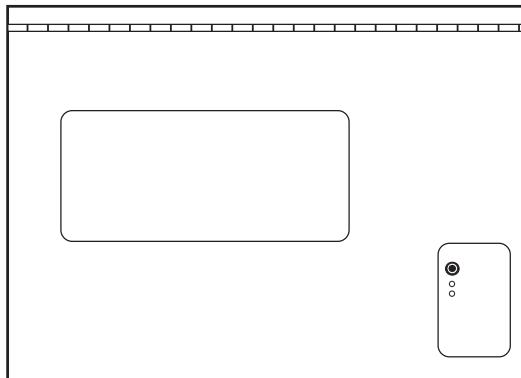




Self-Testing/Self-Diagnostic
Electronics System • CVS

Type: _____

16" (406 mm)



12EDNPCVS Series

48-150W

Wet-Cell Nickel-Cadmium Battery Emergency Lighting Units

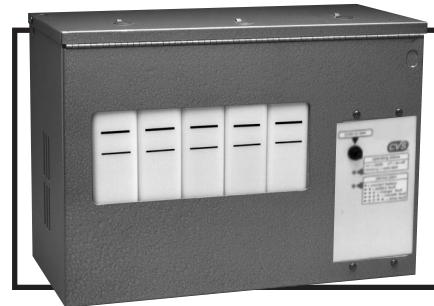
8" (203 mm)

* Overall height of fixture with optional lighting heads installed is 18 3/4" (476 mm)

Note: Batteries are shipped separately from unit.

The 12EDNPCVS series is ideal for industrial applications where ruggedness and reliability are prime concerns. The 12EDNPCVS series can be used in conjunction with optional remote heads to form an

integrated system or as a stand-alone fixture using optional lighting heads. 12 volt operation allows longer wiring runs. All units are standard with dual voltage (120/277V).



Standard Features

- Easy to install
- Universal mounting pattern
- NEMA 1 steel cabinet with dark brown enamel finish
- Wet-cell nickel-cadmium batteries
- 12-volt models
- Supplied standard without lampheads
- Available with up to three optional unit mounted lampheads
- Matching remote fixtures
- 120/277VAC operation standard
- Fully automatic, temperature compensated, solid-state electronics
- Low-voltage battery disconnect
- Transformer isolation protection
- Test switch and LED AC-On light
- 90 minute operation
- Temperature range: 20°C to 30°C (68°F to 86°F)
- UL924 Listed

CVS Features

- Meets UL standards for self-testing/self-diagnostic models
- Self-diagnostic monitoring and testing of unit operation assure operational readiness
- Emergency lamps and transfer circuit monitored during self-test cycles and power failures
- Automatic routine discharge cycles insure optimum battery performance and maximum useful life
- Automatic 1-minute self-test every 28 days and 30-minute self-test every 6 months
- Automatic battery protection
- Automatic brownout protection
- Automatic AC lockout circuit
- 15-minute retransfer delay
- Flashing LED indication of unit malfunction or test cycle
- Detected malfunctions retained in memory until corrected and retested
- Test switch allows 1, 5, 30 or 60-minute test at any time

Model Numbers

- 12EDNP-10SCVS** (12V, 48W)
12EDNP-18SCVS (12V, 100W)
12EDNP-30SCVS (12V, 150W)

Options (Add suffix to catalog number)

- V Voltmeter
-C Ammeter
-1 Unit supplied with one lamphead⁽¹⁾
-2 Unit supplied with two lampheads⁽¹⁾
-3 Unit supplied with three lampheads⁽¹⁾
-T Halogen lamp option⁽¹⁾
-A3(120) Auxiliary 3-conductor AC line cord (120V)
-A3(277) Auxiliary 3-conductor AC line cord (277V)

Accessories (Order Separately)

- WB-6** Wall mounting hanger bracket
L-12-S Mounting shelf
41G Wire guard
PREMP Remote head - single⁽¹⁾⁽²⁾
PREMPD Remote head - twin⁽¹⁾⁽²⁾

(1) Specify voltage and wattage when ordering.
Examples: 12EDNP-18SCVS-2-T1208, PREMP1212
See Emergency Lighting Fixtures data sheet 0601888 for available lamps.

(2) Supplied with round mounting plate.





Continuous Verification System

Self-testing/self-diagnostic electronics

CVS Electronics

The CVS self-testing/self-diagnostic electronics provide:

- Visual indication of AC power status
- Visual Indication of all self-diagnostic test cycles
- Visual indication of unit malfunctions including:
 - Battery fault • Charger fault • Transfer fault • Lamp fault

LED Indicators

Red Status LED

Under normal operating conditions, the red Status LED indicator will remain off. In the event the CVS Controller detects a malfunction, the red Status LED will indicate the type of fault per the table above.

Red Status LED Code	Description
One blink ON/pause	Battery not connected
Two blinks ON/pause	Battery fault
Three blinks ON/pause	Charger fault
Four blinks ON/pause	Transfer circuit fault
Five blinks ON/pause	Lamp head fault

Green Status LED

The green Status LED serves as both an AC power and a self-test indicator. During normal operation, the green status LED will be constantly illuminated, indicating the presence of AC power. During all automatic or manual self-test cycles, the green Status LED will blink at a 1 cycle per second rate.

