord & Plug	3CP***
3-Wire Cord & Plug (277V)	3CP-277***
Mist White Color (Replace -G with -M)*\$12E4, \$12E5 and \$12E6	М



DIMENSIONS



UNIT RATING CHART

Volts	Model No.	Watts to	Watts to 87.5% of rated battery voltage*			
VOILS	(Unit/Lamp Suffix)	1 1/2 hrs.	2 hrs.	3 hrs.	4 hrs.	Size
	2S12E4/L25-G	200	150	107	85	С
12	2S12E5/L25-G	300	225	165	127	D
	2S12E6/L25-G	400	300	214	170	D

^{*}National Electrical Code Specification

ACCESSORIES

(Order as a separate item)	
Wire Guard (S12E4)	WG3-L
Wire Guard (S12E5/S12E6)	WG4-L

2	S12E	4	/L25	-G	-V	-A
No. of Heads	Series	Capacity Indicator	Lamp Suffix	Finish	Option	Option
ileaus		ilidicator	12V 25W	,	Voltmeter	Ammeter
			Incandescent	Enamel		

^{**(}ID or IDNA) includes a Time Delay function, if needed it can be enabled/disabled in the field or it can be preset at the factory by including the suffix ID-TD_ or IDNA-TD_

^{***}Standard cord is 3 ft. custom lengths available.



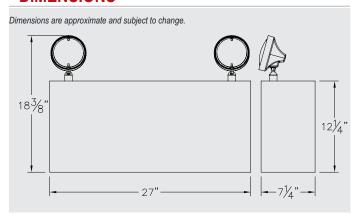




■ S24E Series



DIMENSIONS



UNIT SELECTION CHART

Volts	Model No.	Watts to 87.5% of rated battery voltage*			/oltage*
voits	(Unit/Lamp Suffix)	1 1/2 hrs.	2 hrs.	3 hrs.	4 hrs.
24	S24E4/L28-G	400	300	120	60

^{*}National Electrical Code Specification

3-Wire Cord & Plug (277V).....-3CP-277**

(Order as a separate item)

ORDERING FORMAT

2	S24E	4	/L28	-G	-V
No. of Heads	Series	Capacity Indicator	Lamp Suffix 24V 25W Incandescent	Finish Gray Enamel	Option Voltmeter

24 Volt Commercial/Industrial Emergency Unit Sealed Maintenance-Free, Lead-Calcium Battery **UL Listed**

The S24E Series battery unit is best suited for applications requiring high capacity maintenance-free batteries, multiple remote capabilities or extended operating times. The 24-volt battery allows for longer remote wiring runs.

FEATURES

Reliability

The S24E Series has a three-year full warranty (excluding lamps and fuses). **Unit Data**

The battery and all components are housed in a heavy-duty steel cabinet, with a removable front access panel for ease of installation and maintenance. The standard cabinet finish will be gray enamel, but "mist- white" is also available (see options). All cabinets come standard with 7/8" conduit knockouts, rear keyhole mounting slots and provisions for mounting up to 3 heads on the cabinet. Mounting brackets and platforms are also available, see accessories.

Lamp

Standard with two ELF645 PAR36 high impact mar-resistant thermoplastic heads. Furnished with two 24 volt 25 watt high intensity incandescent lamps*. Other lighting head styles are also available see options. Do not exceed unit battery capacity.

For optional lamps types and wattages refer to the lamp data chart on page 108-109

Pulse Type Charger

- Automatic, temperature compensated, pulse type charger.
- · High capacity, automatic, dust-tight instantaneous transfer relay.
- · Low voltage disconnect prevents over discharge of battery. Automatic brownout protection is provided.
- · Labor saving AC line latch prevents battery discharge during installation to a non-energized circuit.
- · Fused output circuit.

Controls

- · Red charger monitor LED indicates state of charge of the battery.
- Amber AC-ON LED indicates AC power is on.
- Momentary test switch allows for quick operational check of entire system.

Power Requirements

120/277Vac 60Hz, 0.3/0.15 Amp

Head & Lamp Type Options

No heads	0
Three heads	
Double contact bayonet base, Bi-Pin Halogen,	
Wedge base, Sealed Beam Lamps	/ELF 645
MR16 lamps up to 20 watts	
MR16 lamps	

OPTIONS

OT TIONS	
(Add Suffix to Model No.)	Suffix
Voltmeter (Not available with diagnostics)	V
Ammeter (Not available with diagnostics)	A
Lamp Disconnect Switch	DS*
Time Delay (specify 5, 10 or 15 minutes)	TD_*
Improved Diagnostics (audible)	ID
Improved Diagnostics (non-audible)	IDNA
Mist White Color (Replace -G with -M)	M
3-Wire Cord & Plug	

^{*} Not required with ID option

^{**(}ID or IDNA) includes a Time Delay function, if needed it can be enabled/disabled in the field or it can be present at the factory by including the suffix ID-TD_ or IDNA-TD_

ACCESSORIES







■ SL Series

6 Volt Emergency Unit with Remote Capability Long Life Wet Refillable Lead-Acid Battery UL Listed

The **SL Series** battery unit is offered where a reliable, long-life, low-maintenance wet battery unit is required. This series was designed for remote capability and offers a selection of battery capacities.

