



Unity Series

120 Vdc Central Single Source Emergency Lighting System

Project/Location:
Contractor:
Date:
Prepared by:

Time and labour saver only one conduit required!

In an existing or new installation where exit signs and emergency lighting may be supplied by a single 120Vdc source using a common negative wire, one normally on positive and one normally off positive.

3 wire output from the system reduces the number of conductors and eliminates 50% of the conduit, EMT or BX runs by using a single common conduit for LED exits and emergency lighting remotes.

Features

- Single-source 120Vdc supply for both exit and emergency lights
- Reduced number of conductors
- Eliminates 50% of conduit, BX or EMT runs for exit and emergency lighting
- Control and supervision functions on single modular board
- Complete package of full supervisory functions and alarms included in standard unit
- Floor-mount cabinet
- Battery is sealed maintenance free lead acid
- All **Unity Series** systems are designed and manufactured in Canada
- CSA and Ontario Hydro approved
- BMEC (Building Materials Evaluation Commission) approved for compliance to the Ontario Building Code
- Overall reduction on power consumption using LED exit signs.



Enclosures

Unity Series Central Emergency Lighting Systems are available in free-standing cabinet style enclosures.

- Heavy duty, sheet-steel cabinet.
- Cabinets are painted ASA No. 61 grey electrolyte resistant enamel.
- Locking and hinged front door.
- Front access to battery charger for ease of inspection and servicing.

Charger / Controls

Emergi-lite's solid state fully automatic charger features single module control board design. This feature provides cost effective superior performing equipment, with ease of maintenance and serviceability.

Standard Features and Controls

- LVD at 91% of nominal
- Temperature Compensation
- Ground Fault Alarm (Audible & Visual)
- AC input breaker
- DC Volt & Ammeter (2% Accuracy)
- AC present LED indicator
- Float level Charge LED indicator
- Equalize level Charge LED indicator
- Charger Failure Alarm
- AC Failure Alarm
- High Battery Voltage Alarm
- Remote Monitor Alarm Panel
- Test Switch
- Brownout Protection
- Dry Contacts
- BMEC - Ontario Building Materials Evaluation Commission Approved
- SPF - sprinkler-proof cabinet comes with drip shield

Optional Features Code

- Time Delay TD
- 3 Phase Sensing 3PH
- 12 Hour Recharge 12HR
- Battery exerciser C46
- Input battery circuit breaker BCB
- Common zone sensing 2Sc

Application

New construction or retro-fit, the Unity Series utilizes the latest technology and engineering to reduce the cost of emergency lighting installations. The unique 3 wire design allows for the use of just one conduit. With one positive dc normally energized conductor and a common negative conductor the LED EXITS are supplied constant power. With the same common negative conductor and another positive dc conductor that is energized to emergency mode only, the Remote Emergency Lights are powered. Available in sizes from 4120 watts to 22520 watts for 30 minutes. Other run times are available - please consult factory.

Electrical

Input: 120V, 208V, 240V, 247V, 347V, 480V, 600V AC 60 Hz Single Phase

Output: 120V DC (3 wire (normally on positive, common and normally off positive))

Systems have been designed for minimum 1/2 hour operation time and are capable of full recharge in 24 hours.

For systems rating chart and ordering guide please see Page 4 of this brochure. Other discharge times are available upon request.

Warranty

The Unity system is warranted for one year against defects in workmanship and all electronic components.

The batteries are warranted 1 year complete and 9 years pro-rata against defects in workmanship and materials. Battery warranty is subject to proper testing and inspection as described in the Canadian Electrical Code, Section 46-102 & 46-104.

Approvals

- CSA Certified
- Ontario Hydro: Rule 46-108 (3)