Manual Tests

Using the unit test switch, users can initiate 1, 5, 30 or 60-minute diagnostic/discharge cycles per the table at right.

Initiating Action	Test Cycle
Press test switch once	1 minute
Press test switch twice	5 minute
Press test switch 3 times	30 minute
Press test switch 4 times	60 minute

Housing

Constructed of NEMA 1 heavy gauge steel in dark brown enamel finish. Top cover of unit is hinged to provide easy access to battery and electronics. Knockout are provided for mounting up to three optional lighting heads on top cover if required. Knockouts are provided for right side entry of $\frac{1}{2}$ " or $\frac{3}{4}$ " surface conduit. Keyhole slots are provided in the cabinet back to allow unit mounting to wall surfaces. A mounting bracket and two shelf styles are available accessories to provide additional support if required.

Light Source

12EDNPCVS Series models are furnished standard without lighting heads. Fused connections are provided for the connection of remote lighting or other 12VDC loads. Up to three optional PREMP style lamp heads can be mounted on the unit's top cover if required.

Optional Lamp Heads

To order optional lamp heads on the unit, suffix catalog number with appropriate option designator (-1, -2 or -3). Specify lamp voltage and wattage when ordering.

Example: **12EDNP-30SCVS-3-1225**.

See "Remote Fixtures" data sheet (0601888) for available lamps.

Power Consumption

75 watts (maximum)

Electronics:

A solid-state charger is standard. The charger is current limited and protected against short circuit and reverse polarity conditions. Transfer to emergency operation is completely automatic upon failure of utility AC voltage. A low voltage disconnect circuit prevents deep discharge damage to the unit battery during prolonged power outages. An AC lock-out prevents battery discharge before the unit is energized with AC power. Full battery recharge occurs in compliance with UL 924 specifications. A universal 120/277VAC, 60Hz input transformer, test switch and long life LED AC pilot light are all provided standard.

Battery

12EDNPCVS models utilize wet-cell nickel-cadmium batteries. Batteries feature long-life, low maintenance construction.

Limited Warranty

Description	Warranty In Years		
	Unit	Battery	
		Full	Pro-Rata
12EDNPCVS Series	5	2	13

Batteries must be placed in service or recharged within nine (9) months from factory shipment date. This warranty only applies when the product is used as intended. Any abuse or misuse contrary to normal installation or operation shall void this warranty.

Suggested Specification

Self contained emergency lighting unit shall be Cornerstone Life Safety Products 12 volt model _____. The unit shall supply the rated load for a minimum of $1\frac{1}{2}$ hours to not less than 87 1/2% of rated battery voltage. The unit shall be rated 120/277VAC, 60HZ and be listed by Underwriters Laboratories to Standard 924. The emergency power source shall be a fully rechargeable, wet-cell nickel-cadmium battery. The housing shall be constructed of NEMA 1 heavy gauge steel with a hinged top cover. Finish shall be dark brown. Knockouts shall be provided for right side entry of $\frac{1}{2}$ " or $\frac{3}{4}$ " surface conduit. Keyhole slots will be provided in the cabinet back to allow unit mounting to wall surfaces. Electronics shall include a solid state charger with regulated charge voltage and short circuit protection. (Units shall be provided standard without lighting heads.) (Units shall be provided with (1)(2)(3) optional lighting heads. Illumination shall be provided by ____ watt PAR 36 sealed beam incandescent lamps housed in fully directional, high impact thermoplastic lamphead assemblies). CVS self-testing/self-diagnostic electronics operation shall be fully automatic. Accidental discharge of the unit battery prior to energization will be prevented by an AC lockout circuit. The unit's green Status LED located on the CVS display panel will illuminate to indicate the presence of AC power. The unit's red Status LED will blink after application of AC power if the battery connection is not completed. During normal operation, the unit's charging circuit will maintain the battery at full capacity and the CVS Controller shall constantly monitor charger performance. Should the terminal voltage vary from design parameter values, the unit's red Status LED will blink, indicating a malfunction of the battery or charger. Upon interruption of normal AC power, or brownout conditions exceeding a 20% drop from nominal voltage, the CVS Controller shall automatically switch the emergency lighting load to the battery. Emergency power will be provided for a minimum of 90 minutes. During emergency operation, the battery shall be protected from deep discharge by a low-voltage battery disconnect circuit. Upon return of normal utility power the unit will remain in emergency mode for a period of 15 minutes and the charger shall then begin a recharge cycle. The charger will bring the battery to full capacity within acceptable UL time standards. The CVS Controller will automatically initiate a one minute discharge/diagnostic test every 28 days \pm 3.5 hours and a 30-minute discharge/diagnostic test every 6 months \pm 1 day. These tests will be designed to exercise the unit's battery and allow the CVS Controller to analyze emergency operation performance. Any malfunction of the unit's transfer circuit or emergency lamps will cause the red Status LED on the unit's display panel to blink. Under normal operation, all red Status LED blinking indications of unit malfunction shall remain latched until corrected and retested. A manual test switch will allow a user-programmable 1, 5, 30 or 60-minute diagnostic/discharge test at any time. During all automatic and user initiated self-tests, the unit's green Status LED will blink to indicate a diagnostic cycle in process. User self-tests can be canceled at any time by pressing the test switch.