FEATURES

Reliability

Lamp

The SL Series has a three-year full warranty (excluding lamps and fuses). Unit Data

Battery and all components are housed in a heavy-duty steel cabinet, with a removable front panel for ease of installation and servicing. The front panel includes a view port for visual inspection of the battery, which is encased in a clean, smooth container of transparent high impact material. The standard cabinet finish will be gray enamel, but "mist-white" is also available (see options). All cabinets come standard with 7/8" conduit knockouts, rear keyhole mounting slots and provisions for mounting up to 3 heads on the cabinet.

Standard SL Series units are furnished with two, Par 36 size, high impact marresistant thermoplastic heads with 25-watt high intensity incandescent lamps. The heads are fully adjustable horizontally and vertically. Optional lamps are available.

Pulse Type Charger

- Automatic, temperature compensated, pulse type charger.
- High capacity, automatic, dust-tight instantaneous transfer relay.
- Low voltage disconnect prevents over discharge of battery. Automatic provided.
- Labor saving AC line latch prevents battery discharge during incommence of the commence of the co
- Fused output circuit.

Controls

- Red charger monitor LED indicates state of charge of ne battery.
- · Amber AC-ON LED indicates AC power is on.
- Momentary test switch allows for quick operational chec. of entire system.
 Power Requirements

120/277Vac 60Hz, 0.30/0.15 Amp

OPTIONS

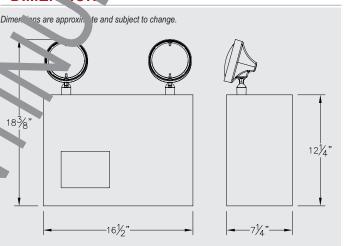
(Add Suffix to Model No.)	Suffix
Voltmeter (Not available with diagnosti	V
Ammeter (Not available with diagnostics)	A
Lamp Disconnect Switch	DS**
Time Delay (12 minutes)	TD**
Improved Diagnostics	ID**
Improved Diagnostics, Non-Audible	IDNA**
3-Wire Cord & Plug	3CP***
3-Wire Cord & Plug (277V)	3CP-277***
Mist White Color (Replace -G with -M)	
*2SL3 only **Not required with ID/IDNA option. ***Standard cord is 3 ft. custom lengths available	

ACCESSORIES

(Order as a separate item)	Suffix
Mounting Platform	MP-A
Mounting Bracket	MB-A
Wire Guard	. WG3-L



- DIMENSIONS



UNIT SELECTION CHART

Volts	Model No.	Watts to 87.5% of rated battery voltage*				
VOILS	(Unit/Lamp Suffix)	1 1/2 hrs.	2 hrs.	3 hrs.	4 hrs.	
	2SL3/L25-G	100	80	50	40	
6	2SL9/L25-G	200	150	125	100	
	2SL105/L25-G	200	200	175	125	

*National Electrical Code Specification

2	SL	9	/25	-G	-V
	Series	Capacity	Lamp Suffix	Finish	Option
Heads		Indicator	6V 25W Incandescent	Gray Enamel	Voltmeter







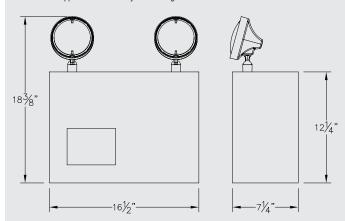


■ SN Series



DIMENSIONS

Dimensions are approximate and subject to change.



UNIT SELECTION CHART

Volts	Model No.	Watts to 87.5% of rated battery voltage*				
Voits	(Unit/Lamp Suffix)	1 1/2 hrs.	2 hrs.	3 hrs.	4 hrs.	
	2SN2/L25-G	50	45	25	18	
	2SN3/L25-G	70	60	35	25	
6	2SN4/L25-G	100	80	50	35	
	2SN6/L25-G	130	105	70	50	
	2SN7/L25-G	160	130	80	60	

*National Electrical Code Specification

ORDERING FORMAT

2	SN	4	/L25	-G	-V
No. of Heads	Series	Capacity Indicator	Lamp Suffix	Finish	Option
110003		maioatoi	6V 25W Incandescent	Gray Enamel	Voltmeter

6 Volt Emergency Unit with Remote Capability Long Life Wet Refillable Nickel-Cadmium Battery UL Listed

The **SN** Series battery unit was designed for industrial locations requiring long lasting emergency light units. Unit is available in a wide range of capacities, and offers the special advantages of the Nickel-Cadmium battery, including excellent recharging capabilities.

FEATURES

Reliability

The **SN Series** has a three-year full warranty (excluding lamps and fuses).

Unit Data

The battery and all components are housed in a heavy-duty steel cabinet, with a removable front panel for ease of installation and servicing. The front panel includes a view port for visual inspection of the battery. The 6-volt, five cell pocket-plate Nickel-Cadmium battery is housed in translucent plastic cell containers. The standard cabinet finish will be gray enamel, but "mist-white" is also available (see options). All cabinets come standard with 7/8" conduit knockouts, rear keyhole mounting slots and provisions for mounting up to 3 heads on the cabinet. Mounting brackets and platforms are also available, see accessories.