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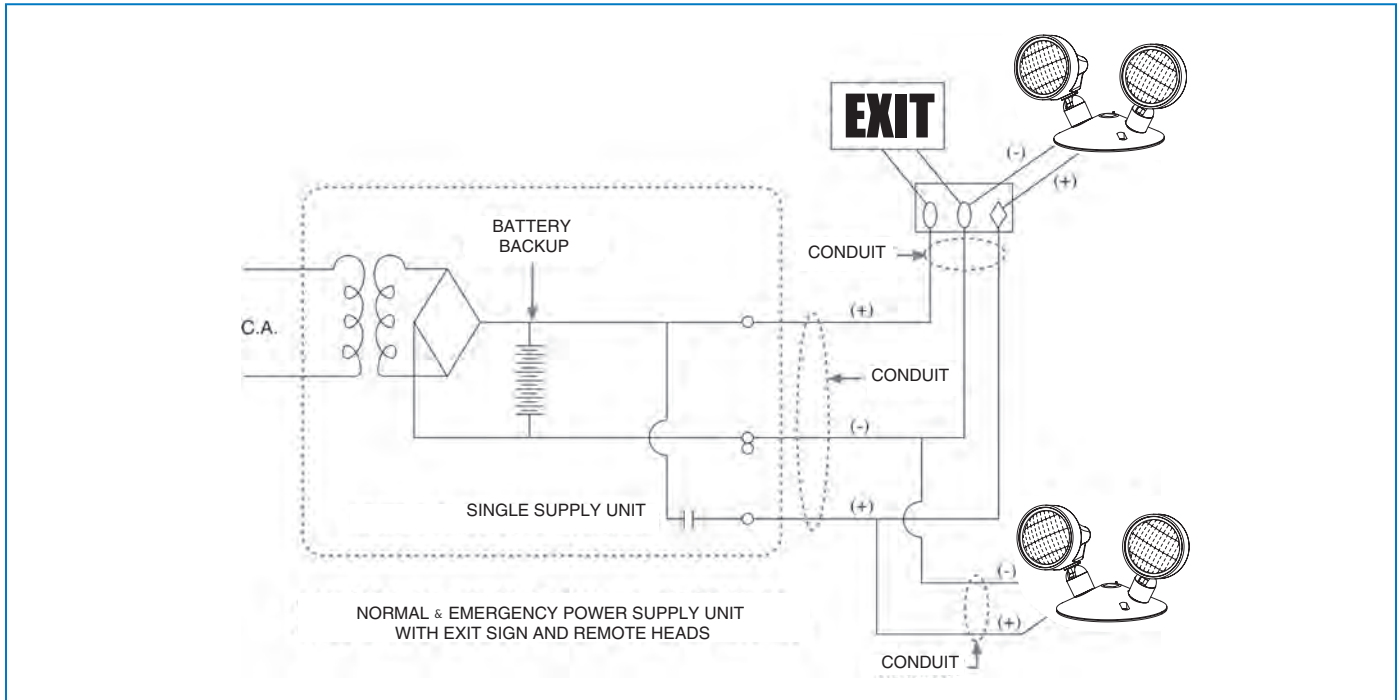
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Typical Interconnection Wiring Diagram



CAD Drawing illustrates how the Unity Series is applied, saving time, material and money. Call your local Emergi-Lite Representative for further information, or application assistance.

Enclosure Dimensions

System Series	Console		
	H	W	D
UNI 4120	38" (96.5 cm)	38" (96.5 cm)	18" (45.7 cm)
UNI 6400-11260	38" (96.5 cm)	38" (96.5 cm)	28" (71.1 cm)
UNI 13140-22520	56" (142.2 cm)	38" (96.5 cm)	28" (71.1 cm)

Unit rating

System Series	30 min.	1h00	1h30	2h00
UNI 4120	4120	2450	1790	1440
UNI 6400	6400	4100	3090	2470
UNI 9390	9390	5900	4080	3290
UNI 11260	11260	6700	4890	3940
UNI 13140	13140	7820	5710	4600
UNI 18780	18780	11180	8160	6580
UNI 22520	22520	13480	9780	7880

UNI Series batteries: maintenance free, sealed lead-calcium. Watts at 91% of nominal voltage.

Ordering Information - Develop a Model Number as shown in the following chart

System Designation	Single Phase Input Voltage	Battery Type	Capacity in Watts*	Quantity of Exit Signs	Mounting	Output Voltage	Discharge Time (Minutes)	Optional Equipment
UNI	120 Vac 208 Vac 240 Vac 347 Vac 480 Vac 600 Vac	SG Sealed Lead Calcium	Select from Battery Capacity chart in folder * The capacity in Watts is given for 30 minutes discharge time.	100E	100E	120Vdc	30 60 90 120	TD 3PH 12HR CYC RRAP ZSC BCB See page 96 for option details