Lamp

Standard with two ELF645 PAR36 high impact mar-resistant thermoplastic heads. Furnished with two 6 volt 25 watt high intensity incandescent lamps*. Other lighting head styles are also available see options. Do not exceed unit battery capacity.

For optional lamps types and wattages refer to the lamp data chart on page 108-109

PulseType Charger

- Automatic, temperature compensated, pulse type charger.
- High capacity, automatic, dust-tight instantaneous transfer relay.
- Low voltage disconnect prevents overdischarge of battery. Automatic brownout protection is provided.
- Labor saving AC line latch prevents battery discharge during installation to a non-energized circuit.
- · Fused output circuit.

Controls

- Red charger monitor LED indicates sate of charge of the battery.
- Amber AC-ON LED indicates AC power is on.
- Momentary test switch allow for quick operational check of entire systems.

Power Requirements

120/277Vac, 60Hz, 0.3/0.15 Amp

OPTIONS

(Add Suffix to Model No.)	Suffix
Mist White Color (Replace "-G" with -M)	M
Voltmeter	V
Ammeter	A
Lamp Disconnect Switch	DS
Time Delay (specify 5, 10 or 15 minutes)	TD_
3-Wire Cord & Plug	3CP*
3-Wire Cord & Plug (277V)*Standard cord is 3 ft. custom lengths available.	3CP-277*

ACCESSORIES

(Order as a separate item) Suffix









■ S12L Series

12 Volt Emergency Unit with Remote Capability Long Life Wet Refillable Lead-Acid Battery UL Listed

The **S12L Series** battery unit was designed for industrial areas requiring high capacity units with multiple remote capabilities.

FEATURES

Reliability

The **S12L Series** has a three-year full warranty (excluding lamps and fuses). **Unit Data**

Battery and all components are housed in a heavy-duty steel cabinet, with a removable front panel for ease of installation and servicing. The front panel includes a view port for visual inspection of the battery, which is encased in a clean, smooth container of transparent high impact material. The standard cabinet finish will be gray enamel, but "mist- white" is also available (see options). All cabinets come standard with 7/8" conduit knockouts, rear keyhole mounting slots and provisions for mounting up to 3 heads on the cabinet. Mounting platform is also available, see accesories.

Lamp

Standard **S12L Series** units are furnished with two, Par 36 size, high impact mar-resistant thermoplastic heads with 25-watt high intensity incandes ont lamps. The heads are fully adjustable horizontally and vertically. Optional lamps are available.

Pulse Type Charger

- Automatic, temperature compensated, pulse type charger.
- · High capacity, automatic, dust-tight instantaneous transfer relay.
- Low voltage disconnect prevents over discharge of batters. Autonation brownout protection is provided.
- Labor saving AC line latch prevents battery discharge durin installation of non-energized circuit.
- Fused output circuit.

Controls

- Red charger monitor LED indicates state of charge of the battery.
- Amber AC-ON LED indicates AC power is on.
- Momentary test switch allows for quick operational chock or entire system

Power Requirements

120/277Vac 60Hz, 0.30/0.15 Amp

OPTIONS

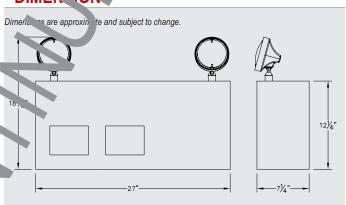
(Add Suffix to Model No.) Voltmeter	
Ammeter	
Lamp Disconnect Switch	
Time Delay (12 minutes)	
3-Wire Cord & Plug	3CP*
3-Wire Cord & Plug (277V)	3CP-277*
Mist White Color (Replace -G with -M)	M
*Standard cord is 3 ft_custom lengths available	

ACCESSORIES

(Order as a separate item)	Suffix
Wire Guard	WG4-L
Mounting Platform	MP12



DIMENSIONS



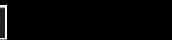
UNIT SELECTION CHART

Volts	Model No.	Watts to 87.5% of rated battery voltage*				
voits	(Unit/Lamp Suffix)	1 1/2 hrs.	2 hrs.	3 hrs.	4 hrs.	
40	2S12L9/L25-G	350	300	250	200	
12	2S12L105/L25-G	400	400	300	250	

^{*}National Electrical Code Specification

2	S12L	9	/L25	-V
No. of Heads	Series	Capacity Indicator	Lamp Suffix	Option
		indicator	12V 25W Incandescent	Voltmeter











12 Volt Emergency Unit with Remote Capability Long Life Wet Refillable Nickel-Cadmium Battery UL Listed

The **S12N Series** battery units are excellent high capacity units – ideal where extended run times may be required or remote fixtures/exits will be connected. This unit will provide excellent performance over extended temperature ranges.

FEATURES

Reliability

The S12N Series has a three-year full warranty (excluding lamps and fuses).

Unit Data

Battery and all components are housed in a heavy-duty steel cabinet, with a removable front panel for ease of installation and servicing. The front panel includes a view port for visual inspection of the battery, which is encased in a clean, smooth container of transparent high impact material. Gray enamel is the standard cabinet finish. All cabinets come standard with 7/8" conduit knockouts, rear keyhole mounting slots and provisions for mounting up to 3 heads on the cabinet. Mounting platform is also available, see accessories.

Lamp

Standard with two ELF645 PAR36 high impact mar-resistant thermoplastic heads. Furnished with two 12 volt 25 watt high intensity incandescent lamps*. Other lighting head styles are also available see options. Do not exceed unit battery capacity.

For optional lamps types and wattages refer to the lamp data chart on page 108-109

Pulse Type Charger

- Automatic, temperature compensated, pulse type charger.
- High capacity, automatic, dust-tight instantaneous transfer relay.
- Low voltage disconnect prevents over discharge of battery. Automatic brownout protection is provided.
- Labor saving AC line latch prevents battery discharge during installation to a non-energized circuit.
- · Fused output circuit.

Controls

- Red charger monitor LED indicates state of charge of the battery.
- Amber AC-ON LED indicates AC power is on.
- Momentary test switch allows for quick operational check of entire system.

Power Requirements

120/277Vac 60Hz, 0.30/0.15 Amp

OPTIONS

(Add Suffix to Model No.)	Suffix
Voltmeter	V
Ammeter	A
Lamp Disconnect switch	DS
Time Delay (specify 5, 10 or 15 minutes)	TD_
Mist White Color (Replace -G with -M)	M
3-Wire Cord & Plug	3CP*
3-Wire Cord & Plug (277V)	
+01 1 1 0 7 1 1 1 1 1 1 1	

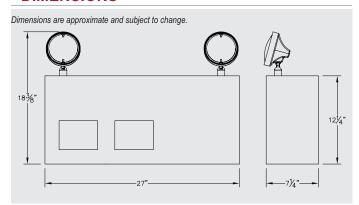
^{*}Standard cord is 3 ft. custom lengths available.

ACCESSORIES

(Order as a	a separate item)	
Wire Guard	i	WG4-L
Mounting Pl	Platform	MP12



DIMENSIONS



UNIT SELECTION CHART

Volts	Model No.	Watts to 87.5% of rated battery voltage*				
VOILS	(Unit/Lamp Suffix)	1 1/2 hrs.	2 hrs.	3 hrs.	4 hrs.	
	2S12N2/L25-G	100	90	50	35	
	2S12N3/L25-G	140	120	70	50	
12	2S12N4/L25-G	200	160	100	70	
	2S12N6/L25-G	260	210	150	100	
	2S12N7/L25-G	320	260	170	120	

*National Electrical Code Specification

2	S12N	3	/L25	-G	-V
No. of Heads	Series	Capacity Indicator	Lamp Suffix	Finish	Option
Heaus		iliuicatoi	12V 25W Incandescent	Gray Enamel	Voltmeter





■ S24N Series

24 Volt Commercial/Industrial Emergency Unit Long-Life Wet Refillable Nickel-Cadmium Battery UL Listed

The **S24N Series** battery unit is best suited for applications where extended run times are required, and/or remote fixtures or exits will be connected. Unit offers excellent recharging capabilities and superior performance over extended temperature ranges.

FEATURES

Reliability

The **S24N Series** has a three-year full warranty (excluding lamps and fuses).

Unit Data

The battery and all components are housed in a heavy-duty steel cabinet, with a removable front access panel for ease of installation and maintenance. The standard cabinet finish will be gray enamel, but "mist- white" is also available (see options). All cabinets come standard with 7/8" conduit knockouts, rear keyhole mounting slots and provisions for mounting up to 3 heads on the cabinet. Mounting platform is also available, see accessories.

Lamp

Standard **S24N Series** units are furnished with two, Par 36 size, high impact mar-resistant thermoplastic heads with 25-watt high intensity incandescent lamps. The heads are fully adjustable horizontally and vertically. Optional lamps are available.

Pulse Type Charger

- · Automatic, temperature compensated, pulse type charger.
- High capacity, automatic, dust-tight instantaneous transfer relay.
- Low voltage disconnect prevents over discharge of battery. Automatic brownout protection is provided.
- Labor saving AC line latch prevents battery discharge during installation to a non-energized circuit.
- · Fused output circuit.

Controls

- · Red charger monitor LED indicates state of charge of the battery.
- Amber AC-ON LED indicates AC power is on.
- Momentary test switch allows for quick operational check of entire system.

Power Requirements

120/277Vac 60Hz, 0.3/0.15 Amp

OPTIONS

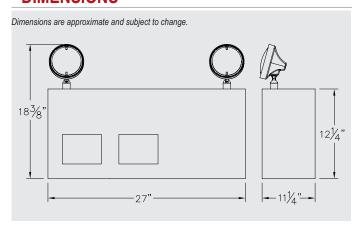
	Suffix
Voltmeter	V
Ammeter	A
Lamp Disconnect Switch	DS
Time Delay (specify 5, 10 or 15 minutes)	TD_
3-Wire Cord & Plug	3CP*
3-Wire Cord & Plug (277V)	3CP-277*
*Standard cord is 3 ft. custom lengths available.	

ACCESSORIES

(Order as a separate item)	
Wire Guard	.WG4-L
Mounting Platform	.MP-12



DIMENSIONS



UNIT SELECTION CHART

Volts	Model No.	Watts to	87.5% of ra	ted battery v	voltage*
VOILS	(Unit/Lamp Suffix)	1 1/2 hrs.	2 hrs.	3 hrs.	4 hrs.
24	2S24N4/L28-G	400	300	120	60

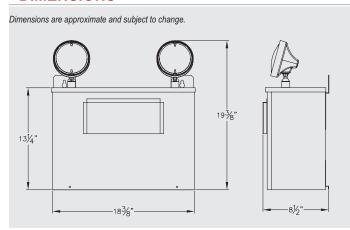
^{*}National Electrical Code Specification

2	S24N	4	/L28	-G	-V
No. of Heads	Series	Capacity Indicator	Lamp Suffix	Finish	Option
ricaus		maioatoi	24V 25W Incandescent	Gray Enamel	Voltmeter





DIMENSIONS



UNIT SELECTION CHART

Volts	Model No. Battery		Watts to 87.5% of rated battery voltage*			
VOILS	(Unit/Lamp Suffix)	Type	1 1/2 hrs.	2 hrs.	3 hrs.	4 hrs.
	2SN2-WP/4510		50	45	25	18
	2SN3-WP/4510		70	60	35	25
6	2SN4-WP/4510	Nickel- Cadmium	100	80	50	35
	2SN6-WP/4510		130	105	70	50
	2SN7-WP/4510		160	130	80	60
	2S12E4-WP/4446	Sealed	200	150	100	75
12	2S12E5-WP/4446	Lead-	300	225	110	110
	2S12E6-WP/4446	Calcium	400	300	150	150

^{*}National Electrical Code Specification

Note: Above capacity ratings are subject to an ambient of 50 to 85 degrees. Extremes of temperatures beyond this range will have a detrimental effect on the specified ratings. For extreme cold, use of a thermal jacket is recommended.

ORDERING FORMAT

2	SL	9	-WP	/4510	-G	-V
	Series		Weatherproof	Lamp Suffix	Color	Option
Heads		Indicator	Enclosure Series	6V 25W Incandescent	Gray	Voltmeter

■ WP Series

6 or 12 Volt Weatherproof Emergency Unit

Maintenance-Free Lead-Calcium, Wet Refillable

Nickel-Cadmium Battery

The **WP Series** battery unit is designed with a special enclosure for applications where a weatherproof unit is required.

FEATURES

Reliability

The WP Series has a three-year full warranty (excluding lamps and fuses).

Unit Data

The housing is constructed of heavy-duty steel with front access to the battery and all components. The housing has a galvanized undercoating and baked gray enamel finish. Knockout and controls are concealed at bottom of housing. Welded mounting brackets are provided on top of case.

Lamp

Standard with two ELF647 PAR36 high impact mar-resistant thermoplastic heads. Furnished with two 6 or 12 volt 25 watt high intensity incandescent lamps*. Do not exceed unit battery capacity.

For optional lamps types and wattages refer to the lamp data chart on page 108-109

Pulse Type Charger

- · Automatic, temperature compensated, pulse type charger.
- High capacity, automatic, dust-tight instantaneous transfer relay.
- Low voltage disconnect prevents over discharge of battery. Automatic brownout protection is provided.
- Labor saving AC line latch prevents battery discharge during installation to a non-energized circuit.
- · Fused output circuit.

Controls

- Red charger monitor LED indicates state of charge of the battery.
- Amber AC-ON LED indicates AC power is on.
- Momentary test switch allows for quick operational check of entire system.

Power Requirements

120/277Vac 60Hz, 0.3/0.15 Amp

OPTIONS

(Add Suffix to Model No.)	Suffix
Voltmeter	V
Ammeter	А
Thermal Jacket (120V Heater)	H1
Thermal Jacket (277V Heater)	H2
Time Delay (specify 5, 10 or 15 minutes)	TD_
Lamp Disconnect Switch	DS
3-Wire Cord & Plug Kit	WP-3CP*
3-Wire Cord & Plug (277V) Kit	
*Ctandard aard in 2 ft austam langtha available	

^{*}Standard cord is 3 ft. custom lengths available.

ACCESSORIES

(Order as a separate item)	
Wire GuardWG	4-L







■ FG, F12G Series

6, 12 or 24 Volt Weather and Corrosion-Resistant

Emergency Unit

Sealed Maintenance-free Lead Calcium or

Nickel-Cadmium Battery

UL Listed

The **FG Series** battery unit was designed for industrial applications, especially for installations in a corrosive atmosphere. This enclosure is fully gasketed and is furnished with stainless steel hardware.

FEATURES

Reliability

The **FG Series** has a three-year full warranty (excluding lamps and fuses). **Unit Data**

The housing is a molded gray high impact thermoplastic case, featuring oil, water and dust-tight construction, stainless steel hardware, single piece neoprene gasket and vented battery compartment. External mounting feet are provided. Conduit entry can be made with a punch, drill or hole saw.

Standard with two ELF647 PAR36 high impact mar-resistant thermoplastic heads. Furnished with two 6 or 12 volt 25 watt high intensity incandescent lamps*. Do not exceed unit battery capacity.

For optional lamps types and wattages refer to the lamp data chart on page 108-109

Pulse Type Charger

- Automatic, temperature compensated, pulse type charger.
- · High capacity, automatic, dust-tight instantaneous transfer relay.
- Low voltage disconnect prevents over discharge of battery. Automatic brownout protection is provided.
- Labor saving AC line latch prevents battery discharge during installation to a non-energized circuit.
- · Fused output circuit.

Controls

- Red charger monitor LED indicates state of charge of the battery.
- Amber AC-ON LED indicates AC power is on.
- Momentary test switch allows for quick operational check of entire system.
 Power Requirements

120/277Vac 60Hz, 0.3/0.15 Amp

OPTIONS

(Add Suffix to Model No.)	Suffix
Ammeter or Voltmeter (choose only one)	A* or -V*
Improved Diagnostics (audible)	ID
Improved Diagnostics (non-audible)	IDNA
Time Delay (specify 5, 10 or 15 minutes)	TD_**
Thermal Jacket (120V Heater)	H1
Thermal Jacket (277V Heater)	
Lamp Disconnect Switch	DS**
Phototest Switch	
3-Wire Cord & Plug (120V)	
3-Wire Cord & Plug (277V)	

^{*}Not available with diagnostic option.

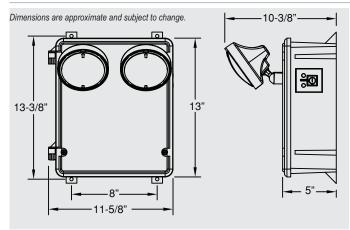
ACCESSORIES

(Order as a separate item)

Wire GuardWG3-L



DIMENSIONS



UNIT SELECTION CHART

Each unit furnished with two 25W High Intensity incandescent lamp.

Volts	Model No.	Battery	Watts to 87.5	5% of rated bat	tery voltage*
VOILS	(Unit/Lamp Suffix)	Type	1 1/2 hrs.	2 hrs.	3 hrs.
6	2FG1/4510	Sealed	50	36	25
0	2FG2/4510	Maintenance-	100	75	50
40	2F12G1/4446	Free	50	36	25
12	2F12G2/4446	Lead-Calcium	100	75	50
40	2F12N1/4446	Mielrel	50	36	18
12	F12N2 - 12V 100W	Nickel- Cadmium	100	75	50
24			100	73	37

*National Electrical Code Specification

2	FG	1	/4510	-V
No. of Heads	Series	Capacity Indicator	Lamp Suffix	Option
		mulcator	6V 25W Incandescent	Voltmeter

^{**(}ID or IDNA) includes a Time Delay function, if needed it can be enabled/disabled in the field or it can be preset at the factory by including the suffix ID-TD_ or IDNA-TD_

^{***}Standard cord is 3 ft. custom lengths available.













■ Severe V Series





DOWER CONSUMPTION CHART

AC Specification						
Unit Type Voltage Current (Max.) Effective Powe						
Standard	120/277Vac, 60Hz	0.2/0.11 A	Less than 20W			
Cold weather (option)	120/277Vac, 60Hz	0.7/0.40 A	Less than 100W			

UNIT RATING CHART

Furnished standard with MR16 lamps.

UNIT EQUIPMENT - WITH REMOTE CAPABILITY								
Sealed Maintenance-Free	Watts	Watts to 87.5% of rated battery voltage*						
Battery Types	1 1/2 hrs.	1 1/2 hrs. 2 hrs. 3 hrs. 4 hrs.						
	18	12	-	-				
	24	16	12	-				
Lead-Calcium	36	24	20	14				
	54	36	27	20				
Nieles Codesium #	24	18	12	-				
Nickel-Cadmium**	40	30	20	15				
Nickel Metal Hydride**	60	45	30	20				

^{*}National Electrical Code Specification

6 or 12 Volt Nema-4X Emergency Battery Unit Sealed Maintenance-Free Lead-Calcium, Nickel Cadmium or Nickel Metal Hydride Battery

UL Listed

UL listed for wet and damp locations

(Ni-Cd battery; +10'C to +40'C) (+50'F to +104'F)

UL listed for cold weather

(-40'C to +40'C) (-40'F to + 104'F) - see options below

The **Severe V Series** was designed for use in commercial as well as industrial heavy-duty environments, such as hose-down areas, food-processing facilities, parking garages as well as harsh environments. This battery unit will deliver unsurpassed pathway illumination.

- FEATURES

Reliability

The **Severe V Series** battery unit has a three-year full warranty (excluding lamps and fuses).

Unit Data

The equipment is constructed of a fully gasketed die-cast aluminum back plate and an equipment frame of industrial grade thermoplastic with a gasket around the lens and canopy, specifically designed for harsh environments. The front of the unit is protected by a clear, heavy-duty, vandal-resistant UV stabilized polycarbonate, fixed with tamper-proof screws. Each battery unit comes standard with non-audible improved diagnostic charger board, 15 minute time delay and lamp disconnect as well as tamper-proof screws and bit. The housings are available in three colors, mist-white, black or grey. The standard unit can be wall mounted on a 4-inch junction box, although a universal bracket is available as an accessory for mounting on poles, beams or strut metal framing. Units with Nickel-Cadmium or Nickel Metal Hydride batteries are listed for damp and wet locations (+10°C to +40°C/+50°F to +104°F). For remote fixture, refer to Severe ELF650 Series in the Remote Fixtures section.

Light Source

Fully field adjustable lamp head assembly offers the choice of MR16 halogen lamps up to 12V, 20W-IR or high-efficiency, 4-watt, MR16 LED lamps. The unit supplies 90 minutes of emergency operation.

Charger

The **Severe V Series** Emergency Battery Unit is equipped with a fully automatic Improved Diagnostic Micro-controller based circuitry.* The Micro-controller tests, detects and indicates any malfunction or failure of the battery, charger circuitry, or lamps. An external LED signals a general service alarm, while four internal diagnostic LED's indicate the nature of failure. The board is factory preset to non-audible diagnostic and a 15 minutes time delay. These functions can be enabled or disabled during installation. The equipment comes standard with a dual voltage input of 120/277Vac.

*The unit will perform a periodical self-test, of minimum 30 seconds every 30 days, 30 minutes every six months and 90 minutes annually.

OPTIONS

(Add Suffix to Model No.)	Suffix
Cold Weather Location (-40°C to +40°C) (-40°F to +104°F)	CW4*
*Available on 2V12G1 (24W) and 2V12G2 (36W) Lead-Calcium Battery Unit Only.	

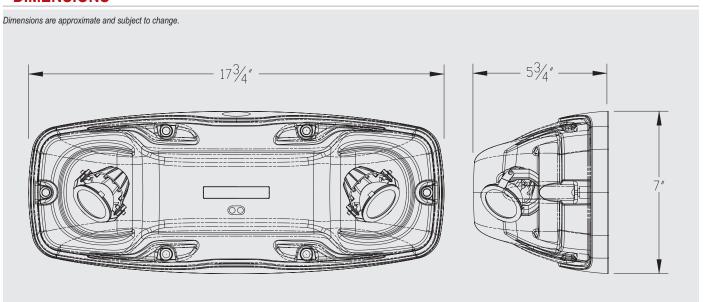
ACCESSORIES

(Order as a separate item)

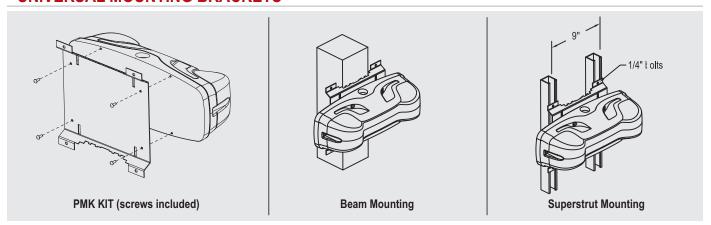
^{**}Listed for Wet and Damp Location



DIMENSIONS



UNIVERSAL MOUNTING BRACKETS



2	V12G2	/M12	-B	-D	
No. of Heads	Series	Lamps	Color	Charger	Options
2 = 2 heads	VG1= 6V-18W, Lead-Calcium V12G1= 12V-24W, Lead-Calcium V12G2= 12V-36W, Lead-Calcium V12G3= 12V-54W, Lead-Calcium V12N1= 12V-24W, Nickel-Cadmium V12N2= 12V-40W, Nickel-Cadmium V12H1= 12V-60W, NIMH	/L5= LED 12V-4W /M6= 6V-6W, MR16 /M12= 12V-12W, MR16 /MH20= 12V-20W, MR16-IR	-B= Black -G= Gray -M= White	-D= Improved Diagnostic Non-Audible (Standard) -DA= Improved Diagnostic Audible -NEX= NEXUS system interface (CSA-US certified)	Blank= No Options -CW4= Cold Weather* (-40°C to +40°C) *Only Available with V12G1 & V12G2.



■ SEVERE Series NEMA 4X

Severe XV NEMA-4X Exit Sign

Refer to page 80



Nema-4X Self-Powered LED Exit Sign

Standard with Diagnostic/Self-Test Feature

Sealed Maintenance-Free Nickel-Cadmium Battery

Standard Damp Location Listing (10°C - 40°C) (50°F-104°F)

UL Listed

The **Severe "XV" Series Exit** is housed in an industrial-grade polyvinyl chloride enclosure. This exit was designed specifically for harsh environments that would strain standard exit signage such as schools, transit platforms, parking garages, wet and cold locations as well as any location prone to vandalism.

Severe XV NEMA-4X Combination Exit Emergency Battery Unit

Refer to page 82



6 or 12 Volt Weather and Corrosion-Resistant Emergency Unit

Maintenance-Free Nickel Cadmium Battery

UL Listed

UL Listed for wet and damp locations (+10°C to +40°C) (+50°F to +104°F)

The **Severe XV Combo Series** is designed and engineered with style in mind and sets new standards for emergency lighting in today's toughest environments. The Severe XV is suitable for industrial and commercial applications as well as all public facilities.

Severe ELF650 NEMA-4X Remote Fixture

Refer to page 100



FEATURES

The Severe ELF650 Series Nema-4X rated remote fixtures have a fully gasketed cast aluminum back plate, with a clear UV and impact resistant cover. The remote delivers unsurpassed path of egress illumination. The ELF650 is available in single or double head models with the option of highly efficient MR16 lamps or the 5-watt, MR16 shape white LED. Easy lamp replacement, tool-less lamp aiming and easy installation on a four-inch octagonal box all make this remote the perfect choice for any environment. Comes standard with tamper-proof screws and bit. NSF Certified for food processing plants. Choice three colors,-white, black or gray.



■ ECN, E12CN, ENN, E12NN Series

6 or 12 Volt NEMA Industrial Emergency Unit Sealed Maintenance-free Lead Calcium or Nickel-Cadmium Battery

Series meets requirements for operation under

NEMA 1, 2, 3, 3R, 3S, 4, 4X, 12 and 13 conditions

This NEMA Industrial emergency lighting unit series are designed for use in hostile environments where the presence of water, fibers, dirt, dust and corrosive gases can be potentially damaging to internal components

FEATURES

Reliability

The ECN, ENN (6 volt), E12CN and E12NN (12 volt) Series have a three-year full warranty (excluding lamps and fuses).

Unit Data

All units are housed in water and corrosion resistant cabinets constructed from glass-reinforced structural foam. Cabinets are silicone sealed and/or gasketed around all entryways, push-to-test switch is completely enclosed and corrosion resistant bushing is provided for field installed conduit entry. Breather devices allow for ventilation of battery gases without admitting damaging elements. All external hardware is stainless steel. A unique door-hinging device allows for removal of door panel or retention of the hinge by means of a small field adjustment.

Lamp

Units are equipped with a choice of standard incandescent or halogen sealed beam lamps. Lamps are housed in gray, industrial thermoplastic shells with matching swivels. Lamp housings are rain-tight and corrosion resistant. Wire connections are silicone sealed.

Pulse Type Charger

- · Automatic, temperature compensated, pulse type charger.
- · High capacity, automatic, dust-tight instantaneous transfer relay.
- Low voltage disconnect prevents over discharge of battery. Automatic brownout protection is provided.
- Labor saving AC line latch prevents battery discharge during installation to a non-energized circuit.
- · Fused output circuit.

Controls

- · Red charger monitor LED indicates state of charge of the battery.
- Amber AC-ON LED indicates AC power is on.
- Momentary test switch allows for quick operational check of entire system.
 Power Requirements

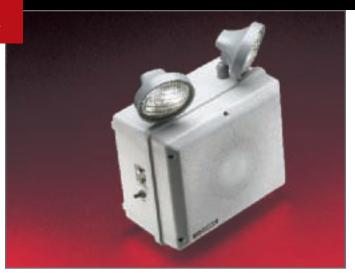
120/277Vac 60Hz, 0.3/0.15 Amp

OPTIONS

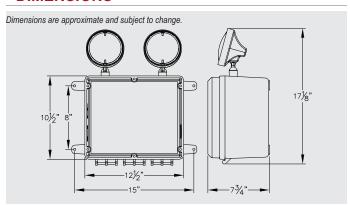
(Add Suffix to Model No.)	Suffix
Time Delay (specify 5, 10 or 15 minutes)	TD_
Voltmeter	V
Ammeter	A
Lamp Disconnect Switch	DS
Thermal Jacket (120V Heater)	H1
Thermal Jacket (277V Heater)	H2
Cord & Plug Kit (120V)	WP-3CP*
Cord & Plug Kit (277V)	WP-3CP-277*
*Standard cord is 3 ft. custom lengths available.	

ACCESSORIES

(Order as a	separate item)	
Wire Guard		WG3-L



DIMENSIONS



UNIT SELECTION CHART

Battery Type	Volts (Model No. (Unit/Lamp Suffix)	Input Watts	Watts to 87.5% of rated battery voltage*			
				1 1/2 hrs.	2 hrs.	3 hrs.	4 hrs.
Cooled	6	2ECN25	18	25	20	15	12
Sealed Lead-Calcium		2ECN50	18	50	40	30	22
Leau-Calcium		2ECN100	40	100	75	50	36
Sealed		2ENN25	18	25	20	15	12
Nickel-Cadmium		2ENN50	18	50	40	28	22
Sealed Lead-Calcium	12	2E12CN50	18	50	40	30	22
Sealed Nickel-Calcium	12	2E12NN50	18	50	40	28	22

*National Electrical Code Specification

LAMP SELECTION CHART

	DC Voltage	Lamp Wattage	Lumen Output	Lamp Type	Lamp Suffix (Add to Unit Model No.)
Use With 6-Volt		8	180	Halogen	H7551
	6	18	220	Incand.	4014
ECN, ENN Series		25	350	Incand.	4510
Use with 12-Volt		8	180	Halogen	H7555
E12CN, E12NN	12	18	220	Incand.	4414
Serie		25	350	Incand.	4446

2	ECN	100	/H7551	-V
No. of Heads	Series	Capacity	Lamp Suffix	Option
		Indicator	6V 8W Halogen	Voltmeter



■ Notes	